ORIGINAL ARTICLE

Supported employment, quality of jobs and employment typicalness: The experience of the Engage to Change project

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Abstract

Background: Paid employment represents a challenge for people with an intellectual disability and/or autism. This paper analyses the quality of jobs offered by the Engage to Change project and their relationship to the 'typicalness' of the employment offered.

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Method: Data on the quality of 384 paid jobs were collected, including hours worked and wages earned, and reported social integration at work. The typicalness of the employment experience was assessed for 141 young people, using the Index of Typicalness of Placement Questionnaire.

Results: The Engage to Change project offered a wide range of jobs. There is no difference in the typicalness of the employment experience in relation to the interactions in the workplace, but there are some differences in the recruitment process for men and women.

Conclusion: Job coaches should make sure that, despite the procedures being 'atypical' for the workplace, the outcome is 'a typical employment experience' for each employee.

KEYWORDS

autism, inclusion, intellectual disabilities, job coaching, job equality, supported employment

1 | BACKGROUND FOR THIS RESEARCH

Employment is a key element in anyone's life, and it has been shown to deliver significant outcomes for people with an intellectual disability, specific learning difficulty or autism and a combination of these conditions (Beyer & Beyer, 2016). Being employed can also deliver greater independence and better physical and mental health, and improved well-being (Robertson et al., 2019). It can also increase social inclusion and friendships by connecting people socially (Chadsey & Beyer, 2001) with work colleagues, customers and other networks. However, the employment rate for young people with an intellectual disability and/or autism remains extremely low in the United Kingdom. The latest data show that only 4.8% of adults with an intellectual disability aged 18-64 and known to social services were in paid employment in England (BASE, 2023) and 21.7% of people with autism were employed (Office for National Statistics, 2022). The employment rate of people with disabilities is 53.7% and the employment rate for people who do not have a disability is 82.7% (House of Commons Library, 2023).

These low employment rates are due to several interacting factors that are specific to individuals, but can include cognitive, social and organisational elements. Experiencing an intellectual disability and/or autism can affect the way a person learns, socialises and participates in their community across their lifespan (Department of

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Health, 2001). People with intellectual disabilities, specific learning difficulties and autism, may experience difficulties in transitioning to adulthood because of a lack of skills, including literacy, numeracy, problems solving and independent living skills (Beyer & Robinson, 2009). They may have difficulties in learning tasks through the mainstream educational channels as they can often find it difficult to cope with new environments, and to transfer the knowledge of tasks to new contexts and situations. They may struggle with low aspirations due to inequalities in the education system (Learning Disability England, 2022). While there are a proportion of people with intellectual disabilities who also have autism as co-occurring condition, it raises several barriers if social skills interventions are not implemented. New and unknown situations can be a source of stress and anxiety significant enough to prevent them from applying for jobs, learning new tasks, maintaining a job and developing in their roles (Kirchner & Dziobek, 2014; Stratton et al., 2023).

Despite the barriers they face, people with intellectual disabilities and people with autism have much to offer in relation to employment, with individual abilities and strengths which can contribute to the labour market and the wider community if these are recognised and valued. Nevertheless, transition from school to adulthood for young people with intellectual disabilities and/or autism often does not translate into employment, as they might lack practical skills, confidence and support to face transition. This is still a concern even if transition remains a priority for national and local government in the United Kingdom (Government, 2022). Despite the existence of this strategy, transition remains a time of uncertainty for both young people and carers, as transitions affect the whole family (Kaehne & Beyer, 2011).

2 | SUPPORTED EMPLOYMENT

Supported employment is a model created to support people with intellectual disabilities into jobs. Initially developed in the United States in the 1980s (Wehman & Kregel, 1985), it is now available in many countries. The success of this model lies in having several stages designed to understand the person, their abilities and support needs, and to identify the right job match before placing someone into employment. Supported employment consists of participant engagement; vocational profiling; job finding; employer engagement; in work support and career progression (EUSE, 2010). The model is delivered through a job coach, who is specifically trained to support individual needs and that includes one-to-one training of the person in the workplace, where the job is individually matched to the person. Research demonstrates that this model is more effective in getting people into employment than alternatives, because the job is learned in the workplace, with one-to-one support to guide the learning. The model is effective for people with intellectual disabilities (Beyer & Beyer, 2017), but it is proven to be effective also with other groups of individuals, such as people with autism (Nicholas et al., 2015), sensory impaired people (Hanley-Maxwell et al., 1990) and people with mental health issues (Bond et al., 2012).

Transition to employment can also be via supported internships, a model of support for young people aged 16 to 25 with an intellectual disability (Rutkowski et al., 2006) or with autism (Wehman et al., 2013). The model includes vocational education and job coach support as an integrated method to support the employment skills development by young people. An educator delivers a vocational curriculum to a class of interns. The interns carry out real work within the host business supported by job coaches. Interns commit to three placements over a year, allowing for skills to grow and vocational preferences to develop. Project SEARCH is the most common model for delivering supported internships in the United Kingdom (DFN Project SEARCH, 2023), but funding in England and Wales supports other delivery models (Department for Education, 2022).

3 | SOCIAL INTEGRATION, SOCIAL INTERACTIONS AND TYPICALNESS OF EMPLOYMENT

Social integration in the workplace has been defined as adherence to regular and ordinary patterns of minute-to-minute and day-to-day working life (Mank & Buckley, 1989, p. 320). In other words, social integration is achievable in different ways. Cramm et al. (2009) investigated the role of supported employment in relation to social integration from users' point of view and found out that respondents placed greater value on participation, task variety, sense of belonging and feeling appreciated. Others placed greater value on the structure of the work environment, such as working independently, clear work agreements and positive atmosphere.

Social interaction was an important factor for integration, and the value of co-worker support was key form participants in this study (Cramm et al., 2009). Social interactions in the workplace have been measured in several ways in research, including use of direct observation (Beyer et al., 2010; Chadsey-Rusch et al., 1998), specific questionnaires (Shafer et al., 1990), narrative recording (Chadsey-Rusch, 1992), scaling systems against set dimensions (Mank et al., 1997), and qualitative interviewing (Storey, 1992). Reviews of social interaction research highlighted the potential of supported employment and individual job placement to extend the social networks of people with intellectual disabilities. Job coaches play an important role as in-work supporters to social integration in helping people to integrate in the workplace (Chadsey & Beyer, 2001). The importance of setting characteristics in promoting or inhibiting social integration have been identified by other researchers (Chadsey et al., 1997; Jenaro et al., 2002). These include the number of people in the immediate team the person works within; the presence of other people with disabilities; the solitary or inter-active content of work itself; the hours and schedule that people with disabilities work in relation to that of other staff; and the extent of inclusion of the person in the supervisory and other management systems of the company.

In a series of studies, Mank et al. (1997) set out to capture the impact of many of these factors on the extent of social interaction of

people with intellectual disabilities in mainstream community workplaces, and to assess the impact of these factors on other outcomes such as wages, hours worked, and time employed. Mank et al. (1997) operationalised the concept of 'typicalness' in the hiring and management of a person with intellectual disabilities, identifying these dimensions with several elements within each: job acquisition and hiring; compensation (pay and hours); initial orientation (training); work roles (similarity of work roles to others) and social aspects (broadly social interaction and engagement). They found that the more typical job arrangements were, the higher is the level of worksite interaction and wages.

In an international study, Jenaro et al. (2002) used the Mank et al. (1997) typicalness dimensions and compared wage, integration and other outcomes for groups defined by direct job coach support and natural support (i.e., support by co-workers or supervisors) of workers with intellectual disabilities. They found that natural support was associated with better social integration. They also found that the more typical the recruitment, orientation and other aspects of worker. In broad terms, these studies support the conclusion that typical workplace processes and forms of support generally deliver better work outcomes for people with intellectual disabilities.

In this study we are analysing the quality of jobs offered by the Engage to Change project, considering the job description, the hours worked, and the wages offered. An analysis of the levels of typicalness of jobs found by the Engage to Change project, along with their associated levels of social interaction, hours worked, and wage levels, is performed to establish if greater job outcomes come from greater job typicalness for this group of young people.

4 | ENGAGE TO CHANGE PROJECT

The Engage to Change project supported young people with a supported employment model, and a supported internship model with the project delivering four DFN Project SEARCH programmes, and three alternative supported internship schemes. Engage to Change was a 7-year project, active between 2016 and 2023, funded by the National Lottery Community Fund in partnership with the Welsh Government. The aim was to support young people aged 16 to 25 with an intellectual disability, autism or a specific learning difficulty, who were not in education, training or employment (NEET), to increase their employment skills and gain employment opportunities and ultimately paid jobs. In the United Kingdom, students finish their compulsory school course when they are 16 years old, and this is the age when young people transition to further education, training or employment.

The project, led by Learning Disability Wales, brought together a consortium of partners including Elite and Agoriad Cyf supported employment agencies delivering job coach support following the supported employment model. Self-advocates from All Wales People First provided an advisory and consulting capacity to the project. A research team from the National Centre for Mental Health, Cardiff University carried out an independent evaluation of the project and presented the results. Participants could make use of up to 6 months of an employer wage incentive in a paid placement. Wider services were offered, such as: vocational assessment; careers guidance and counselling; supported interviews; work trials; and travel to work trianing.

The Engage to Change project supported 1075 young people with a job coach support model, with a further 224 taking part in a supporting internship, resulting in 429 paid jobs, 340 sustained after 3 months. The independent evaluation team has data available for 1186 young people referred to the project and 384 paid jobs, resulting in 318 young people being employed through the Engage to Change Project, with some young people holding more than a job. 79% of young people employed retained their job after 13 weeks into employment.

Figure 1 shows that Engage to Change offered 457 short, unpaid placements in regular community workplaces lasting 1 day to a week; 347 young people engaged with an unpaid placement. The project also offered 432 paid placements in regular community workplaces lasting up to 6 months in duration, subsidised up to 100% of salary by the Engage to Change project. A total of 347 young people were engaged in at least one placement; a small number of young people (n = 50) experienced two or more paid placements, which were generally shorter and with different employers.

The average hours worked in a paid placement were 12 and the average hourly pay rate \pm 7.40, which is close to the average National Living Wage for the age range of young people involved for the relevant years.

The young people could be referred a relevant organisation or self-refer to the project. Of those referred, 70% were male, 25% female, with 1% being transgender and 4% preferring not to say. The majority (97%) reported themselves to be from a white background. The mean age of referred young people was 21. When looking at self-reported diagnosis, 20% had a diagnosis of autism, 19% autism and intellectual disabilities, 16% autism and specific learning difficulties, 28% intellectual disability and 17% specific learning difficulties.

The purpose of this study is to describe the quality of jobs found through the Engage to Change and to interpret elements such as pay rates and hours worked in relation to interns' social interaction and the 'typicalness' of arrangements in the workplace.

5 | METHOD

This study is based on data collected by job coaches from the supported employment agencies operating for the Engage to Change project. Job coaches were trained to collect data as part of their training package and were re-trained periodically and on request. A real time data collection system was operated through an application available on tablets, where data were uploaded daily to the evaluation team and stored on a University database. Data collected were used by the supported employment staff for their planning of job coaching actions and support, and by the research team for the evaluation work. Informed consent was obtained from all participants.

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FIGURE 1 Employment opportunities developed by Engage to Change.

■ Number of employment opportunties offered ■ Number of young people engaged

At the referral stage, job coaches collected demographic information about the participant, diagnosis, previous work experience, welfare benefits status and so on. When an employment opportunity was found, data were collected about the employment opportunity (job description, hours worked, wages paid, etc.).

For jobs sustained for more than 13 weeks, job coaches completed an evaluation to measure the level of integration in the workplace and level of 'typicalness' of employment, compared with other employees from the same work environment. This questionnaire was designed by Mank et al. (1997) featuring a section comparing between the typical experience of an employee without disabilities and one with disabilities. Young people were observed by the job coach while settling into their new jobs and after a relatively long term relationship with their job coach (Lofland & Lofland, 1984; Mank & Buckley, 1989). Job coaches had an understanding of the young person and the work environment through their support activities. As a result, job coaches were asked to evaluate the young person in relation to their work environment. Twenty-four Likert-scale questions were arranged in clusters to evaluate:

- Job acquisition and hiring (e.g., is recruiting the same as other employees?).
- Job features (e.g., hourly pay rate, others in the company doing similar work).
- 3. Human resource management processes (e.g., orientation and induction, supervision, disciplinary processes).
- Social aspects (e.g., participation in non-work social activities with co-workers, behaviour within accepted social norms and culture at work) (Mank et al., 1997).

Likert response categories ranged from 1 (Not typical) through to 4 (Somewhat typical) to 7 (Quite typical). Mank et al. (1997) used factor analysis to cluster items into unique sets with acceptable psychometric properties such as internal consistency (Cronbach's alpha >.68 and over) and a stable test-retest reliability over time (test-retest >.70 and over).

In this study, typicalness information was collected for 141 young people from the total of 318 employed. A principal component analysis (PCA) was carried out considering all items of the typicalness assessment for 141 young people employed in the open market, when they were settled into employment or after 3 months from the contract date. The PCA follows Mank et al.'s method, with the aim to derive independent components using a Varimax rotation, by maximising the sum of the variance of the squared component loadings. To measure the sampling adequacy, we used the Kaiser-Meyer-Olkin and Bartlett's tests to measure the significance of the model. We included all components with an Eigenvalue greater than 1. On the model considering all items, only factors clustering together on a component were considered, for a total of 20 variables. Internal reliability of the principal component was checked using the Cronbach's alpha and the principal component was excluded as not reliable if the value was below .6.

In this study, a four-component model provided the best solution for the data, and it explained 80% of the data variance. However, one of these components had poor internal consistency (Cronbach's alpha <.65) and was excluded from the analysis. The three-component model explained 69% of the variance.

We calculated the mean score for each of the three components, using the responses to the relevant questions defining the component for each employee and looked at the differences between these scores for the following variables:

- 1. Gender, using the Mann-Whitney test.
- 2. Diagnostic category, using the Kruskal-Wallis test.
- 3. Social relationships in the workplace, using the Kruskal-Wallis test.
- 4. Hours worked, using the Mann-Whitney test.
- 5. Hourly wage rate using the Mann-Whitney test.

FIGURE 2 Hours of paid employment worked per week (out of 280 young people).



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Other statistics were used to highlight differences in wages and hours worked for men and women (t-test analysis) and a nonparametric Kruskal-Wallis' test was used to determine differences in outcomes for five different and mutually exclusive diagnostics categories of participants.

RESULTS 6

6.1 **Description of jobs**

Young people in the project achieved a wide range of job types. The most popular type of occupations were sales and retail roles (15%); administrative roles (12%); catering and hospitality roles (11%) and cleaning (11%). There is a large proportion of jobs (48.9%) that could not be clustered under these categories, which included specific occupations with potentially higher skill requirements such as Care Assistant, Maintenance Assistant, Pharmacy Assistant and Technician.

Young people worked an average 17 h per week, that ranged between 2 and 45 h worked. Figure 2 shows that a majority of 55% of young people worked over 16 h. The Department of Work and Pensions use working under 16 h per week as the boundary for claiming some welfare benefits, therefore this threshold is considered important. Indeed, one of the eligibility criteria for the 'new style' Jobseeker's Allowance is working fewer than 16 h a week, while there is no criteria for application to receive Universal Credit (Department for Work and Pensions, 2022).

In our study, 45% of young people are working fewer than 16 h a week, therefore some young people were able to retain some form of legacy benefits if in receipt of any. The Engage to Change supported employment agencies involved in the project completed a better-off in work calculation for each young person before starting employment, considering the benefits they receive, the hours they were expected to work and the pay rate. This was part of the personcentred approach to understand if the job opportunity was able to guarantee a better economic outcome for the individual in employment.

Most young people earned more than the expected National Minimum Wage, which depends on age, or the National Living Wage which is the minimum wage for workers aged 23 and over. Figure 3 reports monthly wages, the modal gross income of the employed young people is between £500 and £599 a month (19%). There is a wide spread of income, but with the distribution skewed to the lower incomes, with 66% of young people earning a modal or lower income. Some are earning a significant monthly wage, earning over £1300 per month.

There is no significant difference in the monthly wage earned by women and men (t-test = 0.313, p = .148), nor between young people experiencing intellectual disabilities, autism or specific learning disabilities diagnoses (Kruskal Wallis test 2.322, df = 4, p = .677).

6.2 Typicalness of supported employment jobs

We used component loading scores for each question in the Typicalness questionnaire to identify questions most associated with each component. Questions were included in the component descriptions if they had a loading score of .5 or greater. The components that presented an acceptable Cronbach's coefficient alpha >.7 were included in the analysis (Tavakol & Dennick, 2011). Components were labelled 'job acquisition', 'initial training and workplace behaviour' and 'participation' based on their contributing questions (Table 1). The three-component model explained 69% of the variance. The excluded component included 'Others in company do similar work' and 'Breaks/lunch location and schedule'. Five questions were excluded from the analysis as they did not cluster together to form a component. The items were 'hourly pay rate'; 'transport to and from work'; 'amount of interaction with co-workers required by job tasks'; 'performance evaluation' and 'opportunities for promotion'.

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FIGURE 3 Monthly wages of those employed.

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Principal component analysis	Component loading		Cronbach's coefficient alpha					
Job acquisition	Job application	0.932	.96					
	Interviewing	0.922						
	Recruiting	0.808						
Initial training and workplace behaviour	Disciplinary process	0.912	.86					
	Supervision	0.853						
	Layoff/termination process	0.851						
	Behaves within accepted social norms and culture at work	0.850						
	Company expectation on work rules (time off, quality and pace standards, behaviour)	0.833						
	Initial job training	0.783						
	Orientation and induction	0.777						
	Work schedule and hours per week	0.747						
Participation	Participation in at-work social activities	0.92	.89					
	Participation in non-work social activities with co- workers	0.86						
	Company benefits	0.85						
	Person's role in decision-making choosing employer/ job	0.72						
	Opportunities for job variety	0.63						
	Support in time of crisis (personal assistance, counselling, retraining, flex schedules)	0.61						
Not significant	Others in company do similar work	0.861	.58					
	Breaks/lunch location and schedule	0.587						
KMO = 0.696, Bartlett's test ($\chi^2 = 716.648$, $df = 190$, $p = .000$)								

We explored the relationship between each component, job outcomes and people's characteristics. Initial training and workplace behaviour: Mean = 6.33 (standard deviation = 0.98)

The average score for each component was calculated based on the 1–7 scale ('1' being atypical and '7' being quite typical).

3. Participation: Mean = 5.10 (standard deviation = 1.61)

The job acquisition, initial training and workplace behaviour and participation components were tested with the Shapiro–Wilk test to

1. Job acquisition: Mean = 3.60 (standard deviation = 2.17)







less than £.7.50 per hour

☑ more than £.7.51 per hour

FIGURE 5 Typicalness mean component scores and wage per hour.

check if data followed a normal distribution and to determine the test to use; no components followed a normal distribution and for this reason non-parametric statistics were applied.

There is a statistically significant difference when considering the 'job acquisition' component between men and women, where women generally experiencing a less typical recruitment experience than men (Mann–Whitney = 1132, p = .023). There were no significant differences between genders for other components.

When considering diagnosis, there are no significant differences with the typicalness of job acquisition scores (Kruskal-Wallis Test = 2.954, p = .566), or with the typicalness of initial training and

workplace behaviour scores (Kruskal-Wallis Test = 1.971, p = .741) or with the typicalness of participation scores (Kruskal-Wallis Test = 2.949, Sig. = .566).

Young people working 16 h or more per week scored higher in job acquisition typicalness (Mann-Whitney *U* test Z = -1.975, p = .048). Instead, the typicalness score was similar for both groups when looking at initial training and workplace behaviour (Mann-Whitney *U* test Z = -1.237, p = .216) and participation (Mann-Whitney *U* test Z = -0.443, p = .657) (Figure 4).

We also looked at the wage earned per hour and related to typicalness components (Figure 5); the reference point for our comparison

TABLE 2 Gender and interactions.

	Frequent and ongoing interactions at work		Substantial interaction about work tasks and duties		Typically exo brief social i interaction b	changes greetings and has very nteractions at the job but little beyond this	Rare		
Interactions	n	Row %	n	Row %	n	Row %	n	Row %	Total
Men	35	37%	22	23%	35	37%	3	3%	95
Women	29	74%	2	5%	7	18%	1	3%	39
Total	64	48%	24	18%	42	31%	4	3%	134

TABLE 3 Interactions and diagnosis.

		Engages in frequent and ongoing interactions at work		Interacts substantially about work tasks and duties		Typically exchanges greetings and has very brief social interactions at the job but little interaction beyond this		rely, if er eracts work	
Interactions and diagnosis	n	Row %	n	Row %	n	Row %	n	Row %	Total
Autism and autism with co-occurring intellectual disability or specific learning difficulty	23	38%	11	18%	26	43%	1	2%	61
Intellectual disability and specific learning difficulty	35	56%	12	19%	12	19%	3	5%	62
Total		47%	23	19%	38	31%	4	3%	123

group young people earning more or less than £7.50, which is the average wage across the period Engage to Change was finding jobs, accounting for the yearly increase in age related National Minimum Wage and the age range or young people. There are no differences in the job acquisition component (Mann–Whitney test Z = -0.775, p = .438) and in the initial training and workplace behaviour component when comparing the wages earned (Mann–Whitney Z = -0.16, Sign. = .987). Young people earning less than £7.50 per hour scored lower in the participation component; the difference is statistically significant (Mann–Whitney test Z = -2.018, Sign. = .044).

6.3 | Interaction

Table 2 reports data on social inclusion for women and men, based on 134 people where the typicalness and integration questionnaires were fully completed. Young people were observed by job coaches to identify what type of interaction was happening in the workplace. Job coaches rated the interactions according to this scale:

- 1. frequent interactions;
- 2. substantial interactions mainly task focused;
- 3. brief social interactions, such as greetings, at the job;
- 4. rare interactions.

We found that the level of interaction was high; about half of the total sample engaged in frequent and ongoing interactions with others

at work. 18% of young people interacted substantially with others, but the interactions were mainly about the work tasks and work duties. Almost a third of the sample interacted with others in work, but the interactions were brief and focused on the job. Only 3% of the sample rarely or ever interacted with others at work.

The way young people interacted according to their gender is statistically significant only for the frequent and ongoing interaction ($\chi^2 = 21.766$, p < .001). Indeed, a large proportion of women (74%) engaged in frequent and ongoing interactions at work, compared with the 37% of men (Table 2).

Table 3 shows that young people with a diagnosis of autism, and autism with an additional diagnosis of intellectual disability or specific learning difficulties, experience brief social interactions more frequently if compared with others with a different diagnosis of intellectual disability or specific learning difficulty (Table 3). People with an intellectual disability or a specific learning difficulty engaged more frequently in ongoing interactions at work. There is a statistically significant difference in the way young people interact in work if they present an autism diagnosis or do not (Pearson $\chi^2 = 9.654$, p < .05).

Figure 6 shows the association between people's level of social integration at work, expressed on a four-point scale, and their average score calculated on each of our three components. We excluded the *rarely interact* category because only 4 people were classified under this category. There is no significant difference in the interactions levels when looking at the initial training and workplace behaviour (Kruskal Wallis Test 2.678, p = .444) and at the company participation component (Kruskal Wallis Test 7.365, p = .061). There is no

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FIGURE 6 Worksite interactions and typicalness mean component score.

significant difference for job acquisition (Kruskal Wallis Test 6.504, p = .089).

7 | DISCUSSION

Research has demonstrated that individuals with intellectual disabilities do have an interest in employment with a significant number of people wanting to work (Hennessey & Goreczny, 2022). The Engage to Change project offered a wide variety of jobs to young people aged 16-25, from a large variety of sectors and businesses. This demonstrates that young people with an intellectual disability, specific learning difficulty or autism can be placed in a variety of sectors with job coach support. Many jobs from the Engage to Change project were crafted or carved to match the employee and employer needs. Job crafting was used to create specialist job roles to free the time of other employees, with a positive impact on business productivity and service delivery. Job carving was widely used and included rearranging work tasks within a company to create employment opportunities (Scoppetta et al., 2019). Job crafting included low-cost reasonable adjustments to make the workplace more inclusive. The variety of jobs and sectors involved in this project proved that with the right employment support tailored to satisfy the employees and employers' needs, any employer can actually create a more diverse, inclusive workforce.

A comprehensive individualised programme achieved an employment rate of 39%, which is higher than for young people with intellectual disability 4.8% (BASE, 2023), and for people with autism, 21.7% (Office for National Statistics, 2022) based on the population aged 16–65. The number of jobs achieved has been negatively influenced by the COVID-19 pandemic. Some young people from the project had more than one job, this is because they might have moved from one job to another with the support from the Engage to Change project to accommodate a career change or progression. For some young people, the second job was a return to employment after they were made redundant during the COVID-19 pandemic. This study focuses on the characteristics of paid jobs, with a regular contract and in the open market. Young people worked 17 h on average, earning on average more than the National Living Wage. If we consider the monthly wage, two-third earned the modal wage of £500-£599 or lower, with no difference of earning when considering gender and diagnosis. This is a positive outcome as it means that the choice of hours was not linked to demographic or diagnostic elements, but it was likely to be person-centred. However, the number of hours worked has been a recurring source of concern within the project's Patient and Public Involvement (PPI) group, in particular, why a number of young people were working fewer than 16 h.

The project does not have information about the reason *why* young people worked a specific amount of hours. However, it is likely that the choice of working hours was linked with individual needs, as some young people struggle to work a full-time job, or employer needs (some employers could only offer a limited number of hours) and the better off calculation system to determine if the individual was better-off in employment. A better-off in work calculation is a tool that informs a prospective employee on how much they will earn after tax is deduced and it takes into account current welfare benefits and the young person's specific financial situation (Better off calculator—Digital marketplace). The calculation can support people in their choices related to employment and might influence the number of hours an employee is willing to work.

In some cases, the number of hours worked is a conservative figure, as several young people worked variable hours, or began their employment journey with a lower number of hours, that increased later on to satisfy the employers' needs. Future studies should take into consideration the reason why young people work a certain amount of hours to better understand if this is reflecting a personal choice, or is dictated by businesses' needs or is financially driven. A longitudinal approach to review the employment characteristics over time would have produced further evidence to support this discussion.

The analysis of jobs in relation to how 'typical' they were in relation to particular environments, showed a difference between men and women in the process of job acquisition. Job acquisition procedures included the recruitment, job application and interviewing processes with women generally experiencing a less typical recruitment process than men. This can be seen as a positive element as some employers might have adopted some low cost reasonable adjustments (Beyer & Beyer, 2017) during the recruitment process to support the candidates with the job acquisition process, such as easy-read application forms, provision of personal support during the interview, or working interview options. Further studies should explore the recruitment process and the use of reasonable adjustments and accessible resources to increase accessibility for anyone who needs support at this stage.

Young people working for more than 16 h a week scored higher in the job acquisition component. This means that young people working for more hours, usually had a typical recruitment process, compared to the ones working for fewer hours, who might have accessed more reasonable adjustments during the interview process. This might be because people wishing to work for 16 h and over needed fewer reasonable adjustments during the recruitment process; further studies, considering a larger sample, should be considered to check if this is the case.

When looking at the wages earned per hour, people earning less than £ 7.50 scored lower in participation than those who earned more than £7.50. Young people earning less experience less typical social and organisational participation. The mechanism for this relationship is unclear. Lower paid jobs are potentially less complex and a good match to people who have lower levels of vocational skills and who are less independent in work. Having lower skill levels might also make it more difficult for young people to engage socially at all levels in work. Further research work would be helpful in unpacking these relationships.

Half of the young people engaged in frequent and ongoing interactions, while others interacted substantially to complete their job well. Women generally interacted more than men in the workplace. Young people with autism, with or without co-occurring intellectual disability or learning difficulty, engaged in less meaningful interactions, and more interactions were limited to greetings and short conversations when compared to young people with an intellectual disability or specific learning difficulties. This might be expected, given the difficulties some people with autism can have with social communication. However, it highlights the need for effective strategies to help people with autism managing work-related social interactions that are central to work-based communications. As the assessment was carried out after 3 months of employment, a follow-up would be beneficial to understand changes in the level of interactions in the longer-term. As people spend more time in the workplace, they can also become more confident in their interactions.

Mank et al. (1997) highlighted a significant relationship between typicalness of employment features and the degree of worksite interaction and wage levels. This finding is not confirmed in this study and this is due to three reasons. First, the sample for this study is much smaller than used in Mank's study. Second, this study only includes young people aged 16–25 and the overall results are therefore more restricted. This is also linked to wages, with this younger group generally earning the National Minimum Wage, with little variation in the total wage. Third, the hours worked by young people in the Engage to Change project are skewed to the mid-lower end of the hours' distribution, meaning there is little variation compared with the Mank study.

8 | CONCLUSIONS

The findings of this study provide further evidence that employment support is required to transition young people with intellectual disabilities and/or autism into paid employment. The Engage to Change project provided young people with a wide variety of job opportunities, with a fair and above the national minimum wage pay rate. The project provided individually tailored employment support through vocational profiling procedures, job match, job carving, job training in the workplace and providing the correct reasonable adjustment to support inclusive employment practice. This programme achieved higher employment rates than typically seen within the population of people with intellectual disabilities and autism in England, Data in Wales are not currently available for this population so it is difficult to make a comparison here.

In conclusion, the approach to employment can be typical or atypical in the way someone is recruited, trained and the way they participate in the company. Job coaches have a role in adapting their practice to make sure that, despite the procedures being 'atypical' for the workplace, the outcome is 'a typical employment experience' and that the employee's work is living up to the employer's expectations and standards.

This study shows how the recruitment can be an 'atypical' process, when for instance reasonable adjustments were adopted by the employer to accommodate people's needs. For example, employers might have adopted easy read application forms, to make them accessible to everyone. Employers might have provided an in-work trial instead of a formal job interview. Alternatively, if an interview took place, the interview could have been supported by a job coach.

Job coaches provided support to achieve social participation in the workplace, decision-making, access to company activities and benefits. Future studies or programmes should investigate the specific roles, and how their support is functional to connecting the young person and the workplace culture.

The Welsh Government recognised the importance of job coaching support and the effectiveness of this type of support in a document describing the transition to employment needs across Wales (David, 2023). This approach, together with current research highlighting the importance of well-structured supported work experiences (Vigna et al., 2023), may inspire the way for other national governments.

AUTHOR CONTRIBUTIONS

Elisa Vigna: Literature review; data analysis; interpretation of data; drafting manuscript; editing after reviews. Andrea Meek: Data collection; critical review; final approval. **Stephen Beyer:** Design; critical review; editing; final approval.

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CONFLICT OF INTEREST STATEMENT

The authors have declared no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

REFERENCES

- BASE. (2023). Employment Rates for People with Disabilities 2021-22. Home | British Association for Supported Employment. (base-uk.org).
- Beyer, S., & Beyer, A. (2016). The economic impact of inclusion in the open labour market for persons with disabilities. https://www.easpd.eu/ fileadmin/user_upload/Publications/Beyer_study___Economic_Impact_of_ Inclusive_Labour_Markets.pdf
- Beyer, S., & Beyer, A. (2017). A systematic review of the literature on the benefits for employers of employing people with learning disabilities. Mencap 2017.080.1 LDW 2017 research paper DRAFT.indd (mencap.org.uk).
- Beyer, S., Jordán De Urríes, F. D. B., & Verdugo, M. A. (2010). A comparative study of the situation of supported employment in Europe. *Journal* of Policy and Practice in Intellectual Disabilities, 7(2), 130–136. https:// doi.org/10.1111/j.1741-1130.2010.00255.x
- Beyer, S., & Robinson, C. (2009). A Review of the Research Literature on Supported Employment: A Report for the cross-Government learning disability employment strategy team. http://SupportedEmployment, base-uk.org
- Bond, G. R., Drake, R. E., & Becker, D. R. (2012). Generalizability of the individual placement and support (IPS) model of supported employment outside the US. *World Psychiatry*, 11(1), 32–39. https://doi.org/ 10.1016/j.wpsyc.2012.01.005
- Chadsey, J., & Beyer, S. (2001). Social relationships in the workplace. Mental Retardation and Developmental Disabilities Research Reviews, 7(2), 128–133. https://doi.org/10.1002/mrdd.1018
- Chadsey, J. G., Linneman, D., Rusch, F. R., & Cimera, R. E. (1997). The impact of social integration interventions and job coaches in work settings. Education and Training in Mental Retardation and Developmental Disabilities, 32(4), 281–292.
- Chadsey-Rusch, J. (1992). Toward defining and measuring social skills in employment settings. American Journal of Mental Retardation, 96(4), 405–418.

- Chadsey-Rusch, J., Gonzalez, P., Tines, J., & Johnson, R. (1998). Social ecology of the workplace: Contextual variables affecting social interaction of employees with and without mental retardation. *American Journal of Mental Retardation*, 94, 141–151.
- Cramm, J. M., Finkenflügel, H., Kuijsten, R., & Van Exel, N. J. A. (2009). How employment support and social integration programmes are viewed by the intellectually disabled. *Journal of Intellectual Disability Research*, 53(6), 512–520. https://doi.org/10.1111/j.1365-2788.2009. 01168.x
- David, H. (2023). Transition to Employment. A report for the Welsh Government. http://Transitionstoemployment (gov.wales).
- Department for Education. (2022). Guidance: Supported Internships. https://www.gov.uk/government/publications/supported-internshipsfor-young-people-with-learning-difficulties/supported-internships
- Department for Work and Pensions. (2022). New Style Jobseeker's Allowance. http://New Style Jobseeker's Allowance – GOV.UK (www. gov.uk)
- Department of Health. (2001). Valuing People: A New Strategy for Learning Disability for the 21st Century.
- DFN Project SEARCH. (2023). DFN Project SEARCH: what we do. https://www.dfnprojectsearch.org/about-us/
- European Union of Supported Employment. (2010). European Union of Supported Employment Toolkit. http://EUSE-Toolkit-2010.pdf
- Government. (2022). National Minimum Wage and National Living Wage rates. http://National Minimum Wage and National Living Wage rates - GOV.UK (www.gov.uk)
- Hanley-Maxwell, C., Griffin, S., Szymanski, E. M., & Godley, S. H. (1990). Supported and time-limited transitional employment services. *Journal* of Visual Impairment & Blindness, 84(4), 160–166. https://doi.org/10. 1177/0145482X9008400403
- Hennessey, R. E., & Goreczny, A. J. (2022). Employment preferences of individuals with intellectual and developmental disabilities: An evaluation of gender and age differences. *Journal of Applied Research in Intellectual Disabilities*, 35(3), 878–888. https://doi.org/ 10.1111/jar.12992
- House of Commons Library. (2023). *Disabled people in Employment*. http: //Disabled people in employment - House of Commons Library (parliament.uk).
- Jenaro, C., Mank, D., Bottomley, J., Doose, S., & Tuckerman, P. (2002). Supported employment in the international context: An analysis of processes and outcomes. *Journal of Vocational Rehabilitation*, 17, 5–21.
- Kaehne, A., & Beyer, S. (2011). "Stroppy" or "confident"? Do carers and professionals view the impact of transition support on young people differently? British Journal of Learning Disabilities, 39(2), 154–160. https://doi.org/10.1111/j.1468-3156.2010.00642.x
- Kirchner, J. C., & Dziobek, I. (2014). Toward the successful employment of adults with autism: A first analysis of special interests and factors deemed important for vocational performance. *Scandinavian Journal of Child and Adolescent Psychiatry and Psychology*, 2(2), 77–85. https:// doi.org/10.21307/sjcapp-2014-011
- Learning Disability England. (2022). *Good Lives: Building Change Together*. http://The_Good_Lives_Framework-9.3.22.pdf (learningdisabilityengland.org.uk)
- Lofland, J., & Lofland, L. H. (1984). Analysing social settings: A guide to qualitative observation and analysis. Wadsworth.
- Mank, D., Cioffi, A., & Yovanoff, P. (1997). Analysis of the typicalness of supported employment jobs, natural supports, and wage and integration outcomes. *Mental Retardation*, 35(3), 185–197. https://doi.org/ 10.1352/0047-6765(1997)035<0185:AOTTOS>2.0.CO;2
- Mank, D. M., & Buckley, J. (1989). Strategies for integrated employment. In W. E. Kiernan & R. E. Schalock (Eds.), *Economics, industry, and disability: A look ahead* (pp. 319–335). Baltimore Brookes.
- Nicholas, D. B., Attridge, M., Zwaigenbaum, L., & Clarke, M. (2015). Vocational support approaches in autism spectrum disorder: A synthesis

review of the literature. Autism, 19(2), 235-245. https://doi.org/10. 1177/1362361313516548

- Office for National Statistics. (2022). Outcomes for disabled people in the UK:2021. https://www.ons.gov.uk/peoplepopulationandcommunity/ healthandsocialcare/disability/articles/outcomesfordisabledpeopleintheuk/ 2021
- Robertson, J., Beyer, S., Emerson, E., Baines, S., & Hatton, C. (2019). The association between employment and the health of people with intellectual disabilities: A systematic review. *Journal of Applied Research in Intellectual Disabilities*, 32, 1335–1348.
- Rutkowski, S., Daston, M., Van Kuiken, D., & Riehle, E. (2006). Project SEARCH: A demand-side model of high school transition. *Journal of Vocational Rehabilitation*, 25(2), 85–96.
- Scoppetta, A., Davern, E., & Geyer, L. (2019). Job carving and job crafting. A review of practices. Europenan Commission. http://KE-01-19-557-EN-N.pdf, base-uk.org
- Shafer, M. S., Wehman, P., Kregel, J., & West, M. (1990). National supported employment initiative: A preliminary analysis. *American Journal of Mental Retardation*, 95(3), 316–327.
- Storey, K. (1992). The impact of technology on assessing social skills. Journal of Special Education Technology, 11(4), 189–195. https://doi.org/ 10.1177/016264349201100403
- Stratton, E., Glozier, N., Woolard, A., Gibbs, V., Demetriou, E. A., Boulton, K. A., Hickie, I., Pellicano, E., & Guastella, A. J. (2023). Understanding the vocational functioning of autistic employees: The role of disability and mental health. *Disability and Rehabilitation*, 45(9), 1508– 1516. https://doi.org/10.1080/09638288.2022.2066207

- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. International Journal of Medical Education, 2, 53–55. https://doi.org/10. 5116/ijme.4dfb.8dfd
- Vigna, E., Beyer, S., & Meek, A. (2023). A demographic and qualitative analysis of the determinants of success in a National Supported Employment project. *Journal of Applied Research in Intellectual Disabilities*, 36, 787–795. https://doi.org/10.1111/jar.13094
- Wehman, P., & Kregel, J. (1985). A supported work approach to competitive employment of individuals with moderate and severe handicaps. *The Journal of the Association for Persons With Severe Handicaps*, 10(1), 3–11. https://doi.org/10.1177/154079698501000101
- Wehman, P., Schall, C., McDonough, J., Molinelli, A., Riehle, E., Ham, W., & Thiss, W. R. (2013). Project SEARCH for youth with autism spectrum disorders: Increasing competitive employment on transition from high school. Journal of Positive Behavior Interventions, 15(3), 144–155. https://doi.org/10.1177/1098300712459760

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