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Nature and extent of on-the-job training for employees with an intellectual disability: a pilot study

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ABSTRACT

Problems have been identified in the provision of on-the-job training for people with disabilities. The aim of this study was to investigate staff knowledge and use of appropriate training strategies, and the perceptions of employees with intellectual disabilities of the on-the-job training. Three staff and four employees with intellectual disabilities working in one Australian Disability Enterprise participated in the study. Questionnaires, interviews, and examination of training documentation were used to examine the provision of on-the-job training to employees with intellectual disabilities. Staff reported on their knowledge and use of 15 empirically validated training and support strategies. Of these 15 strategies, only 2 were reported to have been used consistently by staff. Employees with intellectual disabilities reported that they were eager to learn new work skills but were not receiving the necessary training to assist them in learning such skills. The minimal utilisation of available training strategies to teach employees with intellectual disabilities workplace skills may indicate a lack of knowledge or confidence, or both, by staff in using the various training strategies. Further research is needed into the skills needed by staff whose job requires provision of on-the-job training to people with intellectual disabilities.

In the last decade Australia has undergone a period of sustained economic growth with record low rates of unemployment. In 2012, although 82% of working-age Australians were employed, only 52% of working-age Australians with disabilities were employed (Australian Bureau of Statistics, 2015). Most people with disabilities want to work (Ali, Schur, & Blanck, 2011) and are productive workers when given access and support (Commonwealth of Australia, 2011). When individuals with intellectual disabilities do participate in the workforce they are typically underemployed, earn low wages, experience limited career progression, and are more likely to encounter discrimination because of uncertainty regarding their productive capacity (Jones, Mavromaras, Sloane, & Wei, 2014).

People with intellectual disabilities experience difficulties in demonstrating appropriate and relevant work skills. These difficulties may be attributed, in part, to inadequacies in
employment training programs and procedures (Inclusion Australia, 2016). The areas where people with intellectual disabilities may require specific supports include: comprehension of instructions; problem solving; accuracy and fluency of task completion; adapting to varying demands across work task and settings; working independently and in cooperation with others; communication, literacy, and numeracy skills; and work-related social skills (Parmenter, 2011).

Training and support can, in part, assist with addressing the lack of relevant work skills. In this study, training is described as the process of being conditioned or taught to do a particular skill or type of behaviour (Mangal & Mangal, 2009). Research on employment training for people with intellectual disabilities has demonstrated that individually focused training is effective (Clarke, Lond, & Fliess-Hermelin, 1955), and that people with even the most significant disabilities can acquire the necessary work-related skills if given relevant and timely training and support (Bellamy, Peterson, & Close, 1975).

Many strategies have been shown to be effective in enhancing both technical and adaptive behaviour employment skills for people with intellectual disabilities such as Gold’s (1973) “Try Another Way” approach (Reynolds, Zupanick, & Dombeck, 2011); Positive Behaviour Support that assists with appropriate workplace behaviour (Crites & Howard, 2011; West & Patton, 2010); use of Assistive Technology (Haynes, 2013); and Video Modelling (Buggey & Ogle, 2012), as well as Self-Instructional Strategies (Wehmeyer et al., 2006).

Problems have been identified in the provision of training for people with disabilities (National Disability Rights Network, 2012). This includes lack of staff knowledge of appropriate training strategies and supports (Test & Wood, 1995). Furthermore, people with disabilities, parents, and carers have highlighted the need for more training and skill development (FaHCSIA, 2010). However, there is only limited evidence available documenting the nature and extent of the provision of training (Perry Lattimore, Parsons, & Reid, 2006). Hence, the current pilot study aimed to develop a survey tool and interview questions to obtain information about: (i) staff knowledge and use of training supports and strategies; (ii) types of tasks for which employees received training; and (iii) the views and perceptions of employees with intellectual disabilities about the on-the-job training they receive from disability employment services.

Method

Design

The study used a mixed-methods sequential explanatory design in which analysis of quantitative data is followed by collection and analysis of qualitative data (Creswell & Plano Clark, 2011). In using this design, we initially administered a questionnaire to determine staff’s familiarity with the 15 identified training supports and strategies. Semi-structured interviews were used to explore staff’s use and understanding of the training strategies and supports. Triangulation was gained by interviewing employees with intellectual disabilities and examining their individual training plans.

Flinders University Social and Behavioural Research Ethics Committee approved the study. All employees and staff gave their written consent to participate in this study.
Setting

This study involved one Australian Disability Enterprise (formerly known as sheltered workshops) in Adelaide, South Australia, which employs 150 people across four divisions: manufacturing, administration, packaging, and computing. Approximately two-thirds of the employees have a variety of disabilities including intellectual, physical, neurological, and psychiatric disabilities. Three staff provided one-on-one training for those with intellectual disabilities. Other employees (or staff) work in administration, support the employees with disabilities, or work alongside the employees with disabilities completing similar tasks.

Participants

Staff

The 3 staff providing direct one-on-one training had been working in the organisation for a minimum of 12 months. All three agreed to participate in the survey, and two in the interviews. All 3 staff were male and were employed in full-time positions (38 hours per week) as “Training and Support Co-ordinators.” Staff had 9, 25, and 37 months’ respective experience in this role and an average of almost 4 years in the disability field. Two staff participants had a Certificate III in Disability; the other had a Certificate IV in Disability. All reported that they spent the majority of their time providing direct training support to employees with intellectual disabilities in the areas of manufacturing, administration, packaging, and computing. On average, each staff member was responsible for training 33 employees with disabilities.

Employees with intellectual disabilities

Employees with intellectual disabilities were chosen by the Australian Disability Enterprise’s employment services manager according to the following three criteria: (i) had a primary disability of intellectual disability; (ii) worked at the service for a minimum of 12 months; and (iii) were assessed (according to the Australian Disability Enterprise’s funding body) as functioning at a Level 3 or Level 4 (i.e., the chosen employees needed support with a core activity either “sometimes” or “always”). Core activities are those falling into the following areas: self-care, mobility, or communication (Australian Institute of Health and Welfare, 2006).

Employees with intellectual disabilities were provided with an “Easy English” version of the information sheet and they provided informed consent. Four employees with an intellectual disability consented to participate. They had worked at the organisation for an average of 10 years (range of 4 to 14 years); working an average of 20.75 hours per week (range 8 to 38 hours per week). Main tasks undertaken were partial participation in web design, refurbishing and disassembly of computers, and welding.

Measurement

Staff questionnaire

The questionnaire developed for this study was based upon a review of the work-skills training literature within the area of disability employment (Ford & Ford, 1998; Grossman
The questionnaire explored whether staff recognised or used the strategies in line with recommendations from literature. Fifteen strategies and supports identified are listed with a short description in the questionnaire (see Table 1). Staff were asked to select one of the following options: (a) unfamiliar with this strategy; (b) recognise the strategy but do not use it; (c) use the strategy sometimes; or (d) use the strategy regularly; and (e) where they had learnt the strategy (i.e., Technical and Further Education, Registered Training Organisation, or on the job). (In Australia, Technical and Further Education and Registered Training Organisations provide a wide range of vocational tertiary education courses).

**Semi-structured interviews**

**Staff:** The semi-structured interview included questions about the positives and challenges of a disability training role, and requested more detail about the use of the strategies listed in the questionnaire. Examples of how the training strategies had been utilised by staff were explored to ensure staff were not only familiar with the strategy, but were also able to verbally demonstrate use of the strategy.

**Employees with intellectual disabilities** were interviewed in their places of work and asked eight questions regarding the type of tasks and training they had participated in previously; tasks and training they were currently completing; if they enjoyed the tasks they have been involved in; and whether there were any new tasks they would like to learn. Supported employees were allowed access to their individual training plans, which provided details of the training they had participated in while they were at their current workplace.

<table>
<thead>
<tr>
<th>Training strategy</th>
<th>Description of training strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show and tell</td>
<td>Demonstrate the task and explain as you demonstrate (Browder et al., 2012)</td>
</tr>
<tr>
<td>Task analysis</td>
<td>Listing a task into its smaller sequential steps (Lee, Muccio, &amp; Osborne, 2009)</td>
</tr>
<tr>
<td>Prompts/cues</td>
<td>Physical, gestural, or verbal reminders (Robinson &amp; Smith, 2010)</td>
</tr>
<tr>
<td>Fading</td>
<td>As the skill is learnt, the prompt or cue is faded to a less obvious prompt (Lancioni et al., 1999)</td>
</tr>
<tr>
<td>Reinforcement/reward</td>
<td>Providing something the employee with a disability enjoys other than their usual pay, i.e., praise (Saunders, McEntee, &amp; Saunders, 2005)</td>
</tr>
<tr>
<td>Modelling</td>
<td>Providing a demonstration of the required skill, with no verbal explanation (Riches, 1996)</td>
</tr>
<tr>
<td>Match-to-sample</td>
<td>Using a correct example of a completed item as an example of how the task should be completed (Dixon, 1981)</td>
</tr>
<tr>
<td>Penalty/punishment</td>
<td>Offering an undesirable consequence for a behaviour (Guitart-Masip et al., 2012)</td>
</tr>
<tr>
<td>Positive behaviour support</td>
<td>Using methods to change an unwanted behaviour (Crites &amp; Howard, 2011; West &amp; Patton, 2010)</td>
</tr>
<tr>
<td>Adaptations</td>
<td>Providing a modification, technology or jig to aid the learner to be able to complete a task (Haynes, 2013)</td>
</tr>
<tr>
<td>Self-instruction</td>
<td>Teaching employee with disability to use self-talk to complete a task (Smith, Shepley, Alexander, &amp; Ayres, 2015; Wehmeyer et al., 2006)</td>
</tr>
<tr>
<td>Pictures/storyboards</td>
<td>Pictures to demonstrate the correct sequence of a task (Martin, Mithaug, &amp; Burger, 1990)</td>
</tr>
<tr>
<td>Data collection</td>
<td>Collecting information on details of work the employee completes (Storey &amp; Miner, 2011)</td>
</tr>
<tr>
<td>Individual training plans</td>
<td>A record of what the learner would like to learn or is learning (Greasley, 1995)</td>
</tr>
<tr>
<td>Video modelling</td>
<td>Video-recording correct behaviour then learner watches the video on numerous occasions (Buggey &amp; Ogle, 2012)</td>
</tr>
</tbody>
</table>
Procedures

Questionnaires were distributed by the Australian Disability Enterprise’s chief executive officer and staff returned them to the researcher in a reply-paid envelope. Two staff were then interviewed. Each interview took approximately 60 minutes. Individual training plans of four supported employees with intellectual disabilities were examined. The same employees were also interviewed for an average of 10 minutes each and could have an advocate present during the interview. Interview recordings were transcribed verbatim.

Data analysis

Questionnaire data were analysed using descriptive statistics (Creswell, 2009) to summarise the use of training and support strategies. Staff and supported employee interview transcriptions provided the basis for developing the coding scheme for data analysis. Thematic analysis was applied to staff and employee interview data (Lapadat, 2010). Each transcript was read by the first author and emerging themes were noted and checked by a second researcher.

Results

Staff questionnaire

Questionnaire data revealed that staff recognised and had knowledge of 13 of the 15 strategies (87%). Nine of the strategies (Pictures/Storyboards; Task Analysis; Prompts; Fading; Reinforcement/Reward; Modelling; Penalty/Punishments; Positive Behaviour Supports; and Self-Instruction) were reported to have not been used by one or more staff. The only strategy all training staff were unfamiliar with was Video Self Modelling. All staff reported not being taught Self-Instruction during their Certificate in Disability. Staff also reported learning most of the strategies on the job and not during tertiary education. Only two strategies were reported to be used regularly by all of the training staff: Show and Tell and Individual Training Plans.

Staff interviews

Two main themes emerged from the staff interviews. First, staff reported that, in their view, there was a lack of funding to purchase appropriate adaptations to support employees with disabilities to be involved in a wider variety of jobs or tasks: “There’s no real grant to sort of access [adaptations] anymore” (SI 1). Lack of adaptations was reported as a reason for people with disabilities working on simple tasks that were often boring and repetitive. The second theme reported was a sense of frustration with the lack of support and understanding from other staff. Trainers felt production team leaders prevented workspaces being set out in an organised fashion that supported employees may require:

Because I can’t modify the layout out there because that’s obviously the Team Leaders – it’s sort of what they’re responsible for and things like that. You’ve sort of got what they’ve got to work with and then you have to try and work around that. (SI 2)
Staff wanted management to be “on the same page” (SI 2) (i.e., staff complained that the focus on production got in the way of training). One staff member reported wanting management to offer more support for the trainers: “I have nobody to bat for me” (SI 1).

A variety of reasons were provided for not using the strategies. Positive Behaviour Support was seen as being “too difficult to implement” (SI2). The staff member explained that all staff were needed to assist in implementing the strategy and they did not feel this was currently possible. Use of Pictures/Storyboards was not utilised because pictures get damaged in the workplace environment, and iPads had not been purchased by the service to be utilised for the pictures or storyboards. The staff member also reported that in addition to employees with disabilities rejecting the use of the strategy, parents rejected this strategy as the pictures had a “childlike” connotation. Video Modelling was reported as not being utilised because of: (i) the perceived time and effort it took to make a video; (ii) staff being unfamiliar with the strategy; and (iii) technical problems with the equipment (i.e., flat batteries). Self-Instruction was not used because not all of the employees with disabilities could use natural speech.

Employees with intellectual disabilities: individual training plans

Individual training plans of the four interviewed employees with disabilities were examined. The individual training plans examined spanned a maximum of 6 years (2008–2014) and there were 60 training items listed in total. The range of training items per employee was 13–19 items (average = 15). The training items were divided into four main areas. Thirty-one items (51.7%) were utilised for Production Training (training directly leading to the product completion); 11 (18.3%) training items were utilised for Certificate Training (training provided by Technical and Further Education and Registered Training Organisations); a further 11 (18.3%) items were utilised for Personal Development (training supporting communication skills, team work, behaviour support, recreational activities, social skills, banking, transport, and mental health issues); while 7 (11.7%) were utilised for Legislative Training (mandatory training, i.e., manual handling). Therefore, just over half of the training was directly related to production.

Employees with intellectual disabilities: interviews

All employees with intellectual disabilities reported that they enjoyed the training they had received: “Yeah, I love it” (EI 2) and “Yeah, when it’s on a topic that I like” (EI 3). However, some had issues with the training they received: “Like a bit more time. The topics weren’t – not broad enough ... they weren’t properly thought out, the training sessions were too short” (EI 1). Employees with intellectual disabilities also identified at least one different task they would like an opportunity to try or learn that they were not currently receiving training on, such as web design, welding, disassembly, customer relations, communication, reading, and packaging. Interviewee 1 reported a desire for training in

[m]ore customer relations, how to ... my speaking’s a bit off sometimes. I have a disability communication problem. I am multi-dextrous. If I’m asked for a job I’ll do it the best I can. I can actually learn quite quickly how to do the job.
Interviewee 4 reported wanting to learn “web design. That I do want to do HTML”, while Interviewee 2 stated: “I like training more in the lab.”

**Discussion**

Staff and employees were interviewed and employee’s individual training plans were examined to determine the nature and extent of the provision of on-the-job training for supported employees.

All staff involved this study held a minimum Certificate III in Disability and reported familiarity with 13 of the 15 strategies presented. However, only two strategies (Show and Tell and Individual Training Plans) were utilised by all staff regularly. Show and Tell could be considered an “intuitive” training strategy that requires little knowledge, and although individual training plans may not necessarily be considered a direct training strategy, they help focus trainers on the employees’ training needs, and may be conducted due to their regulatory nature and links to Federal funding (Department of Social Services, 2015). Therefore, there are a large variety of researched training strategies available to support the abilities of employees with disabilities that are not being utilised. This finding may demonstrate a lack of practice and knowledge by staff in how to engage in other training strategies recommended in the literature, and resonates with Molnar and Watts’ (2002) findings in the general workforce, where trainers “train the only way they know how – show and do” (p. 4). However, this could be contributing to supported employees’ lack of skills development in the workplace, as those with disabilities “require a significant degree of customisation or systematic on-the-job training” that Show and Tell alone cannot provide (Australian Federation of Disability Organisations, 2010, p. 8).

Trainers gave somewhat erroneous reasons during interviews for not utilising particular strategies, suggesting that trainers did not have the necessary knowledge of these training strategies. For example, Video Self Modelling was reportedly not utilised because of flat batteries in the video camera. Self-Instruction was claimed to be ineffective because not all employees with disabilities could use natural speech despite the object of Self-Instruction being the ability to utilise covert self-talk (Rusch, Morgan, Martin, Riva, & Agran (1985).

While staff purported to be “aware” of the strategies, their knowledge of how to implement the strategies during interviews was less evident. This could be because staff reported receiving a lack of instruction and opportunity to practise utilising the strategies during their Certificate studies. It appears that while staff may know or be aware of the strategies, they may not have necessarily received sufficient instruction about the strategies. This problem of lack of appropriate staff training has long been recognised (Ford & Ford, 1998; Grossman & Salas, 2011; Test & Wood, 1995). Furthermore, for staff to be competent in the strategies they also need opportunities to practise using them, or a problem arises where trained staff competencies fail to transfer to the workplace (Grossman & Salas, 2011).

Staff interviews highlighted two main frustrations. First, a lack support from other staff and management prioritising production. Management’s focus on production (Metts, 2000) and competing fiscal and training dimensions (Spall, McDonald, & Zetlin, 2005) have been previously been reported. The second frustration reported was lack of money for adaptations to modify tasks for people with disabilities to be involved in. This echoes Rogan, Banks, and Howard’s (2000) findings that people with severe disabilities were
inadequately provided for due to insufficient funding and use of assistive technology, and Bunch’s (2007) findings that trainers in regular workplaces were often powerless to demand sufficient time and resources.

To the best of our knowledge, no studies to date have examined the tasks on which supported employees have received training. This study found that the majority (51.7%) of tasks that staff were being trained to perform related to production tasks (i.e., tasks that lead directly to a product being completed). Equal in second place were Personal Development and Certificate Training, and last was Legislative Training. Personal Development items included hygiene, health, interpersonal skills, handwriting, and transport. This highlights that disability employment staff are providing a much more holistic service than just direct vocational support but that this service may be at the expense of training directly aimed at learning new workplace tasks. All supported employees interviewed identified tasks that they would like to learn but were not necessarily being addressed by staff (Department of Families, Housing, Community Services, and Indigenous Affairs, 2012).

**Conclusion**

Employees with intellectual disabilities in this study requested and required more systematic training than was being provided to them. However, an array of issues may have hampered the provision of such training. First, vocational trainers may not have had the necessary knowledge and skills of the range of training strategies required. Second, vocational trainers may have lacked management assistance and the resources to provide necessary supports for employees with disabilities. Last, time for training may have been placed under pressure by the prioritisation of production training needs and providing an holistic service to employees with intellectual disabilities. While outcomes of this study cannot be considered representative of the entire disability employment field and results cannot be generalised because of the small sample size, these findings are validated in part by the findings of previous studies in disability accommodation, employment, and trainers in the mainstream workforce. Recommendations include the management of disability employment services to increase the provision of training for both staff and employees with intellectual disabilities. An area for further research would be to identify what information is provided in the Certificates of Disability Studies.

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**Disclosure statement**

No potential conflict of interest was reported by the authors.

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References


