# Careers advice and support for disabled young people in education



A literature review by the National Deaf Children's Society

#### 1. Key points

This literature review sought to improve our understanding of what research says on careers advice and support for disabled young people in education. It also seeks to help to identify research gaps in relation to deaf young people. Some key points from this literature review are provided below. A summary of possible gaps in research, in relation to deaf young people, is provided in Section 8.

- A range of disabilities are covered in this review. These include: learning disabilities, cognitive
  disabilities, and physical disabilities. Studies generally vary as to the type of disability they focus on
  with some taking a broad focus and some focusing on a specific disability. Learning disabilities
  appear prominently across studies and are often the most frequent type of disability within studies.
- Sample sizes vary across studies: some papers have fewer than 10 participants while some include at least 2,000 participants.
- A number of factors that contribute to successful transitions are mentioned. These cover factors related to disability, personal characteristics, training/work history, or socio-demographic factors (e.g. gender and ethnicity). Work experience/previous vocational experience and selfdetermination are two recurring factors that are frequently mentioned across studies.
- Factors can vary across stages with some (e.g. disability effects, low educational expectations) being strongest in the earlier stages.
- Studies with a smaller sample of participants tend to be interview-based (see Section 4 in particular). These in-depth studies list challenges young people face when transitioning from school to further/higher education or into employment. On the basis of their data, these papers highlight positive and negative experiences and make suggestions for further action.
- Various intervention strategies are mentioned. These include: mentoring, job coaching, general transition programmes (which can vary in focus), group-based exercises. Some research papers focus on careers within a specific industry (e.g. STEM or the arts).
- In some cases, these strategies are evaluated for impact and effectiveness. All studies generally
  report a positive outcome as an aspect related to successful transitions. Transition programmes
  may also have a stronger effect on those labelled more 'at risk'.

#### 2. Search and organisation of the literature review

The search was limited to papers published from 2000 onwards and involved searching scientific websites (e.g. Institute of Education Sciences' Education Resources Information Centre: <a href="https://eric.ed.gov/">https://eric.ed.gov/</a>) using terms such as 'disability', 'careers advice', 'transition planning'. Recent issues of relevant journals (e.g. Disability and Society, Journal of Deaf Studies and Education) were also searched for papers covering the scope under investigation. Grey literature from the third-sector was also searched for further references (e.g. Careers and Enterprise's report on transition planning:

www.careersandenterprise.co.uk/research/transition-programmes-young-adults-send-what-works).

The 41 papers included in this review cover the period of secondary education and post-secondary education. They are not limited to the United Kingdom. Most papers are from the United States with additional papers from Australia and Canada. These papers have been divided into five categories:

- Large-scale studies looking at factors associated with successful transitions into careers.
- Small-scale studies focused on groups of students (sometimes within a single institution).
- Small-scale studies focusing on teachers, advisers, and parents (i.e. excluding students).
- Intervention-focused studies (i.e. studies which review or describe interventions aimed at improving transitions).
- General literature review papers.

The following sections have been labelled according to these five sections. Annex A lists each paper in a table-format whilst references are provided in Annex B.

## 3. Large-scale studies looking at variables associated with transitions/careers/post-secondary education

There are nine papers in this section (four from the UK, three from the USA, one from Australia, one from Canada). These papers focus on different stages within a young person's educational and career pathway (e.g. different stages of secondary education, the transition from school to university or towards employment). Various disabilities are covered in these studies although there is frequently more of one type than another (e.g. learning disabilities appear prominently across studies). Some of the papers in this section work from a large dataset often drawn from publicly available sources (e.g. Chatzitheochari & Platt, 2019) while others are much smaller in scale (e.g. Cocks et al. 2015). A brief summary of each paper is provided below.

- Chatzitheochari and Platt (2019) conducted a statistical analysis of 1,336 young people at four transition stages: career expectations at 14; attainment of Level 2 qualification at 16; continuing into full-time upper secondary education at 16; entering university. The number of people involved in the study declined with each stage, with 211 young people involved in the final stage. Data was collected from the Longitudinal Study of Young People in England.
- Lindsay (2011) explored characteristics associated with 2,534 disabled young people (between the ages of 15-19, 20-24) who are employed, as well as the type of employment they are engaged in.
- McDonnal and Crudden (2009) explored what might predict employment in 41 transition-age youths with visual impairments.
- Beyer and Kaehne (2008) examined the transitions of 87 young people with learning disabilities at two points in time (upon leaving school and six months after graduation).
- Aston et al. (2005) analysed survey data collected from 1,020 young people three years after completing school (together with findings from 16 in-depth interviews with young people, parents, and those involved in the transition process).
- Baer et al. (2003) looked at predictors of positive post-school outcomes in 140 graduates who were one and three years post-graduation.
- Cocks et al. (2015) interviewed 30 young adults (graduates, apprentices, trainees) to identify
  pathways from high school to post-graduation. These adults also completed a questionnaire
  measuring quality of life.
- Goldberg et al. (2003) interviewed 41 adults with learning disabilities 20 years after leaving school to determine the characteristics that predict successful outcomes (e.g. being in employment).

Three additional studies, which also fall into this category but have been included in Section 6 on transition programmes, are relevant here.

- Benz et al. (2000) examined factors that predicted employment and graduation in 709 students participating in a transition programme.
- Fabian (2007) analysed data from 4,751 urban minority youths participating in a transition programme to determine factors associated with gaining employment.

• Luecking and Fabian (2000) analysed 3,024 participants who had recently completed a paid internship to determine factors related to post-school employment status at 6, 12, and 18 months.

Across these studies, a range of factors have been identified as important. They include:

- Career expectations/aspirations (e.g. Chatzitheochari & Platt, 2019)
- Parental expectations (e.g. Chatzitheochari & Platt, 2019)
- Length of time with disability (e.g. Lindsay, 2011)
- Type of disability (e.g. Lindsay, 2011, Fabian, 2007, Baer at al., 2003, Luecking & Fabian, 2000)
- Disability when compared to non-disabled youths (e.g. Chatzitheochari & Platt, 2019)
- Transportation (e.g. Lindsay, 2011)
- Involvement in vocational activities/work experience (e.g. Cocks et al., 2015; McDonnal & Crudden, 2009; Beyer & Kaehne, 2008; Fabian, 2007; Baer et al., 2003; Benz et al., 2000; Luecking & Fabian, 2000)
- Academic competence (e.g. McDonnal & Crudden, 2009)
- Household income (e.g. Lindsay, 2011)
- Self-determination, self-awareness (e.g. McDonnal & Crudden, 2009; Goldberg et al., 2003)
- Use of assistive technology (e.g. McDonnal & Crudden, 2009)
- Ethnicity (e.g. Luecking & Fabian, 2000)
- Gender (e.g. Fabian, 2007)

The point of comparison taken in each study can sometimes differ. For example, Lindsay (2011) compared across disabilities (e.g. cognitive disabilities are compared with mobility disabilities) while Chatzitheochari and Platt (2019) compared disabled youths with non-disabled youths. This is likely to have an effect on which factors are significant and the strength of its significance.

Several key points emerge from a review of this section of the literature:

- Work experience/previous vocational experience and self-determination are recurring factors (the latter is also prominent in studies reported in Section 4 and is frequently mentioned in papers listed in Section 7).
- Factors can vary in their strength of influence over time. For example, negative effects, from low
  educational expectations on transition, decline in significance over time and are weakest when
  entering universities. The negative effects of disability are also strongest in the earlier stages of
  secondary education (Chatzitheochari & Platt, 2019).
- Most of these studies find an association between a given factor and likelihood of employment but, often, no information is provided to explain why there might be an association (e.g. Lindsay, 2011) notes that a high proportion of youths with a hearing impairment worked in real estate but offers no explanation).
- Benz et al. (2000) observed that transition programmes might have a stronger effect on those who are labelled as more 'at risk' (e.g. having a history of absenteeism).
- Some papers stressed the importance of including socio-demographic factors. Gender and ethnicity
  have an impact on employment amongst disabled youth, with white men more likely to be
  employed (Luecking and Fabian, 2000; Fabian, 2007).
- There can be variation in the provision of support when comparing mainstream secondary schools, colleges, and special schools (Beyer & Kaehne, 2008).

With regards to possible gaps, a similar study is provided by Polat et al. (2004) which described a national longitudinal study on the transition of deaf young people from school to adult life. In this study, data was collected from 184 Year 11 pupils in England over a period of 15 months. The findings focused primarily on the range of activities provided to pupils as part of the transition planning process, parental involvement in

this process, pupils' school experiences, and pupils' and parents' expectations and aspirations about the future. The paper did not attempt to associate these factors with successful transitions, nor was there any focus on the effectiveness of these services. Polat et al. (2004), in their conclusion, stressed the importance of parental involvement/expectation and its association with a pupil's career aspirations/expectations. We were unable to find any studies looking at adults to determine what factors they cite (from education) as being instrumental in aiding successful transitions into careers (although this gap will likely be covered by the <u>READY Study</u> being undertaken by the Universities of Manchester and Edinburgh).

#### 4. Small-scale studies involving students

In this section, there are 13 papers (six from the UK, four from the USA, two from Canada, and one from Ireland). The nature of disability varied between papers with some focusing on a specific group (e.g. Caton and Kagon, 2007) focus on school leavers with moderate learning disabilities) and some focusing on a range of disabilities (e.g. Lindsay et al., 2019). Most papers in this section have a smaller sample of participants and use interviews as a means of collecting responses. These papers do not necessarily assess the quality and effectiveness of support services, or the effectiveness of strategies used by youths when transitioning into employment. Instead, they focus on providing an in-depth account of the existing landscape for young people with disabilities. In some cases, these papers make suggestions for further action on the basis of their data. For example, Boletzig et al. (2007) recommends the use of an inclusive arts education programme to enable more young disabled people to experience the benefits of being involved in the arts.

Papers in this section have been organised into the following categories:

- Papers that focus on university support
- Papers that focus on the transition itself (into employment)
- Employment topics
- Field-specific topics (e.g. construction).

#### Papers that focus on university support

- Waterfield and Whelan (2017) described differences in the everyday experience of students from lower socio-economic backgrounds who do not have the financial or social means to address barriers at university.
- Vickerman and Blundell (2010) focused on the lived experiences of disabled students from
  induction through to employability within one HE institution. Responses from disabled students
  were compared to non-disabled peers at the same institution to determine how their experiences
  differ. The paper outlines key areas that need to be addressed (e.g. pre-course support,
  institutional commitment to developing support services).
- Goode (2007) interviewed 20 university students within a single institution and describes how they
  found the provision for support. Themes that emerged from interview data include concerns about
  extra-visibility (drawing attention to their disability) and having to be proactive. Students also based
  their choice of university on the level of support provided and how they were treated when
  attending open days.
- Madriaga (2007) summarised 21 case studies of students who successfully made the transition into higher education from school/colleges. A range of topics was covered: reasons for attending further and higher education, how they found support at university, negative attitudes from professionals, factors linked to broadened aspirations. The paper suggests that disablist attitudes may still be prominent within some areas of education.

#### Papers that focus on the transition from school to employment

- Nolan and Gleeson (2017) outlined emerging themes in the transition from college to employment for 13 students and nine graduates. Themes such as enabling and building career pathways, disclosing disabilities, enabling/educating the work environment on disabilities were discussed.
- Caton and Kagan (2007) looked at the transition towards adult life of 90 school leavers with moderate learning disabilities. School leavers were interviewed twice: upon leaving school and then 12-18 months after leaving. The authors note that, despite support with transitions, this group continued to have more in common with the transitions of vulnerable young people.
- Wehmeyer and Palmer (2003) is a study of school leavers with learning disabilities. Students were divided into two groups based on their self-determination scores. A comparison of these two groups indicated that those who scored higher in self-determination tests fared better across multiple categories (e.g. employment, access to health services, financial independence).
- Kim and Williams (2012) explored the lived experience of eight graduates seeking employment
  opportunities after graduation. They report that students are limited in their knowledge of how
  statutes provide academic accommodation and employment protection, that employment after
  college was not always an immediate goal, and that many share concerns over accessibility and
  accommodation in the workplace.

#### **Employment-specific topics**

Lindsay et al. (2019) interviewed 17 youths (15-34 years old) with disabilities on when they should
disclose their disability at work. Their paper explored a range of reasons as to when youths decide
to disclose their disability (e.g. advocating for their needs, being knowledgeable about workplace
rights) and the factors that encourage (e.g. increased self-confidence) or discourage (e.g. fear of
discrimination) youths to disclose their disability.

#### **Field-specific topics**

- Ormerod and Newton (2013) interviewed 49 participants on construction as a career choice. The
  findings indicated that disabled young people are unlikely to consider employment within
  construction without better awareness-raising by the industry itself of the range and scope of
  opportunities available, and suggest that employers could be more proactive in promoting disabled
  employees. Participants were also in favour of pre-employment training for disabled people as well
  as industry-taster days.
- Boletzig et al. (2007) focused on the experiences and strategies of 47 young disabled artists in their
  educational and career pathways. Artists that were successful reported using a range of strategies
  to succeed (e.g. post-secondary art education, internships). The papers concluded with several
  recommendations for promoting careers in the arts (e.g. create opportunities for networking
  between the arts and disability communities).

There are two papers which focus on deaf youths with a similar scope to the papers listed above. Saunders (2012) investigated the support that exists for 14 deaf students in the transition between further education and school into higher education using a questionnaire-based approach. There is little focus on careers however. A secondary aim of the study was to create an advice guide for professionals and parents to support deaf students with their applications to higher education. As with other studies in this section, the paper does not discuss the effectiveness of available services. Fordyce et al. (2013) presents statistical data on post-school education employment and training data together with interview data from 30 people aged 18-24 in Scotland. The data focuses on young people's experience of post-school transition planning, their experiences in further or higher education and training, and their experience in the labour market. Based on their findings, Fordyce et al. (2013) list a range of emerging questions which points to potential gaps in

research. As the research focuses on Scotland, we lack similar data for England (although sections on further education are covered in Young et al. 2015).

#### 5. Small-scale studies with parents and professionals

There are only three papers in this section; one each from Australia, Canada, and the United Kingdom. Each study focuses on a different group. Generally speaking, this section appears to be the most underresearched. Note, however, that some other studies in other sections have reported input from parents and advisers (e.g. Aston et al., 2005; Madriaga, 2007) but this was in addition to data collected from students who were the primary focus of these studies.

- Easterbrook et al. (2019) uses focus group data from 14 university stakeholders to analyse their attitudes towards disabled students. This study highlights that negative attitudes and beliefs persist amongst these stakeholders and these beliefs are used to justify the exclusion or limited participation of these students.
- Davies and Beamish (2009) is a study of 218 parents of children with intellectual disabilities. Parents
  responded to a survey with some focus on preparation for employment here. Parents reported high
  levels of personal involvement and satisfaction with the transition process but reported minimal
  participation from their child. Responses also highlighted the lack of post-school options and the
  impact this has on the family.

We were only able to find one paper focusing on deaf young people that fits within this category. O'Brien (2015) interviewed eight professionals who work with deaf young people in mainstream school. The paper suggests that deaf young people's needs are not being recognised in the transition-planning policy, leading to problems in the creation of transition plans. Professionals also reported a lack of guidance for them and deaf young people and their families to support them through the transition process.

#### 6. Intervention studies

There are 11 papers in this section. Nine are from the USA, two from Canada. These papers have been organised as follows: those focusing on large-scale transition programmes reporting a statistical analysis on a range of factors towards employment, studies assessing the effectiveness of an intervention, and descriptive studies (i.e. papers that do not assess anything).

#### Large scale statistical analysis of participants in a transition programme

Some papers focus on large-scale transition programmes with a high number of participants, with the intention of measuring the effectiveness of such programmes. These programmes are often nationwide/state-wide and focus on a range of disabilities. A statistical analysis is applied to the data (much like in Section 3) to determine the variables that predict employment.

- Benz et al. (2000) analysed a dataset of 709 disabled young people to determine factors that
  predicted graduation, placement in employment, and continuing education. All of the youths in this
  dataset had participated in the Youth Transition Program. One key finding from this study is that
  the completion of transition goals is beneficial for all but has a bigger impact on those who are
  considered to be at risk (e.g. those who are frequently absent or have an unstable living situation).
- Fabian (2007) is a study looking at 4,751 youths/minorities to determine the factors associated with securing employment and type of job obtained. All participants were enrolled in the Marriott Foundation's Bridges From School to Work Program. Findings indicated that 68% secured a job following the programme and that gender, previous vocational experience, receipt of social security benefits were among the significant factors. The majority of students also obtained service sector jobs in retail and food business.

 Luecking and Fabain (2007) also investigated the effectiveness of the Bridges From School to Work Program. In this case, the focus was on factors that predicted employment amongst 3,024 participants who completed a paid internship. Ethnicity and disability type were significant factors linked to continuing employment. Additionally, those who received a job offer after completion of internship were more likely to remain in employment. Importantly, the paper stresses a need for post-school ongoing vocational support to sustain any performance gains achieved during the school years.

#### **Assessment of intervention programmes**

These intervention programmes are varied and focus on a range of aspects. Evaluation of these strategies is conducted in different ways. For some papers, data obtained prior to and following the intervention was used to evaluate its effectiveness (e.g. Sheftel et al., 2014). For others, interview data was used to elicit opinions on the intervention in question (e.g. Powers et al., 2015, Benz et al., 2000). All studies of these types reported a positive outcome. One study, Lindsay et al. (2014) differed in that students were assessed on their performance in two career coaching exercises. This paper suggests that youths with disabilities may perform badly on specific exercises and would benefit from targeted career coaching.

- Lindsay et al. (2012) focused on skill development in 18 youths participating in an employment training programme. Participation in the 12-month programme, which featured two supported work placements (one in hospital and a second in the community), led to an increase in selfconfidence and self-esteem. Participants also welcomed this programme because their schoolbased programmes were often mismatched to their interests or were inaccessible.
- Powers et al. (2015) investigated the effect of mentoring on 78 youths with disabilities interested in a STEM career. Each youth was paired with a trained mentor. Note that 45 were assigned to a mentor with a disability while 33 were assigned to a mentor without a disability. Each group was then invited to a focus group to share their experience (with parents and mentors). Generally, young people spoke positively of being mentored. Interestingly, the interview data indicated that having a mentor with a disability was not a priority (although it was useful). Youths preferred to be matched on common interests and personality, primarily.
- Sheftel et al. (2014) outlines the design, implementation, and evaluation of a motivational interview-based group career intervention (MEGI) focused on increasing self-determination (e.g. motivation), vocational outcome expectations, and self-efficacy (i.e. confidence in learning, and persisting in using, new skills) for 135 high school students with disabilities. MEGI sessions involved 10 one-hour sessions on a range of transition topics. A number of assessments carried out prior to and following the MEGI indicate a positive change in each of three aspects.
- Benz et al. (2000) reported a follow-up study looking at 45 participants' perception of the Youth
  Transition Program and the characteristics they felt were most important in helping them achieve
  their transition goals. Student indicated that they appreciated individualised services, consistent
  support from staff, and staff persistence in reminders.
- Woods et al. (2010) investigated the effectiveness of a new school to adult life transition planning
  package which aimed to increase self-determination skills. Assessments given before and after the
  delivery of the package indicated that students who received targeted transition planning
  demonstrated a statistically significant knowledge gain and increase in perceived self-efficacy.
- Lindsay et al. (2014) assessed performance differences between disabled and non-disabled youths receiving career coaching in the form of a mock job interview and role-play exercises. A statistical analysis found no differences in role-play exercises between the two groups. However, youths with physical disabilities performed poorly in some areas of the mock interview (e.g. when responding to questions like "tell me about yourself" or a problem-solving scenario). Consequently, the paper suggests targeted employment readiness training.

#### **Descriptive studies**

These papers are primarily descriptive with little (or no) assessment of the effectiveness of the (in two cases, proposed) strategies. There are three papers in this category.

- Carter et al. (2010) is a survey of career development activities available to, and accessed by, youths with disabilities in 34 high schools in the USA. Data was analysed according to two groups: youths with severe disabilities and youths with emotional and behavioural disorders. A range of findings are reported: e.g. career development activities that were the least commonly available were also the ones that might be most beneficial (such as mentoring); for 25% of schools, no students with disabilities participated in internships and apprenticeship programmes.
- McEachern and Kenny (2007) outlines two models of group-based counselling programmes which
  can be used by school counsellors with students transitioning from high school. One model focuses
  on transition towards post-secondary education while the second focuses on the transition towards
  employment. No assessment of these models is provided.
- Mayes et al. (2019) is a brief article recommending mentoring as a tool for ensuring college and career readiness for black males with disabilities.

We were unable to find any papers in this area focusing on the type of transition programmes or interventions available to deaf students at school or university and their effectiveness.

#### 7. Review papers

In this section, there are five review papers which cover a range of topics associated with transitions and career planning. A key factor which is frequently mentioned in this review is self-determination. Self-determination (as defined by Landmark et al., 2010) includes characteristics such as choice-making skills; decision-making skills; problem-solving skills; goal-setting and attainment skills; self-advocacy and leadership skills.

- Lindsay et al. (2018) reviewed 18 papers to determine best practices in post-secondary transition programmes for young people with disabilities. This review generally provides a good range of evidence of the impact of transition programmes. The discussion highlights self-determination as being of crucial importance although students have few opportunities to develop this.
- Lindsay et al. (2016) reviewed 22 papers to identify the common characteristics of effective mentorship programmes. Programmes with significant outcomes were often structured, delivered in group-based or mixed formats, and longer in duration (more than six months).
- Chen and Chan (2014) focused on students with learning disabilities in particular and examined critical issues that have an impact on career development (e.g. academic achievement, self-determination). Their paper concludes by referencing career guidance and intervention strategies that addresses these issues (e.g. mentoring or transition programmes).
- Landmark et al. (2010) organised 29 papers into categories according to transition practices to
  determine how much evidence exists (based on the number of published papers) for each practice
  type. There were more papers covering work experience and fewer papers covering community or
  agency collaboration (e.g. availability of continuing employment support from an agency). Few
  studies also covered self-determination.
- Winn and Hay (2009) discussed a number of issues and challenges for individuals with a disability transitioning from school. The review highlights the importance of work experience/work history and higher rates of self-efficacy. The review also notes that what school leavers do in their first year is especially important. The paper concludes with a list of responsibilities for teachers (e.g. providing vocational instruction).

#### 8. Summary and conclusion

A list of possible gaps in research is provided below. These gaps have been determined by comparing the papers from this review with published research involving deaf young people. In most cases, there has been little (if any) research focusing on deaf people.

- There has been little research on the effects of self-determination on deaf young people. Self-determination has been identified as a key predictor for successful transitions.
- There has been little research on the industries that deaf young people view as potential avenues
  for future careers. Research in this area (such as a survey targeted at deaf young people) could
  encourage specific industries to promote existing disabled staff within their workforce or to
  promote their industry as a potential career path for deaf young people (e.g. see Ormerod and
  Newton, 2013).
- There is little research on the type of transition programmes or interventions available to deaf students at school or university (e.g. similar to Carter et al. 2010). A survey of the availability of this type of resource could also include information on uptake. Polat et al. (2004) covers this topic briefly with a focus on Year 10 students in the UK and whether they have (a) met with a careers advisor, and (b) the type of careers guidance activity in which they have participated (work experience is the most frequent). Polat et al. (2004) suggest that future research should focus on the quality of work experience and its impact on post school outcomes. The lack of papers assessing the effectiveness of career-readiness activities is another gap that could be addressed.
- If they exist, research evaluating the support of the transition programmes from the perspective of the students highlighting positive and negative aspects would address another gap in research (much like Benz et al., 2000).
- There are few papers (particularly papers published recently) suggesting models for assisting with (career) transition planning in deaf young people (similar to McEachern and Kenny, 2007) as well as an overview paper outlining critical issues that may have an impact on career development as they relate to deaf young people.
- There is little (if any) research on mentoring for deaf people (e.g. Powers et al. 2015). Such research could focus on key components of a successful mentoring programme.
- There is little research on which aspect of the employment process deaf people might struggle with (although this is covered in some detail for Scotland in Fordyce et al., 2013). Such research could help with developing targeted support for career readiness (e.g. Lindsay et al. 2014).
- Studies focusing on professionals/parents and the role that they might play in promoting career readiness is also lacking. However, this is covered briefly in Polat et al. (2004) and Fordyce et al. (2013). Data collected from parents focused on whether they were aware of the support available/taken as opposed to the impact of their involvement in the career planning process.
- Many studies have looked at adults reflecting on their own career pathways to identify common elements across successful individuals. There is little research in this area focusing on young deaf adults.

## Annex A: Table summarising research papers covered in this literature review

## Large-scale studies looking at factors associated with successful transitions

Authors and country	Focus and methodology	Summary of key findings	Comments
Chatzitheochari & Platt (2019 <b>)</b> United Kingdom	Study investigated educational transitions in disabled youths (with a wide range of conditions) using data from the Longitudinal Study of Young People in England (LSYPE).  Statistical analysis was conducted at four transition stages: career expectations at 14 (1,336 disabled youths); attainment of Level 2 qualifications at 16 (1,052 disabled youths); continuing into full-time upper secondary education at 16 (311 youths); entering university (211 youths).  The LSYPE data was supplemented with academic data from the National Pupil Database.	Suppressed educational expectations appears to be a strong factor at each key transition stage. Note that parental expectations were used as a proxy for the child's educational expectation in the first stage. The authors suggest that parents' low expectations of a child's educational outcomes can influence the child's expectations in turn.  Disability effects on transition is strongest at the earlier stages.	Factors can vary in significance across transition stages (e.g., strength of educational expectation on transition declines in significance over time).  Similar approach to the Ready Study.  Little information provided on careers advice.  Note that a control group was used in this study (non-disabled young people). This might represent best practice in this type of longitudinal study.
Cocks et al. (2015) Australia	Study looked at 30 adults (graduate apprentices and trainees) sampled from an Australian longitudinal study of economic and social outcomes. Participants were interviewed to identify pathways from high school to post-graduation and completed the Quality of Life Questionnaire.  A range of disabilities was included in this study.	Pathways highlighted continuous involvement in vocational activities and support from school personnel and external disability agencies.  Findings demonstrated apprenticeships and traineeships led to positive graduate employment outcomes and career pathways for adults with disabilities.  Positive quality of life outcomes were associated with employment, employee benefits, and satisfaction with work and social connections.	
Lindsay (2011) Canada	Study aimed to explore the characteristics associated with disabled youths (between the ages of 15-19, 20-24) who are employed and where they are working.	For the 15-19 group, those who had their disability for a long time were more likely to be in employment.  Mode of transportation was also a factor: access to (e.g.) a car made paid employment more likely. Having a hearing, vision, or communication disability made	A range of factors are reported, and some factors related to hearing impairments are included here.

	Statistical analysis was applied to data obtained from the 2006 Participation and Activity Survey.  Survey data from 2534 disabled youths was obtained and organised by disability (hearing, vision, communication, cognitive, mobility).	paid employment less likely (youths with a mobility disability in urban areas were more likely to be in employment).  For the 20-24 group, having a communication, mobility, or cognitive disability made paid employment less likely. Fewer people in the household and a lower household income were linked to employment. Access to transportation was also important (for the same reasons as the 15-19 group). Young adults were more likely to be self-employed than the 15-19 group.	Young people who had their disability for more than 10 years were more likely to be employed. It also appears that this group is more likely to be working from home and less likely to be employed generally.  Note the comparison here is across disabilities and not against a non-disabled group of young people.
McDonnal & Crudden (2009) United States of America	Study looked at variables associated with employment for 41 transition-age youths with visual impairments served by vocational rehabilitation agencies.  Study used public data from Cornell University's website (sampled a large scale research project evaluating performance of state-federal vocational rehabilitation programme).  Sample size of the study is small so the statistical analysis is limited.	Variables significantly associated with employment for transition-age youths with visual impairments are: work experience, academic competence, self-determination, use of assistive technology and locus of control.  Self-esteem and involvement with the counsellor were not associated with employment in this study.	
Beyer and Kaehne (2008) United Kingdom	This study examined the transition of 87 young people with learning disabilities. Interviews were conducted in their last year of school and six months after graduation.  A total of 14 special schools – eight mainstream schools, and five Colleges of Further Education – took part in the study.  The study focused on vocational advice given to students with learning disabilities by schools/colleges.  Six different approaches to employment transition are outlined here (all provided by external agencies).	Statistical analysis revealed that work experience provided by external support organisations, as well as work awareness training provided by schools/colleges were significantly related to subsequent employment transition.  Follow-up study six months after school found that 18/87 participants were employed. Two factors were significant predictors of employment: if they had work experience (provided by an external transition support organisation) and those that had work awareness training (provided by school or colleges).	The study highlights variation in type of activities/support offered to students.  Mainstream secondary schools provided school-based vocational activities with no time given for work experience.  Colleges spent more time on work awareness training.  Special schools spent more time on other activities (day release to relevant college courses and visits to

	Statistical analysis was used to identify significant predictor to employment.	Of the 18 employed, 10 found their job through the external transition organisation they had worked with while at school/college.  Interesting that not all vocational activities offered by schools/colleges/external organisations appear to increase the probability of young people with learning disabilities being employed post-graduation.	potential employers) and work experience (within the school).  External agencies offered significantly more work experience (jobs in the community) and higher levels of practical project placement (café, sandwich making, and furniture making enterprises).
Aston et al. (2005) United Kingdom	Report provides a summary of survey data collected from 1,020 young people three years after completing compulsory schooling.  Also provides findings from 16 in-depth interviews with young people, parents, and those involved in the transition process.	Four sets of factors seem important in determining the outcomes of the transition process: young people's capacities and characteristics, the purposefulness of familial support, nature and effectiveness of local support systems, range of local opportunities available to young people.  Agencies and support systems use different models: some may work closely with an individual over time while some may only assist when requested.  There is variation in the presence and strength of support provided by services. Well informed and assertive parents are beneficial in helping young people navigate these services.  Many young people have lacked adequate support or have received uncoordinated support.  No clear or systematic evidence of any individual, organisation, or agency having overall responsibility for assisting young people or to coordinate service delivery.	
Goldberg et al. (2003) United States of America	This study focuses on interviews with 41 adults with learning disabilities 20 years after leaving school to identify what attributes predict successful outcomes.  Specific questions focused on a range of topics (educational history, employment history, physical	Successful informants demonstrated an enhanced self-awareness, compartmentalised their learning disability, were decisive - often consulting others for information or advice, took responsibilities for their outcomes, showed persistence in their pursuits, set	

	health, financial status, and a wide range of personal/psychological attitudes and behaviours).	realistic goals, developed strategies for reducing stress in their lives.	
	Quantitative data was also collected (achievements, researchers' rating of participants' success, etc.)  This paper built on a previous study following up participants 10 years after leaving school.	Additional themes (outside of successful attributes) that emerged were: learning disability across the lifespan (changing perspectives of their disability and impact on day-to-day life), family differences (being dependent on family for support), and difficulty in developing social relationships.	
Baer et al. (2003) United States of America	Study looking at predictors on post-school outcomes.  140 randomly selected graduates who were one and three years post-graduation (following high school).  A range of disabilities were included in this study although most participants reported having a learning disability (62%).	Analysis showed that vocational education, workstudy participation, attending a rural school, and having a learning disability were the best predictor of full time employment after graduation.  Note that students with a learning disability received transition planning which might be why this was a positive predictor.  Participating in regular academics (not defined in paper) and attending a suburban school setting were the best predictors of post-secondary education.	

## Studies involving deaf young people

Authors and country	Focus and methodology	Summary of key findings	Comments
Polat et al. (2004) United Kingdom	Report of findings from the first wave of a national longitudinal study on the transition of deaf young people from school to adult life.  Data was collected from 184 Year 11 pupils across England over a period of 15 months.  Pupils and their parents were interviewed.  Interviews were also conducted with teachers, special educational needs coordinators, and headteachers.  Sample drawn from 55 mainstream schools and 51 special schools.	Paper reports a range of figures from their survey data (some figures reported below)  A large number of deaf pupils were from lower social economic class.  Data from schools suggested that the majority of schools provided information on post-16 transition planning (95%), how parents can contribute to the planning (85%), details regarding persons responsible for liaising with parents on post-16 transition issues	This study covers a lot of areas that have been the focus of other papers in this review.  The focus is mainly on services that have taken place and students' and parents' perceptions. There is little on the effectiveness of these services.  Stresses the importance of parental expectation and its association with pupil's career aspirations/expectations. Level of

The findings focus on the range of activities provided to pupils as part of the transition planning process, parental involvement in this process, pupils' school experiences, and pupils' and parents' expectations and aspirations about the future.	(93%), post-16 destinations (90%), support services available (73%).  In some cases, parents of pupils in special schools seem to receive more information and more pupils in special school were stated as requiring support services (e.g., careers adviser, social worker, etc.)  Assessed parental involvement in the transition planning process. Although no differences between parental attendance at review meetings, parents with lower or no educational qualifications were less likely to attend.  Data indicates that only half the schools in the sample had a post-16 transition policy as part of their SEN	parental involvement was directly related to their qualifications (parents with higher qualifications were more likely to be involved in transition planning).  Indicates that future studies should examine the equality of work experience provided by schools and its potential impact on the post-school outcomes of young people.
	policy.  Work experience is the most common activity offered.	
	Stronger preference for independent living was	
	observed among mainstream pupils and their parents than among special school pupils.	

## Small-scale studies involving students

Authors and country	Focus and methodology	Summary of key findings	Comments
Lindsay, Cagliostro, Leck, Shen, Stinson (2019) Canada	When should you disclose your disability at work? This study interviewed 17 youths with disabilities (15-34 years old). The interview data was analysed for recurring themes.  A range of disabilities are reported here (including hearing impairment).	Timing of when youths disclosed their disability to their employer depended on disability type and severity, comfort level, type of job and industry.  Interestingly, deaf participants varied in whether they disclosed their deafness.  Youths' strategies and reasons for disclosure included advocating for their needs, being knowledgeable about workplace rights, and accommodation solutions.  Facilitators for disclosure included job preparation, self-confidence and self-advocacy skills. Challenges to	Paper suggests that clinicians, educators, employers should stress importance of mentorship/leadership programmes to give young people the confidence and self-advocacy skills to disclose their disability.

		disclosure included fear of stigma and discrimination, lack of employer's knowledge, negative past experiences of disclosing, and not disclosing on your own terms.	
Waterfield and Whelan (2017) Canada	Study focused on responses from 10 students with learning disabilities (six middle class, four working class) receiving support at university.  The interview data collected was analysed to identify recurring themes.	Students from lower socio-economic backgrounds do not have the financial capital to seek alternative options when lacking support at university.  They also do not have the cultural and social capital (e.g. family members with knowledge of how specific institutions work) to navigate various systems.  Students from lower socio-economic backgrounds may also be more hesitant to disclose their disability to university staff.	Although access might be in place to support disabled students, some students (from higher socio-economic backgrounds) might find it easier to take advantage of these opportunities than others.
Nolan and Gleeson (2017) Ireland	This study aimed to explore the perspectives and needs of students and graduates with disabilities as they transition from college to employment.  This study reports on findings from interviews held with 13 students and nine graduates with a range of disabilities.  The interview data was analysed for recurring themes.	Five themes were identified in the student group: enabling and building career pathways (e.g. by becoming involved in societies or securing jobs whilst at college), tailoring abilities to jobs (e.g. ruling out jobs because of disability), disclosure, future advice and college support, enabling/educating the work environment on disabilities.  Four themes were identified in the graduate group: building personal strategies, fit, disclosure, and reasonable accommodations.  Disclosure was a strong theme and participants varied in when they disclosed their disability (e.g. mental health disabilities were disclosed later).  Work experience identified as one of the most important reasons for graduates obtaining jobs.	Study concludes that students and graduates need support in transitioning into the world of work and HE institutions need to listen to the students in developing and refining career-related resources.  Discussion notes that college graduates with disabilities do not receive the same level and quality of career support services compared to their non-disabled cohort (see Kim and Williams, 2012).
Sgroi (2016) United States of America	Qualitative study describing the lived experience of media workers with disabilities in the US during post-secondary education and their transition to the professional media workplace.  First step towards understanding the experience of media students with disabilities.	Themes that emerged include high level of self-efficacy amongst the participants, colleges were supportive but they faced discrimination in the workplace. They received few or unhelpful educational accommodations and guidance from faculty as they transitioned from education to work.	Small-scale study that focuses on participants within a specific field.

	Study focuses on three participants with observable physical disabilities.  Each graduated in a different decade: one in the 60s, one in the 80s, and one in 2009.	Findings suggest a need for faculty training in inclusive teaching practices, review of curricula, and assistance for students as they progress from education to work place.	
Ormerod and Newton (2013) United Kingdom	Study of 49 participants (using interview and focus group data) looking at construction as a career choice for disabled young people. Participants were aged 16-25 and reported a wide range of disabilities. A participatory research approach was used (i.e. research was led by the participants themselves).	Disabled young people are unlikely to consider employment within construction without better awareness raising by the industry itself of the range and scope of opportunities available.  Disabled people involved in construction could be role models and actively promote their achievements (aligning with the UK's Inspiring the Future programme).  Employers could also be more proactive in promoting disabled employees.  Existence of specialised organisations (e.g. Reemploy) often viewed as a barrier by participants. Participants indicated that they were steered away from construction jobs by advisers because of preconceived ideas about what is appropriate for disabled people.  Participants did not support the practice of a segregated or a specialist employment service for disabled people.  Conversely, pre-employment training of a segregated nature was favoured as well as industry taster days.	
Kim and Williams (2012) United States of America	Aimed to understand the lived experiences of college seniors/graduates in seeking employment opportunities after graduation.  Interviewed eight college students with a physical disability (deaf, blind, cerebral palsy, spinal cord injury, and little person) at an urban private university. The interview data was analysed for recurring themes.	Employment after college was not always an immediate goal for disabled students; some participants were eager to go on to an advanced degree.  Students are limited in their knowledge of how statutes provide academic accommodations.  All participants noted that workplace accessibility and accommodation are major concerns when applying for a job.	Employment after college is not always an immediate goal.  Paper suggests that collaborative efforts among career service centres, disability support centres and academic units could enhance career planning and gainful employment. (However, this suggestion is not discussed at length.)

		Most participants felt discriminated against and some noted difficulties with the system as they tried to access accommodations in the workplace.	
Vickerman and Blundell (2010) United Kingdom	Study reports the lived experience and transition of disabled students from induction through to employability within one Higher Education Institution. 504 students were asked to complete a questionnaire on a range of topics. 5.6% of respondents reported a disability.  Responses from students who had a disability were then compared with those who indicated they did not have a disability to identify differences in perceptions and experiences of HEs.  (Type of disabilities included in this first phase are not clear.)  A second phase involving four face-to-face interviews with disabled students was undertaken following the questionnaire.	The study highlights five keys areas to be addressed: pre-course support, commitment by HEs to facilitating barrier-free curricula, consultation with disabled students, institutional commitment to developing support services and embedding of personal development planning.  25% of disabled students did not disclose their disability to the university.  Most who did declare a disability were not contacted previously by the university and those who were contacted stated that it was not helpful.  Some disabled students perceived staff to be anxious and reluctance to make assessment accommodations.  50% of disabled students did not have any contact with the university's careers service and those who did found the advice to be limited in relation to specific issues around employability.	Paper refers to McEachern (2007) who states that academic staff should be more proactive in their counselling intervention and include career exploration, confronting barriers to employment, job search processes, and other transitional challenges as central aspect of actively supporting disabled students.
Boletzig et al. (2007) United States of America	This study reports the experiences and strategies of 47 young disabled artists in their educational and career pathway within the arts.  Artists were finalists in the Volkswagen of America Inc. Program: an arts programme intended to showcase the talents and accomplishments of young disabled artists aged 16-25.	Artists who were successful reported the following strategies: post-secondary art education, working in art studios, participating in arts-based programmes, studying under a particular artist, and internship at galleries/museums.  Few artists found their disabilities to be a barrier to making art, some thought it enhanced their ability, and some cited the arts as a tool for overcoming barriers.	Paper recommends the use of inclusive arts education to enable more young disabled people to experience the benefits of involvement in the arts.  Paper also recommends using proven strategies to support career development among young people wishing to pursue a career in the arts (e.g., integrate opportunity for networking in the arts and disability communities).

Goode (2007) United Kingdom	This study focuses on 20 university students within a single institution and how they found the provision for support to be at university.  Interview data was analysed for recurring themes.  Note that the university in question has a number of initiatives in place to develop good practice (developed a University Disability Plan, Disability Liaison Officers in each department).	The themes that emerged from the analysis include: forming an independent personal and social identity, disclosing disability, extra-visibility (drawing attention to their disability), being proactive, and transition into higher education (how they found support and access).  Although special provision at universities was not the most important factor for students when deciding which university to attend, some did explore in advance what kind of provision was available.  Encouraging students to have realistic expectations was considered more important than claims that the transition would be problem-free.  Some students made judgements about universities on the basis of how they were treated when they visited for interviews.  Some students confessed to being naïve in their own assessments of their needs or to some extent denying the challenges they would face at university.	Study notes that research about people with disabilities has sometimes alienated them by failing to reflect on their own perspectives.  Reasons for attending university might vary. How often does disability support services factor into the decision?
Caton and Kagan (2007) United Kingdom	Research looked at the transition towards adult life of 90 school leavers with moderate learning disabilities from three different schools in an urban area in the UK.  School leavers were interviewed twice: once as they were leaving school and then a follow-up interview 12-18 months after leaving.  Their responses were compared to a group of non-disabled young people and to literature on vulnerable young people (those with severe learning disabilities).	The authors note that young people with moderate learning disabilities have extra assistance (compared to non-disabled youths) in the form of specialist careers advisors, supported employment organisations, and social services. This assistance is meant to make their transition as similar as possible to non-disabled youths. However, the authors note that this group actually has more in common with the transitions of vulnerable young people without impairments (e.g. those leaving care system).  These differences include reasons for types of postsecondary education entered into, and perceptions of adulthood.  Papers observes that while a prolonged period in education and training is viewed as a positive for non-disabled youths, a prolonged period in education for	

		moderately disabled youths may be (mistakenly) viewed as a negative.	
Madriaga (2007) United Kingdom	Report of findings from a UK Aimhigher South Yorkshire Report on disability and higher education are provided in this report.  This report collected case studies from 21 students who successfully made the transition into higher education from school/colleges.  Some parents/guardians/tutors/support workers were interviewed.  Majority of respondents had dyslexia (16/21). Three students were wheelchair users/three had an unseen disability.  Of the 16 students with dyslexia interviewed, only three were diagnosed by the age of 15 years. This means that over half of the respondents overall discovered their impairment while in further or higher education.	Many respondents expressed frustrations about prior school experience (particularly when their disability was diagnosed late). This was also shared by parents and current higher education tutors.  Results suggest that tutors may unknowingly perpetuate disablism by not academically challenging disabled students.  Special needs coordinators, educational psychologists, behavioural psychologists, tutors, were viewed negatively.  Most students attended higher education out of economic necessity (e.g. qualifications are needed for a good job with a decent salary).  Disabled student support workers have a valuable role to play in influencing disabled students to pursue higher education.  A range of reasons is provided for entering further education (e.g. a second chance, opportunity to advance to higher education). Disablist attitudes from tutors continued into further education however.  Strategies for, and willingness towards, disclosing their disability varied amongst students.  Disability continually viewed as an individual issue and not a social issue.  Some respondents are discouraged from pursuing higher education in school. Respondents aspirations to HE were broadened by the encouragement and emotional support received by disabled student support workers in further education.	Paper suggests that some sectors of education may perpetuate disablist attitudes (likely a consequence of wider societal attitudes and processes).
Wehmeyer and Palmer (2003)	This paper is a follow-up study of school leavers with learning disabilities to find out what they are doing after school.	Comparison between these two groups on their outcomes at one and three years after graduation indicate that students who were more self-	Use of a secondary measure to assess self-determination and to align this with outcomes may be of interest.

United States	Students were divided into two groups based on their	determined fared better across multiple life	
of America	self-determination scores collected during their final	categories.	
	year at high schools.	Statistics in this study appear to be rather weak with regards to holding a job since high school.	

## Studies involving deaf young people

Authors and country	Focus and methodology	Summary of key findings	Comments
Saunders (2012) United Kingdom	This study aimed to investigate the support that exists for deaf students in the transition between further education and school into higher education in the UK. Questionnaires were sent out to 14 deaf young people (six college students, eight university students). Questions were based on the following areas: support received at college, support received during the application process/interviews, differences between university and school/college.  The paper also outlines one case study from the process of applying to university to arriving at university. Disability officers who the case study student met at university were also interviewed.  Secondary aim was to create an advice guide to enable professionals and parents to support deaf students with their applications to higher education.	4/6 college students and 7/8 university students felt that participation in a programme of preparation for higher education was useful to them.  Type and amount of support varied. Students from specialist colleges for deaf students took part in programmes of support. At institutions with smaller numbers of deaf students, the transition programme on offer seemed to be less formal and more influenced by parents', teachers' or Connexions Advisors' personal knowledge of the transition process.  Establishing links with a disability office was essential to understanding the support system at that university. Students often required help to do this. Students required support in recognising different uses of terminology in universities, colleges, and schools.	Not specific to careers but to transitions generally. However, the type of research conducted here overlaps with other papers in this review.  There is little on the effectiveness of these services (study only notes their existence).
Fordyce et al. (2013) Scotland	This study investigates the post-school destinations of deaf and hard of hearing (DHH) young people in Scotland, the barriers encountered by these young people in accessing post-school education	The findings reported cover a wide area. Relevant findings to careers advice, career planning include:	A range of interesting questions are proposed at the end of each section. A selection of these questions are presented below:

employment and training opportunities, and the factors that promote successful post-school transitions.

The study used two methods to answer these questions: an analysis of official statistics on post-school education employment and training destinations and outcomes of young DHH people, and interviews with 30 people aged 18-24 who were DHH on their experiences.

Findings were reported under the following headings:

- Young people's school experiences
- Young people's experiences of post-school transition planning
- Young people's experience in higher education/further education and training
- Young people's experience in the labour market.

Most participants did not have post-school transition plans. Students with additional disabilities were more likely to have transition plans.

Students without transition plans found out about their support from support workers or parents.

Young people aiming to go to university are well-informed about support options (most likely with help from parents).

Young people in further education, training, or employment seemed less knowledgeable about support options (e.g. Access to Work).

General support in higher education as good although some variation between institutions. Middle class parents intervened when difficulties arose and there was less intervention by parents from less socially advantaged areas.

There is wide variation in support standards in further education colleges. There were fewer institutes of successful self-advocacy and direct parental involvement in negotiating support.

Young people on training programmes are less knowledgeable about support options.

Young people with higher education qualifications were more likely to find employment with the help of their parents or wider social networks. They were less likely to seek advice from Careers Advisors at college or university.

Several jobseekers with non-graduate qualifications believed that disclosing their deafness in job applications would lower their chances of being offered interviews.

Very few young people used Access to Work. Graduates and BSL users were more likely to know about Access to Work although few used it. Those who did not have it relied on informal support. What difficulties do education authorities/schools encounter in delivering post-school transition planning for school leavers who are DHH?

How does the lack of formal transition planning impact on the post-school outcomes of school leavers, particularly those from poorer backgrounds?

How do educational and training qualifications translate into employment outcomes for people who are DHH?

What are the employment outcomes of DHH young people who completed further education and vocational training courses?

What barriers are encountered by people who are DHH in recruitment and employment?

## Small-scale studies involving teachers/advisors/parents

Authors and country	Focus and methodology	Summary of key findings	Comments
Easterbrook et al. (2019) Canada	This paper examines 14 university stakeholders' attitudes towards disabled students. Majority of participants were female.  Data was collected from interviews and the findings discussed within the framework of citizenship (specifically rationality, autonomy, and productivity). Stakeholders were faculty members, clinical/field supervisors, representatives from regulatory bodies. Focus group was asked questions on barriers and challenges to practice and how students manage these, and on facilitators who provide student support and accommodation policies.	The authors conclude that the focus group data indicates that these stakeholders consider disabled students to be lacking in these aspects relating to citizenship.  In other words, the rhetoric of citizenship is used to justify the exclusion or limited participation of students with disabilities. Stakeholders assume that disabled students will be unable to find work/lack the capacity to become practitioners, and use this as justification for making little accommodation within the university setting.  Students' current and future productivity is challenged by claiming that students with disabilities may waste resources since their accommodations are costly.	Study focuses on stakeholders' perceptions of disabled students within a university setting.  Study highlights how taken for granted beliefs can limit the inclusion of students with disabilities in ways that seem natural and unproblematic.
Davies and Beamish (2009) Australia	This is a study from the perspective of 218 parents of young people with intellectual disabilities.  Parents responded to a survey containing 50 questions with some focus on preparation for employment here.	Parents reported high levels of personal involvement and satisfaction with the transition process but reported minimal participation from their child.  A third reported that work experience was not available for their child (esp. for those with high support needs).  Responses highlight the lack of post-school options and the impact that these circumstances have on the whole family (i.e. low community-based participation combined with the need for high levels of supervision has an impact on families).	

### Studies involving deaf young people

Authors and country	Focus and methodology	Summary of key findings	Comments
O'Brien (2015) United Kingdom	Study reports findings from interviews with eight professionals working with deaf young people in mainstream schools on young people's transition into adulthood. Transitions were explored in the context of the transition planning process outlined in the 2001 SEN Code of Practice.  Professionals included teachers' assistants, people who worked in a support unit within a college or university, social workers.  The focus of this paper is mainly on professionals who use BSL.	Transition planning for young deaf people from mainstream schools can be a long, drawn out and problematic process.  Interviews with professionals suggested that deaf young people's needs are not being sufficiently recognised in the transition planning policy, leading to problems in the creation of transition plans.  Not all young deaf people have a transition plan/support plan for transitioning into university.  Transition plans were viewed as useful but were rarely made, rarely implemented successfully, and young people were rarely engaged in their formation.  Professionals felt that there was not enough guidance for them or for deaf young people and their families to support them through the transition process.	Study seems to focus on those who engage with young people who sign.  Paper recommends that the views and experiences of deaf professionals should be sought and incorporated into transition planning policy to take advantage of their experience and expertise.

## Intervention studies (studies/reviews that describe intervention programmes or look at how successful a given intervention programme is)

Authors and country	Focus and methodology	Summary of key findings	Comments
Mayes et al. (2019) United States of America	Short article on mentoring as a tool for ensuring college and career readiness in black males with disabilities.	Article suggests that school counsellors and psychologists could work together to coordinate a mentorship programme. The programme could incorporate two levels: peer-to-peer support and adult mentor support.	
		Peer-to-peer support may take the form of a weekly group counselling experience where the group facilitator could focus on the components of college	

		and career readiness (e.g. college and career exploration and assessment, admission process, etc.)	
Powers et al. (2015) United States of America	This study investigates the effect of mentoring of youths with disabilities within STEM. The article describes how 78 youths were paired with a trained mentor. 45 were randomly assigned to a mentor with disability and 33 were randomly assigned to a control group.  Each group and their mentors and parents were invited to a focus group (consisting of 88 participants = 30 youths, 30 parents, 28 mentors).  Most disabilities were learning disabilities.  Youths participated in nine individual activities with their mentor. They also met as a group with their mentors for three additional workshops.  Mentors engaged students in STEM activities and talked about preparing for a STEM career and successful strategies.  Mentors were matched by shared STEM interest, gender, disability, personality.	Mentoring was a catalyst for a young person's STEM career development: led to increased knowledge about STEM careers and postsecondary majors, stimulated future planning, and bolstered confidence. Key elements of successful mentoring included relationship development, guidance from mentors, participating in experiential activities that were relevant (visited colleges together, shadowed other STEM professionals, etc.)  Matching mentors and young people by personality and common interests were the most important factors for successful mentoring. Interestingly, matching participants based on disability was of lesser importance than personality and interests. However, if disability was a key factor — it was important that the disability was matched so that challenges could be easily understood by mentors (i.e. relevant disability match or none at all).  Although few differences were found between the two mentoring groups, having a mentor with a disability validated and supported mentees in managing disability-related barriers.	Article highlights the impact of mentoring on career planning. The focus on a specific field (STEM) is noteworthy.
Sheftel et al. (2014) United States of America	This study aimed to design, implement, and evaluate a motivational interview-based group career intervention (MEGI) which focused on increasing self-determination, vocational outcome expectations, and self-efficacy (confidence in learning, and persisting in using, new skills) for high school students with disabilities. 135 high school students (12-20 yrs.) from six schools were involved.  Most of the students reported a learning disability (74.1%) and most were male (74.8%).	A number of assessments were carried out prior to and following the MEGI sessions (Vocational Skills Self-Efficacy Scale, Arc's Self-Determination Scale, Vocational Outcome Expectations). Results indicate that there was a significant (positive) change in vocational skills self-efficacy, self-determination, and vocational outcome expectations following MEGI sessions.	

	MEGI consisted of 10 one-hour sessions implemented within existing transition and special education classes and focused on improving group dynamics; providing reinforcement of group member's autonomy; highlighting the importance of work aspirations and experiences; identifying individual strengths; discussing barriers and coping strategies; goal setting and planning		
Lindsay, McDougall, Sanford, Menna-Dack, Kingsnorth, Adams (2015) Canada	This paper assesses performance differences in exercises related to career preparation between 31 youths (15 with a physical disability and 16 typically developing). Most of the participants had cerebral palsy; the remainder had a range of physical disabilities.  The mock job interview and role-play exercise were devised by the study's authors and a scoring rubric was also created for both exercises. A statistical analysis was applied to the data to assess differences between the two groups of youths.	The authors found no differences in role-play exercises between the two groups. However, youths with physical disabilities performed poorly in some areas of the mock interview (e.g. when responding to questions like "tell me about yourself", "how would you provide feedback to someone not doing their share" and a problem solving scenario).  As a result, the paper suggested targeted employment readiness training.	Identifying which aspects of the employment training that deaf people do worst at might help with transition planning.
Lindsay, Adams, McDougall, Sanford (2012) Canada	Paper outlines skill development in 18 youths with a physical/mobility disability who participated in an employment training programme (the majority of participants had cerebral palsy). Adolescents and parents were interviewed and responded to a brief questionnaire about their involvement in the programme.  The programme ran over a 12-month period with two supported work placements (one via a hospital and the other via community employers).  Community based placements were matched to each adolescent depending on their skills and preferences.  The programme also included skill-building workshops such as individual assessment, counselling, coaching, and peer mentor meetings.	Analysis of the interview data indicated that some participants welcomed this programme because their school-based programmes were often mismatched to their interests or were inaccessible.  The programme allowed participants to acquire a range of practical skills (e.g. photocopying, time management, problem-solving skills, etc.).  There was a reported increase in self-confidence and self-esteem by participants and parents.  Participants developed social and communication skills via meeting and interacting with new people.  Although personal gains reported, challenges in finding employment after the training programme remained.	

Carter et al. (2010) United States of America	This paper is a survey of career development activities that are available to, and accessed by, youths with disabilities.  The study invited 34 high schools in the USA to respond to a questionnaire which they designed.  Primary section of questionnaire addressed availability of career development and vocational education activities offered by each school.  Statistical analysis was applied to the questionnaire data.  Data analysed by two groups: youths with severe disabilities and youths with emotional and behavioural disorder.	Schools offered a range of career development and conventional activities but not all activities were attended by youths with disabilities. Attendance was worse for youths with severe disabilities.  Three career development activities least commonly available were also the activities that might be most beneficial: school-based enterprises, mentoring, job placement services.  For 25% of schools, no students with disabilities participated in paid or unpaid internships, apprenticeship programmes, cooperative education programmes, college or technical school tours, or college fairs.  Transition planning teams may need to be more deliberate about ensuring that the full range of curricular and preparation options are considered for students with the most extensive support needs.  Some activities were attended (>50% indicated that some or most youths with disabilities participated in career counselling, career planning and interest assignments, etc. However, none of the 6 most common career development activities accessed by youths with severe disabilities involved direct work-related experiences.  Literature suggests a combination of barriers may coalesce in ways that limit consideration of the full range of career development experiences for youth with disabilities (e.g. attitudes of teachers, accessibility, transportation, etc.)	Note that this paper does not tell us which career development activities contribute strongly to improved employment outcomes – uses literature to back this up. Quality of activities provided is not assessed either.
Woods et al (2010) United States of America	This paper outlines the effectiveness of a new school to adult life transition planning package titled "Student Directed Transition Planning".  These lessons teach transition terms and concepts to provide a means of increasing self-determination skills	Students receiving Student Directed Transition Planning experienced a statistically significant knowledge gain and increase in perceived self- efficacy. Transition planning included thinking about careers.	

	and student participation in transition IEPs (Individualised Education Program).  Study uses a pre and post experimental design. Results of students receiving intervention training were compared against a control group who did not receive training.  Students responded to a questionnaire at two points (prior and following intervention). The questionnaire asked them to indicate their level of agreement with a range of self-efficacy statements (e.g. I know I can tell my IEP team about the course of study that will help me reach my transition goals).  Three schools were involved in the study: 19 students were in the intervention group and 16 were in the control. A mix of disabilities were reported.		
Fabian (2007) United States of America	Data from 4751 urban youths (minorities) was analysed to determine the factors associated with securing employment/nature of job.  All youths were participating in the Marriott Foundation's Bridges From School to Work Program between 2000-2005.  The Marriot Foundation's Bridges From School to Work Program has been in operation since 1990. The goal is to provide competitive paid work experience for special education youth who are transitioning out of high school to adult life. Bridges offers a standardised one-semester vocational intervention programme consisting of three phases: (a) career counselling and job placement, (b) paid work experience with training and support, (c) follow-along support and tracking of student participants.	Findings indicate that 68% of the youth in the programme secured a job: gender, previous vocational experience, receipt of social security benefits were amongst the significant factors.  Note that the % of youths who ended up in employment was higher than the national figure which might indicate a selection bias (youths enrolled in the Bridges programme might have more positive characteristics).  Women in the programme secured jobs at a significantly lower rate.  Previous vocational experience is a significant factor. Early vocational experiences have been associated with development of career maturity and vocational identity.  Goal-setting was not significant but only a small number of students expressed a goal.  Note that the majority of students obtained service sector jobs in retail and food business.	Outlines importance of intersectionality

		Youths receiving social security benefits were less likely to secure jobs than those who were not (not discussed at length).	
McEachern and Kenny (2007) United States of America	This descriptive paper outlines two group-based models that can be used by school counsellors with students making transitions from high school. One model focuses on transition from school to post-secondary education while the second focuses on the transition from school to employment.	Sessions within the first model include awareness of self, self-determination and self-advocacy, navigating the college admissions process, legal rights, accessing services, choosing a major.  Sessions within the second model include finding the right job, the application and interview process, goal setting.  An assessment of the two proposed models is not provided.	No main findings reported as the paper is descriptive in nature. The effectiveness of the proposed programmes have been left to future research.
Benz et al. (2000) United States of America	Articles report findings from two studies that examined secondary and transition practices.  All participants were from the Youth Transition Program (state-wide funded programme for young people with disabilities). A range of disabilities were included in the study.  First study examined student and programme factors that predicted graduation and placement in employment/continuing education. 709 students were included in this study.  Second study examined 45 participants' perceptions of the programme and staff characteristics that were most important in helping them achieve their education and transition goals.	Students who were in the Youth Transition Program were twice as likely to graduate with a standard diploma.  Students who held two or more paid jobs while in the programme and students who completed four or more student-centred transition goals (examples of these goals were not provided) were twice as likely to graduate with a standard diploma.  Cumulative negative effects of barriers were reported. Students with one or more at-risk barriers (e.g. history of absenteeism/suspension, unstable living situation, history of substance abuse) were at least three times less likely to graduate.  Being involved in the transition programme can negate these risks to some extent.  There is also a positive cumulative effect from some variables for both at-risk and not-at-risk groups.  Adding three extra transition goals has a big effect on the at-risk group.  Results from the second study indicated that students appreciated individualised services, consistent support from staff, and staff persistence in reminders.	Transition planning may have a bigger positive effect on those who are more at risk.

		Students also reported increased confidence in their skills and abilities.	
Luecking and Fabian (2000) United States of America	This study looks at the Marriot Foundation's Bridges From School to Work Transition Program and uses a correlation analysis to determine significant predictors following a paid internship (minimum 12 weeks of work experience in a community employment setting). A database of 3,024 participants was analysed to determine the factors related to post school employment status at 6, 12, and 18 months.	Those who received a job offer after completion of internship were more likely to remain in employment.  Type of disability and minority status were significant at 12 months after education: students with learning disability and white students were more likely to be employed.  After 18 months, the strongest predictors were disability and ethnicity.  Note that the population under investigation all participated in the transition programme and issues remained after 18 months.	Note that all participants in this study had taken part in the transition programme.  This paper stresses that there is a need for post-school ongoing vocational and career support services to sustain any performance gains achieved during school years.  Ethnicity a key factor in predicting employment 18 months after leaving school.

## **General literature review papers**

Authors and country	Focus and methodology	Summary of key findings	Comments
Lindsay et al. (2018) Canada	A review of 18 papers (published between 1997-2017) looking at best practices and components of post-secondary transition programmes for youths with disabilities.  Papers varied in sample size (3-960) and the type of disability (some were specific while some investigated various disabilities). Transition programmes varied in duration, length, number of sessions and delivery format. Programmes focused on aspects involved in transition planning.	Various standardised (e.g. assessing self-determination, efficacy) and non-standardised measures (e.g., enrolment, attitudes) were used to evaluate outcomes.  Outcomes generally varied but all reported an improvement in at least one of the following: college enrolment, self-determination, self-confidence, social and vocational self-efficacy, autonomy, social support, career exploration, and transition skills.  Studies are organised into levels based on the strength and quality of evidence.	Provides good range of evidence of the impact of transition programmes.  The authors note that common components of successful programmes include having groupbased exercises, run by graduate students, a wide variety of professionals, or being self-directed in various settings (e.g. online or at school).  Studies show that youths with disabilities have few opportunities to develop skills in self-determination despite its importance.

			Few studies examined differences in socio-demographic factors (e.g. by gender, ethnicity).
Lindsay et al. (2016) Canada	A review of 22 papers (published between 1980-2014) which aimed to identify effective components of mentorship programmes.  A range of studies is included focusing on various disabilities (most focused on several types while the remainder focused on one disability). Sample sizes ranged from 1-2,254 and the ages of mentees ranged from 14-27 years old. A range of methodological approaches are reported.  Mentors acted as role models, offered advice, and provided mentees with social and emotional support.	For 7 mentorship interventions, at least one significant improvement was reported in school - or work - related outcomes.  Programmes with significant outcomes were often longer in duration (more than six months) which may have allowed stronger relationships to be developed between mentors and mentees. They were also structured and often included a planned curriculum and paid programme coordinator who trained the mentors and provided continued oversight of the programme.  Other characteristics include structured, group-based and mixed formats (e.g. one-on-one and group-based exercises). Programmes tailored to the programme's objectives (e.g. social skills, specific job task) took various aspects of youths' environments into account. Few studies mentioned parental involvement but the authors suggest that future interventions should consider incorporating this component.	Strong evidence for the impact of mentorship programmes although the paper suggests that more studies are needed to document the impact of mentorship programmes on school and vocational outcomes for youths with disabilities.
Chen and Chan (2014) Canada	Paper focuses on learning disabilities and aims to address the critical issue of improving career wellbeing of young people with a learning disability.	Examines critical issues that have an impact on career development such as academic achievement, career and self-awareness, social competence and self-determination. References a range of studies that have highlighted the importance of these factors.  Considers some career guidance and counselling intervention strategies that are considered to help and enhance the vocational well-being of this target population. This include Castellanos and Septowki (2004) four-phase career guidance model, Pathways programme (a secondary school career education	

		course for students with learning disabilities), and peer mentoring.	
Landmark et al. (2010) United States of America	This is a review of 29 papers outlining transition practices for young people with disabilities.  Practices are ranked according to the number of papers published on that specific strategy.	The most to least substantiated practices were: paid/unpaid work experience, employment preparation, family involvement, general education inclusion, social skills training, daily living skills training, self-determination skills training, and community/agency collaboration.	Authors acknowledge that just because there are more papers on a given topic, this does not entail that they are the most effective practice for transitions.
Winn and Hay (2009) Australia	This is a review paper highlighting a number of issues and challenges for individuals with a disability transitioning from school to the post-school environment.  A range of disabilities is included in this review.	Review refers to Marks (2006) longitudinal study (looking at young Australians in general) which highlights that what school leavers do in their first year after leaving is especially important. Full-time employment, education, or training after leaving can increase the long-term chances of continuing in full-time work or study. However, disabled young people are less likely to remain in full-time work.  Review lists factors associated with a successful transition which includes: fewer hospitalisations, longer work experience, a work history, less severe disability, cognitive capacity to acquire and retain instruction, higher rates of self-efficacy concerning work, positive attitude about the importance of work, supportive family and social relationships.  Perceived barriers to employment for school leavers include negative attitudes of supervisors and coworkers (Kidd, Sloane and Ferko 2000; Westmorland et al. 1998).	Note that some papers here are not limited to disabled young people.  A list of 10 responsibilities for teachers is provided in this review which includes providing vocational instruction and transparent links between schools and community agencies.

#### **Annex B: References**

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