Young people with intellectual disabilities and work in after school jobs—A literature review

By Rebecca Thiele, Professor Christine Bigby and Professor Magnus Tideman.
Acknowledgements

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Ticket to Work is an initiative of National Disability Services that aims to improve school to work transition for young people with disability through evidence-based practice and collaboration. www.tickettowork.org.au

Ticket to Work is implementing an After School Jobs pilot that explores the experiences and long term effects for students with disabilities of participating in after school jobs. This type of employment is rite of passage, yet there is limited support for young people with disabilities, particularly young people with intellectual disability, to have these experiences.

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Young people with intellectual disabilities and work in after school jobs: a literature review.

Abstract
The transition from school to employment for young people with disabilities is often difficult and many, particularly those with intellectual disabilities, neither pursue further study nor gain employment. This paper presents the findings from a review of peer reviewed literature that has investigated the experiences of school students with intellectual disabilities of participating in work whilst still at school and its impact on their future job prospects. A systematic search of four electronic databases identified 12 relevant publications. Selected articles were reviewed, and key data extracted. Findings fell into four categories: 1) rates of work experiences during school for students with intellectual disabilities, 2) factors increasing the likelihood of such work experiences, 3) social and emotional outcomes of work experiences and, 4) post-school employment outcomes of work experiences during school. This limited body of research demonstrates the largely positive effects of employment experiences during school, although there is a need for further research on this topic. In particular, there is little understanding about whether work experiences whilst at school improve post-school economic and social participation of young people with intellectual disabilities, or their longer-term well-being and quality of life.
People with intellectual disabilities and work experiences whilst in school

A literature review

Introduction

The transition from school involves a journey towards the markers of adulthood such as finding an occupation, living independently, and establishing intimate relationships. Having a job is a key aspect of adulthood and significant in facilitating social participation, financial stability, self-worth, and quality of life (Jahoda et al., 2009; Lövgren et al., 2014). The right to work and gain a living is enshrined in article 27 in the Convention on the Rights of Persons with Disabilities (United Nations, 2007). For young people with intellectual disabilities, their participation in the labour market is influenced by social norms, employer attitudes, family influence, as well as individual differences. There is however, limited knowledge about their experiences of employment (Tideman et al., 2017) and the transition from secondary school to employment entails significant challenges (Arvidsson, 2016).

Problems with a smooth transition from school to the labour market of young people with intellectual disabilities are widely recognised, unemployment rates are high (e.g. Siperstein et al., 2013; Eurostat, 2014) and a significant majority are excluded from the labour market (e.g. Arvidsson et al., 2016; Tideman et al., 2017). From an Australian perspective, transition to employment support systems are failing young people with disability, resulting in reduced opportunity for social and economic participation (see e.g. Beyer & Beyer, 2017) and the marginalisation of this group (for an overview see Wakeford & Waugh, 2014). Australia has one of the lowest employment participation rates of people with disability in the OECD (OECD, 2010). Even though some organisations in Australia employ people with disability (Lantz & Marston 2012) the statistics suggest an overall general lack of employment opportunities for people with disability, in particular those with intellectual disabilities (Australian Bureau of Statistics 2011). Between 2001 and 2012 the gap in terms of social inclusion between young people with and without disability in Australia widened markedly in 11 areas including employment (see Centre for Disability Research and Policy, 2014).

A more successful transition from school into employment for young people with intellectual disabilities is a societal imperative to enable their participation in society and contribute to an active citizenship. At the same time, higher levels of employment for people with intellectual disabilities increases the number of people contributing to the economy, reduces pension dependency and improves the financial status of individuals. Federally-funded Disability
Employment Services (DES) can assist with preparation and support to source and sustain open employment. In addition, there is likely to be an increasing array of services that aim to facilitate supported employment (see Wakeford & Waugh, 2014).

How best to prepare youth with significant disabilities to participate in the workforce remains an unanswered question. Part time work whilst still attending school or an ‘after school job’ is one strategy for supporting their transition from school to the labour market. Though the terminology differs between countries in this review we use the term ‘after school job’ to refer to paid employment, usually of a casual nature, outside school hours, in the late afternoon on weekdays, on the weekend or in school holidays. A full glossary of terms are included in Appendix B.

There is however, limited knowledge about student experiences of after school jobs and whether this type of experience improves post-school economic and social participation, well-being and quality of life. This review investigates the research about experiences of young people with intellectual disabilities participating in work while at school and their post-school outcomes.

**Method**

A systematic review of published peer-reviewed research articles in English from 2005 to 2017 was conducted. Four electronic databases, ERIC, Medline, PsycINFO and CINAHL were searched using the following primary terms:

- Intellectual disability, cognitive disability, mental retardation, Down syndrome, mental handicap and intellectual handicap;
- After school work, or employment, work, placement, internship, transition, work experience and traineeship;
- Student or pupil, special school or special education, inclusive education or high school or secondary school.

The initial search yielded 984 papers (See Table 1 and Figure 1). After duplicates were removed, 731 papers remained. The titles were reviewed, and decisions made by the research team about inclusion based on the criteria that the papers reported: studies in which participants were people with intellectual disabilities who did not only have a diagnosis of Autism or similar; empirical research; peer reviewed studies that had findings about work experiences for high school students with intellectual disabilities.
Papers were removed on the basis that: 16 reported research where participants only had Autism; 45 reported studies where participants did not have intellectual disabilities; 48 were not peer reviewed; 69 reported studies where participants were not secondary school students; and 346 reported research that was not related to work experiences for high school students with intellectual disability.

After exclusions, 207 papers remained. A review of the abstracts by the research team resulted in removal of a further 162 papers: 10 had not been peer-reviewed; 6 reported research with participants who were not secondary school students; 7 reported research that did not include participants with intellectual disabilities; and 139 reported research that was not related to work experiences for high school students with intellectual disabilities. The full text of the remaining 45 articles was read by the first author and after consultation with other team members a further 33 were removed as: 8 either did not report studies involving participants with intellectual disabilities, or their inclusion as participants was unclear; 6 were not peer-reviewed; 18 reported studies that did not have findings related to work experiences of high school students with intellectual disabilities; and 1 paper could not be accessed. Twelve papers remained for final review. Key information about the country of origin, the aims, participants, methods and results of the research reported in these papers were extracted and is summarised in Table 2.

Table 1

<table>
<thead>
<tr>
<th>Date</th>
<th>Database</th>
<th>No. of Results</th>
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<tbody>
<tr>
<td>27/03/18</td>
<td>ERIC and Medline combined (hosted by ProQuest)</td>
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<tr>
<td>27/03/18</td>
<td>PsycINFO</td>
<td>264</td>
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<td>27/03/18</td>
<td>CINAHL</td>
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<td></td>
<td><strong>Total</strong></td>
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<td></td>
<td><strong>Total after duplicates removed</strong></td>
<td><strong>731</strong></td>
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</table>
Findings

The 12 papers included in the review reported findings about experiences of young people with intellectual disability participating in work whilst at secondary school from the USA (9), Canada (1), Australia (1) and Taiwan (1). The findings were categorised into four broad topics; the rate of work experiences during school; factors that increased the likelihood of work experiences during school; social and emotional outcomes of work experiences and; post-school employment outcomes following work experience during school. Five of the 12
papers reported on several of these topics and the most common topics were the rate and post-school employment outcomes of work experiences during school.
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<thead>
<tr>
<th>Author/s (Year)</th>
<th>Aim/s</th>
<th>Participants</th>
<th>Method</th>
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<tr>
<td>Baer, Daviso, Flexer, Queen, &amp; Meindl (2011)</td>
<td>To investigate the relationships between secondary education inclusion and post-secondary education, career and technical education and post-school employment, and participation in work-study programs and post-school employment.</td>
<td>409 students with intellectual disabilities or multiple disabilities.</td>
<td>Examined the post-school outcomes of 409 students with intellectual or multiple disabilities in a Great Lakes state. (USA)</td>
<td>Work study (i.e. school-sponsored work) was not significantly related to post-school employment.</td>
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<td>Blustein, Carter, &amp; McMillan (2016)</td>
<td>To investigate the expectations of parents about post-school employment for their children with intellectual and developmental disabilities.</td>
<td>1,065 parents of children with intellectual and developmental disabilities.</td>
<td>Participants completed a survey measuring post-high school expectations, employment goals and barriers, previous employment-related experiences and the role of schools for their children. (USA)</td>
<td>Regression analysis showed that higher expectations of full-time employment were predicted by early hands-on work experiences in the community. It was found that 6.2% of children had either a paid after-school, weekend or summer job, 4.5% had an unpaid after-school or weekend job, and 3.8% had an unpaid summer job. Also, older age, higher functional abilities, living in a rural community, and having more home and community work-related experiences were statistically strong predictors of higher likelihood of early work experiences.</td>
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<tr>
<td>Bouck &amp; Joshi (2016)</td>
<td>To investigate the in-school and post-school transition services and 32,239 students with mild</td>
<td>Analysed data from the National Longitudinal Transition Study–2 (NLTS-2) (USA).</td>
<td>They found that 71.8% received school-sponsored work, 63.5% received other paid work experience, 31.5% participated in job</td>
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<td>Burbidge, Minnes, Buell, &amp; Ouellette-Kuntz (2008)</td>
<td>To investigate the support needs of students with intellectual disabilities preparing to leave high school.</td>
<td>48 secondary school students with intellectual disabilities.</td>
<td>Forty-eight parents of students were interviewed (Canada).</td>
<td>Three students were involved in employment only, 11 were involved in volunteer activity only, and one was involved in both employment and volunteer activity. Students not involved in either employment or volunteer activity had significantly higher maladaptive behaviour scores than those participating in employment/volunteer activity.</td>
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<tr>
<td>Carter, Austin &amp; Trainor (2011)</td>
<td>To examine the factors associated with early work experiences of school students with severe disabilities (including intellectual disabilities).</td>
<td>1,510 students with severe disabilities, 390 of whom had an intellectual disability.</td>
<td>Extracted data from the NLTS-2 interviews conducted with students and their parents (USA).</td>
<td>31.3% of students with intellectual disabilities had paid work experience. The most common job categories were: maintenance (32.7%), food service (16.9%), clerk (12.4%), and personal care (10.5%). Students’ communication and self-care skills, and their ability to independently travel outside the home significantly increased the odds of paid work experience. Having regular household chores and parental expectations of children becoming self-supporting significantly increased the likelihood of paid work experience. Participation in internship, tech prep, or entrepreneurship programs was strongly associated with paid work experience.</td>
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<td>Carter, Austin, &amp; Trainor (2012)</td>
<td>To examine the extent to which student, family and school factors were associated with post-school employment in secondary school students with severe disabilities (including intellectual disabilities).</td>
<td>450 students with severe disabilities.</td>
<td>Collected data from the NLTS-2 and conducted interviews with parents and participants. (USA)</td>
<td>Results showed that paid school-sponsored work and paid community employment were associated with employment post-school, but unpaid school-sponsored work was not.</td>
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<td>Davies &amp; Beamish (2009)</td>
<td>To investigate the transition from high school to post-school life for adolescents with intellectual disabilities, through parent perspectives.</td>
<td>218 parents of young people with intellectual disabilities who had recently completed high school.</td>
<td>A survey was mailed to the homes of youth with intellectual disabilities for parents to complete. (Australia)</td>
<td>It was found that two-thirds of the sample had participated in work experience while at school.</td>
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<tr>
<td>Daviso, Baer, Flexer, &amp; Meindl (2016)</td>
<td>To investigate the impact of career and technical (vocational) education, work-study, and school-supervised work experiences on employment for high school students with disabilities.</td>
<td>4,952 students with disabilities.</td>
<td>Drew data from the NLTS-2 (USA).</td>
<td>None of the independent variables significantly were found to predict employment outcomes for students with intellectual disabilities.</td>
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<td>Jun, Osmanir, Kortering, &amp; Zhang (2015)</td>
<td>To examine the employment outcomes of students with disabilities as a function of vocational rehabilitation and school transition programs</td>
<td>7,587 students with disabilities (more than half of whom had cognitive disabilities).</td>
<td>Drew data from the Oklahoma Department of Rehabilitation Services database (USA).</td>
<td>It was found that for students with cognitive disability, participation in school transition programs including work-study (school-sponsored work) and Project SEARCH (unpaid internships) positively predicted employment outcomes.</td>
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<td>Lindstrom, Hirano, McCarthy, &amp; Alverson (2014)</td>
<td>To examine career development and early employment experiences for four young adults with intellectual and developmental disabilities.</td>
<td>3 students with intellectual disabilities and 1 with developmental disability.</td>
<td>Mixed-method case-study, longitudinal design. Data was collected from school and rehabilitation records, job observations, and interviews with students, family members, high school special education personnel, employers, and adult agency staff. (USA)</td>
<td>It was found that structured work experiences during high school provided students with exposure to employment settings, and the opportunity to learn basic work skills and become more independent in the workplace. These experiences seemed to influence employment opportunities post-school.</td>
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<td>Molfenter, Hartman, Neugart, &amp; Web (2017)</td>
<td>To investigate the characteristics and impact of the Let’s Get to Work Wisconsin Program.</td>
<td>62 students with intellectual or developmental disabilities</td>
<td>Longitudinal study, reported on pre- and post-intervention data from the Let’s Get to Work Wisconsin Program aimed at increasing post-school employment for youth with intellectual and developmental disabilities. (USA)</td>
<td>After the intervention, high school students’ participation in paid community work experience increased from 11.5% to 73%. Increase in quality of life score was linked to increase in scores on items pertaining to community participation, independence and work. Self-determination also increased. The Wisconsin Post-School Outcomes Indicator 14 survey data showed a 10% increase in</td>
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<td>Pan (2011)</td>
<td>To examine transition education and community based instruction in a high school in Taiwan.</td>
<td>High school students with intellectual disabilities.</td>
<td>Students with intellectual disability participated in a curriculum program that involved classes which taught the skills needed to run a car washing business (washing cars, making tea, bookkeeping, guiding vehicles, machine operation). Following this, students marketed the business to the local community, and then operated the business. (Taiwan)</td>
<td>Students’ cognitive and operational skills and motivation increased after one semester of the program.</td>
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Frequency of work experiences during school

Analysis of data from the US National Longitudinal Transition Study 2 (NLTS-2) found a high proportion of students with mild intellectual disabilities had some form of work experience or paid work whilst at school (Bouck & Joshi, 2016); 71.8% had school-sponsored work\(^1\), 63.5% other paid work experience, 31.5% participated in job shadowing\(^2\) and 13.5% in an internship\(^3\) or apprenticeship\(^4\). Little detail was reported however in this paper about the length and nature of either the paid or unpaid work experiences reported, or longer term impact of school work experiences. In contrast another US study (Blustein et al., 2016) found much smaller rates of work experience among their sample; 6.2% having either a paid after-school, weekend or summer job, 4.5% an unpaid after-school or weekend job, and 3.8% unpaid summer jobs. Another US study found that 31.3% of students with intellectual disabilities had paid work experiences (Carter et al., 2011), with jobs most commonly in maintenance (32.7%), food service (16.9%), administration (12.4%), and personal care (10.5%).

An Australian exploratory study by Davies & Beamish (2009) found two-thirds of their sample of high-school students with intellectual disabilities had participated in work experience\(^5\) while at school. Whilst a Canadian study by Burbidge et al. (2008) found a smaller portion (31%) of their sample of school students with intellectual disabilities involved in either paid employment and/or volunteer activities.

Factors that increase the likelihood of work experiences during school

Carter et al. (2011) examined early work experiences of school students with severe disabilities (including intellectual disabilities). Their communication and self-care skills, and ability to travel independently significantly increased the odds of having paid work. Additionally, students with regular household chores and whose parents expected them to become self-supporting had a significantly increased likelihood of paid work experience. Furthermore, participation in internship, technical preparation, or entrepreneurship programs was also strongly associated with paid work experiences during school. Similarly, Blustein et al. (2016), in their study of the expectations of 1,065 parents about post-school employment

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\(^1\) Programs supervised by schools that permit students to work to earn money and/or high school credits.  
\(^2\) A program in which a student observes/follows an employee whilst they complete the daily tasks required in their job.  
\(^3\) A program, usually offered by the school, in which a student works in either a paid or unpaid capacity in an organisation in the community to gain work experience.  
\(^4\) A fixed-term position in which a person works for a skilled employer at low wages in order to learn a trade.  
\(^5\) Any experience of work-related activities, such as unpaid school-sponsored work, internships and paid employment.
for their young adults with intellectual and developmental disabilities, found that older age, higher functional capacity, residing in a rural community, and having more home\textsuperscript{6} and community\textsuperscript{7} work-related experiences strongly predicted the likelihood of early work experiences during school.

**Social/emotional outcomes of work experiences during school**

There is some evidence that indicates the positive social/emotional benefits of work experience whilst students are at school. In Burbidge et al.’s (2008) study of 48 students, those not involved in either employment or volunteer activity had significantly higher maladaptive behaviour scores than the students who had participated in these activities. Molfenter et al. (2017) reported on baseline and post-intervention data collected for the Let’s Get to Work Wisconsin program in the USA, which utilised four strategies aimed at increasing employment of youth with intellectual and developmental disabilities. One strategy was locating paid after school jobs for students while still in high school. After the intervention, students reported increased quality of life which was linked to increased community participation, independence, work and self-determination.

These findings about the benefits of paid work whilst at school are supported by the findings of a study by Pan (2011) which examined transition education and community-based instruction\textsuperscript{8} in a high school in Taiwan. Students with intellectual disabilities participated in a curriculum program that involved classes which taught the skills needed to run a car washing business (washing cars, making tea, bookkeeping, guiding vehicles, machine operation). Following these classes, students marketed the business to the local community and operated the business. Students’ cognitive and operational skills and motivation increased after just one semester of the program.

Furthermore, a mixed method longitudinal case study in the USA conducted by Lindstrom et al. (2014) of the career development of four young adults with intellectual (n=3) and developmental (n=1) disabilities found that structured work experiences during high school provided students with exposure to employment settings, and the opportunity to learn basic work skills and become more independent in the workplace. Importantly, these experiences seemed to influence employment opportunities post-school.

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\textsuperscript{6} Household chores, managing money and discussing future career goals with parents.

\textsuperscript{7} Volunteering, attending careers fair, participating in an internship or apprenticeship, and job searching.

\textsuperscript{8} Educational instruction in a community environment, providing hands-on opportunities to learn skills.
Post-school employment outcomes of work experiences during school

Blustein et al. (2016) found that early hands-on work experiences in the community predicted higher parental expectations of full-time employment for their children post-school. As a result of the Let’s Get to Work Wisconsin program, high school students’ participation in paid employment during school increased from 11.5% to 73% (Molfenter et al., 2017). Subsequently, the Wisconsin Post-School Outcomes Indicator 14 survey showed a 10% increase in competitive integrated employment for youth with intellectual and developmental disabilities between 2010 and 2015 (Molfenter et al., 2017) which may be attributed to the increase in paid jobs during school.

A study in the USA by Jun et al. (2015) that examined the employment outcomes of students with cognitive disabilities who had participated in vocational rehabilitation and school transition programs supports Molfenter et al.’s (2017) findings. They found participating in school-sponsored work\(^9\) and unpaid internships positively predicted employment outcomes. Similarly, Carter et al. (2012) found that paid school-sponsored work and paid after school jobs were positively associated with post-school employment. Interestingly, unpaid school-sponsored work was not.

Baer et al. (2011) examined the post-school outcomes of 409 students with intellectual disabilities or multiple disabilities in the USA. Participating in school-sponsored work was not significantly related to post-school employment. Likewise, Daviso et al. (2016) investigated the impact of school-sponsored work and school-supervised work experience\(^{10}\) for high school students in the USA with different disabilities. They found that neither significantly predicted employment outcomes for students with intellectual disabilities.

**Discussion and Conclusion**

Work is important for people with intellectual disabilities (United Nations, 2007). It creates daily structure, financial stability and social networks, identity and self-esteem (Ineland, et al. 2013). Schools have the central role in preparing their students for adult life as contributing citizens (Lindqvist, 2012). The importance of preparation during school for a successful transition from education to the labour market for young people with intellectual disability cannot be overstated.

\(^9\) Programs supervised by schools that permit students to work to earn money and/or high school credits.
\(^{10}\) Programs in which students work or volunteer in the community and receive training and supervision from special educators.
There is a very small body of research about after school jobs, which does suggest that experiencing work, in particular paid work, during school is likely to contribute to positive emotional, social and employment outcomes for young people with intellectual disabilities. However, most of these are small scale studies and comparison across studies is difficult as they involve inconsistent groupings of students with disabilities and varying definitions of work, paid work and work experience. For example, work is variously defined as paid, unpaid, school-sponsored or community work experience. In addition, cross country comparison is hampered by the differences in labour markets, educational contexts and support systems for people with intellectual disabilities between countries.

Paid employment during school, and in some studies unpaid work like internships, exposure to employment settings and other early hands-on experiences, were found to be associated with future employment, increased quality of life, community participation and independence. Furthermore, work experiences appeared to increase cognitive and adaptive skills as well as motivation. However, two studies showed no positive effects of work whilst at school on post-school employment. It is important to note that these studies only reported on school-sponsored and school-supervised work, which included unpaid and volunteer positions.

The findings of the current review suggest that paid employment during school has a more positive impact on post-school employment than unpaid school-supervised/sponsored work. They also highlight the need for more rigorous research, especially longitudinal studies about the impact of after school jobs as well as the experiences of work during school from the perspective of young people themselves.
References


Wakeford, M & Waugh, F (2014). *Transition to employment of Australian young people with disability and the Ticket to work initiative*. Ticket to work. www.tickettowork.org.au
Appendix A

List of included articles


**Appendix B**

**Glossary**

**After school job:** An ‘after school job’ is a paid job for a student that takes place outside of school hours. This is usually in the late afternoon on weekdays but could also be on the weekend or in the school holidays. The role is most likely as a casual employee.

**Apprenticeship:** A fixed-term position in which a person works for a skilled employer at low wages in order to learn a trade.

**Internship:** A program, usually offered by the school, in which a student works in either a paid or unpaid capacity in an organisation in the community to gain work experience.

**Job shadowing:** A program in which a student observes/follows an employee whilst they complete the daily tasks required in their job.

**School-sponsored work:** Programs supervised by schools that permit students to work to earn money and/or high school credits.
School-supervised work experience: Programs in which students work or volunteer in the community and receive training and supervision from special educators.

Work experiences: Any experience of work-related activities, such as unpaid school-sponsored work, internships and paid employment.