

Bangor University

DOCTOR OF PHILOSOPHY

Coaching special education and social enterprise staff to support engagement in meaningful activities and develop vocational skills for young adults with intellectual and developmental disabilities.

Evans, Ceridwen

Award date:
2023

Awarding institution:
Bangor University

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.



PRIFYSGOL
BANGOR
UNIVERSITY

Prifysgol Bangor

Bangor University

Coaching special education and social enterprise staff to support engagement in meaningful activities and develop vocational skills for young adults with intellectual and developmental disabilities.

Ceridwen Ana Evans

Thesis submitted to the School of Educational Sciences, Bangor University, in partial fulfilment for the degree of Doctor of Philosophy

October 2022

Declaration

‘Yr wyf drwy hyn yn datgan mai canlyniad fy ymchwil fy hun yw’r thesis hwn, ac eithrio lle nodir yn wahanol. Caiff ffynonellau eraill eu cydnabod gan droednodiadau yn rhoi cyfeiriadau eglur. Nid yw sylwedd y gwaith hwn wedi cael ei dderbyn o’r blaen ar gyfer unrhyw radd, ac nid yw’n cael ei gyflwyno ar yr un pryd mewn ymgeisiaeth am unrhyw radd oni bai ei fod, fel y cytunwyd gan y Brifysgol, am gymwysterau deuol cymeradwy.

Rwy'n cadarnhau fy mod yn cyflwyno'r gwaith hwn gyda chytundeb fy Ngoruchwyliwr (Goruchwylwyr)’

‘I hereby declare that this thesis is the results of my own investigations, except where otherwise stated. All other sources are acknowledged by bibliographic references. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree unless, as agreed by the University, for approved dual awards.

I confirm that I am submitting this work with the agreement of my Supervisors.’

Funding

This thesis was conducted with the financial support of the Knowledge Economy Skills Scholarships (KESS 2), through the European Social Fund, and part-funded by three company partners:

- * Antur Waunfawr (social enterprise company partner),
- * Ysgol Hafod Lon (special education school company partner) and,
- * Ysgol Pendalar (special education school company partner).

Further information on KESS2 and all three company partners can be found in the 'Introduction to company partners' section on page 14.

Publications

A empirical study from this thesis has been reported in the following journal article:

Evans, C. A., Toogood, S., Owen-Leeds, S., Dwyfor, L., Jorammanawar, S., Issa, N., & Hughes, J. C. (2021). Adapting ‘Active Support Interactive Training’ to a special school context; To up-skill classroom staff and increase engagement in pupils. *British Journal of Special Education* 48(3), 369-392 <https://doi.org/10.1111/1467-8578.12380>

Conferences

Data and literature from this thesis have been disseminated at the following conferences:

Oral presentations:

- * Inclusive and Supportive Education Conference (ISEC), UCL, *virtual*, August 2021
- * North Wales Active Support Community of Practice (invited guest speaker), *virtual*, November 2020

Poster presentations:

- * International Association for the Scientific Study in Intellectual and Developmental Disabilities (IASSID), Glasgow, UK, August 2019
- * Early Career Researcher in Intellectual Disability Event, European Analysis of Behaviour Group (EABG), London, UK, April 2019
- * School of Psychology PhD Winter Conference, Bangor University, Bangor, Wales, UK, November 2018
- * CaBan Initial Teacher Training Conference, Llandudno, UK, June 2018

Acknowledgements

To start, I must first express my sincere gratitude to my two incredible supervisors, Prof Carl Hughes and Prof Sandy Toogood. To Carl, thank you for continuously providing me with a stable support system, for your faith in my abilities to develop as a researcher, and for always affording me with countless opportunities to develop myself as an academic and as a person. To Sandy, your insightful guidance has always been invaluable and I cannot thank you enough for going above and beyond throughout this PhD. The unwavering determination you both possess around improving the quality of life for people with intellectual and developmental disabilities has taught me the importance of keeping this focus front and centre in any work I do going forward, so thank you for instilling that values-base within me. It has been a privilege to have been supervised by you both and I hope to have the opportunity to work with you both again in the future.

I also wish to extend a great thank you for the emotional and practical support received from all three of my company supervisors. Ellen, Donna and Bethan, you have all shown me the dedication and resilience needed to instigate meaningful change within organisations and I do hope this work is of valuable use to you, to staff, and to the students and individuals you support. Thank you also to those who gave their time to participate or support this project. To the students and adults who discussed their lived experience, to the special education, supported employment and social enterprise staff, and to the behaviour analysts who supported in several ways, thank you sincerely! In particular, a significant thank you to Dr Gemma Griffith whose support was invaluable in the qualitative pieces.

I would also like to thank my colleagues at both Bangor University and at the Tizard Centre. I have been lucky enough to work with two incredible teams of academic practitioners and have learnt more than I thought possible from every colleague. To my old Bangor office mates, Arwel and Def, diolch am y gefnogaeth, rhannu straen PhD ac am drio

fy nghael i siarad Cymraeg (un diwrnod bydd yn digwydd...). A special thanks also to Suzy and Josie for their friendship and for making me feel so at home when I'm so far from home, and to Serena, Thanos, Blossom and Vivi for constantly being a source of humour and support.

My PhD journey would not have been half as manageable if it weren't for the abundant love from friends. To Rhi and Tom, meeting you both has been one of the greatest things to happen to me. We've grown up and experienced every type of emotion together over the past 10-years and I am looking forward to seeing what this next chapter of life brings for us all. To Pete, Sam, Charlie, Hannah, Kate, Lani and Lou thank you for your friendship, stress-relieving mountain walks, and cold-water lake swims. To my amazing and oldest friend Danielle and my beautiful goddaughter Ruby thank you for always reminding me of who I am and what's important in life. And to Karen, I trust you know the influence you had on us all, the joy you brought into our lives and how instrumental you were in creating a life of quality and happiness for so many. I hope you're forever sailing in perfect, peaceful conditions.

To all my family, I couldn't have done this without all of you. To my brother Joey, thank you for everything you have done for me throughout my life. I look forward to watching you navigate adult life and I'll be there every step of the way to support you. And finally to my wonderful parents. To my third supervisor and ever wise dad and to my beautiful, clever mum thank you for always supporting me in every opportunity I wished to pursue and for expertly guiding my early head-strong mindset of "I do what I want to do, when I want to do it" from a purely hedonistic-one into one which has room to accommodate and care for others. Your continuous love, honesty, and acceptance has given me the confidence to explore whichever path I wish, and I dedicate this thesis to you both. I love you.

List of Tables and Figures

All tables and figures are numbered in terms of the chapter in which they appear. They are numbered as table or figure x.y., with x referring to the chapter number, and y, the order that the table or figure is presented within that chapter.

Tables:

Table 3.1. Special Education Staff job-role demographics

Table 3.2. Social Enterprise Staff job-role demographics

Table 3.3. Supported Employment Staff job-role demographics

Table 4.1. Attendee feedback questionnaire

Table 4.2. Sample comments from narrative section of feedback questionnaire

Table 4.3. Interval recording data taken during pre- and post-coaching observations

Table 4.4. Narrative recording data

Table 4.5. Staff feedback questionnaire: Interactive Training evaluation form

Table 5.1. Special education teacher feedback questionnaire

Table 5.2. Behaviour specialist feedback questionnaire

Table 5.3. Behaviour specialist narrative comments

**Further tables are included within the individual appendices for each chapter (e.g. thematic framework tables).*

Figures:

Figure 4.1 Collective engagement scores for pupils per Setting upon introduction of Interactive Training for staff

List of Appendices

The English versions of all participant information sheets and consent forms have been included within the relevant appendices.

Appendix A: Chapter 3, Study 1a.

- i. Ethical Approval, Psychology Ethics and Research Committee, Bangor University
- ii. Information sheet for parents/guardians and consent form
- iii. Participant information sheet for students and adults (easy-read)
- iv. Consent form for students and adults (easy-read)
- v. Semi-structured questions for students focus groups
- vi. Semi-structured questions for interviews with adults with intellectual disabilities
- vii. Final Thematic Frameworks per individual group:

Table 3.4: Students in special education

Table 3.5: Adults with intellectual disabilities

Appendix B: Chapter 3, Study 1b.

- i. Ethical Approval, Psychology Ethics and Research Committee, Bangor University
- ii. Participant information sheet and consent form for staff
- iii. Questions for Study 1b. focus groups
- iv. Final Thematic Frameworks per individual group type:

Table 3.6: Special Education Staff

Table 3.7: Social Enterprise

Table 3.8: Supported Employment

Appendix C: Chapter 4, Study 2.

- i. Ethical Approval, Psychology Ethics and Research Committee, Bangor University
- ii. Parent/guardian information sheets and consent form
- iii. Direct observation data sheets for pupil engagement measurement inc.
topographical definition of 'engagement' behaviour
- iv. Adapted Interactive Training materials: Support and Lead Trainer data sheets for
observations during training session
- v. Retrospective procedural fidelity checklist of the entire research protocol (inc.
Interactive Training steps).
- vi. Raw data and data analysis:

Table 4.6. Raw data for pupil engagement measurement

Appendix D: Chapter 5, Study 3.

- i. Ethical Approval, School of Education Research Ethics Committee, Bangor
University
- ii. AS-WorkS pilot feedback questionnaire for teachers
- iii. AS-WorkS pilot feedback questionnaire for behaviour analysts
- iv. Excerpts of final working version of AS-WorkS online module
- v. Accompanying Resource
- vi. Supervisor Resource

Contents

Declaration.....	1
Funding	2
Publications.....	3
Acknowledgements.....	4
List of Tables and Figures.....	6
List of Appendices	7
Thesis Summary.....	12
Introduction to company partners	14
Chapter 1: General Introduction	17
Intellectual and other Developmental Disabilities, and the social model of disability	20
Key legislation, national developments and policies for advancing the rights of people with intellectual disabilities.....	23
Deinstitutionalisation and community living	27
Active Support and enhancing quality of life for people with intellectual disabilities	30
Quality of life	42
Employment for people with intellectual disabilities.....	45
Evidence-based, behaviour-analytic strategies for teaching skills to people with intellectual disabilities.....	56
Evidence-base for teaching vocational skills and work-related social skills to people with intellectual disabilities.....	62
Staff training methods and considerations	65
Chapter 2: Methods	72
Qualitative methods.....	73
Direct observation and single-case experimental designs.....	79
Consent, confidentiality, and ethical considerations intertwined.....	90

Chapter 3: Study 1a. and Study 1b.	96
Chapter 3 Preface	97
Study 1a. “Social Enterprises as a source of meaningful work and opportunity to expand social networks: lived experiences from people with intellectual disabilities”.	98
Abstract	100
Introduction	101
Methods	106
Results	109
Discussion	114
Study 1b. “Supporting access to employment and development of meaningful vocational and social skills for young adults with intellectual disabilities: Perspectives of special education, social enterprise, and supported employment staff”	120
Abstract	123
Introduction	124
Methods	128
Results	133
Discussion	143
Chapter 4: Study 2	150
Study 2. “Adapting Active Support Interactive Training to a special school context to upskill classroom staff and increase engagement in pupils”	151
Abstract	Error! Bookmark not defined.
Introduction	Error! Bookmark not defined.
Methods	Error! Bookmark not defined.
Results	Error! Bookmark not defined.
Discussion	Error! Bookmark not defined.

Chapter 5: Study 3: Final Report.....	158
Study 3. “Upskilling staff to develop vocational and job-related social-skills for the workplace in young adults with intellectual disabilities: Initial collaborative development of the <i>Active Support: WOrkS Module</i> . Final Report”.....	159
Introduction	162
Phase 1: Skeleton of resource based on prior stakeholder research.....	167
Phase 2: Collaborative development and design of the module.....	168
Methods: Validity Pilot	173
Results: Validity Pilot	176
Discussion	181
 Chapter 6: General Discussion	 186
Broad overview of the thesis aims and empirical chapters	187
Chapter 3, Study 1a and Study 1b.....	187
Chapter 4, Study 2.....	189
Chapter 5, Study 3.....	191
Limitations not previously addressed, and suggestions for future research.....	196
Reflections on PhD, and future aims.....	207
 References.....	 208
Appendices.....	245
Appendix A: Chapter 3, Study 1a.	246
Appendix B: Chapter 3, Study 1b.	275
Appendix C: Chapter 4, Study 2	292
Appendix D: Chapter 5, Study 3	308

84,332 words.

Thesis Summary

Working alongside two special education schools and a social enterprise offering work placements for adults with intellectual and developmental disabilities, the primary aim of this body of work was to co-develop and evaluate various training methods for support staff to help them to better support the development of vocational and work-related social skills for those they supported. The training methods utilised were theoretically under-pinned by behavioural science and principally drew upon the model of Active Support; a model which aims to improve the quality of life, quality of support, and increase engagement in meaningful activities and relationships for people with moderate to severe intellectual disabilities.

The general introduction (**Chapter 1**) provides an overview of numerous relevant areas that informed this thesis, including history, context around advancing the rights of people with intellectual disabilities, access to community living and open employment, and the evidence-based practices that can be utilised to develop skills for the workplace. Furthermore, this chapter explores methods for the coaching and training of support staff, and considerations needed toward training staff teams in evidence-based practices.

The second chapter (**Chapter 2**) provides a brief introduction on the different research methodologies used throughout this thesis, including single-case experimental design and qualitative methods.

The first empirical chapter (**Chapter 3**) details two qualitative studies, both aimed at exploring multiple stakeholder perspectives and experiences around employment in both closed- and open-employment settings for people with intellectual disabilities. The aims of this work were to firstly, identify the core vocational skills and work-related social skills people with intellectual disabilities need to be successful in work, and secondly, to then use information gathered to help inform the design of a later staff training package.

The third empirical study (**Chapter 4**) focused on upskilling special education classroom staff in ways to increase student engagement during classroom-based activities; in preparation for learning. This was carried out utilising the model of Active Support. To do this, we adapted the staff-training package, *Interactive Training for Active Support*, from its adult service intended design into a training procedure that would have a feasible and cost-effective fit within a special school context.

Upon completion of this study, it was initially intended that the next step would be to target vocation and work-related social skills for young adults with intellectual disabilities. This was planned to be accomplished through the development and use of a co-designed novel staff-training package called the “AS: WOrkS - Active Support: *Work and Organisational Skills for Success - Manual*” (**Chapter 5**). However, due to the Covid19 pandemic, and the restrictions this placed, the package was redesigned into an online-format. The “AS: WOrkS *Online Module* for support staff” was thus created, and aimed to give staff working in either special education or social enterprise settings an introduction to the various ways in which they could implement and maintain an Active Support intervention (through use of Structured Learning Scripts and data collection/graphing etc.), promote the need to foster employment aspirations in community settings, and facilitate opportunities to expand social networks throughout the life-span of workers with intellectual disabilities.

The general discussion (**Chapter 6**) then focuses on the research implications arising from this set of empirical studies and offers future suggestions in relation to the entire body of research, including reflections on the strengths and limitations of the thesis as a whole.

Introduction to company partners

Knowledge Economy Skills Scholarships (KESS 2) provide opportunities for funded PhD study in collaboration with an active business or company partner, including micro companies, large companies, third sector organisations, and social enterprises (KESS 2, n.d.).

For this PhD project, three company partners were involved. These were, the social enterprise Antur Waunfawr and two special education schools, Ysgol Hafod Lon and Ysgol Pendalar; all local to Bangor University and all services providing support for children, young adults, and adults with Intellectual and Developmental Disabilities (IDD).

Due to the collaborative nature of this PhD what follows next is a brief introduction to the three company partners, so that the reader can familiarise themselves with the aims, objectives, and values-base of each company partner, and appreciate how these were accounted for when designing the following close-to-practice research.

Antur Waunfawr

The largest funding partner of the three was the social enterprise Antur Waunfawr. Antur Waunfawr is a Gwynedd-based enterprise which aims to provide employment and training opportunities for people with IDD within the enterprise setting. At the time of writing, the company hires over 100 staff and supports over 65 adults with IDD; the majority of whom participate in a wide range of work-programmes. The company also offers a separate activity and support-based service for adults with profound and complex needs.

There are four main sites which the company runs, all of which provide opportunities and work-programmes for adults with IDD; and all of which are based within the local community and nearby towns. One of the key future aims of the company is that of the promotion and development of person-centred planning models, and specifically the continuous maintenance and application of Active Support. Staff working at Antur Waunfawr receive training in Active Support (and specifically the staff-training method of Interactive

Training which will feature as a main component in Chapter 4 of this thesis), typically provided by the local council. Staff are therefore familiar with the concept of the model and how their own behaviour can impact the independent development of the individuals with IDD whom they are supporting.

Ysgol Hafod Lon

Ysgol Hafod Lon is a daily special education school for pupils aged between 3-19 years of age with additional learning needs, including severe and complex support needs. The mission statement of Ysgol Hafod Lon states that “in partnership with the home and the community, [Hafod Lon] strives to provide exciting and challenging excellent education and learning within a happy and supportive environment” (Hafod Lon, 2021, p. 12). Ysgol Hafod Lon has, several years prior to this project, established strong research and development links to Bangor University and as a consequence, has adopted several evidence-based practices within many classrooms. This has included hiring internal full-time behaviours analysts (many of whom are board-certified with the BACB (Behavior Analyst Certification Board)) to correctly implement behaviour-analytic interventions and supports and bring about school-wide behaviour change (Hafod Lon, 2021).

Ysgol Pendalar

Working closely with Ysgol Hafod Lon in many areas, Ysgol Pendalar is another day special education school for pupils between the ages of three-19 years with additional learning needs (Ysgol Pendalar, 2021). The ‘School Aims’ of Pendalar set out the foundation and guidelines for the work, ethos, and development of the school, and are summarised as follows; 1) Educate every child so that he or she reach their full potential inc. education, physical, emotional, cultural and social development, 2) Encourage and teach pupils how to enjoy and make a purposeful contribution to the community and society, and 3) to assist the transition from children to adulthood within the community (Ysgol Pendalar, 2021).

Ysgol Pendalar also hires internal behaviour analysts and has a full-time team who work on implementing and maintaining behaviour-analytic interventions and supports throughout the school (Ysgol Pendalar, 2021).

Post-16 Classrooms within Ysgol Hafod Lon and Ysgol Pendalar

For both schools, this PhD project was specifically tied into the ‘post-16’ classrooms (of which there were three; 2x in Pendalar, 1x in Hafod Lon), which supported students between the ages of 16-19-years. All three of the classrooms focused their curriculums on employability, transition to adulthood, and the development of independent living skills in preparation for students graduating school and leaving other forms of child-services in their personal lives too. The following body of work therefore focuses on this age-group, as well as the adults with intellectual disabilities working at Antur Waunfawr.

Note on the *Welsh Language*, and considerations to companies taken throughout this work

All three company partners are primarily Welsh speaking, reflective of the dominant use of the Welsh language within the specific geographical area which this research was conducted in. Nearly all staff and people with IDD who work or attend these services are first-language Welsh-speaking, and choose to speak in Welsh in preference to English.

Therefore, throughout this work, every effort was made to promote the use of the Welsh language where possible. For example, in the translation of all documents being sent out to participants, and using Welsh translators during data collection, i.e., the interviews with pupils, so that those who wished to answer in Welsh could. The Welsh-versions all of relevant documents for each research study (consent forms, information sheets etc.) have been included in their respective chapter appendices.

Chapter 1: General Introduction

A note on language

Language is an important tool in framing a person's attitudes and opinions, particularly around certain social phenomena and diagnostic labels. Words also have the power to elicit, or mitigate against, strong emotional reactions. Throughout this thesis every effort has been made to use the most appropriate terminology; although this work may not always get it right, due to the ever-changing nature of acceptable language, and strongly debated and contested use of certain terms to use when talking about people with intellectual and developmental disabilities.

From here out, where intellectual disability is concerned, the use of person-first language (i.e., person with intellectual disability) will be used throughout, including for children and young adults, due to reports indicating this as the most preferred term (NHS England, n.d.). Where autism is concerned, the use of positive identity-first language (i.e., autistic person) will be used throughout, including for children and young adults, due to research indicating that many autistic individuals prefer this use of language (Kenny et al., 2016; Botha, Hanlon & Williams, 2021); opposed to person-first language which is more commonly used amongst professional circles. Where an autistic person may have an intellectual disability, the clear distinction of 'autistic person with an intellectual disability' will be made, to make it clear that the two are different diagnoses. The terms 'Autistic Spectrum Disorder' and 'Autistic Spectrum Condition' will not be used due to the medical model connotations associated with disorder and condition (Milton, 2012), instead simply 'Autism' will be used if needed.

Even though this thesis does not focus upon behaviours that challenge, where relevant, the use of the term 'behaviours that challenge' will be used, as it attempts to: i. Reflect the notion that it is the behaviour that is challenging, not the person themselves, ii. Recognises that the behaviour can increase risks of negative impacts (restrictive practice,

seclusion etc.) for the person and those around the person, and iii. Acknowledges that behaviours that challenge are a social construct influenced by social rules, cultural beliefs and differences, and societal capacity to manage the behaviour (Jones, 2019).

Terms such as ‘neurotypical’, ‘neurodiverse’, ‘neurodivergent’, ‘non-autistic’ and ‘traits’ or ‘characteristics’ will also feature; and ‘treatment’ will be replaced by ‘intervention’ where possible to remove connotations, stemming from the medical model of disability, around ‘treating’ individuals of certain disabilities and diagnoses (Shakespeare, 2006).

Preface to the chapter

This thesis sat between two distinct areas of provision; that of the educational field for 16-19-year old young adults with intellectual disabilities, and that of the field of community living and employment for young adults and adults with intellectual disabilities.

It was therefore deemed important to provide an introduction to all relevant theories, models, research, and policies that have influenced and underpinned the following research. The introduction begins with historical context, theories, models and research focusing upon young adults and adults with intellectual disabilities living in residential settings in the community, and those who are accessing work in either open- or closed-employment settings. Then, the introduction introduces educational contexts, in particular young adults in special education schools gearing up for leaving school; with particular focus on several evidence-based methods for teaching vocation and work-related social skills, and methods for training staff in said skills.

Intellectual and other Developmental Disabilities, and the social model of disability

Intellectual disability

Intellectual disability is defined as a significant impairment of Intelligence Quotient (IQ) and significant deficits in adaptive behaviours, with onset during the developmental period of a person's life (Carr & O'Reilly, 2007). A recent briefing paper from the House of Commons Library (Parkin et al., 2020) reported that over 1.2 million people in England have an intellectual disability (notably only for England, and not Wales, Scotland or Northern Ireland due to limited data-sharing from these countries).

This thesis centres around adapting the environment that people with intellectual disabilities spend much of their time, and supporting those people to develop vocational and work-related social skills which are meaningful and important to them; through coaching staff to change their own behaviour and support style. Therefore, there will be no focus or exploration in this introduction around the medical diagnosis of intellectual disability, as the aim of this thesis is to explore ways of creating change at a societal level opposed to a genetic, biological level of a person.

The term intellectual and other developmental disabilities (IDD) is a phrase used to describe intellectual disabilities, autism and other developmental disabilities. The abbreviation of 'IDD' will be used throughout this thesis but for this thesis does not include autistic people without an intellectual disability.

Autism

Autism is regarded as a difference in a person's neurological developmental that affects executive functioning, processing of information, communication, and organisation for that autistic person (Beadle-Brown & Mills, 2018). There exists a varied picture of the prevalence of autism internationally, however variation may be related to differences in

diagnostic rates and processes across countries, alongside a broadening of criteria for diagnosis (Russell et al., 2021). In the United Kingdom (UK), recent data suggests the current prevalence rate of autism is approximately one in 100 people (HM Government, 2021).

It is important to note that this thesis did not focus upon or recruit participants that were autistic and did not have an intellectual disability, as criteria was set that all participants must have either a sole or co-occurring intellectual disability. It is however increasingly common that autistic people with an intellectual disability will have their needs associated with their autism overlooked by those supporting them, as a form of diagnostic overshadowing in which the focus is solely on the intellectual disability (Beadle-Brown & Mills, 2018). For example, recent frameworks have indicated that a key feature of autism is sensory sensitivities, whereby a person can experience being hyper (over) sensitive to sensory stimuli and/or hypo (under) sensitive to sensory stimuli (Beadle-Brown & Mills, 2018). Without consideration of the sensory processing difficulties that a person may be facing, those supporting that person may not understand the importance of adapting the environment, that that person spends much of their time in, to create a low arousal environment.

Therefore, despite a primary focus on coaching staff to better support people with intellectual disabilities in this thesis, where relevant attention and considerations will be made for autistic people who also have an intellectual disability, and the different needs they may have.

The social model of disability

Two dominant models that concern disability exist today (although there are others too); these are the medical model of disability and the social model of disability (Bogart et al., 2022). Both models consist of differing ideologies regarding the emphasis put onto cause,

treatment and nature of disability, with research demonstrating that exposure to either model can influence the attitudes people hold toward people with disabilities (Bogart et al., 2022).

The medical model of disability locates the problem of the disability as being within the person, and distinctly, sees the causes of this problem as stemming from the limitations that have been assumed to arise from the disability; therefore much of the intervention research focuses on ‘fixing’ or ‘curing’ the person of their disability (Oliver, 1990). Despite it’s highly problematic ideology, the medical model still persists in different societies and cultures, and continues to be a prevalent disability model in Western culture (Bogart et al., 2022). The medical model was developed by professionals working across various fields, of whom many had no support needs or type of disability (Oliver, 1990).

In stark contrast, the social model of disability was developed by and for people with disability and centres around the idea that the problems faced by people with disabilities are due to external factors and society, opposed to the disability itself (Oliver, 2013). As Oliver notes, the social model of disability was originally created based upon the Fundamental Principles of Disability document first published in the mid-1970’s, which argued that people with disabilities were not disabled by their impairments but were rather disabled by societal barriers (2013). The social model of disability recognises that attitudes held by people who do not have a disability are the cause of barriers and challenges to participation in society for those with a disability. As stated in the preamble of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD); “disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others” (United Nations 2007, item 5).

This thesis is based solely on a social model of disability stance.

Key legislation, national developments and policies for advancing the rights of people with intellectual disabilities

Valuing People and Valuing People Now (Department of Health, 2009)

Across the last ~60 years a number of key legislation has been published with the aim of establishing both civil and human rights for people with disabilities. To draw upon some of the key pieces from the 21st century, we begin with the 2001 White Paper ‘Valuing People; A New Strategy for Learning Disability for the 21st Century’ (Department of Health, 2001). White Papers are policy documents produced by the Governments that set out their proposals for future legislation (UK Parliament, 2022).

The ‘Valuing People’ White Paper set out four key principles that conferred equal rights to all people with intellectual disabilities: Rights, Independence, Choice, and Inclusion. The white paper went onto report difficulties faced by people with intellectual disabilities at that time (2001), which focused upon social exclusion, inconsistency with service provision, and management of services. Within ‘social exclusion’ there appeared a short paragraph on ‘employment’ detailing that despite many people with intellectual disabilities aspiring to work, less than 10% were employed and most were still heavily reliant on social security benefits (Department of Health, 2001).

Eight years later, an updated version titled ‘Valuing People Now: a new three-year strategy for people with learning disabilities’ (2009) was released, outlining the outcomes that the Government wished to enact for people with learning disabilities. This strategy reiterated the initial Valuing People (2001) white paper, but urged for more rapid implementation of plans and strategies, particularly focussing upon improvements with respect to employment, housing and health. The strategy further identified the importance of

local Learning Disability Partnership Boards in effecting change at a local rather than national level (Department of Health, 2009).

The Mental Capacity Act (Department of Health, 2005)

In between the two Valuing People now strategies was the release of the key legislation, ‘The Mental Capacity Act’ (2005). For Wales and England, the Mental Capacity Act (MCA) applies to everyone involved in the care, treatment and support of people aged 16 years and over, who are unable to make all or some decisions for themselves (Department of Health, 2005). The MCA was designed to protect and restore power to those who lack capacity to make fully informed decisions, and also support those who do have capacity to make such decisions and plan for their future. A person’s capacity can be assessed by a range of people caring for or supporting that person, through the use of a ‘two-stage functional test of capacity’. These stages involve the person/people caring or supporting the person to answer two questions: *Stage 1*: Is there an impairment of, or disturbance in, the functioning of a person’s mind or brain? If so, *Stage 2*: Is the impairment or disturbance sufficient that the person lacks the capacity to make a particular decision?

The MCA goes on further to state that a person is unable to make their own decisions if they cannot do one or more of the following: 1. Understand information given to them, 2. Retain that information long enough to be able to make the decision, 3. Weigh up the information available to make the decision, 4. Communicate their decision (this could be through talking, sign language or other means) (Department of Health, 2005).

United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2007)

The United Nations (UN) had argued for many years that a shift towards a human rights perspective, opposed to a civil rights perspective, was needed in advancing the rights and subsequent quality of life for people with disabilities (Verdugo et al., 2012). This in turn

led to the development of the United Nations Convention on the Rights of People with Disabilities (UNCRPD; United Nations, 2007), which was the first demonstration of the development of an act with active participation from organisations for people with disabilities. The UNCRPD builds on previous international conventions and works within existing UN treaties, opposed to creating a new set of rights. It essentially provides an extra framework and mechanism for ensuring and obligating signatory states to promote the rights listed for people with disabilities. Strengths of the UNCRPD include an array of rights - 40 articles - around aspects such as equality, accessibility, justice, and education; and marked a major shift in disability ideology in which those with a disability were seen as people who were capable of claiming their rights, opposed to passive recipients of social care and protection.

One of the main drivers of the development of the UNCRPD was the invisibility of people with disabilities in their own local communities, therefore achieving independent living was a critically important component of the convention (Owuor et al., 2017). Article 19 of the convention lays out the expectations around 'Living independently and being included in the community' (United Nations, 2007). This article lists action points such as that people with disabilities should be afforded the opportunity to choose their place of residence, that they should have access to a range of in-home, residential and other community support services, be prevented from isolation or segregation from the community and that they have access to facilities that are the same as for those without disability (United Nations, 2007).

Another article which focuses upon inclusion of people with disabilities as contributing members of a community is Article 27 of the UNCRPD. Article 27 focuses upon 'Work and employment'. The article lists 11 action points that countries must aim toward and implement into existing societal systems. The article refers to action points such as ensuring

that employers and alike promote employment opportunities and career advancement for all persons in what they term as the ‘labour market’. To highlight at this point, as this thesis is focusing primarily on people with intellectual and developmental disabilities, opposed to people with disabilities that do not have intellectual or developmental disabilities, the use of the term ‘community/open employment’ will be used throughout this thesis to further distinguish between closed, segregated employment/placements and open, community employment (full definitions of employment types will be introduced later).

As of May 2022, 185 countries have ratified to the convention (United Nations, n.d.). However, ongoing challenges still persist in the implementation of the convention across ratified states. Many action points included in the convention require large reconfiguration of traditional services, which may initially be resistant to change and/or lack the infrastructure required for such large change (Joint Committee on Human Rights, 2012).

Wales Learning Disability Strategic Action Plan 2022 to 2026

In Wales, the Welsh Government has recently – 24th May 2022 - published a strategic action plan for developing and implementing learning disability policy from 2022 to 2026 (Welsh Gov., 2022). There is due to be an accompanying delivery plan that will lay out specific action points and timelines for achieving each commitment, although the release date of such a plan has not been stated at time of writing.

Included within the plan are nine ‘priority areas’, two of which are ‘Facilitating independent living and access to services through increased access to advocacy and self-advocacy skills, engagement and collaboration’ and ‘Housing’. For the area of facilitating independent living (number 4), three strategic priority areas exist, with the first (4.1) around promoting choice and control for people with intellectual disabilities, the second (4.2) around using digital technology to maximise engagement and improve social connections, and lastly

(4.3), exploring ways in which friendships and relationships can be better supported and developed. For ‘Housing’ these include ensuring people with intellectual disabilities can exert more control and choice in where they live and who they live with in community housing, supported living and/or private tenancies (Welsh Gov., 2022).

Another priority area listed one the plan is, ‘Employment and skills’ (item 6), which includes two strategic priority areas: 6.1., “to support improved access to employment, training and support for people with learning disabilities to enter and remain in the workplace”, and 6.2., “supported apprenticeships” (pp.15-16). For number 6.1. this will be achieved by developing appropriate employment policies that incorporate the needs of people with an intellectual disability, with the strategic plan stating that the outcome of which will be greater employment opportunities (Welsh Gov., 2022). For 6.2., supported apprenticeships will be achieved through supporting people to access apprenticeship schemes with support provided throughout the lifetime of the scheme, with the outcome being to achieve and maintain above 10% apprenticeship starts. Other areas of the plan, not directly linked to employment, such as ‘Friendships and Relationships’, to reduce ‘Loneliness and Isolation’ and to improve and promote ‘Wellbeing’, are all outcomes demonstrated to be ameliorated through employment (Jahoda et al., 2007; Robertson et al., 2019). It will interesting to observe how the Welsh Government enacts the strategic plan and achieves its stated outcomes over the next four years.

Deinstitutionalisation and community living

To begin this section, and as a prelude into the model of Active Support, the history behind deinstitutionalisation and community living for adults with intellectual and developmental disabilities will be outlined. This area is relevant due to the transitional age of students featured in the following empirical chapters, most of whom were aged between

16-19 years old and gearing up for the move into adult community settings, alongside finding employment in the community.

Deinstitutionalisation

Prior to the late 1960's, people with an intellectual disability were routinely sent to live in institutions, which resulted in people living in environments that were barren and void of meaningful activity, where abuse was rife and an accepted part of staff culture, and where people were isolated and hidden away from their communities (Beadle-Brown, Murphy & Bradshaw, 2017). Mansell, Beadle-Brown and members of the Special Interest Research Group on Comparative Policy and Practice (2010) defined residential institutions as large establishments serving hundreds of people, that were physically and socially segregated from the wider society, were not easy for residents to leave, and the environment within them was much worse than for the majority of people within wider society; all points which link to Article 19 in the UNCRPD around right to independent living.

Despite some earlier attempts to move people out of institutions and into the community it wasn't until the policy goal of complete replacement of institutional care by community-based services (deinstitutionalisation) in the late 1960's / early 1970's that the more direct push for community-living became a priority (Mansell, 2006). In the UK, the first community-based alternatives to institutional care, and associated research, began in Wessex in the early 1970's followed shortly after in Andover, Hampshire (Felce & Toogood, 1988; Mansell et al., 1987). During the 1960's and 1970's, a multi-study project named the Wessex Experiment set out to test the hypothesis that people with severe and profound intellectual disabilities would lose skills at a quicker rate if living within locally-based hospital units (which at the time was the initial start of what we now know as residential accommodation) opposed to if they were still living in a traditional institutional hospital (Smith et al., 1980). In the Smith et al. 1980 study, the authors utilised a between-subjects design allocating one

group of participants to the control group, which were people with severe and profound intellectual disabilities continuing to live in traditional institutionalised hospital settings, and one group to the experimental group, which consisted of people with severe and profound intellectual disabilities accessing the locally-based hospital units. The results of the study refuted the hypothesis and reported that those living within the locally-based hospital settings gained more skills than lost in comparison to those people living in the large traditional institutional hospital; further supporting the notion that moving out of institutionalised settings can result in better outcomes for people supported.

The movement toward deinstitutionalisation was based upon the belief that people with IDD should be living in their own homes within the community and be able to participate as active members of their local community, with the overall aim being to improve the Quality of Life (QoL) for those people. This was seen as an important and radical move and by many as “one of the most important shifts in adult social services in some Western countries in the past 30 years” (Kozma, Mansell & Beadle-Brown, 2009, p.1). To this day, the process of deinstitutionalisation for intellectual disability services continues, with countries across the world in different stages of the process (Šiška et al., 2018), despite the notion that ratification to the convention obliges states to replace institutional care with community living (Mansell et al., 2010). Šiška and Beadle-Brown (2020) compiled a recent report looking at the implementation of Article 19 ‘*Living independently and being included in the community*’ of the UNCRPD across 27 member states in the European Union; specifically detailing the transition from institutional care to community-based services for all 27 of those member states. Each member state had its own section within the report listing its progress and future needed solutions to any barriers of implementing Article 19. The report summarised overall that much was still to be done in relation to moving people out of

institutional care and into the community across Europe, and that deinstitutionalisation alone will not ensure full inclusion and participation in the community.

The finding that deinstitutionalisation alone will not suffice in creating a full life of quality and community inclusion for a person is not a new one. Despite recent research highlighting the improved quality of life outcomes for people with intellectual disabilities moving out of institutional care (McCarron et al., 2019), Mansell et al. (2002) had noted that housing people in their own homes and out of institutional settings was, albeit an adequate first step toward better QoL, not sufficient enough in achieving high and meaningful gains in QoL for those people over time. Due to this, teams of researchers and practitioners began working on creating more structured models of support to promote opportunities for people supported to experience a life as close as possible to the life of people without an intellectual disability upon leaving institutional care. Early accounts of this work, starting around the mid 1980's, then developed into what is now known to be the model of 'Active Support'; such as work by Mansell et al. (1987) and McGill and Toogood (1994).

Active Support and enhancing quality of life for people with intellectual disabilities

As Mansell noted in the editorial of the Tizard Learning Disability Review (TDLR) in 1998, "The aim of 'active support' is to provide a good life for people with severe and profound learning disabilities by helping them directly engage in all the activities of daily life in the home and the community" (p. 4). Mansell went on to note that without particularly skilled support from staff there would be a high risk that institutional models of care would remerge, hidden behind the name of 'community living'.

Centred upon values in line with a person-centre approach and theoretically underpinned by Applied Behaviour Analysis and Normalisation theory (Totsika et al., 2008), Active Support aims to increase the quality of life and enhance engagement (or

‘participation’, as a dimension of QoL) for people with intellectual and developmental disabilities. Active Support includes systems for training staff, monitoring outcomes and organising activities, as well as a system for promoting people’s skill development (Totsika et al., 2008). The enabling relationship between the person providing the support and the person receiving said support can be seen as the core of Active Support (Beadle-Brown et al., 2017b). Through training in Active Support, staff can gain the skills necessary to enable and empower people with intellectual disabilities to be engaged in a wide range of meaningful activities and relationships, which can result in the person gaining more control over their life, develop skills important to them, and contribute to their community (Beadle-Brown et al., 2017b).

Support for people with severe intellectual disabilities and complex needs will require more skilled and dedicated support from staff, however this does not mean that said support should overpower the person and disable them from any independent participation. Instead, skilled support enables every person, regardless of severity of disability, to be independent in some way in their day to day lives (Beadle-Brown et al., 2017b).

Different models of Active Support

In the UK, and internationally, two main models of Active Support have developed. These are referred to by Stancliffe et al. (2008) as the ‘Tizard’ model, or more correctly Person-Centred Active Support (PCAS), and the ‘Welsh’ model, or more correctly Active Support. The use of the term ‘Welsh’ model arguably promotes the incorrect belief that this model originally developed within a Welsh context, when in truth the ‘Welsh’ model was merely a geographical area in which the original iteration of the model of Active Support was further tested and refined. Here on out, the ‘Welsh’ model will be referred to as ‘Active Support’, and the ‘Tizard’ model will be referred to as PCAS.

The models of Active Support and PCAS share several similarities that include being a person-centred approach, coaching support staff to provide different levels of assistance and positive reinforcement to those they support, and finally, centring around the same set of values and goals to ultimately support engagement and quality of life enhancement of people supported. These shared features differ mostly in name (i.e., for levels of assistance the PCAS model refers to graded assistance to ensure success, whereas the Active Support model utilises an “ask, instruct, prompt, show, guide” objective), and amount (i.e., the Active Support model places a larger and more explicit emphasis on facilitating positive reinforcement and is generally more aligned with behavioural technology and behaviour analytic understanding of behaviour change).

Both models use consistent approaches to training staff, such as promoting direct training of staff within the group-home context itself (in-situ), using real materials and available activities that mirror the reality of what the person receiving support has access to, and involve interactive coaching and feedback built around those naturalistic activities (Toogood, 2010; Beadle-Brown 2017b).

Both models have two streams of staff-training; training for front-line direct support workers and managers and training for those wishing to become trainers themselves. It is at this point that features of both training packages of each model begin to differ. When training front-line staff and trainers in the Active Support model, Toogood (2010) recommends formal direct observation in the form of interval recording of staff and service user on- and off-task behaviour at the start and end of each 2-hour training session (usually conducted by a second trainer, or ‘support trainer’). Whereas the PCAS model does not use structured observation and relies on qualitative feedback when training front-line staff and trainers.

A further difference, and the most prominent, is the difference between reliance on monitoring and planning systems. The PCAS model, as stated explicitly by PCAS

researchers, removed the focus on paper-based systems such as participation indexes, opportunity plans etc. that are used more heavily in the Active Support model; in order for staff to be more ‘in the moment’ and less distracted by the need to fill out paperwork (Mansell & Beadle-Brown, 2012). In rebuttal of this, the Active Support model states the need for a method of monitoring and planning for staff in order to ensure consistency between staff, reduce “start-stop patterns of activity” and continue upkeep of the model within the service (Toogood et al., 2020, p.30). Current developments in the Active Support model include a digitalised app that may remove some of the difficulties and time-constraints faced by staff having to fill out paper-based systems, whilst continuing to ensure that staff are consistent with their support, planning and monitoring of resident outcomes (Toogood et al., 2020).

Structural components in Active Support

Totsika et al. (2008) provided a detailed overview of what they termed the “structural components of Active Support” (p.208), stating that each component serves a certain function and works in conjunction with the other structural components in hierarchical order.

Historically the structural components have been paper-based systems that staff are trained in how to use consistently and continuously throughout their role. Lack of data can result in staff only having a snapshot of the lived experience of a resident, whereas rich data can help to add another dimension and enable staff to monitor individual outcomes for that resident, as well as keep their own staff behaviour on-task. As noted in the prior section, the introduction of an app may aid in reducing some of the reported burden of filling out such paper-based systems (Toogood et al., 2020). It is also important to note that the structural components are to be used alongside the transactional staff-support element of Active Support and were not intended to result in less time being spent with the person with intellectual disabilities, despite the potential for this to happen (Toogood et al., 2020).

The first of these structural components are *Routine and Rhythms* whereby staff are taught to identify the cyclical routines in place in the service/household already, and the specific routines a person likes to engage in throughout their day; in turn incorporating these into the following planning systems (Totsika et al., 2008). The second component, *Activity Protocols*, requires staff to script the exact steps in which frequently occurring activities are carried out. These activities will be broken down into their component steps, such as with a task analysis (which will be described later), in order to ensure consistency in the way each staff member supports the person in an activity so that each activity follows the same pattern regardless of who is supporting.

The third component, *Activity Support Plans*, help staff to arrange daily activities that are flexible and tailored to the preferences of the resident, as well as allocate staff to support during that activity. Plans should reflect a full-life for each resident and should include personal interests and preferences. Two further systems that build upon *Activity Support Plans* and help to create a richer picture of a person's life and support, are *Community Involvement Monitoring* and *Opportunity and Learning Plans*. These are methods to ensure staff monitor the amount of time spent in the community for each resident and actively incorporate this community time into activity support plans. Opportunity and learning plans require staff to meet regularly and agree on a small number of goals that each resident can work toward, of course with the inclusion of the resident themselves and other stakeholders in deciding upon goals (Totsika et al., 2008).

The final component, and one that is less commonly introduced during implementation, are *Structured Learning Scripts* (Denne et al., unpublished). Totsika et al. (2008) discuss these as 'structured teaching plans' that specify long-term goals that are meaningful to the resident and detail the specific strategies to teach these goals and other complex skills.

In more recent years, structured learning scripts have been revitalised and a module for training staff in their use has been developed (Toogood et al., unpublished). The introduction of the module states that structured learning opportunities help “people become gradually more independent over time through acquisition of new skills” (p. 1). The module details how staff can create such scripts that involve aspects such as identifying the learning outcome, how many times the skill will be taught per week, and the quantity and type of reinforcement that will be delivered contingent on correct responding (Toogood et al., unpublished).

Evidence-base for Active Support

Implemented and empirically tested both nationally (within the United Kingdom) and internationally, Active Support research continues to demonstrate the model as efficacious and needed for those supported in services (Flynn et al., 2018). The evidence-base is still limited in its size, so results do need to be taken with caution.

The research to date has focused primarily on implementing Active Support within residential settings for adults with intellectual disabilities, with much of the outcomes measured centring on improvements in engagement, quality of staff support, and overall quality of life of residents (Flynn et al., 2018).

As mentioned previously, the research that influenced the development of the current model of Active Support consisted of research around the movement of deinstitutionalisation and quality of residential service provision (Totsika et al., 2008). Jones et al. (1999) is regarded as the first experimental evaluation of Active Support, whereby 19 residents living in one of five community homes were observed using the same momentary-time sampling methodology, with outcomes on resident engagement and staff assistance measured. The independent variable was the Active Support intervention which was staggered across the five houses utilising a type of single-case experimental design called a multiple-baseline

design. The authors found that overall mean percentage of the dependent variable of engagement in meaningful activities of residents increased from 33.1% at baseline to 53.4% post-implementation of Active Support (training and structural components), with an increase to 57.2% at follow-up. For the second dependent variable of interaction from staff toward the residents, there was significant increase in overall mean percentage from 5.9% at baseline to 23.3% post-intervention, with a slight drop to 16% at follow-up (but still higher than at baseline). The authors concluded that after implementation of Active Support staff gave more attention and interaction to residents with higher support needs than at baseline, and results showed increased engagement levels in all but one resident. This study was an important first step in demonstrating that people with higher support needs can be actively engaged in meaningful activity and relationships given the right support, challenging pre-conceived expectations on the capabilities of people with severe and profound intellectual disabilities.

Further empirical demonstrations of Active Support implementation have produced similar results. A pre-test/post-test comparison group design utilised by Mansell et al. (2002) sought to test the effectiveness of Active Support for 49 residents living in 13 small community homes, measuring resident engagement in meaningful activities and adaptive behaviour. For the experimental group, findings reported that upon implementation of Active Support residents experienced significant increases in engagement in meaningful activity between the studies' time period of 1997 and 2000, with the comparison group showing no significant change.

As noted by Stancliffe et al. (2008) in a critical review and commentary on Active Support, both research and theory suggest that Active Support implementation produces more effective outcomes for people with more severe intellectual disabilities due to the notion that staff trained will combat their potential pre-existing ideas around the capability of people with more severe intellectual disabilities and in turn promote more engagement in activities

for these people. Further research to date has supported this notion to a degree (Jones et al., 1999; Smith et al., 2002), but some research has concluded no significant difference between outcomes for those with more severe intellectual disabilities compared to those with mild intellectual disabilities (Bradshaw et al., 2004; Stancliffe et al., 2007).

Existing research has also tested and evaluated the two main training components, classroom-based workshops and on-site interactive training, for Active Support. One component in particular, Interactive Training for Active Support (Toogood, 2010), has been empirically tested in relation to a number of research questions. Totsika et al. (2009) explored the effectiveness of the interactive training component for staff when divorced in time from the Active Support classroom-based workshops. The authors concluded that there was support for the combination of both training components and that when each training component is divorced in time from the other or offered in isolation this can result in diminished effectiveness of each training component. This mirrors findings from staff-training research outside of the Active Support field, where it has been stated that the best method for increasing the likelihood that trainees will incorporate the skills and knowledge they have learnt into their job role is to ensure a combination of both classroom-based instruction and 'hands-on' practical components that are delivered close in time (Reid & Fitch, 2011).

The existing evidence-base also highlights a range of barriers to good Active Support practice within organisations. Active Support remains difficult to fully embed within services for adults with intellectual disabilities, and maintenance of said model is weak (Bigby et al., 2019). In Flynn et al.'s (2018) systematic review, the collated evidence stated that the strongest predictors of 'good' Active Support were in relation to: i. Training that combined both classroom-based workshops and on-site interactive training, ii. Relatively low staff-to-service user ratios, iii. Having services that had no more than six people living within them,

and iv. Best practice management and supervision processes. Bigby et al. (2019) then went on to report, via multilevel modelling of a large dataset, that further predictors of ‘good’ Active Support implementation also included: i. The residents adaptive behaviour, with the notion that higher levels of adaptive behaviour would indicate increased engagement and interaction from staff, ii. The strength of frontline practice leadership, and iii. The time since Active Support was implemented. Predictors of lower quality Active Support were associated with larger organisations and overcrowded services as well heterogeneity of residents (meaning that it is perceived to be harder to adapt support in the moment if residents in a service have very different levels of needs and adaptive behaviour to one another).

Frontline practice leadership has been described as having a set of frontline or senior managers that act as ‘practice leaders’ and ensure the development of knowledge and maintenance of Active Support in the staff team (Bigby et al., 2019). Bigby et al. (2020) stated that through regular coaching, observation and feedback of staff practice, discussion of Active Support in team meetings and individual supervision, practice leaders can enable staff to better support residents and ultimately maintain the focus on improving QoL for the people they support.

In conclusion, the evidence-base for Active Support demonstrates its ability to be an effective model in enacting change of staff behaviour and improving the engagement in meaningful activities and quality of life for people with intellectual disabilities. However, research is still limited in it’s volume and much of the research remains untested in other settings outside of residential accommodation.

Conceptual issues and linking to other person-centred approaches

As mentioned previously, the initial development of the Active Support was driven by the need to get people with intellectual disabilities out of institutionalised settings and into the community, which was underpinned in part by Normalisation theory (Wolfensberger &

Glenn, 1978). Totsika et al. (2008) notes that the original iteration of Active Support – the Andover Model – provided a practical demonstration of a technology that could be used to implement and accomplish Normalisation goals. Outside of linking with the core values of Normalisation theory, the organisational technology within Active Support is derived from the field of Applied Behaviour Analysis (Totsika et al., 2008).

Applied Behaviour Analysis (ABA) is a subfield born out of the science of behaviour analysis which directly aims to use behavioural principles to bring about socially significant and meaningful change for a person. In Totsika et al.'s (2008) chapter on the developments, evidence-base and future research directions of Active Support, the authors supply a table detailing how technologies of Active Support align with a set of well-established seven dimensions of ABA as described by Bear, Wolf and Risley (1968). For example, for the ABA dimension 'Conceptually systematic' which refers to behaviour change procedures needing to be derived from the basic principles of behaviour, Active Support aligns with this by utilising a combination of behaviour analytic procedures such as differential reinforcement (varying the quantity and quality of reinforcement a person provides after another person has engaged in a certain behaviour), task analysis (breaking down a skill into component steps) and data collection.

McGill and Emerson (1989) identified the incongruity between normalisation theory and ABA, which were the two major theoretical influences at that time, and stated that ABA was a "technology bereft of any guiding principles regarding either goal selection or procedural acceptability", whereas normalisation was a "value-laden conceptual framework bereft of any systematic technology for affecting behavioural change" (p.110). Therefore, this combination of both normalisation theory and ABA technology within Active Support has also been noted as an early example of the process of 'rapprochement' as described by Emerson and McGill (1989, as cited in Totsika et al., 2008), a process which also formed the

basis for what is now known as the framework of Positive Behavioural Support in a UK context.

Active Support and Positive Behavioural Support

Positive Behavioural Support (PBS) is a multicomponent framework that centres around the aim on improving the QoL for people with intellectual disabilities whose behaviours challenge (Gore et al., 2022), and blends practices in behaviour technology, educational methods and ecological systems change combined with person-centred values to achieve this (Bambara et al., 2004).

As Carr (2007) notes PBS bases itself on the notion that “creating a life of quality and purpose, embedded in and made possible by a supportive environment, should be the focus of our efforts as professionals” (p. 3). The central aim of PBS therefore is not to only reduce behaviours that challenge but rather to improve the challenging environmental contexts which make behaviours that challenge more likely to occur, develop and maintain, with the arching aim being to improve QoL of that person. As stated by Carr (2007), the central dependent variable of PBS can be seen as improving QoL, with the central independent variable being systems change.

Positive Behavioural Support attempts to achieve QoL improvement by working with the focal person and their support network to increase skills, opportunities, improve interactions and augment the environment to a person’s specific needs and goals, over the short and long term (Gore et al, 2022). In 2013, Gore et al. comprehensively defined PBS within a UK context in detail publishing ‘10 Key Components’ of PBS devised from existing literature and research. In 2022, Gore et al. provided a new definition of PBS within a UK context to reflect changes within the field to date, and introduced revisions to the Key Components resulting in two new components, and a slight change to existing components.

The 12 Key Components, as per the 2022 definition, are grouped into three main categories: rights and values, theory and evidence based, and process and strategy.

For behaviours that challenge, PBS incorporates a function-based approach in which a Functional Behaviour Assessment (FBA) is undertaken to ascertain the consequences that are maintaining the behaviour that challenges (Gore et al., 2022). An FBA is a set of procedures that aim to provide information about behaviours that challenge, and other important variables, to draw conclusions about the function of the behaviour (O'Neill et al., 2014). These 'functions' can include access to attention, escape or avoidance (both for demand and social attention), sensory stimulation, and pain reduction; and when accurately identified through the use of an FBA can form as a starting point in designing the most appropriate intervention for said behaviours that challenge (Gore et al., 2022).

In Gore et al.'s 2022 definition of PBS in the current UK context, Active Support was named within the "High quality care and support environments" section (p. 22), which is a section detailing the idea of the facilitation of a 'capable environment' for people with intellectual disabilities whose behaviour challenges. A capable environment is associated with enhanced QoL and reduced frequency, duration, and development of behaviours that challenge, through support to access preferred activities, maintain good physical and mental health, have choice, control and opportunities for decision-making (Gore et al., 2022).

The notion of a capable environment came about after it was identified that the environment's most people with intellectual disabilities spend much of their time in are "replete with characteristics that may establish the motivation for challenging behaviour" (McGill & Toogood, as cited in Langthorne, McGill & O'Reilly, 2007, p. 470). Active Support is not a model that aims to reduce challenging behaviour, nor does it have the evidence-base to support this idea (Totsika et al., 2008). However, if integrating Active Support logic with capable environments logic, it could be theorized that upon

implementation of an Active Support model environments which people spend much of their day in may become less barren and devoid of stimulation; potentially reducing behaviours maintained by a sensory function. By changing the mindsets of staff to now acknowledge the potential of people with severe intellectual disabilities and to coach staff to better interact and support these individuals, it could be theorised that behaviours with an attention-maintained function may reduce due to receiving more social positive reinforcement. However, as previously stated, Active Support does not set out to reduce behaviours that challenge and does not incorporate the method of functional behaviour assessments within its practice. Therefore, the model cannot ascertain functions for behaviours that challenge or develop function-based interventions for the people supported, and there is also risk of staff inadvertently reinforcing and maintaining certain behaviour that challenges if the function is not correctly identified (Totsika et al., 2008). This means that the use of model alone will not be enough to cover every aspect of a person's support, and enabling a capable environment may not suffice in enhancing a person's QoL, and a more holistic approach, such as introduction of a Positive Behavioural Support framework, may be needed.

Quality of life

A central focus of the model of Active Support and other person-centred approaches is to enhance QoL for people with IDD, through upskilling staff to provide appropriate support, facilitate participation in meaningful activities of daily living, and maximise choice and control for the people they are supporting (Totsika et al., 2008). Given that improvements in QoL for all those accessing a service should be the primary aim of an organisation (Gore et al., 2022), it could be posited that QoL outcomes should be the focus of how service quality is conceptualised and assessed.

There are many ways of conceptualising QoL, from focusing in on individual QoL, to broadening out to exploring the QoL for a family, staff group, or larger system (Schalock, 2004). Quality of Life when seen as a social construct can be utilised as an “over-riding principle to enhance an individual’s well-being and to collaborate for programmatic, community, and societal change” (Schalock, 2004, p. 205). In 2002, an international group of researchers (Schalock et al., 2002) working in the field of IDD developed a consensus document identifying eight core domains of QoL, alongside general principles regarding QoL conceptualisation, measurement and application.

One domain (domains do not come in sequential order), *Emotional Well-Being*, involves a person feeling safe, satisfied, happy and having a sense of self-esteem, and can be supported throughout having a stable, safe and predictable environment and a number of interspersed opportunities for success (Schalock, 2020). *Personal Development* involves indicators such as continuous education across the lifespan and personal competency. *Self-Determination* involves having autonomy and personal control, and well as varied choices and opportunities for decision-making. *Interpersonal Relations* concerns the social interactions and networks with others, and different forms of relationships from friendships to intimate relationships. Similar to interpersonal relationships, *Social Inclusion* encompasses integration within the community and the roles held in the local community. *Rights* encompass both human and legal rights afforded to the person. *Physical Well-Being* involves health-status and activities of daily living associated with self-care and mobility, and finally, *Material Well-Being* involves employment-related outcomes and the obtainment of personal possessions (Schalock, 2020). All eight domains can affect each other, for example, if a person has limited social inclusion they may in turn have limited opportunities to develop interpersonal relationships resulting in reduced emotional well-being, hence the importance of each domain and lack of hierarchy across domains.

However, Schalock cautions viewing these domains as rigid rules that cannot be altered to fit with a person's culture and circumstance (2004). Schalock noted that indicators for QoL can be either universal (etic) or culture-bound (emic), and therefore domains can differ across cultures and societies; and specific QoL goals and aims important to each individual will differ in terms of their current cultural, environmental and developmental context (2004). It can therefore be difficult to measure QoL due to no set list of outcomes, and many existing subjective QoL measurements can confine a person in their responses if not adaptable to their current situation (further hindered by the methodical considerations and effort needed in adapting standardised measures to tailor one person or group).

With this in mind, it is important to note that there have been identified barriers to meaningful input from people with intellectual disabilities in conversations associated with their QoL, aspirations, and goals (Gore et al., 2021). However, there does exist studies that have demonstrated that these barriers can be reduced when alternative and augmented communication methods are employed (Gore et al., 2021) and that meaningful input from people in relation to improving outcomes related to their QoL can be achieved.

Active Support can be seen as a model whose central aim focuses upon improving QoL outcomes for people with intellectual disabilities through upskilling staff to provide high quality support and facilitate opportunities for engagement in meaningful activity and relationships. However, as the evidence stands, the model has solely been applied for staff supporting adults living in residential community settings, and attention has not been paid toward implementation into schools and other educational settings, or within settings outside of the home environment, such as open employment workplaces, supported employment programmes, and social enterprises.

Employment for people with intellectual disabilities

Employment figures for people with intellectual disabilities in England and Wales

As previously noted, deinstitutionalization alongside the UNCRPD was a major catalyst for considerable changes in the care and opportunities available for people with intellectual disabilities, including opportunities for employment in community settings (Almalky, 2020). In a relatively recent government report by Kennedy et al. (June, 2021) it was reported that around 140,000 people with an intellectual disability living in England were in employment. The Welsh government does not publish data on how many people with an intellectual disability per se are in employment in Wales, but does publish data via the Labour Force Survey on how many people with a disability (not specific to intellectual disability) are in employment, with figures from 2020 stating only 47.8% of people with a disability were in employment. This figure is expected to be dramatically less for those with an intellectual disability (Mencap, n.d.), despite a high number of people with intellectual disabilities expressing a desire and aspiration to access regular paid work (Ellenkamp et al., 2016). Kaehne (2016) also notes that figures for employment success differ significantly between geographical areas across the UK, in which some local authorities have been demonstrated to report a zero percent employment rate for people with intellectual and developmental disabilities compared to other local authorities reporting rates as high as 30%; going on to note however that data on employment rates are infamously unreliable and that figures should be interpreted with caution.

Outcomes of employment for people with intellectual disabilities

Throughout the existing literature numerous benefits have been documented for, and by, people with intellectual disabilities regarding their lived experiences of employment. These benefits can include opportunities for financial autonomy, more social inclusion into the wider community and the potential for increases in social status (Jahoda et al., 2007). Employment

for people with intellectual disabilities has also been demonstrated to make a considerable contribution to a person's QoL (Beyer et al., 2010; Voermans et al., 2019) alongside increasing the likelihood of experiencing good physical and mental health and overall well-being (Robertson et al., 2019).

There exists a growing body of research focusing on the barriers and enablers around transition to employment for autistic adults. Much of this research focuses upon experiences of autistic adults who do not have an intellectual disability, although findings from these studies could provide ideas for research around transition for people with intellectual disabilities.

Hedley et al. (2018) conducted a qualitative focus groups study exploring perspectives of 11 autistic adults (described as trainees in the study), seven support workers, six family members and six non-autistic co-workers around transition to employment, focusing also on experiences of barriers to transition and workplace success alongside factors that promote workplace success. It is important to note here that there was no reporting of co-occurring intellectual disability for participants so it is assumed that participants did not have an intellectual disability. After running a content analysis the authors split their findings into three main themes; enablers, challenges and outcomes.

For the 'enablers' theme the main factors that ensured or supported in workplace success were environmental adaptations such as creating low arousal environments and managing auditory stimulation. One non-autistic co-worker stated that the environmental adaptation of locating autistic trainees close to non-autistic co-workers helped facilitate social interaction. Further enablers were determined as the other non-autistic co-workers having awareness of autism, organisational support, and extra support for the autistic trainees provided by support staff (as the work programme followed a supported employment model). Importantly, changes to non-autistic co-worker behaviour in relation to how they interacted

and made reasonable adjustments for the autistic trainees was seen as helpful in ensuring workplace success. For ‘challenges’, factors such as individual stressors around time management and maintaining attention were highlighted, as well as factors associated with job tasks such as learning new complex processes.

Hedley et al. (2018) went on to note the ‘outcomes’ of participation in the employment programme, which included heightened awareness of autism from non-autistic co-workers, increased financial and personal independence for autistic trainees and, importantly, a sense of purpose and increases in self-esteem, as reported by one trainee. One outcome that arose from the data was that of ‘social relationships’. Trainees and their family members which participated in the focus groups reported improvements in the social relationships of autistic trainees, both with co-workers and family members. The majority of the quotes around this are written in the manuscript from the family members point of view (3 out of 4, 75%), indicating a potential need to gain more perspective from autistic people, and people with intellectual disabilities, themselves in relation to the potential for improvements in social relationships through work.

Quality of life outcomes of employment

It has been argued that the most important outcome to measure when conducting research in the area of employment for people with intellectual disabilities is that of quality of life outcomes, despite reported that QoL outcomes remain the least researched outcome (Beyer et al., 2010).

The core domain of ‘*Material Well-Being*’ as proposed by Schalock (2004) incorporates outcomes associated with employment such as employment status and owning material possessions. However, outcomes of being in paid employment are not only concerned with monetary gain, and there have been evidenced countless other outcomes of being in paid employment that result in an overall better QoL for people with intellectual disabilities. These

outcomes include considerable evidence for the improved physical and mental health of people with intellectual disabilities (Robertson et al., 2019) as well positive increases in well-being and personal autonomy (Jahoda et al., 2007; Beyer et al., 2010).

In a study investigating comparisons in QoL outcomes for people with intellectual disabilities in supported employment, day services and employment enterprises, Beyer et al. (2010) compared scores taken from the Comprehensive Quality of Life Scale (CQoLS) and the Working Environment Scale (WES) for 37 adults living with an intellectual disability; who worked in either supported employment ($n = 17$), for employment enterprises ($n = 10$) or attended traditional day services ($n = 10$). A further 17 adults without an intellectual disability also took part, all of whom worked alongside colleagues in supported employment ($n = 54$). The CQoLS included a pre-test to check the level at which those with an intellectual disability could discriminate between the questions. Descriptive data showed that employees in supported employment worked on average around 20.8 hours per week; which was lower than those who worked in day services (28 hours per week) and considerably lower than those who worked in employment enterprises (35 hours per week). An interesting question arises here as to whether the duration of working day contributes to how employees rate their workplace satisfaction, and in turn their QoL.

For the objective measures, supported employment employees rated higher in QoL than those in social enterprise employment or attending day services. Participants from all three different service provisions scored low on work stress, a positive finding. Supported employees reported higher levels of QoL compared to their colleagues without a disability (going against the original hypothesis), through the subjective measures, however overall participants without a disability reported higher objective QoL and autonomy compared against the three groups.

Beyer et al. (2010) concluded that the allocation of funding and resources should be given to the type of employment model that best provides evidence for a higher QoL for employees with IDD. Altogether, the results partially confirmed the original prediction that employees in supported employment would score higher on the objective measures compared to those attending or working in day services and employment enterprises, but much was still to be done in relation to closing the gap on the objective QoL outcomes of workers with an intellectual disability compared to those without.

Outcomes associated with social networks and relationships for people with intellectual disabilities

Harrison et al. (2019) define social networks as the web of relationships connected to an individual, strengthened by the quality and quantity of said social network, with Forrester-Jones et al. (2006) noting that there are multiple different typologies of social support and interactional behaviours provided by network members that can define the quality of a social network. The importance of support staff in mediating social inclusion and creation of social relationships for people with intellectual disabilities has been noted as highly significant (Meys et al., 2021).

In a research review by Chadsey and Beyer (2001), exploring social relationships in the workplace for people with intellectual disabilities, the authors propose that two main strategies for enhancing the development of social relationships as: i. Strategies aimed at changing the work context to make it easier for social relationships to form naturally, and, ii. strategies which aim to change the social behaviour of the individual directly (more direct teaching strategies or interventions). The authors conclude this review by stating that a combination of strategies and interventions may be the best way forward in enhancing social awareness for both the person with an intellectual disability and the employer. A interesting recommendation of this research was the need for greater measurement of social relationships

as a core dependent variable in research exploring employment outcomes for people with intellectual disabilities in competitive employment.

Types of employment and employment support models for people with intellectual disabilities

There are two overarching types of employment options noted in the literature for people with intellectual disabilities: sheltered employment and open employment (Meltzer et al., 2018). Sheltered employment typically offers work opportunities in segregated settings where people with intellectual disabilities work only with other people with intellectual disabilities; whereas open employment is defined as being in the open labour market, receiving equal wages meeting national minimum wage and where people are not employed solely due to their intellectual disability (Meltzer et al., 2018). Research exploring outcomes of both sheltered and open employment typically report better outcomes in the domains of self-determination, autonomy and empowerment for people with intellectual disabilities in open employment (Jahoda et al., 2007).

Meltzer et al. (2018) note that an alternative employment choice could also be that of *Social Enterprises* centred on the aim of employing people with intellectual disabilities in meaningful work. Research to date has identified a range of benefits associated with social enterprise employment, including improvements in well-being, independence and a sense of community (Forrester-Jones et al., 2010); increased personal income and higher job retention as well as improved social networks and connections (Hall & Wilton, 2011). However, Meltzer et al. (2018) note that there are significant gaps in the current literature about the experiences and outcomes of people with intellectual disabilities when working in social enterprises, and that more needs to be done in ensuring these as a valid and meaningful employment option.

The Supported Employment model

Within the open-employment umbrella, one such employment model that has achieved positive employment outcomes for workers with intellectual disabilities is that of the Supported Employment model (Gore et al., 2013; Wehman et al., 2014; Beyer & Beyer, 2017). There is a substantial body of research that demonstrates that supported employment is one of, if not the most, effective employment model for supporting individuals with IDD to be successful in employment (Beyer & Beyer, 2017). The supported employment model helps people with intellectual disabilities to learn the skills needed for the job at hand and can be effective in supporting people to learn complex vocational skills through the use of a job coach. The support offered from job coaches can range from ‘natural’ ways of supporting people to more intensive and tailored teaching methods of systematic instruction.

DFN Project SEARCH

Originating from the United States, the DFN Project SEARCH model provides autistic young adults and adults with intellectual disabilities on a one-year internship in large employers (commonly hospitals) called a ‘host’ organisation, with ongoing and on-site support from a job coach or teacher (Beyer et al., 2016). Rutkowski et al. (2006) describe the model as a “high school transition programme” (p.86), that provides a unique opportunity for interns to experience competitive employment in community, open-settings and integrates both classroom-instruction and on-the-job training.

Rutkowski et al. (2006) go on to note that the Project SEARCH worksite rotation process starts with the intern choosing their area of interest, the intern then schedules (with support) an interview with their supervisor (the employer), and the host department offers worksite rotation for the intern whereby the intern assumes an employee role and receives on-site coaching in how to perform the tasks associated with that role, ending in an exit interview once rotation has finished and the writing of reflective portfolio and thank you letter to the host supervisor.

The model has been demonstrated to produce higher than national US average employment rates for its interns upon graduation, which was mirrored in its use in the UK where it delivered on average around 50% employment rates for graduates with intellectual disabilities from 2010-2012 (Kaehne, 2016).

In Wales, the 'Engage to Change' programme has set out to support young adults aged 16-25-years who have an intellectual and/or developmental disability to obtain work, who are, or at risk of, becoming Not in Education, Employment and Training (NEET; Beyer et al., 2019a). The intervention is comprised five partner organisations: Learning Disability Wales, ELITE Supported Employment Agency, Agoriad Cyf (a specialist support provider), All Wales People First, and the National Centre for Mental Health at Cardiff University who are tasked with conducting an independent evaluation of the project.

The Engage to Change project incorporates a Project SEARCH model, utilising a host organisation and partnering with local colleges and support agencies in several Welsh counties. Pre-COVID-19 pandemic, Beyer (2019b) reported that through using supported employment model and the Project SEARCH model, that the Engage to Change partners had supported 284 people with intellectual disabilities and/or autism into paid work placements of up to six months; with 166 of these leading to a paid job (58% of paid placements). However, as Beyer et al. (2021) note more is needed from the Welsh Government and the NHS in light of the COVID-19 pandemic and associated restrictions or terminations of internships.

Sustainable Hub of Innovative Employment for people with Complex needs (SHIEC).

SHEIC was a collaboratively developed employment programme that's conception included numerous different types of expertise ranging from academic researchers to people working for local charities and local councils, and was underpinned by the supported employment model (Tame, 2016).

The SHIEC project aimed to support people with intellectual disabilities and complex needs to obtain paid employment after identifying shortfalls in the support of those with the most complex needs within policy and in practice (Tame, 2016).

The project group defined the characteristics of complex needs as ‘people with profound and multiple learning disabilities’, ‘people with severe-profound learning disabilities and challenging behaviour’, and ‘people with mild-moderate-severe learning disabilities and a history of offending behaviour and/or significant mental health difficulties’ (Tame, 2016; pp.48); keeping these definitions consistent with descriptions of complexity set out by reports around improving the lives of people with profound intellectual and multiple disabilities (Mansell, 2007; 2010). This was an improvement upon other initiatives such as the UK Government’s ‘Work Choice’ programme, which gave ambiguous definitions of the criteria of complex needs, despite stating that those with complex needs were also targeted within the programme.

The SHIEC project aimed to be a demonstration to employers that finding and maintaining employment for those with the most complex needs is possible and achievable regardless of the person’s level of need-complexity.

Gore et al. (2013) set out to explore the experiences of staff facilitating the supported employment through SHIEC, and reported that it was evident from the qualitative themes that staff found supporting people with complex needs into employment challenging; primarily due to the economic climate and associated financial issues. However, SHIEC successfully demonstrated that it is possible to support people with intellectual disabilities and the most complex needs into finding and maintaining meaningful and paid employment, with the most recent report (before apparent discontinuation of project) reporting that between the 1st February 2014 and the 31st January 2015 SHIEC had provided employment support to between 29 and 43 individuals with complex needs (Tame, 2016).

The Intensive Personalised Employment Support (IPES) programme

The Intensive Personalised Employment Support (IPES) programme launched in late 2019, and provided one-to-one support and training to help people with a disability obtain employment (Department for Work & Pensions, n.d.). It is a voluntary provision aimed specifically at people with a disability who experience complex barriers to employment. The eligibility criteria for the programme was to, i. Have a disability that affects the work a person can do, ii. Be unemployed, iii. Be between school leaving age (for Wales this is classed as the person being 16-years of age by the time the school summer holiday period ends) and State Pension age, and iv. Be a UK resident living in England or Wales (Department for Work & Pensions, 2021). Those eligible are entitled to a support worker that will help that person in tasks such as identifying what work they are able to do, facilitate training to help that people find that work, and support that person during their first six-months of work. Remploy, FedCap, Shaw Trust, Growth Company and Reed each lead the scheme across specific regions of England and Wales. However, during the COVID-19 pandemic elements of the IPES programme were temporarily amended and a report or independent evaluation of the programme is still pending (Kennedy et al., 2021).

Support for transition to employment for young adults with intellectual disabilities

The literature suggests that if young adults with intellectual disabilities partake in work experience during school transition then they are more likely to experience higher employment success upon fully leaving school (Beyer et al., 2016), particularly those who are supported in their work experience by an employment specialist (Beyer & Kaehne, 2008).

Beyer and Kaehne (2008) ran a small scale study whereby interviews were conducted for 87 young adults with intellectual disabilities in their last year of secondary school, and again at six months post-graduation from school. The aim of the study was to explore factors that could facilitate successful transition from educational settings (both school and college) to

employment, having identified in the prior research significant barriers to successful transition. The authors concluded that a combination of work-awareness training with links to opportunities to concrete work experience appeared to be an effective method of potentially securing employment post-graduation, but did highlight that the reality of achieving this may be difficult due to eligibility criteria set at adults-only for many transition support/employment agencies in the UK, and limited resources from school to access these agencies.

Beyer et al. (2016) note that it is imperative that family caregivers and young adults with intellectual disabilities play a central role in decision-making in relation to their transition and employment pathways. It is well documented that transition processes are commonly implemented and decided upon without effectively considering the views of the young person themselves. Family caregivers have also been known to report experiences of low levels of family participation in the transition process (Davies & Beamish, 2009). As Beyer et al. (2016) state, successful transition to employment is highly dependent on collaboration with the young person and their family, and can often be influenced by how informed families and the young person are about employment opportunities available to them. Beyer and Kaehne (2008) note that not all professionals involved in transition planning for a young person with intellectual disabilities will hold the view that employment is a viable option, and that there appears to be significant variation in what vocational preparation opportunities are available to young adults while still at school.

Note on the post-COVID-19 workplace

Since the pandemic there have of course been changes to the way in which companies and organisations run, with an increase in employees working from home. It would be ignorant to ignore the potential new barriers that this could create, as well as the potential positive outcomes that changes to working patterns may have for many people, including autistic people with an intellectual disability (Griffiths et al., preprint; Spain et al., 2021).

However, as this thesis was conducted prior to the pandemic, this introduction and the first two empirical chapters have been written in the style of a pre-pandemic workplace. The third empirical Chapter (Chapter 5) was conducted during the pandemic, so the author has attempted to consider the changes needed due to COVID19 within that chapters introduction. However, this is limited as research around this area is still beginning to emerge and firm conclusions are as yet to be established (Emerson et al., 2022). There is also a section at the end of the thesis in the discussion chapter (Chapter 6) that attempts to lay out some potential future considerations now that that the employment climate has evolved and adapted post-pandemic.

Evidence-based, behaviour-analytic strategies for teaching skills to people with intellectual disabilities

Before delving into research around the ways in which staff or job coaches have taught vocational and work-related social skills several teaching strategies will be outlined. The teaching strategies that will be introduced are derived from Applied Behaviour Analysis. Teaching strategies based on the principles of ABA utilised within special educational settings have been reported to produce greater gains for students compared to regular teaching approaches (O’Boyle & Hoerger, 2021). Within UK special educational settings a growing body of evidence exists around the effective use of ABA techniques within the classroom and development of classroom-based ABA models, through collaboration between classroom-staff and behaviour analysts, for improving skill acquisition rates of students (O’Boyle & Hoerger, 2021). Literature has demonstrated the use of ABA-based models and interventions in order to develop a wide range of skills, ranging from communication and language skills to self-help and academic skills (Grindle et al., 2012; Pitts et al., 2019). However, O’Boyle and Hoerger (2021) note that evidence-base intervention in general, and

particularly ABA-derived strategies and interventions, are not consistently adopted in special education classrooms and further work is needed to promote adoption of such interventions.

The following subsections provide an introduction into several behaviour-analytic teaching strategies but is not to be seen as an exhaustive list of all behaviour-analytic teaching strategies that have been demonstrated as evidence-based practices. The strategies relevant to the later thesis research in particular have been outlined.

Evidence-based teaching strategies

Shaping, chaining and task analysis

Shaping is the process of reinforcing (adding something which will increase the likelihood that that behaviour will happen again) successively closer approximations of a target behaviour, whilst extinguishing preceding approximations of said behaviour (Cooper et al., 2019). The most common example given when explaining shaping is that of topographical shaping for refining speech, whereby an infant might say ‘mah’, then ‘muh’ then ‘muhmuh’ and so forth until reaching the response of ‘mum’. Whilst this is taking place the infants parents provide reinforcement, typically in the form of social praise, for each closer approximation to ‘mum’ and will naturally provide less reinforcement or none at all for earlier approximations once a closer approximation has been made.

The earliest demonstration of shaping within the literature was a seminal study by Isaacs et al. (1960), which sought to reinstate spoken language for a patient with a psychiatric disorder residing in an institutionalised setting. This patient had been reported as mute for nineteen years upon moving into the hospital. The shaping procedure started by the interventionist delivering a piece of chewing gum to the patient contingent upon eye movement toward the chewing gum. This then expanded to slight lip movements whilst reinforcement was withheld for eye movements alone, then onto providing reinforcement for any sound emitted by the patient. The final step was to steadily reinforce closer approximations to the

sound ‘gum’ and extinguish preceding approximations. The authors reported that at the end of the six week intervention period the patient could say aloud “gum please” when he wanted to obtain a piece of chewing gum. What was of particular surprise was that after this behaviour was reinstated the reinstatement of other responses of this class such as answering his own name or stating his age also occurred. This study was one of the first successful demonstrations of the practical usage of shaping procedures to teach or reinstate behaviour, and potentially enhance and broaden the opportunities available to individuals who live with communication difficulties. Since this earlier demonstration the uptake of shaping procedures within both practice and research contexts has grown exponentially. However, much of the literature at present does not focus purely on shaping procedures, but rather includes them as a component within an intervention or skills-building procedure (Cooper et al., 2019).

Another common teaching strategy used in many settings, particularly special educational settings, is that of a task-analysis. A task analysis is the process of breaking down a skill or activity into objective, observable and teachable units, with tasks being broken down in the order which that skill would naturally be completed (Williams & Burkholder, 2004; Snodgrass et al., 2017). Nearly all tasks, whether academic, activities of daily living or employment-related can be broken down into a series of manageable steps (Williams & Burkholder, 2004).

Task analyses of skills require validation before starting to use them as a teaching procedure with a learner, which can commonly be done by the teacher/staff member completing the task using the task analysis or by consulting with people who are already fluent in performing that task (Williams & Burkholder, 2004). Steps within the task analysis can be continuously refined dependent on the learner once teaching has begun.

In school settings for children with intellectual disabilities the use of task analysis has been evidenced as effective in supporting learning of new skills (Snodgrass et al., 2017; Odum et al., 2010), and has been named as a type of evidence-based practice (Odum et al., 2010).

Linking to Active Support, task analysis is used heavily within the structural components of Activity Protocols and Activity Support Plans, whereby activities and tasks are broken down into component steps to ensure consistency between staff in the way that activity is being taught (Totsika et al., 2008) and can reduce the need for people being supported to adapt their behaviour to suit staff members differing ways of carrying out the activity, in turn reducing reliance on staff instruction and enhancing the chances that person will become independent in performing that activity (Toogood et al., 2020).

Chaining is the technique used to establish a behaviour chain and consists of a set of responses that must occur in a predetermined order to produce reinforcement (Williams & Burkholder, 2004) Response chaining involves the use of a task analysis to break down skills into their component parts (Slocum & Tiger, 2011).

There are three main types of chaining procedure described in the literature. The first, forward chaining, involves teaching to first step in the task analysis up until the learner has fully mastered (learnt) that skill before moving on to teaching the next step. In comparison, backward chaining, involves teaching the very final step of the task analysis initially and then teaching earlier steps once the later steps have been fully mastered. This type of chaining helps to demonstrate to the learner the terminal reinforcement for completing said skill. The final type, total-task chaining, is where the teacher would teach all steps together with no pause for ensuring each individual step is mastered (Slocum & Tiger, 2011).

Jerome et al. (2007) conducted a study to teach internet skills to three autistic adults with co-occurring intellectual disabilities through the use of a 13-step task analysis and backward-chaining. Results indicated that the number of independent steps completed in the

13-step task analysis increased following training, supporting the notion that chaining can be effective as a component within a teaching strategy.

The reasoning behind the importance of being aware of each form of chaining procedure is so that teaching strategies can be adapted and tailored to each learners preferred learning style, as evidence demonstrates that both forward and backward chaining are similarly effective in teaching skills (Slocum & Tiger, 2011); therefore the choice between procedures comes down to learner style and preference.

Video-modelling

Video modelling is the presentation of desired skills or behaviour via a video format, in which the learner will typically observe a video model going through the steps of a skill and will then perform said steps (Regan & Howe, 2017).

Different variations of video modelling can include observing oneself successfully completing the skill via video format (including from a ‘point-of-view’ perspective), or observing another person completing the skill. Video modelling can be paused between each individual step and taught as such, and can be combined with instructions, feedback and different rehearsal options (typically referred to in research as ‘video prompting’; Sun & Brock, 2022). The retrospective aspect of being able to pause at certain steps makes the format particularly helpful for learners who may need to target one step at a time, numerous times. Research by Laarhoven et al. (2009) compared several different forms of video models including the ‘self’ model with the student themselves as a model in the video, an ‘other’ model where a person such as the teacher models the steps of said skill within the video, or from a ‘subjective’ point of view perspective (which would not be the students point of view but a teachers). The authors found that all three forms of model were effective in increasing independent correct responding, although creating self-model formats required more preparation and were less cost-effective than the other forms of model due to this.

The use of video modelling has been documented across a wide range of skill-types, and also utilised across ages and types of disabilities. Bidwell and Rehfeldt (2004) successfully demonstrated the use of video modelling to teach a domestic skill with an embedded social skill to three adults with a severe intellectual disability. Thirumanickam et al. (2018) evaluated and compared the effectiveness of video modelling and video self-modelling to develop conversational skills in four autistic young adults, and concluded that for three out of four participants conversational skills improved. Charlop-Christy and Freeman (2000) demonstrated that for five autistic children who were not reaching neurotypical developmental trajectories, academic, language and social skills were typically acquired quicker from the use of video modelling opposed to in-vivo modelling; although the authors note that these results may not be applicable to teach longer chains of behaviour for some independent living skills.

Considerations around prompt fading procedures

An important consideration to be incorporate into teaching strategies is that of the fading back of prompts and support to enable the learner to become fully independent in completing the skill (Catania, 2013).

There are four main types of prompt that are commonly utilised by teaching staff including, i. Verbal prompts, ii. Gestural prompts (for example pointing to a picture card of a cat after asking the learner to ‘pick up the photo of the cat’), iii. Modelling prompts (for example modelling how to pour a watering can over a bed of flowers), and iv. Physical prompts, including partial physical prompts and full physical prompts/hand-over-hand prompting (Snodgrass et al., 2017). The benefits of fading back prompt-levels provided by staff also help to ensure that learners do not become prompt dependent on the staff member supporting them through that skill or activity (Cengher et al., 2016).

Evidence-base for teaching vocational skills and work-related social skills to people with intellectual disabilities

Vocational skills teaching

For this body of work vocational skills have been defined in line with work by Heyman et al. (2019) which groups three main types of skill into ‘vocation-related skills’; which include i. Adaptive skills which are utilised by a person in everyday life, with the emphasis on how that person adapts to the environmental work-related demands or rules, ii. Self-determination and self-advocacy skills such as having choice and control over employment options and knowledge of the types of employment options available (although accessing this knowledge this also may need to be mediated through support for some individuals), and iii. Finite skills needed for the job at hand such as fine or gross motor skills. Social skills can fall within the ‘adaptive skills’ group however for this thesis are defined more precisely in a subsequent subsection.

The teaching and acquisition of vocational skills for young adults gearing up for the transition to employment is imperative to help better prepare for the workplace (Gilson et al., 2017). It is important that continuous skills teaching take place once in the workplace and throughout the lifetime of that role, to better help the person retain said job and experience job success. A systematic review by Gilson et al. (2017) identified numerous interventions for teaching vocational skills and emphasised the importance of staff understanding in how to teach vocational skills through evidence-based instructional approaches. The authors identified eight main types of effective instructional approach for teaching vocational skills, as collated in the existing literature, utilising either live instructors or technology. For live instructors, the four main interventions identified consisted of direct instruction, augmentative and alternative communication, simulation, and peer-delivered instruction. For

the technology group interventions consisted of self-management devices, video-based method such as video modelling, audio-based methods, and picture-based methods.

Technology has been demonstrated as helpful tool in supporting and teaching vocational skills to learners with intellectual disability (Sun & Brock, 2022). In particular, technological components such as audio, video – particularly in the form of video modelling – and augmentative and alternative communication devices (Gilson, Carter & Biggs, 2017).

The use of video modelling and video prompting for teaching vocational skills has been demonstrated as effective for increasing skill acquisition (Van Laarhoven et al., 2018; Park et al., 2020). However, in their systematic review of video modelling and video prompting interventions for teaching vocational skills in contrived or educational settings, Sun and Brock (2022) concluded that more research is needed to test how these skills generalise into authentic employment settings.

Work-related social skills teaching

Work-related social skills are historically difficult to define due to the many overlapping societal and culturally determined constructs that define social effectiveness (Phillips et al., 2004). Furthermore numerous types of skills may be grouped within the term ‘work-related social skills’ and target social skills will be specific for each learner. For the purpose of this thesis work-related social skills were defined in line with existing research to be, i. Skills to enhance a person’s interactions with others, and ii Skills that can aid in the creation of wider social networks and lasting work-related social relationships such sharing information about interests, teasing and joking with co-workers, asking questions about the conversational partners and identifying shared interests (Chadsey & Beyer, 2001; Park et al., 2018; Grob et al., 2019). With this in mind, it is not to say that pushing social skills development (or social relationships with work colleagues) on to all learners/employees/people supported is warranted and individual preferences around what social

skills that learner would like to develop still requires thought and consideration, as well as tailoring target skills to each learners and their profile.

Difficulties with social skills can significantly impact a persons' ability to participate and integrate into their community, as well as limit the number of friendships and social networks that person can develop (Walsh et al., 2018). Learning work-related social skills to enhance interpersonal relationships is therefore necessary to focus upon during that persons transition to work (Walsh et al., 2018). Barbaro and Shankardass (2022) state that the area of work-related social skills in relation to autistic people remains a small area but one that has gained significant attention over the last three years.

A systematic review by Whittenburg et al. (2020) exploring the types of interventions utilised when teaching work-related social skills to autistic people concluded that, out of 14 studies meeting inclusion criteria, the most successful interventions were those that combined several instructional methods (modelling, rehearsal, feedback) or used visually-based approaches (video-modelling). Despite the emergent evidence of the positive outcomes associated with using these types of interventions for enhancing work-related social skills, the research base itself remains limited in methodological quality, and more research is needed around evaluating these types of interventions in competitive, community employment settings (Whittenburg et al., 2020).

The use of video modelling to teach work-related social skills specifically has further been demonstrated as an efficacious method through a significant amount of research (Sun & Brock, 2022). A study by Walsh et al. (2018) aimed to evaluate the effectiveness of video modelling combined with the Walker Social Skills Curriculum and the ACCESS programme in increasing social communication skills needed to enhance workplace inclusion, for seven adults with both autism and an intellectual disability. The authors demonstrated successful outcomes in relation to the acquisition, retention and generalisation of work-related social

skills in participants and suggested the intervention as effective for supporting autistic people with an intellectual disability during the transition to employment.

With the research in mind, it is important to note that all social skills intervention will require great tailoring and input from the focal person themselves, as the target social skills to be developed will be vastly different for all learners.

Staff training methods and considerations

It is important that staff behaviour is understood in the same way as the behaviour of the person being supported, in relation to those systems of reinforcement and punishment and motivating operations that will increase or decrease the likelihood of certain staff behaviours. Mansell and Beadle-Brown (2012) state that staff play a pivotal role with respect to enhancing QoL outcomes for the people they support. It is vital therefore, that the training provided by an organisation, whether an educational setting supporting children and young adults or an adult-specific provision, is focussed upon providing staff with the skills they need to promote engagement in meaningful activities, support continuous skills development, and facilitate opportunities for social and community inclusion and employment; and develop the skills that will set the person up for successful retention of employment and expansion of social networks.

Despite the rhetoric of the importance of embedding evidence-based practices within both educational settings and adult services for people with intellectual disabilities, this is often not seen in practice (Denne et al., 2020; Pegram et al., 2022) and even when it is, staff often lack the skills to effectively carry-out and maintain adopted evidence-based practices (Rapp et al., 2010). This is particularly salient for evidence-based behavioural interventions that require a significant amount of training and upkeep.

Training packages designed for staff working with children and adults with intellectual disabilities span a wide range of topics and skills, from those focusing in on training staff in the how to enhance engagement in meaningful activities for adults living in community settings (Totsika et al., 2009), increasing staff fluency in the content of behaviour support plans (Branch et al., 2016), to training staff in behaviour-analytic skills teaching procedures (Sarakoff & Sturmey, 2004). Numerous models and methods of training staff exist, with one of the most effective methods of ensuring staff retention and competence being the Behavioural Skills training model.

Behavioural Skills Training (BST) for staff

Behavioural Skills Training (BST) is a competency-based model combining both verbal training- (lecture style content) and performance training-based components in order to fully equip staff, and others, with the skills needed to carry out a range of skills, interventions and supports (Miles & Wilder, 2009; Gormley et al., 2019). The model derives from the field of Applied Behaviour Analysis where it has been heavily evidenced as an effective method for training staff to reach full competence in relation to performing complex skills and carrying out complex interventions (Sarakoff & Sturmey, 2004; Carnett et al., 2020). As discussed by Parsons et al. (2013) the first step of BST, *instructions*, involves a verbal-training component of equipping the trainee with knowledge about the procedure, intervention, support, approach or so forth that they are being trained-up in. This includes information around the rationale for why the proposed procedure is important, considerations around when to use it and when not to, and is typically done through classroom-based instruction with some form of written materials offered throughout to act as a later reference point.

The next three steps involve a performance-training component where the trainee learns the technical skills to implement the procedure. Step two of BST involves the trainer

modelling the correct performance of the target skills to the trainee in either a scripted role-play arrangement or in-vivo in the setting where the skills will be utilised. The third step is for the trainee to gain experience and to engage in *rehearsal* of those skills, and the fourth involves the trainee receiving *feedback* from the trainer, including both positive and corrective feedback.

Although on face-value Behavioural Skills Training appears to consist of only four steps the deeper structure that holds these steps together, and determines whether a staff member has met a set requirement of mastery, is the use of a competency-based assessment (Parsons et al., 2013). A competence-based component involves the trainer assessing the retention of the skills and knowledge of trainees and enables continuous monitoring and development of trainee performance post-training. Competency-based assessment will be different for every form of staff training and depends upon what is being taught, and what the requirement is for mastering that learning or skill (Parsons et al., 2013). For example, it might be that a staff member is learning how to perform a set of complex steps for how to assemble a bicycle to in turn teach interns this skill and the mastery criterion is set at 85% correct completion of those steps, meaning that the staff member must be able to complete 85% of the steps correctly in order to then teach that skill to the learner.

Behavioural Skills Training and Active Support

Training in Active Support involves a combination of both classroom-based workshop training (typically delivered off-site) and on-site interactive training involving both modelling, rehearsal and feedback. Akin to the *Instructions* step of BST, training in Active Support begins with a one- or two-day classroom-style workshop which aims to introduce the theory, rationale and structural components of Active Support (Totsika et al., 2008). This can include teaching on the historical context of Active Support and why it's important to engage

in meaningful activity and relationships, as well as teaching around how to complete the paper-based components such as Activity Support Plans and Opportunity Plan goals. For the PCAS model the classroom-based workshop will slightly differ in this sense, and does not include teaching on paper-based components, and focuses it's training around philosophy, understanding and adoption of the four essentials of PCAS; every moment has potential, little and often, graded assistance, and maximising choice and control (Beadle-Brown et al., 2017b).

Inadvertently aligning with the *Modelling, Rehearsal* and *Feedback* steps of BST, on-site interactive training aims to allow staff the opportunity to practice skills and gain in-time corrective feedback on their performance (Toogood, 2010). The interactive training procedure comprises of a trainer observing the staff member working with a person and noting down three areas in need of further development. The trainer then takes the staff member aside and agrees upon the three development areas for coaching and follows this by a session of modelling then rehearsal for the staff member on these three identified areas, all whilst the staff member receives in-time correct feedback (Toogood, 2010). As Toogood notes in the accompanying trainer manual for Interactive Training for Active Support (2010), the training package follows the logic that each staff member needs coaching individually so that coaching and feedback can be adapted to the specific skills which they need to improve upon in order to successfully support people with intellectual disabilities. The on-site training method of 'Interactive Training for Active Support' (Toogood, 2010) which is tested in Study 2 (Chapter 4), aligns itself with the Behavioural Skills Training model, and also includes a competence-based assessment component when training trainers to deliver Interactive Training.

Considerations in relation to staff training

It is important to note that training packages alone that aim to introduce a framework or model into a setting may not be enough to produce high-quality staff performance and adoption of procedures taught. As staff are typically utilised as the natural agents for delivering interventions and supports it is imperative that a number of interactional factors are considered by a setting when wishing to adopt a new framework or model (such as Active Support). Emerson, Hastings and McGill (1994), shared considerations on the influence of staff performance for those working within services for people with IDD, specifically in services for people at risk of displaying behaviours that challenge, concluding that staff performance is a result of complex interactions between four identified influences; the behaviours and characteristics of service users, the formal or planned contingencies operating within the setting (such as the explicit aims of the organisation, policies, roles assigned to staff), the informal or unplanned rules operating (such as staff/organisational culture), and finally the resources available to staff (including both material resources and also skills, knowledge, attitudes and beliefs). These four elements work together to impact and influence staff performance and in turn service quality and then impact upon the quality of life for those supported in the service.

Therefore, when designing high-quality staff training packages, it is not only important to consider the contextual fit of the proposed training (in terms of feasibility of what is being taught and expected of staff and so forth) and the protocol for teaching said training to become fully competent; but also to consider the system in which those staff members are working.

Chapter conclusion

The model of Active Support has demonstrated efficacious findings when used to improve the quality of staff support and engagement and quality of life for people with

intellectual disabilities living in residential community setting (Jones et al., 1999; Mansell et al., 2002; Totsika et al., 2009; Beadle-Brown et al., 2013). The model strives to ensure people with intellectual disabilities are not subject to institutionalised methods of care, have independence and community presence, as well as enhanced self-determination; aligning with the goals set out by the UNCRPD and other national policies and legislation. In other fields, advances have been made in utilising supported employment models and other methods to support people with intellectual disabilities in obtaining and retaining meaningful work in community settings; also aligning to UNCRPD goals, national policies and legislation. Together, both fields strive to enhance quality of life for people with intellectual disabilities, use similar methodology and techniques in doing so (i.e., supported employment job-coaching methods similar to behaviour-analytic derived skills-teaching methods used in Active Support), and call for more to be done to enable people with intellectual disabilities to access the same human rights of choice, control and community involvement as others without intellectual disabilities. In the field of education and evidence-based behaviour-analytic procedures it is clear that substantial evidence exists on the most effective ways in which to teach skills to people with intellectual disabilities (Odum et al., 2010), with a considerable evidence-base for the use of these methods in teaching vocational skills and work-related social skills (Park et al., 2020; Walsh et al., 2018).

However, what is apparent is the limited convergence of knowledge from each field, and other fields, which could aid in the sustainability of outcomes and skill retention of those supporting the focal person, and the focal person themselves; particularly for young adults transitioning from educational settings to the world of work (in whichever type of employment that will be) or higher education.

This thesis therefore set out to develop a staff training package aimed at upskilling special education staff and social enterprise staff, both working with young adults on the

precipice of transition between these services, to establish whether utilising teaching methods and systems from the model of Active Support could be successful in enhancing the skillset of said staff when teaching vocational skills and workplace-related social skills to the people they support; as well as attempting to keep staff support methods consistent between the two types of service provision. It begins with a series of qualitative studies aimed at collating perspectives around employment from multiple stakeholders, including people with intellectual disabilities themselves, so that any subsequent training package could be part-informed from the stakeholder voice. There was a core focus upon social skills due to the research base indicating the importance of social networks for people with intellectual disabilities (Harrison et al., 2021), as well as the need for expansion of social networks and development of social skills in relation to workplace wellbeing and success (Chadsey & Beyer, 2001; Forrester-Jones et al., 2004). All research was conceptualised and designed with input from the three funding company supervisors to enable, in-part, collaborative, user-led research.

Chapter 2: Methods

This chapter aims to provide detail on the research methodology and analysis techniques used throughout this thesis. Additionally, the chapter will provide some context and justification for this methodology. Collectively, the empirical chapters (Chapter 3, 4, and 5) help to address some wider research questions with regards to developing methods to increase engagement and vocational skills in young adults with IDD. Individually, however, each study within each chapter had its research methodology decided upon based on the type of research question/s posed.

Qualitative methods

Qualitative methodology holds great potential to provide a rich set of data and address research questions that cannot be adequately addressed through quantitative designs, and is primarily concerned in “bringing knowledge of the unknown into the known” (Morse & Field 1995; as cited in Beail & Williams, 2014, p.88). Chapter 2 details two qualitative studies focused on gaining perspectives around employment opportunities for young adults and adults with IDD. For each of these studies, as mentioned above, the methodology was chosen in relation to the research questions posed. Qualitative methods in this case, specifically in the form of interviews and focus groups, were decided upon due to the need to collect a variety of stakeholder opinions to help design the research questions for later empirical studies and inform the design and finer details of any development of a staff training package.

The use of qualitative methods also meant that participants’ responses were not bound by their written comprehension abilities. This is particularly important when working with people with intellectual disabilities who may face difficulties in reading and writing (Van Den Bos et al., 2007). Moody et al. (2022) state many adults with intellectual disabilities still do not acquire basic reading skills which can potentially limit their access to critical

information and hinder their attainment of aspirations and independent living. Therefore, as according to Nind (2008), qualitative methods may be a helpful tool in eliciting the views and experiences of people with intellectual disabilities that may otherwise be prevented from participating in research that requires written responses or a good reading ability (e.g., surveys, questionnaires).

Interviews

According to Braun and Clarke (2013) interviews are an effective method for helping researchers gather information about people's views, experiences and feelings, and enable researchers to gain an understanding of behaviours that are not always observable or quantifiable. Interviews are best suited to research questions that are looking to gather information on experiences of a certain population, as well as to explore understandings, construction, and perception of things that participants have either lived experience of or a personal connection to (Braun & Clarke, 2013). We opted to use an interview approach with the adults with intellectual disabilities who participated in Study 1a. (and focus groups with the students) as they had lived experience of employment and therefore the topic that the researchers were aiming to explore. Ethical issues surrounding the act of interviewing people with intellectual disabilities that should be considered at the point of conceptualisation of the research study (Perry, 2004), are detailed toward the end of this chapter in the 'Confidentiality, consent and ethical considerations' section.

It was thought that using a semi-structured interview approach would lead to the richest and most detailed responses for analysis without participants being coerced into a closed-ended answer, and to, most importantly, give those with real lived experience the space to discuss unplanned topics if they so wished (Hutchinson & Wilson, 1992). Semi-structured interviews involve a set of pre-defined questions relating to a research question or

idea along with un-scripted prompts that are delivered during the process as a method for clarifying interviewee responses and unpacking unexpected topics in more detail (Hutchinson & Wilson, 1992; Barriball & While 1994). A semi-structured interview approach was also used in the focus groups with students.

All interviews, as with all research in this thesis, were conducted face-to-face mostly due to the research being conducted prior to the COVID-19 pandemic. However, Braun and Clarke (2013) note that there are many strengths to face-to-face qualitative research including production of rich and detailed data, increased flexibility around un-planned topics, and being suited for sensitive topics. Due to the population of Study 1a. having intellectual disabilities, it was thought more appropriate to conduct the interviews in person so that the researcher and staff member present could better monitor assent of participants, build an initial rapport with participants, and have better control over environmental distractions and competing stimuli such as noise and interruptions (Perry, 2014). All interviews and focus groups were conducted in the premises of all participants and no participant had to travel to participate in this research.

Focus Groups

Focus Groups were in Study 1a. for the student group, and for all participants in Study 1b. (staff participants). Focus groups are a method of generating data from multiple participants at the same time, to promote social interaction and shared ideas (Braun & Clarke, 2013). There are of course limitations to focus group research, particularly in relation to the threat of bias and group influence (Roller & Lavrakos, 2015; Galdas, 2017). For example, in focus group research the exchange of information and ideas may have a positive effect when eliciting new insights for other group members, but may also have to problematic effect of influencing responses from group members who do not want to disagree with the general

consensus and end up reluctantly agreeing; skewing the validity of the subsequent ‘shared theme’ or general consensus (Roller & Lavrakos, 2015). Further to this, the risk of bias is prevalent in all forms of qualitative research (Galdas, 2017). The Critical Appraisal Skill Programme (CASP, 2017, as cited in Galdas, 2017) is utilised to help practitioners critically appraise research to inform their own decision-making, and asks practitioners to appraise whether the author has critically examined their own potential bias and influence during creation of research questions, data collection and alike. Therefore, efforts were made throughout all qualitative research to identify potential bias in the researchers, from conceptualisation of studies through to write-up.

For the student group in Study 1a. focus groups were used primarily due to the idea that this method will help build confidence amongst students within a safe, peer-supported environment, in line with advantages discussed by Nind (2008). Fraser and Fraser (2001; as cited in Nind, 2008) state that it is important to distinguish whether a focus group is the right method of a group of participants prior to beginning the research, due to potential challenges some participants may have with interacting with other members of the group. Fraser and Fraser state that it is important that groups remain between six-ten members for participants who have communication difficulties, and that a member of staff familiar to that person and their communication style should be present in case of the need for interpretation. For Study 1a. with the students (and with the Study 1a. adult interviews) a staff member familiar to the participants and aware of their communication style and needs was always present, and focus groups for students were kept to three-four members per group. For staff focus groups in Study 1b. focus groups were kept to either six-twelve members per group.

Analysis of qualitative data

There are no agreed ‘rules’ per se for analysing and interpreting qualitative data (Ritchie & Lewis, 2013), with the idea that analysis approaches vary based upon the focus of the enquiry and epistemological assumptions.

For all qualitative studies, a ‘Thematic Analysis’ approach was undertaken to analyse the qualitative data, as this is seen as a robust method researchers can take to organise data into themes and patterns of meaning amongst peoples’ experiences of a common phenomenon (Braun & Clarke, 2012). An inductive approach was taken whereby codes and themes that emerged from the data came from content within the transcripts, rather than pre-existing ideas or theories that the researchers wished to develop upon (Braun & Clarke, 2006).

Braun and Clarke’s (2006) six-phase process of thematic analysis were followed, which details a set of comprehensive steps to support research through the process of thematic analysis. Following this process, for each qualitative study (Study 1a. and Study 1b.) the PhD student began by familiarising themselves with the transcripts, reading them three times and making initial notes on paper. The transcripts were then split into groups and the student proceeded to create initial codes for each transcript separately, in line with Phase 2 (generating initial codes) of Braun and Clarke’s (2012) six-phase approach to thematic analysis and then created a preliminary coding framework for each separate transcript.

It was at this point that intercoder reliability took place for Study 1b. (staff participants). Intercoder reliability is a measure of the agreement between different ‘coders’ around how the data from transcripts should be coded (O’Connor & Joffe, 2020). For Study 1b., a PhD student/second coder coded one transcript from the special education group (1 out of 4; 25%), and the one transcript for the social enterprise (1 out of 1; 100%); resulting in 33% (2 out of 6) of transcripts for the studies overall sample being coded by a second coder.

The process of intercoder reliability can be one fraught with numerous obstacles, understandably given the nature of qualitative data being open to much subjectivity and personal opinion (O'Connor & Joffe, 2020). One issue that can arise is the decision around how to calculate intercoder reliability, and how to split transcripts into segments to then calculate overall agreement. Following a method outlined by Kurasaki (2000), for this study, after coding the transcript, the first coder randomly selected three question-segments (segments of responses based around one of the semi-structured questions) of each second-coded transcript and then compared lines within that segment to the second coders coding. If codes were similar then this was considered agreement, if not, then this was discussed between the coders and coding frameworks were revised (and other frameworks were recoded). Agreement percentage for overall segment codes (6 segments of 2 transcripts) was 83%, as five out of six segments had similar codes identified, with one segment resulting in differences around how the code two lines of text. Intercoder reliability could not take place for Study 1a. due to issues within finding an appropriate coder. It was intended that an academic experienced in qualitative research would conduct this process however numerous barriers such as the COVID-19 pandemic resulted in this not being carried out. Limitations of this are discussed within the Study 1a. manuscript.

The process of *Intra*-coder reliability however was also undertaken for both Study 1a. and Study 1b., to account for the lack of inter-coder reliability for Study 1a. This involved the PhD student re-coding three transcripts for Study 1a. (3 out of 14; 21%) and two transcripts for Study 1b (2 out of 6; 33%) six months after the first time coding to check whether they would still code it consistently once returning to the data at a different time point (O'Connor & Joffe, 2020). To do this, the student did not look over the previous coding frameworks up to a month before the second coding timepoint. It was found that agreement was still high, with only one new subcode emerging from the data. Revisions to the coding frameworks then

took place and the new code was included in the final coding frameworks. The practice of conducting intracoder reliability is not common with qualitative research (O'Connor & Joffe, 2020) however can help promote researcher reflexivity and was deemed important for use in Study 1a. to attempt to lessen the limitations of no comprehensive intercoder reliability.

The process of Phase 3 in Braun and Clarke's thematic analysis - searching for shared themes, and sub-themes - for each group then began. The creation of a Thematic Framework for each group, combining the individual coding frameworks then took place, merging the shared codes from all same group transcripts (i.e., for the four special education staff group these four coding framework were merged into one thematic framework representing all special education staff codes).

Phases 4 (reviewing potential themes) and Phase 5 (defining and naming themes) then followed, concluding in main themes and sub-themes being finalised between the academic team.

It was decided that data within Chapter 3 (Study 1a. and Study 1b.) would be analysed and presented as two separate studies due to the idea that these were two discrete populations who would expectedly have very different lived experiences and views around employment and aspirations for people with IDD. Therefore, different research questions were used to generate the data for both studies, further adding to the reasoning behind presenting each study individually.

Direct observation and single-case experimental designs

Direct observation

In small n studies, or 'single-case experimental designs' as referred to here on out, direct observation of overt behaviours is typically used to assess the effectiveness of an

intervention (Kazdin, 2011). Mansell (2011) state that where the people with intellectual disabilities receiving support are not able to respond to questions or interviews accurately or reliably regarding the support they receive, observational methods are a valid measure of quality of service and support.

Before choosing the type of observational method that will be used, it is important that an operational definition of the behaviour of interest is developed. An operational definition of the behaviour of interest can help to remove subjectivity in what is, and is not, included in the behaviour (Kazdin, 2011). Hawkins and Dobes (1977; as cited in Kazdin 2011) detail three criteria that must be met when defining behaviours of interest for direct observation. The first of these, 'Objectivity', refers to observable characteristics of the behaviour of interest or to events in the environment that can be directly observed. Example of behaviours that cannot be directly observed in an objective manner would be private events such as thoughts and feelings, which would in turn require more subjective, self-report style methods to measure. The second of these 'Clarity' refers to creating a definition that removes ambiguity of what that behaviour exactly looks like so that all observers require little training before beginning observations. The final criteria 'Completeness' refers to the delineation of the boundary conditions, essentially meaning that exactly what is and what is not included within the measurement of the behaviour is clear and complete e.g., if observing a child completing a task and the behaviour of interest is the frequency of standing up from their chair to escape having to do the task, then standing up from their chair to get a better look at the task at hand would not be classed as an occurrence of the behaviour of interest of escape. For the study within this thesis which involved direct observation (Study 2, Chapter 4) an operational definition of the behaviour of interest of 'engagement' of students in the classroom was created and reviewed by the research team to ensure objectivity, clarity and completeness (included in Appendix C).

Methods for collecting observational data

There are many different types of methods for collecting observational data. The method that was chosen for Study 2 in this thesis for the ‘engagement’ behaviour of pupils was ‘momentary time-sampling’, due to the notion that this method is less intensive compared to continuous observation and allows for the collection of data that remains representative of the overall experience of the people receiving support (Mansell, 2012). Momentary time sampling involves recording whether the behaviour of interest occurs at the exact end of an interval of time (LeBlanc et al., 2015); for Study 2 10-minute observational periods per pupil ($n = 3$) were split into 30s-intervals, therefore meaning that the observer would record whether the pupil was ‘engaged’ in the task at hand on the exact moment that the individual 30s time interval had ended. The entire observation period lasted 30-minutes due to restrictions on amount of time that observers were able to reliably collect data in the classroom (as essentially classroom tasks only lasted around 30-minutes to reduce task fatigue). The process of observing people for 10-minute rotations is a common method used in other Active Support research (Jones et al., 2001).

Momentary time sampling enables the observer to record the behaviour of multiple individuals (LeBlanc et al., 2015) and allows for a range of different topographies of behaviour to be defined and measured under one umbrella operational definition. For example, Felce et al. (1980) used observational methods to record the behaviour of people with intellectual disabilities within an institutional setting using broad classifications of their behaviour as either “engaged” or “disengaged”. This was seen as particularly pertinent for Study 2, as ‘engagement’ comprised multiple different topographies of behaviour.

However, there does exist numerous limitations to momentary-time sampling, such as not providing a complete picture of the behaviour due to only recording at certain intervals,

therefore providing only an estimate of behaviour (LeBlanc et al., 2015). These limitations were considered prior to the study, however, this method was still chosen due to it also being used frequently in other published research around Active Support (Jones et al., 2001; Mansell et al., 2002); and as Study 2 was a pilot of an adapted training package in a school setting it was deemed important to try to replicate methods used within existing research in this field.

Reliability of observational measures

To confidently trust data produced by observations, the measurement of said data must be valid, accurate and reliable (Kazdin, 2011). Threats to reliability are those which negatively impact the consistency of the measurement of the behaviour of interest, with human error seen as the biggest threat to the accuracy and reliability of observational data (Cooper et al., 2019).

The method for measuring observational data reliability in behavioural research is termed ‘inter-observer agreement’ (IOA) whereby an observer compares their direct observational data with that of a second observer (Cooper et al., 2019). Consistent and accurate IOA ensures that behaviours of interest have been accurately defined, as if a behaviour is inaccurately defined or open to be much subjective, personal opinion then this will show when first and second observer scores are compared. It further gives confidence in the data and assurance that any potential variability of behaviour is not down due to specific observers (Reed & Azulay, 2011).

It is recommended that IOA should be collected for a minimum of 20% of sessions (Cooper et al., 2019), and for Study 2, IOA was collected for 21% of sessions (360 minutes). The first observer (the person who collected the majority of the observational data), the PhD student, typically collected data, and was then aided by three observers in order to collect

IOA data. Two of these observers were master's students on the Bangor University MSc in Applied Behaviour Analysis and went on to use part of the data for their own masters' dissertations, with the second observer accounting for 44% of IOA data and 22% of overall data collected and third observer at 33% of IOA data and 16% of overall data collected. The fourth observer was a PhD student in the School of Educational Sciences at Bangor University and was kept blind to the research studies aims to attempt to at least have some extent of blind observer contributing to the data (11% of IOA data collected, 6% of overall data collected).

Observers were all trained in the observational measurement system via a 30-minute training exercise based upon the steps laid out in Behavioural Skills Training (Parsons et al., 2013). This involved the first observer talking through the operational definition of 'engagement', the measurement system and pre-designed data sheet, and any questions observers had. Then, the observers had the opportunity to practice collecting data in-situ within a classroom, with discussion and corrective feedback provided afterward, before going on to collect data that would be included within the study.

Multiple calculations for IOA exist, but the one chosen for the observational data in Study 2 was interval-by-interval IOA. Interval-by-interval IOA involves two observers observing the same behaviour at the exact same time, and then dividing the number of agreed intervals (so where they said behaviour was occurring) by the number of agreed and disagreed intervals and multiplying by 100 (Cooper et al., 2019). Interval-by-interval IOA is used for discontinuous measurements such as momentary time sampling, opposed to continuous measurement such as frequency recording or duration recording (Reed & Azulay, 2011). Agreement calculations should be between 80%-100% (Cooper et al., 2019). For the three IOA observers, agreements with the first observer were between 86%-100% ($m = 96\%$), indicating a high level of agreement and, in turn, strong reliability of the data and

operational definition of engagement behaviour. However, as Cooper et al. (2007) report, it is common for interval-by-interval IOA to produce high agreement statistics, so IOA agreement results are advised to be interpreted tentatively.

Single case experimental designs

Following on from the section above, Study 2 contained an intervention that utilised a single case experimental design, specifically a multiple-baseline design. Within research an experimental design can be seen as a set of guidelines on how to arrange comparisons between different conditions to then in turn enable a researcher to demonstrate experimental control (Coolican, 2019). Two main approaches exist in relation to experimental designs: Group design and Single Case Experimental Design (SCED; Kazdin, 2011). A ‘case’ within a SCED refers to the participant but is not limited to one participant and could include a group of people or social unit (i.e., a family). A SCED differs from the more widely used group-design mostly due to the data being treated and analysed at an individual level opposed to at the comparative group level (Kazdin, 2011).

Some of the justifications used in the literature when choosing to utilise a SCED over more conventional group designs include arguments such as groups designs do not focus in on socially meaningful change but more so on statistically significant change (Smith, 2012; Cooper et al., 2019). Group designs can be very useful in relevant scenarios but not as useful when research is focused on exploring individualised interventions and supports, where the aim of these studies are not to generalise findings to other cohorts and populations. Group designs also often include the use of control groups which can be challenging when it means that the group of participants will essentially have the intervention withheld from them (Cooper et al., 2019). Whilst group design methodology do serve a function within behaviour analytic research they tend to be less commonly utilised, and again, as with the theme of this

thesis, chosen to answer a specific research question and the best fit for that person/population/group of participants.

The logic of a SCED is based around the idea of each 'case' acting as their own control therefore reducing the ethical issues around withholding intervention for those participants that would be placed within a typical control group in between-groups design (Gast & Hammond, 2010). This is achieved by collecting data prior to any introduction of intervention in a 'baseline' phase (Lane & Gast, 2013). The baseline phase has its own logic needing to be adhered to. Baseline logic relies on the steady and stable rate responding of datum points in the baseline phase. For example, on a typical line graph recording data on a behaviour before the introduction of the independent variable (e.g., an intervention), one would want to ensure that the data is not rising in a therapeutic direction (so if the aim was that the behaviour would increase then you would not want the behaviour to begin to increase during the baseline phase). There are of course instances where this may not be feasible, for example if a behaviour is highly variable to begin with and does not show a stable trend (Cooper et al., 2019). The standard aim is to collect a minimum of three, preferably five, data points in a baseline condition to determine whether the baseline is stable, however this can be lengthened or shortened dependent on the scenario, e.g., if you only need to see one instance of a severe self-injurious behaviour to then introduce the intervention and cannot risk extending the baseline to collect more datum points.

Baseline logic itself is comprised three separate components: Prediction, Verification and Replication (Kazdin, 2011). How each of these three components are achieved will vary by the type of SCED. In brief, prediction is the process of predicting that the behaviour of interest would stay the same without the introduction of the independent variable (IV), and that the behaviour will change once the IV is introduced. Verification then goes on to verify this prediction and increase confidence that there is a functional relation between the change

of the behaviour of interest and introduction of the IV. Replication then goes a step further in strengthening the conclusion that this was not a singular occurrence, through the repeated introduction and manipulation of the IV to, hopefully, obtain the same result (Kazdin, 2011).

Multiple baseline design

There are four main types of SCED: the Reversal design, the Changing Criterion design, the Alternating Treatments design, and finally the Multiple Baseline design. This chapter will detail the Multiple Baseline design (MBL) which was utilised in Study 2.

The MBL design allows for analysis of the effects of an IV across multiple behaviours, settings, or participants. One of its strengths is that it does not require the withdrawal of an IV (e.g., intervention) to demonstrate functional relations between IV and behaviour as opposed to the Reversal design (Kazdin, 2011). A MBL in a graph format looks as if it is a series of AB (baseline → intervention) graphs stacked on top of each other however this design is a more powerful demonstration of experimental control than an AB design alone. This is due to the way in which baseline logic is adhered to within the design, by staggering the introduction of the IV so that the Verification element can be confirmed by baseline of the second graph (tier) continuing to mirror the baseline that was observed within the first tier, prior to IV introduction. In essence, the functional relation between the introduction of the IV and the change in the behaviour is inferred by the lack of change in the behaviours not currently exposed to the IV, the consequence being that this design thereby demonstrates experimental control.

An MBL design can be used across behaviours (in which typically the same participant has three different behaviours focused upon), across participants (so three participants may have the intervention/IV introduced to them) and across settings. For Study 2 (Chapter 4) a MBL design across *settings* was utilised as it was deemed as the most ethical

yet robust way of demonstrating experimental control (albeit not directly) in the change in student engagement behaviour across the three classrooms which were keen to participate in the staff-training intervention.

Analysis of single-case experimental design data: Visual Analysis

The dominant analytic method for interpreting SCED data is that of Visual Analysis (Lane & Gast, 2013). Visual analysis is an analytic method of interpreting what the data presented on a graph is telling the observer. In the visual analysis of graphed data the three main dimensions used to interpret the graphed data are, *level*, *trend* and *variability* (Lane & Gast, 2013). These three analytic dimensions help to guide decision making around whether the intervention should be paused, ceased or continued, and should be applied throughout the intervention or experiment i.e., to help decide whether a baseline is stable enough for the introduction of the IV through the analysis of the trend, or by aiding in the decision of whether to pause the intervention if for example a severe self-injurious behaviour was increasing following introduction of the IV (Cooper et al, 2019).

The method of visual analysis was used to assess the real-time data throughout the baseline and intervention data collection phase of Study 2. Due to limited flexibility in when the intervention was introduced for each classroom setting, the baselines for the second and third tiers in the MBL graph did not truly adhere to baseline logic, as the maximum number of data points feasible to collect were too few to demonstrate verification of the prediction in the first tier. This limitation in part was due to difficulties in adhering to baseline logic and general experimental rules when working in naturalistic settings, specifically educational settings where length of data collection can vary upon the term times.

Although visual analysis is the preferred method for SCED analysis that is not to say that statistical analyses are not used. Statistical analyses can be thought of as an additional

tool to aid analysis of aspects such as effect size, rather than to use as a primary method of analysis or to replace visual analysis (Kazdin, 2011). One such method was used in Study 2 in the form of a non-parametric effect size: ‘Percentage of Non-Overlapping Data Points (PND)’. The PND method is used to interpret the percentage of intervention data exceeding the single highest baseline datum point (Parker et al., 2007). It has previously been described as one of the most widely used and published non-parametric effect sizes within the behavioural field, although issues with this effect size do exist (Parker et al., 2011).

One of the main issues with the use of PND is that this specific effect size does not account for potential problematic trends in the baseline phase (Parker et al., 2007), i.e., in theory you could have an ascending trend at baseline going in the therapeutic direction prior to introduction of intervention, but the PND calculation would not pick this issue up and may still infer that the intervention has been successful if the effect size was moderate or large (even though experimental control has been compromised). Therefore in Study 2, upon calculation of PND, care was taken to ascertain that the baseline data points were not ascending during baseline conditions to ensure the results were as accurate and truthful as possible.

Procedural fidelity

Procedural fidelity, also known as treatment integrity or treatment fidelity, is the extent to which an intervention or support plan is carried out as intended and designed (Brady et al., 2019). Fiske (2008, p.19) argues that a “true measure of intervention effectiveness can only be determined if the intervention is carried out as intended”, stating that even if outcomes for the focal person receiving the intervention or support are positive, one cannot truly state that the desired outcomes were due to the intervention unless said intervention is implemented as initially intended. This does not mean that an intervention cannot be adapted

once implemented, as adjusting for changes in participant or setting variables to maintain integrity of the intervention are sometimes required, it merely means that at the time of implementation every step or component of the intervention or support in the most recent, revised version of the intervention procedure must be followed as planned. Low procedural fidelity, particularly in the context of interventions for behaviours that challenge, can result in those implementing the intervention incorrectly viewing said intervention itself as ineffective rather than due to incorrect implementation, and therefore potentially resulting in moving to more restrictive and intrusive interventions (Brady et al., 2019). Therefore, it could be argued that procedural fidelity is one of the most important considerations to make during the planning stages of any intervention or treatment.

Considerations also need to be taken into account in relation to how to account for fidelity of intervention, who will collect fidelity data, and which measurement system will be used. To aid with this, there are two main ways that one can collect fidelity data: direct observation (involving the direct observation of someone else implementing the intervention), self-monitoring or self-reporting (for example, to a supervisor) (Ledford & Gast, 2013). Despite findings demonstrating that stronger recording and monitoring of procedural fidelity is associated with more successful interventions and supports, and in turn better outcomes for the people receiving said intervention or support (DiGennaro et al., 2007; Fryling et al., 2013), there remains evidence that procedural fidelity is rarely recorded or monitored (Brady et al., 2019).

This thesis does not include a typical intervention as such. However, the use of an Active Support staff training package intended to be delivered to new starting staff by those trained as ‘trainers’ and working for the school (Chapter 4), and for those supervising new starters taking the AS-WOrkS module (Chapter 5), require some element of explicit detail on

procedural fidelity. For the AS-WorkS module this was to ensure that after the researcher who developed the training module had left the staff would still be undertaking the AS-WorkS training module as intended and with every step followed by trainee staff. Further detail on how procedural fidelity was accounted for in Study 3 (Chapter 5), and the limitations of the lack of procedural fidelity in Study 2 (Chapter 4) will be discussed in the general discussion (Chapter 6).

Procedural fidelity can also refer to research plans, instead of intervention or support plans. Ledford and Gast (2013) discuss measuring procedural fidelity in behavioural research and the considerations needed to ensure high methodological rigor. The authors go on to note that procedural fidelity in this regard requires the researcher to collect fidelity data on all procedural steps across all conditions of an empirical study (e.g., baseline, intervention phase, follow-up). For this thesis, the main intervention-style study of Study 2 (Chapter 4) required the researcher to correctly monitor that each step of the study was being implemented as intended, and that the intervention-training procedure (Active Support Interactive Training) was also implemented as intended by the research and co-trainer. Therefore, a procedural fidelity checklist of all steps of the study – starting from baseline through to follow-up – was created and a self-monitoring data collection system was implanted (whereby the researcher self-monitored their own fidelity to the research protocol); this checklist can be viewed in Appendix C.

Consent, confidentiality, and ethical considerations intertwined

To end this chapter the considerations taken throughout around consent, confidentiality, and ethics for all participants, as well as the ethical guidance adhered too will be reviewed.

Consent and confidentiality

Informed valid consent consists firstly of being informed in the sense that all pertinent aspects of what is about to happen within the research is disclosed to the participant, and that the participant comprehends the information. The second part, consent, refers to the notion that the participant is competent to make a rational and mature judgement, which should be voluntary and free from coercion and undue influence (Homan, 1991).

One of the main ethical considerations taken was around informed consent for those who lacked capacity to provide informed consent, or who had been assessed as needing support in decision making. For Wales and England, the Mental Capacity Act (MCA; 2005) applies to everyone involved in the care, treatment and support of people aged 16 years and over, who are unable to make all or some decisions for themselves, particularly in relation to participation in research. For this thesis all participants with intellectual disabilities had previously been assessed for capacity by the organisations involved (through the individuals general practitioners).

For the first empirical study, in Study 1a., for the group of adults with intellectual disabilities who were working within the social enterprise company partner, it was decided by the working group (researchers and company partners) that only those who had been assessed as having the capacity to make an informed decision and to communicate clearly whether they wished to participate would be invited to participate in the study. Even with this as a governing criterion, the author and colleagues worked to ensure every effort was taken to make the process, consent forms, and information sheets as clear and direct as possible. Pre-written verbal scripts, intended to provide a verbal briefing of the information sheets for participants were used by the researcher and staff member supporting in the interviews, so that all information related to the study was explicit. Following on from advice included within a chapter around ethical issues to consider when interviewing people with intellectual disabilities (Perry, 2004), it was deemed important that this pre-scripted verbal information

and information written in the information sheet included details around the risks and benefits of participating in the research, what impact the research would have on themselves and others, and what impact not participating in the research might have (which was none, but this was made explicitly clear). Follow-up questions were also asked to further ensure that all information had been understood, in line with recommendations from Perry (2014).

The supporting staff member who was present throughout was a person well known to the participant and had worked with each participant for a number of years prior. They were therefore able to provide further advice on whether the person fully understood all elements of the research and consent process. This staff member was present during all interviews and focus groups for the students.

Perry (2004) further details that interview topics can at times cause anxiety or distress to the participant. During the ethics application this concern was raised for one proposed question by the ethics committee and was therefore removed from the pre-defined question list, as it was deemed as not necessary to be asked. All other questions were then heavily vetted by the research team and company supervisors to ensure no further questions may risk evoking experiences of anxiety or distress. Assent of participants was monitored continuously throughout by both the researcher and staff member, and if participants showed any sign of distress the interview was immediately terminated and participants were offered support by the staff member.

Acquiescence is defined as a tendency to agree to questions regardless of the content of that question (Finlay & Lyons, 2002). It is well documented in the research that people with intellectual disabilities may display high levels of acquiescence (Heal & Chadsey-Rusch, 1985; Heal & Rubin, 1993), along with recency bias where the person will tend to choose the second of 'either/or' style questions (Sigelman et al, 1981). Perry (2004) notes

that closed-ended questions such as ‘yes/no’ or ‘multiple choice’ questions can run the risk of increasing acquiescence, alongside limiting a range of responses from a person. Therefore, efforts were made to keep questions open-ended and limit the number of ‘yes/no’, ‘multiple choice’ and ‘either/or’ questions asked to participants.

The second group of participants recruited to within Study 1a. was the ‘student’ group for students currently attending a post-16 classroom within both of the special education company partners. To abide by conventions set within the schools, parental consent was obtained even for those students who were above the age of 16-years (students’ ages ranged between 16 years and 19 years of age); alongside informed consent from students who had been assessed as having capacity to consent and make decisions (students who had been assessed as lacking capacity or who had not been assessed were not included in the study).

A further challenge that can present when gaining informed consent from people with intellectual disabilities can be power dynamics between researcher and participant (Nind, 2008; Cameron & Murphy, 2007), which can also increase acquiescence. The PhD student was aware that students generally reacted positively in her presence and would often ask to talk to her when she visited the school settings. Therefore, the PhD student chose to spend time outside of the research with students during classroom-based activities, alongside the teacher and other teaching assistants, so as to remove the novelty of her presence. Other options for preferred activity were also offered to students during the consent collecting procedure so that students did not feel as if they could only spend time with the PhD student during the focus groups.

For the student group, the same procedures and considerations were made as with the adult group. For example, a staff member was always present, and procedures were put in place in case any student felt anxious or distressed by the questions asked or topics discussed.

For participants who did not have an intellectual disability (such as the staff groups), the usual consent procedures were followed such as providing a clear and overt consent form and information sheet. Participants were also given Welsh versions of both the information sheet and consent form (as many participants expressed they were more confident in reading Welsh). Consent forms were produced and obtained in a written format and then kept within a locked cabinet within the School of Educational Sciences at Bangor University, where they still reside at time of writing. Copies of each consent form and information sheet for the empirical studies carried out in this research project can be found within the appendices.

Confidentiality

In relation to confidentiality, all participants were given pseudonyms and all linking information said during the qualitative studies (such as addresses, place of work, previous place of work etc.) was removed from this thesis to further ensure anonymity. General demographic information was not routinely collected for participants, and when needed, was only for instances where demographic information would be useful for the research questions posed.

Adherence to ethical codes of conduct

All featured studies within this thesis obtained ethical approval by relevant University ethics boards (see Appendix). At the start of the conceptualisation of the intervention study Study 2, and in line with behaviour analytic research and adherence to behaviour analytic codes of conduct, this study utilised two main ethical codes to help guide decision making and ensure that ethical consideration was continuously assessed throughout.

The first of these was the Behavior Analyst Certification Board (BACB) ‘*Ethics Code for Behavior Analysts*’ (BACB; 2020). This code does not necessarily apply to those who are not certified with the organisation or practicing in a clinical or research context as a

Board-Certified Behavior Analyst (BCBA), however as significant portions of this thesis involved behaviour analytic informed interventions and approaches it was deemed appropriate to adhere to this code where relevant. Much of the code did not directly apply due to its purpose predominantly being for clinicians, however Section 6 ‘Responsibility in Research’ was deemed to be particularly relevant.

As previously mentioned within Chapter 1, due to the apparent differences between how behaviour analysis is conceptualised and practiced within the UK opposed to the United States, a UK-specific ethics code was also referred too. Therefore, the second code was the UK Society for Behaviour Analysis (UK-SBA) ‘*Code of Ethical & Professional Conduct*’ (2017). This code also contains a section specifically for researchers who are conducting research that aims to inform and develop practice. Items on both codes were similar regarding ethical considerations, such as those previously mentioned within the consent and confidentiality sections of this chapter.

Chapter 3: Study 1a. and Study 1b.

Chapter 3 Preface

Before any staff training package was developed around enhancing vocational skills and work-related social skills for young adults with IDD, it was important that those with intellectual disabilities, as well as stakeholders supporting those individuals, were invited to input their own perspectives on what was important and needed when creating such a training package.

The first empirical chapter contains two qualitative studies that aim to draw together the experiences and perspectives of key stakeholders around several topics associated with employment for people with IDD, to guide the initial design of the staff training package. The studies also set out to explore topics known in the literature to either be underdeveloped or limited in a specific focus. Studies are split into: Study 1a. and Study 1b.

This chapter contains the manuscripts of Study 1a. and Study 1b, along with their individual prefaces, with the intention that both will be submitted to peer-reviewed journals in the field of intellectual and developmental disabilities. Abbreviations (i.e., IDD) have not been used to keep with typical conventions of journals in this field.

Chapter 6 contains a more detailed discussion of the implications, applications, and limitations of these two empirical studies as a whole.

Study 1a. “Social Enterprises as a source of meaningful work and opportunity to expand social networks: lived experiences from people with intellectual disabilities”.

Evans, C. A., Griffith, G., Toogood, S., & Hughes, J. C. (*in preparation*). Social Enterprises as a source of meaningful work and opportunity to expand social networks: lived experiences from people with intellectual disabilities.

Abstract

Social enterprises with a focus on providing work for people with intellectual disabilities are becoming increasingly popular. This qualitative study aimed to further identify the merits of social enterprises by exploring the lived experiences of those accessing them; to attempt to decipher whether more can be done to facilitate meaningful experiences during attendance, support the expansion of social networks and relationships, and aid in pursuit of work outside of the enterprise. Eleven post-16 students attending work-experience placements at two social enterprises through their special education schools, and 11 adults with intellectual disabilities routinely attending one of the enterprises, gave their time via focus groups or interviews. Data were analysed using thematic analysis, which yielded three main themes: (1) Feelings around work and limited social networks and integration (2) Thoughts around open employment and future career aspirations and goals and (3) The importance of discretionary weekly payment for the adult group. Many voiced their enjoyment of work at the respective social enterprises, although exposure to, and promotion of, other forms of employment opportunities within the local community appeared low.

Key words: Social Enterprises, Employment, Meaningful Work, Transition

Introduction

The barriers faced by people with intellectual disabilities when trying to obtain paid employment are well documented in the research literature and continue to be extensive (Lysaght et al., 2017; Meltzer, Robinson & Fisher, 2019), despite considerable evidence for the positive outcomes on the physical and mental health of people with intellectual disabilities of being in paid employment (Emerson et al., 2014; Beyer & Beyer, 2017; Hatton, 2018; Robertson et al., 2019). Positive outcomes associated with secure, paid employment include increased quality of life, well-being, and autonomy for people with intellectual disabilities (Jahoda et al., 2007; Beyer et al., 2010), as well as financial benefits for the person, compared to relying solely on state support for income.

Data gathered prior to the COVID-19 pandemic for 2018 demonstrates that employment rates for people with intellectual disability were substantially lower in comparison to those without intellectual, developmental or physical disability; for England this figure was at 6% and for Scotland at 4.2% (Mencap, n.d.). Due to the lack of accurate data from Wales and Northern Ireland - the respective governments do not publish specific data on how many people with intellectual disability are in paid work - it remains unclear how low the overall employment rate is throughout the UK (Hatton, 2018). The available data is expected to show further decreases, and at a faster rate compared to previous years, due to the anticipated increase in competition for jobs caused by the COVID-19 pandemic (Beyer, Vigna & Meek, 2021). This, coupled with the numerous benefits to overall quality of life, physical and mental health, indicates a pressing need to develop and sustain employment initiatives aimed at creating job opportunities and job coaching specifically for people with intellectual disabilities, and should be of high importance for policymakers. Sourcing the funding for these initiatives and creating work-placements and job-role opportunities in community employment settings can still be a challenge, however.

Although various employment models and initiatives exist across the UK, one of the better evidenced and cost-effective models is the ‘supported-employment’ model (Beyer & Robinson, 2009; Gore, Forrester-Jones & Young, 2013; Hatton, 2018). Programmes underpinned by the supported-employment model continue to demonstrate highly successful results in relation to obtaining and sustaining competitive employment for people with intellectual disabilities, as well as improved quality of life compared to those working in sheltered employment settings (Beyer, 2010; Meek et al, 2019). Core to the goals of supported employment is enabling integration into society and subsequent access to competitive community employment in open settings. Previous studies have demonstrated that people with intellectual disabilities tend to experience higher rates of job satisfaction in open/community employment, compared to more segregated settings such as sheltered employment (Akkerman et al., 2016; Voermans et al., 2020). However, the number of supported employment internships and opportunities in open employment settings available across the UK continues to remain low, and Government initiatives that attempt to mirror aspects of supported employment models, such as the Intensive Personalised Employment Support (Department for Work & Pension, 2021) still require evaluation (Kennedy et al., 2021).

For young adults in educational settings wishing to transition into employment post-graduation, evidence suggests better outcomes of employment for those who partake in work-awareness training combined with work experience whilst at school or college; particularly if the school or college work with transition support/employment agencies to facilitate these work experience opportunities (Beyer & Kaehne, 2008; Beyer et al., 2016). However, as Beyer and Kaehne (2008) note, it can often be difficult for educational settings to access these agencies in practice due to factors such as resource barriers and allocation of funding

within the educational setting, concluding that funds should be allocated to building links between education and employment organisations.

A different form of effective employment initiative could be that of social enterprises; specifically, social enterprises consisting of an economically viable business-model providing meaningful work opportunities for people with intellectual disabilities (Smith et al., 2018).

As Meltzer, Kayess, and Bates (2018) report in their comparative review of the lived-experiences of people working in sheltered employment, community employment, or a social enterprise, social enterprises can combine some of the associated benefits of sheltered and community employment, and in-turn expand the employment choices available to people in their local area. Smith et al. (2018) also highlight benefits to people with intellectual disabilities of working in social enterprises, such as a focus on respect and dignity regarding being viewed as an employee and not a client (as such in sheltered employment), opportunity to develop skills and competence in a supportive environment, and a chance to be present and participate in the local community: as long as said enterprises hold business values centred around meaningful social change and not for profit. Smith et al. (2018) further note that social enterprises can help develop the employment aspirations of people with intellectual disabilities and hold the potential to promote long-term career aspirations and aid in the transition to community employment. Many social enterprises also offer token payment to workers with intellectual disabilities, and if economically viable as a business, hold the potential to pay workers a full competitive wage reflecting that of a community employment wage (although the extent to which this is happening in practice is uncertain). Receiving consistent payment for employment is associated with better physical and mental health for people with intellectual disabilities (Hatton, 2018). Being in competitive employment has further been demonstrated to be a particularly effective for enhancing adaptive skills of workers with intellectual disabilities (Beyer et al., 2016).

Based on these findings, it could be suggested that social enterprises which are specifically oriented to providing employment for people with intellectual disabilities could be utilised in a post-COVID-19 climate to expand employment choice and support transition into paid work or supported employment programmes in community employment settings.

However, limitations to social enterprises can exist, especially regarding the organisational structures of social enterprises and the internal limits that may present within. As Wolfensberger and Glenn (1978) note in the Program Analysis of Service Systems (PASS3) manual, one ideological aim for services should be to work toward integration of people with intellectual disabilities into their own communities and society; with the authors noting that a service could in theory be “optimally integrated physically, and yet its clients could still be extensively segregated socially” (p. 10). Therefore, there is a potential risk that social enterprises which survive economically from having employees work solely for the enterprise may contain perverse incentives associated with wanting to keep their employees in the enterprise, which may result in less facilitation and promotion of community employment opportunities for their employees who wish to work in open labour market.

McConkey and Mezza (2006) found through conducting a survey of 275 people with intellectual disabilities attending day centres offering vocational experiences (in which staff completed the survey about the key person supported), that one third of people supported aspired to leave the day centre to obtain work in open settings; yet only identified four people (1.5%) who had previously been in any form of paid employment. However to date, limited research exists on the open and paid employment aspirations of those attending social enterprises, particularly through subjective measurement opposed to support staff reporting on a persons’ behalf. Exploring the lived experiences of people with intellectual disabilities who already work in social enterprises may be deemed as an important part of understanding whether arguing for expansion of choice through promoted use and development of social

enterprises is merited. As Beyer and Robinson (2009) note, social enterprises may offer fewer opportunities for social inclusion in wider society than supported employment models.

Building on social inclusion and opportunities to form meaningful, real relationships with others, it is reported in the literature that individuals with intellectual disabilities typically have much smaller social networks than those without intellectual disabilities (Harrison et al., 2019). Social networks are the web of relationships connected to an individual, strengthened by the quality and quantity of said social network. As Forrester-Jones et al. (2006) note, there are multiple different typologies of social support and interactions behaviours provided by network members that can define the quality of a social network. These include types such as support in personal care, decision making, and invisible support such as having a person who looks out for you, as well as interactional behaviours such as frequency in which members of the network interact, duration of the relationship and reciprocity of the relationship. For individuals with intellectual disabilities one risk of being in a small social network, is related to the networks being too interconnected (Forrester-Jones et al., 2006) therefore resulting in potential issues with privacy, dignity and overshare of information about the individual (i.e., if the network is purely made up of support staff from different services). It is stated that for many people with intellectual disabilities their social network tends to exist of few friends outside of their family and support staff (Hall, 2010), with common obstacles to expanding networks being reported as the lack of opportunity to foster and maintain social relationships (Callus, 2017).

This study aimed to add to the literature by providing a localised insight into the lived experiences of those who are either attending a social enterprise via school-organised work-experience or have been placed in or obtained full-time work at one; and what the community employment (open labour market) aspirations may be for these individuals. The following exploratory study involved both young adults (16-19-year-old students) and adults with

intellectual disabilities and attempted to investigate how opinions on social enterprises and community employment may differ between age-groups; between those who are beginning the transition into adulthood and those who are well-established in their adulthood.

From here on out the young adults who participated in this study will be referred to as the ‘students’ to differentiate clearly between this group and the ‘adults’ who attend the social enterprise full-time and are no longer in full-time education.

Methods

Participants & Settings

Twenty-two participants across two groups took part. Inclusion criteria for all participants was a diagnosis of intellectual disability. Exclusion criteria included lack of capacity to provide informed, valid consent and inability to communicate via vocal means.

One group of participants comprised 11 students aged between 16-19 years ($f = 5$, $m = 6$), who attended one of two special education schools full-time. The other group were 11 adults attending work-placements at a social enterprise ($f = 5$, $m = 6$). Exact age was not collected for the adult group however researchers, working with senior management, made sure to invite individuals who represented the range of ages of all employees at the social enterprise as the social enterprise offers work placements for adults aged between 19-years of age to 65-years of age.

For the student group, eight students attended School 1 and three attended School 2. Students from School 2 attended work-experience placements in the same social enterprise as the adults in this study, whereas students from School 1 attended work-experience placements at a different social enterprise (both enterprises were identical in their business model, aims and objectives). The term ‘social enterprise’ was defined in this study as a provider whose primary objective is to create work placements and training specifically for

people with intellectual and/or developmental disability, and whereby many of these work-placements take place within the provider itself; in line with other research (Meltzer et al., 2018). In contrast, an open (community) employment provider was defined as one which does not solely offer work opportunities to people based upon intellectual disability and offers competitive and paid employment at national minimum-wage level. Supported employment, although not named within the questions themselves, does not fall into the category of community employment, as it is a model which utilised a specialised job-coach to help train the person in a role.

All participants have been given pseudonyms to maintain confidentiality.

Procedure & Design

Upon obtaining ethical approval, the first author began the process of recruiting participants. A representative sampling method was used, in which headteachers or enterprise management staff suggested participants who best represented the diversity of students and adults, and who had been assessed for capacity prior and deemed to have capacity. To further ensure the study information was truly understood, participants could choose for consent to be discussed in either English or Welsh. The first author obtained both parental/guardian written consent for nominated students in line with the schools' protocols, as well as informed consent from all students (as students were over the age of 16-years, so by law regarded as adults). Informed consent was also obtained for the adult participants working in the social enterprise. Ethical considerations were taken into account in the very early stages of study conceptualisation, in line with recommendations from Perry (2004) and Nind (2008), around interviewing and running focus groups with people with intellectual disabilities.

Data was collected via focus groups for students, and individual interviews for the adult groups. Semi-structured questions were used to explore experiences of work at the social enterprise(s), of community employment, and of future aspirations. Each group were

asked the same questions; with slight adaptations between students and adults to reflect the differences in life experience and age.

For the student group, two to three students at a time attended a one-time focus group lasting approx. 15 minutes in an unoccupied classroom. Four groups ran in total, the longest session lasting 17:38 minutes. Individual interviews were utilised for the adult group; with two participants choosing to be interviewed together. Interviews lasted between 07:40 - 19:43 minutes. For all focus groups and interviews the facilitator was supported by a member of staff known to the participants in line with safeguarding protocols, ethical considerations (Nind, 2008) and to provide potential interpretation (Nind, 2008) and translation for the six adults who chose to answer at times in Welsh. The staff members were briefed before the interviews took place on the interview protocol.

Data Analysis

Audio files were transcribed predominantly by the first author. Six of the adult interview audio files were transcribed by a first language Welsh speaking researcher from the University so that any Welsh conversation could be accurately translated. These six transcripts were then re-transcribed by the first author, who had Welsh reading and writing ability.

Thematic analysis was utilised to analyse the data (Braun & Clarke, 2012) using the qualitative software programme NVivo v.12. The first author split the transcripts into two groups 1) Student transcripts and 2) Adult transcripts. Separate thematic analyses were conducted for each group. Then we followed Braun and Clarke's (2012) six-phase approach to thematic analysis.

This study followed an inductive approach (Braun & Clarke, 2013) as the exploration of the data focused upon the experiences and voices of all participants. As one of the social enterprises was part-funding the research, to mitigate against potential conflict of interest the

first author followed a reflexive process (Haynes, 2012) during the analysis phase to ensure that themes created, as much as possible, arose from the data rather than any pre-conceived expectations, ideas, or desired outcomes (particularly considering the conflict of interest of being funded by the settings participants worked in).

Results

During the analysis phase, student and adult data were reviewed separately. For the following results, both student and adult data are presented together under three shared themes. Further emergent subthemes and contrasts are noted in the discussion.

Theme 1: Feelings about work and limited social networks and integration

For the **Student** Group, six of the eleven students (54%) were positive when asked about their experiences of school-organised work placements at a social enterprise. One student (9%) did hint at some hesitation towards starting their new school-arranged placement choice (the reasons why for this was not explored further due to time pressures) however most students appeared content with their upcoming, current, or prior work placements; even though those placements were chosen by school staff rather than themselves.

For the **Adult** Group, nine of the adults (82%) interviewed described positive experiences of working at the social enterprise, and four went further to talk about experiences that displayed opportunities for personal development and learning skills that could be transferred into the home environment:

“My mam wants me to learn first erm like, get help, learn how to cut stuff with a sharp knife.

Coz I’m not allowed to use sharp knife at home” (Eira).

One adult (9%) also commented positively on the variety of social and leisure opportunities offered by the enterprise outside of working hours, mentioning that they attend “*parties and discos*” with co-workers.

When asked about opportunities for social contact and making new friendships during their time on work experience at the social enterprise, **students** either did not answer the question, or provided ambiguous or unclear responses. Typically, students attended work placements with others from their classroom meaning a high proportion of opportunities for social contact during placements would be with classroom-peers already known to them. Just two students (18%) said they had made new friends with “*the staff there and with the people there [at the social enterprise]*”. One student did state that they had made a friend, this person was also their supervisor.

When asked if they had friends in the enterprise and who their friends were, **adults** tended to name staff members as their friends and in most cases ($n = 7$; 64%) only named staff members as friends opposed to other co-workers with intellectual disability. This could suggest that workers spend most of their working day with staff, rather than fellow co-workers, therefore creating stronger bonds with staff, and potentially highlighting limited available opportunities to socialise away from supporting staff.

In terms of activities not organised by the enterprise and outside of working hours, only one **adult** commented on their social life away from the enterprise. When asked about what they like to do on a day-off, this adult answered that they liked to spend time with their befriender (a volunteer who provides companionship to people with intellectual disabilities); and expressed how much that befriender meant to them. All other adults did not discuss their social lives outside of the enterprise when asked. It could be speculated, based on this, that they did not engage in many social activities outside of their time at the enterprise.

Three **adults** (27%) stated they enjoyed working with and around other people (either with or without an intellectual disability) and that they had more “*fun*” when with others. In contrast, four adults (36%) stated that they preferred to work alone, because of noise-disruption when working, including episodes of behaviours that may challenge displayed by other workers with intellectual disabilities.

Theme 2: Thoughts around open employment and future career aspirations and goals

When exploring with **students** what career or job they would like upon leaving school or college many of the jobs that were listed demonstrated that career ambitions had been given some prior thought, such as a DJ, a police officer or a professional pool player.

Seven students (64%) stated they planned to attend college upon graduating school. Three students (27%), whilst certain they were going to college, did not have a clear idea of exactly what they would like to study. One student was not sure they wanted to go to college, but knew their parents wanted them to attend and felt they should give college “*a go*” because of this. This brings about questions of the amount of autonomy students have in their future decisions, and whether they are heavily steered to certain options, as well as limited in the number of options available to them.

Five **students** (45%) said they would prefer to attend a social enterprise similar to the one in which they already attended for work-experience placements, over working in a community employment setting. Four **students** (36%) had strong preferences to work in an community employment settings in the future. When asked why this was, one student said they were keen to work in community employment because:

“I think big company as it would be good for me to go to busy places and get used to the people in there that aren’t the same as me or my classmates” (Arwen).

One of the four students who wanted to work in a community setting stated that this was due to wanting to earn consistent, high wages:

“In a big company like Tesco or a hotel in the summer, but Tesco all year round as it’s so busy there you make money don’t you” (Dafydd).

The other two students were unsure (18%) about which employment option they would want to obtain work in.

Whilst five **students** stated they would prefer to attend a social enterprise rather than a community employment setting it is worth noting that most of these students had never experienced work placements in the community. With verbal reports from the participating schools of limited opportunities to access placements in community settings, most placement-choice was down to availability and feasibility and existing partnerships with the local social enterprises.

When asked what they may find difficult in the future, no student talked about barriers they may face in finding work in open employment settings, although many people with intellectual disabilities experience numerous barriers (Beyer & Beyer, 2017); suggesting some were not aware of such barriers into open employment.

For the **adults**, when asked about future career and work-related aspirations, the majority stated they would prefer to stay at their current workplace at the social enterprise for the long-term (seven out of 11; 64%). However, four adults said that they would be keen to try new work-related opportunities in open employment settings, with evidence of previous consideration to what and where these new work-opportunities could be:

“In the future I’d like to do training course to teach kids to play football” (Rhys)

“Working site doing woodwork. Then I could use my NVQ” (Tomos)

A shared theme for these two adults, in terms of leaving the enterprise, was that both had been attending work placements there for several years, and felt ready to move on:

*“Yeah, well I’m ^{**[age]} next year and I feel I’ve worked here for long now... I feel I want to leave here [social enterprise] to do something else” (Rhys)*

Neither adult expressed a specific idea of where exactly they wanted to work in relation to the desired job-role, perhaps indicating a lack of conversation related to which local companies could specifically provide these desired work opportunities. In summary, most adults interviewed enjoyed working at the social enterprise. Two adults showed an interest in working in open employment settings, their reason being they had worked at the enterprise for several years. As with the student group, it is unclear how many opportunities for work experience in open employment settings are promoted to the adults by social enterprise staff.

Theme 3: The importance of discretionary weekly payment for the adult group

Adults on work placement at the social enterprise receive a very modest sum of money at the end of each working week, an amount calculated not to impact on any state support income (benefits) received. Designed to act as a discretionary weekly pay many adults responded positively when asked how they felt towards being paid, with some viewing it as indicating they had worked hard that week:

“If you do a good job yeah if you work hard yeah then you can go out to party” (Tomos).

When asked if they would stay at the enterprise if they were not paid a discretionary payment five (45%) adults said yes, four (36%) adults answered no, and two that they were unsure. When asked whether they would like to pursue paid work in open employment

settings, two adults said that the potential loss of state income support (benefits) upon obtaining paid employment would decrease the likelihood of pursuing such roles:

“So you’d like help to create a CV for a job somewhere else in the community? Is that what you said?” (Facilitator)

“Yes, but I’m worried that I’d lose my uh benefits if I work in a place in the community that’s not here [the enterprise]” (Lowri)

It is apparent that money and income is of high importance, and there may be need for providing better information and education around payment when in full time or part time employment in community settings and the impact that could have on state support.

Discussion

The findings of this study build upon existing research around social enterprises and employment for people with intellectual disabilities, providing insight into both lived experiences of work, and potential differences in perspectives that may arise between young adults transitioning into adulthood and adults who have fully entered vocational occupations. Firm preferences around types of work placement and overall enjoyment of social enterprises were evident across both students and adults, yet responses regarding open employment were at times apathetic; not necessarily highlighting a dislike for open employment but perhaps more so a lack of experience and opportunity to develop strong feelings around work in open settings.

Feelings about work and limited social networks and integration

The limited amount of opportunities for creation of social networks and friendships within wider community networks whilst attending a social enterprise was apparent throughout both groups. Harrison et al (2021) report that social network size for adults with

intellectual disabilities is typically both smaller and more restricted than for people without intellectual disabilities, with many social networks being limited to others using the same intellectual disability service. Similar to this finding, here students and adults at times referred to support staff, or other colleagues and students with intellectual disabilities working within the enterprise, as their social network rather than people outside of the social enterprise. These relationships still constitute a social network, however the reciprocity of these relationships is brought into question (more so in terms of support staff and power imbalances) as well as the risks associated with smaller social networks (i.e., risk of network being too interconnected resulting in issues with privacy, as well as depletion of opportunities stemming from multiple relationships). As social relationships are fundamental to the key concepts of independence, choice and inclusion, efforts should be made to expand the social networks of all employees to those beyond the social enterprise itself. This finding also suggests the need for supporting individuals working at said social enterprise to develop skills relating to recognise and utilise opportunities for social relationships, as well as skills to maintain and repair relationships over time.

The limited social opportunities available to individuals may also hinder the chance to form social relationships with people not using the service/enterprise, and further indicate a lack of integration into wider community social networks. As Wolfensberger and Allen (1978) note, a service (or social enterprise) must be concerned with how likely it is that the number of clients attending the service will be realistically absorbed into the surrounding community social system to fulfil the ultimate aim of integration into the community and away from the service. However, the apparent lack of social networking within the community suggests that the push for community assimilation may not be an active goal of the social enterprises.

Another shared theme that emerged on a more complimentary vein was the overall enjoyment of work at the social enterprises. Some students did comment on their lack of enjoyment of certain placements which they had been previously assigned too, indicating that students may not have an abundance of choice available to them. This theme of choice was not directly explored in this study and is therefore a suggestion for further research, with the need for more data on the amount of choice and control people have in terms of direct work placement during their time at social enterprises, and where limited, why these reasons may be; perhaps dependent on external limitations within the surrounding community or internal limitations regarding lack of funds to create numerous placement-types.

Thoughts around open employment, and future career aspirations and goals

Findings demonstrated that many students, but only two adults, held ideas around what open employment job they would like to pursue if the opportunity arose. One student showed awareness of the potential differences between social enterprises and open employment settings, demonstrated by the acknowledgment that in open employment settings more colleagues may not have an intellectual disability and would not be “*the same as me or my classmates*”. However, one aspect which remained unclear was the level of knowledge, exposure and awareness both students and adults had had of the different types of work available in open employment settings accessible to them within their local area, such as local supported employment initiatives (Meek et al., 2019).

Students on average were highly aspirational when asked about future job goals and many spoke with great confidence and a self-assured nature when talking about their ideal job. When asked about the help they might need in obtaining these jobs many answered no or did not answer, for future research it would be helpful to find out more around the level of knowledge students have on the qualifications they need to achieve to pursue career goals. As Bigby and De Losa (2021) note in their exploration of the experiences of students with

intellectual disabilities attending after-school jobs as part of an Australian ‘Ticket to Work’ initiative; attendance of work-based placements in open settings throughout schooling can be beneficial in helping students form grounded, clear aspirations and expectations toward future career options. Offering a wider range of work-experience placements in open employment settings, as in Bigby and De Losa’s (2021) research, could help pupils develop clearer, more realistic expectations toward both preferences for future work, as well as to potential future barriers and what could be done to proactively prepare for these.

The importance of weekly pay and income support

Many adults felt that weekly pay was important to them and that the discretionary payment they received brought about feelings of happiness, fulfilment, and reinforced that the work done was adequate. Prior research has demonstrated that young adults with intellectual disabilities can experience anxiety around income support regulations when pursuing work, with findings showing evidence of feeling uninformed around how benefits could be affected (Heslop et al., 2002 & Joseph Rowntree Foundation, 2002, as cited in Beyer, Meek & Davies, 2016). Mirroring these findings within the adult group, it was evident that even though two adults wished to pursue work opportunities in open employment settings, they were cautious at the idea of losing their income support or in not re-accessing full income support if the job does not last, or they wished to leave. A suggested solution to improving job retention success, and in turn, alleviating pre-existing anxieties surrounding potential loss of income support through paid employment in open employment settings, could be to promote the use of a supported employment model as an upskilling internship before transitioning into full time un-supported employment in open settings (Beyer & Beyer, 2017). As Seebohm & Beyer (2003) note, supported employment models can be cost-effective for people with learning disabilities in the UK resulting in higher financial gain if people retain the full time employment once the support is removed.

It was also unclear who was educating the adults about the income support system, and whether the adults had had any formal education in this matter. Therefore, better understanding the levels of knowledge and understanding people with intellectual disabilities have around the income support system, and what impact paid employment in open employment in particular can have on such support, is needed regarding future research.

Limitations and future research directions

There are numerous methodological limitations to this study however. The most evident is the small sample size and inclusion of only one social enterprise for the adult group. This limits the generalisability of individuals' lived experience to other social enterprises, particularly those working within a different business model and geographical area.

A further limitation was the lack of inclusion of individuals, particularly within the adult group, who could not communicate through vocal means, did not have capacity to provide informed consent, or faced communication difficulties. Various communication systems have been developed to enable individuals with communication needs to input their opinions and perspectives on a range of factors affecting their lives. The use of the visual communication system *Talking Mats*^R. has been well evidenced as an effective tool for supporting individuals with little to no speech to express their views effectively (Breeze, 2021). Talking Mats has been utilised across a range of different areas, such as using the system to support individuals to express views on aspects relevant to a functional behaviour assessment; such as views around their own behaviours that challenge and things that may help to prevent behaviours that challenge (Bradshaw et al., 2018). Not exclusive to one age-group, the system has also been used to support children in the process of identifying goals to priorities for future support, as well as their views on their needs, behaviour, and preferences (Gore et al., 2021). However, as Breeze (2021) notes the need, when using all forms of

communication systems and aids, to tailor the chosen approach to the individual participating, making sure to choose the approach most preferred by the individual.

Therefore, to combat the limitation of lack of inclusion of all individuals, regardless of communication ability, more effort needs to be made to ensure a range of communication supports, tailored to each participant, is available throughout the study.

On a more general scale, relating to this study and future research, more is still needed around exploring the lived experiences, aspirations, and educational needs of people with intellectual disabilities in relation to employment, alongside the need to further involve those with lived experience in the entire research process (from conception to write up) so that the end results presented to employment initiatives and social enterprises can directly reflect the priorities and needs of the people they were created to support.

Conclusion

Beyer, Meek and Davies (2016) report that young adults with intellectual disabilities face numerous barriers and limited, appropriate opportunities available when transitioning into competitive paid employment. With this in mind, the authors suggest that social enterprises could aid in the transition from school to adult service, whilst waiting upon obtainment of supported employment internships (if the person wishes to pursue work in open employment as an end goal), but only if said enterprise champions integration into the community and wider society and attempts to alleviate internal limits which may restrict this and work around external limits (Wolfensberger & Glenn, 1978). This may go against the business and income agenda of a social enterprise, however due to the very nature of a social enterprise being constructed around equality, person-centred approaches and social change objectives, one should at least strive to attempt to facilitate these opportunities.

References at end of thesis

Study 1b. “Supporting access to employment and development of meaningful vocational and social skills for young adults with intellectual disabilities: Perspectives of special education, social enterprise, and supported employment staff”.

Evans, C. A., Griffith, G., Toogood, S. & Hughes, T. (in preparation). Supporting access to employment and development of meaningful vocational and social skills for young adults with intellectual disabilities: Perspectives of special education, social enterprise, and supported employment staff.

Preface

Running simultaneous to Study 1a. was a study exploring the perspectives of staff, working with transition-age young adults with intellectual disabilities, around two main research questions: 1) What are the different social skills needing to be focused upon for creating and maintaining social relationships? and, 2) What is known from staff, experienced in some form of employment-related support, around the barriers and enablers to obtaining employment for people with intellectual disabilities?

Staff groups involved in this study included special education staff with experience of working in post-16 classrooms where teaching vocational skills are heavily focused upon (37 out of 48 staff-participants; 77%), senior management staff working within a social enterprise (3 out of 48; 6%) offering work placements to adults with intellectual disabilities and transitions from school into the enterprise for young adults, and finally, staff working for organisations involved in a Welsh-national supported employment project ‘Engage to Change’ utilising a Project SEARCH model, for young adult-interns with an intellectual disability currently attending college (eight staff-participants out of 48; 17%). Staff that participated in this study therefore worked across three slightly differing transitional age-groups: 16-19 year-old young adults in the special education school, 18-25 year old young adults in college associated with the Engage to Change project and 16+ adults working in a social enterprise. It was not realised by the research team that at the time the data was collected an independent evaluation of the Engage to Change project was being run by Cardiff University. Therefore the heavily anonymised transcripts, void of linking or identifiable information, will be made available on request for other research teams who may wish to use the data for secondary data analysis if desired.

Despite the high percentage of special education staff who consented to participate in this study (77% of all staff participants), compared against the much smaller number of social enterprise (6%) and supported employment staff (27%) that participated, the main themes and subthemes presented in the following manuscript were generated across all groups: as several special education staff did not contribute to the discussion in depth.

As with Study 1a. it was of interest to the researchers and company partners to gain a wide range of perspectives of support staff working across distinct forms of service/initiative, to help guide in the design of a later staff-training package that could be reflective of what was actually needed for staff, and feasible in terms of good contextual fit. It was also seen as important to use findings to provide better insight for the company partners to in turn adapt their own support and practice, if needed.

Prior to this study, and with all studies in this thesis, a large ‘Project Management Group’ meeting was held between the research team and company partners to discuss the direction this study would take, and the proposed research questions. The supervisors from each company partner also proofed the semi-structured focus group questions prior to the PhD student conducting the focus groups. During data collection and eventual data analysis for this study the company partners were not involved, to try and keep the data and emergent themes as objective as possible (considering 83% of participants worked for either one of the funding companies).

What follows is the *in-preparation* manuscript for Study 1b., written in the style of a journal focusing on research in intellectual disabilities and known for publishing qualitative work. Due to the word limit, great care has been taken to combine the most prominent themes and to choose the most impactful ‘golden quotes’. However, there will always of course exist an element of subjectivity here in regard to what the research team deemed as a ‘golden quote’ and what others may deem as one; dependent on the research question that is important to that person or team.

It is planned that this manuscript will be submitted to a peer-reviewed journal within the year. As in Study 1a., due to the type of journal that will be aimed for, there will be no use of abbreviations (i.e., IDD).

Abstract

The transition to employment can be a challenging time for young adults with intellectual disabilities, with societal barriers to accessing and retaining work in open-employment settings often persisting into adulthood. This qualitative study aimed to further explore the experiences of different groups of staff supporting young adults with intellectual disabilities during transition to employment, their perspectives around essential skills needed for creating and maintaining social relationships in the workplace, and barriers and enablers to open employment. Forty-eight staff members from either special education, a social enterprise or a supported employment programme gave their time through a focus group. Four themes identified through thematic analysis emerged: (1) The need for an explicit focus on teaching skills to enhance independence, vocational skills, and social relationships; opposed to academic skills (2) Preconceptions and persistent barriers to accessing open employment (3) Supported employment programmes and social enterprises as ‘stepping-stones’ and a method of aiding transition into open employment, and (4) Solutions for increasing employment success for people with intellectual disabilities. Better transition support and communication between services, development of vocational and work-related social skills, and a call for better employer education and support were identified as solutions to enable more people with intellectual disabilities to experience success in open employment.

Key words: Transition, Employment, Special Education, Social Enterprise, Supported Employment

Introduction

For many young adults living with an intellectual disability obtaining employment upon leaving educational settings can be a firm aspiration (Ellenkamp et al., 2016). Accessing and retaining employment can have a direct impact on a person's overall quality of life, autonomy, and well-being (Jahoda et al., 2007), as well as their physical and mental health (Robertson et al., 2019). Furthermore, legislation, guidance, and policy for improving the quality of life and advancing the rights of people with intellectual disabilities, such as the United Nations Convention on the Rights of Persons with Disabilities, asserts that all people regardless of disability should be provided equal employment opportunities within their local community and that countries must ensure these opportunities exist within societal systems (United Nations, 2007).

Despite the numerous positive outcomes associated with employment consistently low rates of employment for people with intellectual disabilities are demonstrated throughout the UK (Kaehne, 2016; Kennedy et al., 2021). A mixed-methods study by Kocman et al. (2018) aimed to explore the common barriers which exist in work-place settings and limit the chances of continuous employment for people with disabilities (either physical or intellectual, or both) and found that employers tended to perceive more barriers to employing those with intellectual disabilities opposed to people with a sole physical disability and no intellectual disability. Other areas of research have reported similar findings, in which employers held various doubts about hiring people with specific intellectual disabilities (Chi & Qu, 2005; Hernandez, Keys, & Balcazar, 2000), with many holding prejudices around the capabilities of people with intellectual disabilities in relation to vocation. However, as Beyer and Beyer (2017) note in their systematic review of the benefits for employers of employing people with intellectual disabilities, it is not (in some cases) the employer that is the barrier but more so the lack of supportive government policies and good supported employment. The authors

further go on to note that only by demonstrating the capabilities of people with intellectual disabilities through the use of job-coaches and supported employment models will employers themselves change their own perceptions and realise the benefits of employing people with intellectual disabilities into the open labour market.

Focusing upon young adults with intellectual disabilities much of the discourse around their future employment is heavily impacted by barriers and restricted opportunities available to them in their local area. The process of transition from education to employment settings can also present many unique challenges for these young adults and their families (Kaehne et al., 2018; Beyer et al., 2016), and can be both physically and emotionally demanding for all involved (Crane et al., 2022). Successful post-16 transition is built upon coordinated planning, decision-making and collaboration from a range of stakeholders, including the focal young adult themselves, their families and school staff (Davies & Beamish, 2009; Beyer et al., 2016). Special education-based staff in particular can play a crucial role in fostering independence and developing skills for young adults during the transition into adulthood (Crane et al., 2021), as well as guiding decision-making around transition pathways, in comparison to relevant health and social care professionals (Boesley & Crane, 2018). In their qualitative study exploring the views of 41 education professionals supporting autistic young adults with additional learning needs through transition to adulthood, Crane et al. (2021) found that a lack of opportunities and lack of time meant educational professionals felt they could not always support the young adults in achieving their target transition goals. The authors went on to conclude that more is needed regarding staff training in ways to elicit the student voice during transition planning, and a wider variety of work experience opportunities need to be available for young adults. Research further suggests that those who partake in work experiences during the final years of education are more likely to experience higher employment rates post-graduation (Beyer et al., 2016), with

demonstrations that combinations of both work-awareness training and opportunities for work experience in community settings can be an effective method for securing paid employment for those transitioning from education to work (Beyer & Kaehne, 2008).

The three types of overarching employment available for people with intellectual disabilities are open-employment in the open labour market, closed-employment in segregated settings, or social employment enterprises typically consisting of workers with intellectual disabilities working together in community settings (Meltzer et al., 2018). Within the open-employment umbrella, the model of ‘supported employment’ exists, in which people with intellectual disabilities are supported by a job coach in an open employment setting, building upon inclusivity and integration into the wider community for many whilst ensuring appropriate support is given that can maximise employment retention and success (Beyer & Robinson, 2009; Wehman, 2012). Kocman and Weber (2016) reported that supported employment can be seen as a preferred employment model in the eyes of many people with an intellectual disability, particularly those wishing to work into open-employment settings. However, the number of active supported employment programmes within the UK is unclear and alternative options for young adults who do not feel ready to transition straight into open-employment post-education, or who do not wish too, may be needed. Collating results from a systematic review around developing open employment outcomes for people with an intellectual disability, Smith et al. (2018) suggest social enterprises could help develop the employment aspirations of young people with intellectual disabilities not ready for work in open settings and hold the potential to promote long-term career aspirations and aid in the transition to open employment.

Open employment can also act as an avenue for social integration into the community and aid in the formation of wider social networks (Chadsey & Beyer, 2001). Social networks can provide a person with opportunities to develop a variety of different relationships ranging

from acquaintance relationships, reciprocal social relationships and intimate relationships (Sullivan et al., 2013; Harrison et al., 2019), but research states that many people with intellectual disabilities experience smaller social networks, that can typically be comprised entirely of people from one setting or lack diversity and variety between relationships (Harrison et al., 2019). In an empirical study by Forrester-Jones et al. (2004) the authors set out to map the social network size, membership, and social support provided to 20 people with intellectual disabilities accessing a supported employment agency. Following access to the supported employment agency a significant change was found in the size of the participants' social network with an increase also in the number of reciprocal relationships between the participants and work contacts.

It has also been found that many people with intellectual disabilities consider their relationships with support staff or carers as reciprocal friendships but that these relationships may not always be reciprocal from the staff member point of view (Pockney, 2006). In relation to social relationships in the workplace, Jahoda et al. (2008) note that employment can provide opportunities for interaction and creation of numerous relationships, but that little evidence exists for social relationships extending outside of the workplace for people with intellectual disabilities. Regarding the teaching of social skills for the workplace by support staff, a substantial body of research exists around the specific teaching strategies that have been demonstrated as effective methods in developing work-related social skills for people with intellectual disabilities (Walsh et al., 2018; Whittenburg et al., 2020); although the extent of translation and consistent use of these teaching strategies in practice settings remains unclear.

The following study aimed to add to the literature around transition into employment, barriers and enablers into employment, and social relationships in the workplace for people with intellectual disabilities by exploring the experiences and perspectives of a diverse set of

staff groups whom all supported young adults and adults either into or within employment contexts.

Methods

Participants & Settings

Forty-eight participants across three distinct staff groups were invited to partake in a one-off focus group. Inclusion criteria for participants was to either 1) be currently employed in a role that involved working directly with people with intellectual disabilities, with participants needing to have worked within the 16-19-year classrooms at some point in their career (staff rotated yearly between classrooms), or 2) to have had experience in the field of employment, including supported employment and unpaid work placements, for people with intellectual disabilities.

The three distinct groups were: *Special Education* ($N = 37$, 77%) staff working within one of two special education schools. The second group was *Social Enterprise* ($N = 3$, 6%) staff working at a social enterprise offering work opportunities for adults with intellectual and developmental disabilities, and work experience placements to young adults attending special education schools or post-secondary colleges. The final group, *Supported Employment* ($N = 8$, 17%), were a collective of staff involved in a programme run through the 'Engage to Change' project which also utilised a DFN Project SEARCH supported employment model. Further details of job-role information per staff member is displayed below in Tables 3.1, 3.2 & 3.3.

Table 3.1*Special Education Staff job-role demographics*

Job role	Group 1 (n = 7)	Group 2 (n = 10)	Group 3 (n = 12)	Group 4 (n = 9)
Headteacher	1			
Deputy Headteacher		1		
Assistant Head of Secondary				1
Board-Certified Behaviour Analysts	2			
Teacher	2	2	3	1
Classroom Assistants	2	7	9	6

Table 3.2:*Social Enterprise Staff job-role demographics*

Job role	Group 5 (N = 3)
Health and Wellbeing Coordinator	1
Health and Wellbeing Manager/ Head of Multiple Needs Department	1
Marketing Director	1

Table 3.3:*Supported Employment Staff job-role demographics*

Job role	Group 6 ($N = 8$)
Host Organisation Programme Managers	2
Job Coach (employed by local company)	3
Project-SEARCH Operations Manager (employed by host organisation)	1
Local College Representative (where interns are recruited from)	2

Note: Table displaying the different job roles staff involved in the supported employment programme represented.

Data was not collected on demographic information of the individuals whom staff supported as care was taken not to collect unnecessary personal data. However, based on knowledge of the type of setting staff worked in, individuals receiving support had intellectual and developmental disabilities, had varying communication and support needs, and many of these individuals were also autistic.

Upon obtaining ethical approval from the School of Psychology at Bangor University the first author began the process of recruiting participants in an opt-in process. Participants from the special education and social enterprise groups were recruited via opportunity sampling due to the organisations for which they worked for co-funding the doctoral research this study was a part of. Participants for the supported employment group were recruited via email due to links with one of the programmes' leads.

Regarding requested ethical considerations the process of discussing topics that some participants may find difficult, challenging, or could elicit uncomfortable feelings were considered and any deemed as potentially too challenging were either removed upon checks by the company partners or signposting information was given to participants for where to access support. It was reiterated to the participants three times before the focus groups began that they should not provide any identifiable information about the people supported, and if they started to then they would be stopped and redirected. Conflicts of interest that could arise from the funding partners were mitigated for by excluding partner supervisors from viewing the in-time data collection and thematic analysis, as well as the eventual write-up.

Procedure & Design

Focus groups followed a semi-structured format, with questions designed by the first author and then reviewed by the research team and company supervisors. Questions aimed to determine, i. the perspectives around the current employment opportunities and supports available for those wanting to pursue employment; ii. the potential barriers to, and enablers of, employment for people with intellectual and developmental disabilities in community settings; and iii. the staff members' own experiences of supporting individuals in obtaining employment in community settings or at social enterprise settings. Each of the three groups were asked the same questions with only slight variations dependent on where they worked.

Focus Groups were conducted by the first author. For the special education group four separate focus groups took place and consisted of anywhere between six-12 staff per group. For the social enterprise group one focus group of three senior management staff was conducted, and for the support employment group one group took place with eight staff. Focus groups were conducted in-person (as this research took place pre-COVID-19 pandemic) and audio was recorded via a University-owned Dictaphone.

For the special education groups, in one school one focus group lasted for 29m 53s and the other lasted 21m 12s. In the other school, one focus group lasted for 27m 14s, and the other for 23m 20s. For the social enterprise groups the focus group lasted for 39m 50s, and for the supported employment group the focus group lasted for 1hr 08m 05s.

Data Analysis

The majority of audio files were transcribed by the first author ($n = 4$), using an orthographic method (Damico & Simmons-Mackie, 2002; Braun & Clarke, 2012), mirroring the procedure in Study 1a. Due to special education staff occasionally switching between the Welsh and English language (before being prompted to return to English and to repeat the sentence), the audio files from two of the special education focus groups were transcribed by a first language Welsh speaking researcher from the University, to ensure fully accurate capture of any information provided briefly in the medium of Welsh.

Thematic analysis was conducted based on the six-phase method described by Braun and Clarke (2006), using the qualitative software programme NVivo v.12. A thematic analysis approach was seen as appropriate as study followed an inductive approach due to the exploration of the data focusing upon the experiences and voices of all participants.

Initial codes for each of the three distinct groups were generated in line with Phase 2 (generating initial codes) of Braun and Clarke's method. Along the line, separate Thematic Frameworks for each of three staff groups were then created containing both main themes and sub themes. Phase 3 (searching for shared themes, and sub-themes) and Phase 4 (reviewing potential themes) then followed separately for each group, ending on Phase 5 (defining and naming themes), in which shared main themes and sub themes across each of the three groups were finalised, before then being compared across groups.

Inter-coder reliability was conducted for two transcripts between Phase 2 and Phase 3 (two out of six; 33%) by a second coder, and agreement between coders on three question-

segments per transcript was calculated 83% (five out of six segments in total agreement).

Intracoder reliability was also conducted by the first author at a second time point (six months after the first coding attempt) to better promote research reflexivity as in line with qualitative research reliability recommendations (O'Connor & Joffe, 2020).

As two of the staff groups contained staff working for the company partners which fund this research (83% of staff), to mitigate against potential conflict of interest the first author followed a reflexive process during the analysis phase (Braun & Clarke, 2013) to ensure that themes created, as much as possible, arose from the data rather than any pre-conceived expectations or desired outcomes based on possible company partner expectations for the findings.

Results

Prelude

For the rest of this manuscript the use of the term *people with intellectual disabilities* will encompass both young adults and adults (from ages 16 onwards), due to the range of ages of people that participating staff supported. This term will also encompass those with a developmental disability and/or co-occurring autism (but not autism without an intellectual disability).

It is important to note that themes presented were taken mostly from the special education staff group due to the high percentage of participants being from this group (77%), resulting in the inability to fully compare findings across groups as sample sizes for groups were not equal. However, despite the high percentage of special education staff it is not to say that data produced from this group was richer in depth than the other two group, as some staff within the special education focus groups did not contribute consistently to the discussion (12 out of 37; 32%).

The four main themes were: i. ‘The need for an explicit focus on teaching skills to enhance independence, vocational skills, and social relationships; opposed to academic skills’, ii. ‘Preconceptions and persistent barriers to accessing open employment’, iii. ‘Supported employment programmes and social enterprises as ‘stepping-stones’ and a method of aiding transition into open employment’, and iv. ‘Solutions for increasing employment success for people with intellectual disabilities’.

A summary of the shared themes and potential contrasts for the social enterprise and support employment groups, alongside any caveats, are noted within the discussion section.

Theme 1: ‘The need for an explicit focus on teaching skills to enhance independence, vocational skills, and social relationships; opposed to academic skills’

1.1. Social relationships and social networks in work settings for people with intellectual disabilities

Special education staff had little to comment around social networks and relationships for people with intellectual disabilities, focusing more so upon discussing the essential social skills needed for the workplace (which will be discussed in subsection 1.2). Regarding social networks, **social enterprise** staff stated that there were several social activities organised by the enterprise for the adults who worked there, and that friendship groups between adults with intellectual disabilities did exist within each of the placement settings (e.g., within the recycling plant, the café). However, one staff went on to note that there were limited opportunities to meet-up outside of the enterprise for the adults and that existing social activities outside of the enterprise that did exist in the local area had numerous barriers due to inaccessibility (i.e., transport issues, having limited numbers of staff able to support the person at these activities outside of the enterprise). One **social enterprise** staff did comment that more of these types of activities outside of working hours were needed, including a wider range of activities to account for different preferences, and that one benefit

of attending these activities would be for adults to “*enhance their social circle*” with others not working for the enterprise.

Another subtheme picked up by two **social enterprise** staff (66%) and six **special education** staff (16%) around social relationships was the notion that adults with intellectual disabilities tended to see support staff as friends and have at times crossed boundaries with support staff due to this. One **special education** staff stated that this may be due to not receiving support in how to communicate with other people their own age.

The need to teach people with intellectual disabilities about appropriate boundaries was also commented on by a member of the **supported employment** group, and that at times some interns have received explicit instruction to not “*over familiarise*” themselves with their co-workers.

One staff member from the **supported employment** group (13%) made a comment around the importance of not “*pushing*” artificial friendships onto autistic people with intellectual disabilities.

The topic of sexuality and intimate relationships was briefly touched upon, unprompted, by a member of the **supported employment** group in relation to public perceptions around young adults with intellectual disabilities having intimate relationships, whilst recalling a story in which a staff member in the host organisation had been concerned about a small intimate gesture displayed by two of the interns:

“So, I said, “well when you say canoodling what were they doing” and she [the staff member] was like “oh no, they just kissed once and went on their separate ways, but they were holding hands!”. And I was thinking “well that’s what other people do” (Anna).

1.2 Social skills teaching, and the prioritisation of skills taught

In relation to explicit social skills needed to help create lasting social relationships in the workplace and beyond, all groups had somewhat differing shared responses. For the **special education** opinions from those that responded (19 out of 37; 51%) focused upon the need to prioritise for independence-skills (such as daily-living skills) or social-skills learning, opposed to academic-type skills. Two **special education** staff members (out of 37; 5%) suggested that by focusing on independence-skills young people may in turn have more success in fully acquiring the skill faster than they would with an academic skill and feel more accomplished. Two **special education** staff members (5%) also noted that teaching certain independence skills may become obsolete in light of technological advances,

“Forget maths, they [the students] understand technology more than they understand on paper anyway, if you give them an iPad they know how to work it better” (Elfyn).

In relation to social skills, six members (75%) of the **supported employment** staff group gave responses. When asked to give examples of the typical social skills needed in the workplace to help create lasting social relationships, two staff (25% of the group) commented that it is difficult to fully define what might constitute a ‘social skill’, as these can be different for each person and dependent on what a person likes and dislikes; in line with research discussing the difficulty of defining work-related social skills (Phillips et al., 2014).

Another member of the **supported employment** group commented, on a similar vein, for the need to individualise social skills to each intern, as the process of choosing blanket social skills to teach all is not a suitable approach:

“As you say it’s not black and white is it. Not something you can really teach from a textbook, you know, like when a tutor from college teaches social skills there is no textbook it

is more about exploring by observing and developing it for each individual. You know, they all have different needs as far as socialising, they're all on different levels" (Mair).

Most answers **supported employment** staff gave toward the types of social skills needing to be taught centred more upon the need for employers and others to adapt their own expectations to that of the person, and to not set social goals for that person based upon neurotypical social conventions. For instance, one staff commented that many of the autistic interns found 'banter' and 'teasing' difficult to understand, so the onus falls then onto the staff member supporting that person to not engage in those behaviours.

Theme 2: 'Preconceptions and persistent barriers to accessing open employment'

Numerous barriers to employment in community settings were discussed by all groups, led by an open-ended question around barriers to obtaining paid work for people with intellectual disabilities.

2.1. A need for tackling preconceptions around the capabilities of employees with intellectual disabilities

An emergent theme across **special education** staff was the negative and limiting expectations that employers based in community settings held around current or potential employees with intellectual disabilities. Four special education staff (10%) stated a need for better employer education around intellectual disabilities, so as not to assume a person's capability based upon diagnosis or perceived ability. All three **social enterprise** staff shared this view with one member stating that employers think "*that person wouldn't be able to do the job*" even though they are "*more than capable to do it*".

Two members (25%) of the **supported employment** group were particularly reflective and honest in their own preconceptions of the interns partaking in the supported employment programme and commented on this without being directly asked. One member

commented that they were “*guilty*” themselves of underestimating an intern’s capability and assuming that they would struggle in a new role. Another member went on to agree and stated that “*I thought we’d have to hone that [random phrases inserted into conversations by intern] in, but [the intern] was brilliant in talking to other workers*”. On this same vein, a third supported employment staff member stated that employers in community settings often see people with intellectual disabilities in a collective way, and do not appreciate each person’s individuals’ strengths:

“They, [the employer] presume things and stereotype people, and use words such as ‘those people wouldn’t be able to’ and ‘they probably wouldn’t be able to’. Using ‘they’ who’s ‘they?’, it’s not an individual approach. They tarnish everybody with the same brush, and that shouldn’t happen. And that’s about educating people and getting people to stop being so narrow-minded” (Gareth).

2.2. Job roles that are meaningful for the person, and not ‘the nasty jobs’.

Six **special education** staff members (16%) shared a view that employees with intellectual disabilities are often not provided with meaningful or complex work tasks. One staff suggested that if other colleagues in community workplaces are expected to help, support or mentor their colleague with intellectual disabilities, then they can end up offering that person “*the nasty jobs*” such as emptying bins so as to “*get rid of them*” and not have to provide support or mentoring.

Two staff members from the **social enterprise** group (66% of that specific group) discussed the need to facilitate meaningful careers and jobs roles for people with intellectual disabilities that are specifically designed to play on the individuals’ strengths and match their ambitions:

“That’s the thing, you need a challenging and rewarding career, something specific for them [the person with intellectual disabilities]” (Gareth).

Another made a comment around the need for educating employers in affording the same rights, in relation to aspirations and career progression, to employees with intellectual disabilities:

“Can we just treat [people with intellectual disabilities] like you and I. When you and I left school we had ambitions and dreams; can we treat [people with intellectual disabilities] like that too?” (Rhyn).

Theme 3: ‘Supported employment programmes and social enterprises as ‘stepping-stones’ and a method of aiding transition into open employment’

One shared theme across groups, that derived from a semi-structured question around transition, related to the difficulties that can arise during the transition between services for young adults with intellectual disabilities, a common finding known in the existing literature around transition (Beyer et al., 2016).

It was clear from staff working at the **social enterprise** that opinions around solutions to aid the transition from educational settings to the social enterprise were already established pre-interview, due to the speed of response and clarity of argument; suggesting the social enterprise staff are highly attuned to the difficulties faced by young adults in relation to transition. One staff member stated that to aid transition there would have to be clearer and more focused communication established between services regarding that persons profile, needs and aspirations, hinting that the person-centred plans that accompany the person may not be as detailed as needed:

“So that they [the education staff] can tell us ‘Oh they struggle with this, or they can do this, or this is how they communicate’. So, it doesn’t start afresh when they come [to the social enterprise]” (Rhiannon).

One **social enterprise** staff member also included that “*continuity in support staff and support strategies*” works well during the initial stages of the transition process from an educational setting to the social enterprise, due to past examples of some students becoming “*agitated when they’re with someone new*” during the initial visits to the enterprise.

For the **special education** group, as well as the social enterprise staff, two staff (5% of 37) commented that to make transition from educational settings a less daunting experience, young adults should be slowly exposed to work environments to build up their confidence. Staff also commented that to make transitions easier, it may be a good idea for certain pupils to attend social enterprises first as a sort of “*step-up*”, particularly for those who “*just wouldn’t cope*” in open employment straight out of school or post-secondary education but who may be able too once their confidence is built up. Two **social enterprise** staff (66%) mirrored this suggestion, noting that the enterprise placements themselves were initially designed with the aim of acting as a stepping-stone to other employment in the community:

“I think that was the plan for [the social enterprise] to begin with, it was supposed to be the transition place into work. I think it’s happened in some cases” (Enlli). “Yeah, I think it’s changing slowly into that again. I don’t think we’ll get as many individuals that’ll stay for 20, 30 years anymore. I think in terms of our role, it’ll change in terms of we’ll have to train them up to work in a certain organisation so that they’re ready for it” (Rhyn).

It could be argued that supported employment internships also act as a stepping-stone to a community employment, however when quizzed on their knowledge of local supported

employment initiatives staff typically were unaware of local supported employment programmes.

Regarding the process of smooth transition for young adults with intellectual disabilities, one member from the **supported employment** group spoke about the potential for transition to be aided by a supported employment programme, through pulling “*all the different organisations together so there’s a transition for the young people*”. This same member went on to note that in order to achieve this, local authorities and the Welsh government must have “*clear information*” around how to work with all involved services to create “*clear transition for [the] young person*” so that their “*targets go with [the young person] and moves with them throughout organisations and transitions*”.

Theme 4: ‘Solutions for increasing employment success for people with intellectual disabilities’.

Special education staff had several suggestions to help combat the low open employment rate for people with intellectual disabilities, and to increase the likelihood of people obtaining employment in community settings. Although some comments were *person-dependent* in terms of things that the person or carer/parent/support staff/other stakeholder could do to increase the persons’ chances of obtaining community employment work (e.g., aiding in creating work-experience opportunities to help the person experience different employment settings to build their confidence); the majority of comments centred around *employer-dependent* factors and the need for employers to change current practice and attitudes around what they think people with intellectual disabilities are capable of achieving. One special education staff member also stated that their school should “*try to get as many work experiences in the local community so that the employers get to know some of our pupils early on*”; demonstrating an awareness of the need for more work experience opportunities in open settings.

Supported employment staff reported on solutions that were focused not only on employers but also toward the larger organisations and local councils. Group members here appeared enthusiastic in their efforts to not let aforementioned barriers stop them, despite recognising that many barriers did exist, and collectively agreed that there are numerous extensive positives to hiring people with intellectual disabilities.

Social enterprise staff also had much to say around proposed solutions for increasing the likelihood of obtaining and then sustaining employment for people with intellectual disabilities. In line with the other two groups, staff commented on the need for better employer and public awareness and education around intellectual disabilities. One staff member commented on the need to educate the general public from a young school-age and facilitate integration for people with intellectual disabilities into the community:

“I think we need to change social perception right from a young age in school. Coz my [child] goes to [local mainstream primary school] and it’s right next door to [local SEN school] and I don’t see them mixing at all, and there’s so many opportunities there” (Elin).

Another **social enterprise** staff member had previously commented that the importance of educating oneself around intellectual disabilities and how to interact with a person with an intellectual disability is particularly important if you have had no prior experience of spending time with someone with an intellectual disability:

“Yeah I agree, that if you’ve got the experience of the family history you tend to learn and be brought up in that environment then you tend to learn that that’s a part of life. However, if you’re new to it I think it takes time to adjust. And I don’t think you find it difficult; you’ve just got to learn the skills and how to communicate with someone with a learning disability. How to sort of, interact with them. I don’t think its difficulty, I just think its adapting” (Jac).

In the **supported employment** group, one member stated that it is more important to truly get to know a person on an individual level and take time to understand their likes, needs, preference and method of communication; opposed to having a detailed knowledge of intellectual disabilities in general:

“Yeah, but it’s not even a lack of knowledge about that general, encapsulation of people with LD or Autism, it’s a lack of knowledge about an individual. And if you don’t know the individual then how can you help them” (Rhyn).

Supported employment staff understandably spoke highly of the Engage to Change initiative they were a part of. In particular how this model had been beneficial in creating an environment where all interns, staff and the organisation feel “safe”. Multiple members commented on the success of a partnership approach and the use of job coaches in supporting the student interns in their roles, and in turn aiding staff already working in the host site to feel supported by the job coaches who had more expertise around supporting people with intellectual disabilities.

Discussion

This study aimed to explore the experiences of three distinct groups of staff supporting young adults and adults with intellectual disabilities in some form of employment or transition context, with a focus on transition-age young adults and the essential social skills needed to create and maintain social relationships in the workplace. The study also set out to explore perspectives around the potential barriers and enablers to transitioning to and obtaining employment for people with intellectual disabilities. Throughout the analysis phase it was clear that many staff shared similar perspectives around social skills, barriers, and

enablers with their fellow group members, with several shared themes emerging across the distinct staff groups.

For social networks social enterprise staff stated that social relationships and friendship groups between workers with intellectual disabilities do exist in the enterprise but that opportunities to meet up outside of the enterprise were limited. Barriers to these outside activities were due to inaccessibility and staffing issues, resulting in limited inclusion in social activities outside of working hours and therefore limited opportunities for workers with intellectual disabilities to expand social networks outside of the enterprise. Staff across all three groups identified that the people supported typically made friends in their workplaces or during work experience with support staff members, which staff generally expressed caution toward due to holding the opinion that the people they support should make friends with those who are not their support staff. Both findings can relate to the literature around the commonality of small social networks for people with intellectual disabilities (Harrison et al., 2019) and the risks of these networks becoming too interconnected and centred on staff-person relations (Forrester-Jones et al., 2004), with threats of potential power imbalance between staff and person supported and the meaningful reciprocity between friendships (Pockney, 2006; Jahoda et al., 2008). Despite several comments around staff being seen as friends there were limited suggestions for how to better promote different types of friendship with others for the people supported. One staff member however did state that staff should not push “*artificial*” friendships onto the people they support. They suggested staff should instead focus on trying to facilitate social relationships with people that share the same interests and hobbies as that person so as to elicit more meaningful, natural, and reciprocal relationships.

Meaningful job tasks and opportunities for professional development and carer progression were touched upon as important focus areas for employers hiring employees with

intellectual disabilities. To support teaching of complex job-tasks to aid in career advancement, one social enterprise staff member proposed the idea of open employment settings having a support worker that teaches the person with intellectual disability how to do the job at hand. What this staff member is inadvertently referring to is the process of a supported employment internship, which raises the question of the level of knowledge staff members had regarding alternate employment programmes in the local area (such as supported employment internships not affiliated with day centres or social enterprises). This same staff member later went on to say that people with intellectual disabilities should be given opportunities that reflect a “*challenging and rewarding career, something specific for [people with intellectual disabilities]*” and the other two members of that group agreed. This statement mirrors the aims that many supported employment internships in open employment settings champion, such as the Project SEARCH programme that facilitates competitive job placements in community settings (Rutkowski, 2006; Beyer, 2019b). It was apparent from the findings that staff from both the special education group and social enterprise group may not have been exposed to other employment initiatives in the local area, particularly around supported employment programmes and other national projects.

Work-experience placements were thought of by staff as helpful tools in building up the confidence of students getting ready to leave the educational setting and venture into employment, and the idea of more varied work experience placements in the local community in open-employment settings was identified as a need; mirroring suggestions from the existing literature (Beyer & Kaehne, 2008; Beyer et al., 2016). Furthermore, better links between educational settings and employment services was highlighted as an essential need to help support the transition process for young adults, including a need for *detailed* person-centred plans to move with the young adult as they transition into new settings. The Special Educational Needs Code of Practice for Wales outlines the responsibilities of headteachers in

preparing and delivering annual review documents and transition plans to any post-16 providers the student may be transitioning into (Section 9.64, p. 132; Gov.Wales, 2013). However, what is open to interpretation in this section is the quality of said review documents and transition plans that are transferred over to the post-16 setting. Although the code does lay out guidance for transition plans (9:51, p. 130), whether plans are truly person-centred and have been created through collaboration between the focal young adult and their families remains unmonitored. Kaehne and Beyer (2014) identified that the use of person-centred plans could aid in successful post-school transition for young adults with intellectual disabilities but only if all professional stakeholders are fully engaged in all steps of the process and are truly committed to take account the wishes and aspirations of the young adult and their families.

Education and enhancing awareness around support needs for employees with intellectual disabilities in employers and co-workers was a predominant theme across groups. Beyer and Beyer (2017) suggest that better support is needed for employers through supportive government policies and good supported employment. Better education and awareness are still key, but better support for employers is also an area in need of actionable allocation of support.

Limitations of the study

There were several methodological limitations to this study. The first was that there was limit of intercoder reliability data collected. O'Connor and Joffe (2020) note that some qualitative researchers disagree with the use of reliability measures due to the incongruence with the very nature of qualitative research. However, reliability ensures consistency between coding, and further reliability measures could have been taken to avoid risk of bias or subjectivity.

There seemed a general consensus across groups that work-related social skills teaching was needed for many young adults with intellectual disabilities and that any social skills targeted for teaching should be tailored individually to that person. However, a second limitation is that questions around the exact types of teaching strategies or instructional approaches utilised by staff, particularly the special education staff, when teaching vocational skills and work-related social skills to people with intellectual disabilities were not asked during the focus groups. With recent research highlighting the potential lack of adherence to evidence-based practices in school settings (Pegram et al., 2022) it would have been helpful to fully determine the types teaching strategies and interventions being utilised to teach skills to post-16 students, such as task-analysis, prompting, video-modelling, or picture-based methods; which have been demonstrated as effective instructional approaches for teaching work-related skills (Gilson et al., 2017; Sun & Brock, 2022).

A further limitation was the limited sample size across groups, with a larger percentage of participants within the special education group. This limited comparisons from being drawn across groups and resulted in much of the data being biased toward special education staff. However, as many special education staff did not contribute to the discussions this was not seen as too impactful a limitation, inadvertently.

Recommendations

Along with previous recommendation around exploring social skills teaching strategies, future research should employ quantitative measurement of size of social networks within social enterprises, supported employment and open-employment for homogeneous groups, such as work done by Forrester-Jones et al. (2004) around size of social networks of people with intellectual disabilities attending social enterprises.

The question remains that with such a diverse spread of experiences, ideologies, and perspectives, how might staff views, internal biases, and expectations of what the focal person is capable of achieving impact the trajectory of that person's life and employment goals, for whom they offer support and potentially hold great influence over? And, whether the increased use of evidence-based teaching strategies could not only enhance employment-related and social skill acquisition in young adults, but also change the perceptions those staff hold in regard to what that young adult is capable of doing and capable of achieving in terms of employment; given the right and appropriate amount of support. Understanding how this form of implicit bias toward capabilities held by staff members supporting young adults during the transitionary phase to adult services (e.g., post-16 classroom staff in special schools, careers advisors or college tutors), and those supporting adults with intellectual disabilities in sheltered-employment or social enterprises who wish to pursue community open-employment, could inadvertently impact upon a person's aspirations and confidence to pursue goals, would be an important area of follow-up research. This is in line with ideas from Crane et al. (2021) noting that special education staff can hold an important role in guiding decision-making during transition, accentuated if there is limited family or focal person involvement in transition planning.

What was evident throughout all groups was the knowledge and passion that staff members held toward the topic of transition and employment for the people they supported. Therefore, the final suggestion is for future research and local efforts to turn their attention to bridging the gaps between these distinct types of service provisions so as to enable more structured and organised transition pathways between services, and specifically, to create networks to exchange knowledge, ideas and advice between staff with complimentary skills and expertise.

Conclusion

This qualitative research set out to explore the perspectives and experiences of a diverse set of staff-groups around barriers and enablers to employment and transition, as well as creation and maintenance of social networks in said employment. Future research is needed to further establish the direct types of teaching strategies and evidence-based practices being utilised by staff supporting young adults with intellectual disabilities during the transition to employment, as well as adults already in employment settings. This would require both qualitative but also quantitative, direct measurement of said teaching strategies to fully determine their effectiveness in relation to skill-acquisition outcomes.

References at end of thesis

Chapter 4: Study 2

Study 2. “Adapting Active Support Interactive Training to a special school context to upskill classroom staff and increase engagement in pupils”.

Evans, C. A., Toogood, S., Owen-Leeds, S., Dwyfor, L., Jorammanawar, S., Issa, N., & Hughes, J. C. (2021). Adapting Active Support Interactive Training to a special school context to upskill classroom staff and increase engagement in pupils. *British Journal of Special Education* 48(3), 369-392 <https://doi.org/10.1111/1467-8578.12380>

Chapter Preface

Staff-wide ‘Introduction to Active Support’ conference for company partners

Before displaying the manuscript for this study, it is worth noting that as this study was awaiting ethical approval the three company partners requested a staff-wide training day in the theoretical aspects of Active Support. This was accommodated for and was held at the School of Educational Sciences at Bangor University, whereby 111 staff (including teachers, classroom assistants, behaviour specialists, and speech and language therapists) from both funding schools, and 15 staff from Antur Waunfawr attended a one-day lecture style conference on the theory, applications, and values-base of Active Support; delivered by the second supervisor Prof Sandy Toogood. The event was organised by the PhD student, who also collected some feedback data on the event.

The conference itself was generally well received, with both quantitative and qualitative data collected for the 126 attendees on aspects such as relevance of Active Support to their job role and how skilled they felt leaving the classroom-based training. This data was collected immediately after the conference (whilst attendees were still in the room) via anonymous feedback questionnaires. The quantitative, Likert-Scale data for these feedback questionnaires are displayed below in Table 4.1.

Table 4.1.*Attendee feedback questionnaire*

<i>Likert-scale questions on feedback questionnaire</i>	<i>Mean¹</i>	<i>SD²</i>
Q1. I know more about Active Support now that I have attended this training day	4*	0.82
Q2. I can see how Active Support can be applied in a classroom setting	4	0.72
Q3 ⁺ . I think Active Support is relevant to the age group I worked with last term	4	0.69
Q4. I think Active Support is relevant to all levels of Ability and not just purely complex and profound needs	4	0.69
Q5. I feel confident that I could write/create a task-analysis to break-down and teach a specific skill to a pupil	4	0.72

Note: ⁺Answers for 3A exploring the average of age-group taught displayed in Table 1a.

^{*}4 = agree, 5 = strongly agree; with 1 = strongly disagree, 2 = disagree & 3 = neutral

¹Mean rounded up to the nearest decimal place ²Standard Deviation

Table 4.1. Results from Question 3a.

“Please circle the age group you worked with last term: Primary, Secondary, Post-16

<i>Age group taught</i>	<i>(N = 94)</i>
Primary	39
Secondary	28
Post-16	27

Results displayed in Table 4.1 demonstrate that on average staff tended to ‘agree’ on all questions. Table 4.1 results indicate that in terms of attendance there was a fairly equal representative of staff teaching across all three main divisions within the school settings. For those who filled out the feedback questionnaire but did not answer question 3a. ($n = 22$), it could be assumed that this was due to either their role being based across the three divisions,

such as speech and language therapists and behaviour specialists, or that they were based at the social enterprise and therefore worked solely with adults.

At the end of the feedback questionnaire, space was left for narrative responses under ‘Other Comment’. Below, in Table 4.2, is a sample of the comments written within this narrative space; with efforts to best display the range of comments received regarding positives and negatives of the event.

Table 4.2.

Sample comments from narrative section of feedback questionnaire

<p>“Antur Waunfawr presentation was very interesting as it was visual and felt relevant. Felt my concentration was struggling this afternoon unfortunately”</p> <p>“I expected the training to be less theoretical and more relevant to practice in a school. Would of liked to see example of good practice in schools, different ways of monitoring and recording, assessment and showing progress”</p> <p>“Would like to see more ideas/visuals of active support being applied in a setting. Loved the part about engagement. I feel it has highlighted its importance within all settings”</p> <p>“Need more opportunities to do tasks which relate to the classroom. A theory format in the morning and an afternoon workshop would have been much more beneficial. Not enough examples of how to track and assesses progress”</p> <p>“An excellent informative day developing the person-centered approach to enabling Students to develop skills throughout their life. I liked the emphasis on us all as facilitators of learning modifying ways for our students to learn, and how it made us think re what engagement is. Really useful day thank you”</p>

The narrative responses from the ‘Other Comment’ were used in part to aid in the development of a study which features in the fifth chapter of this thesis (the AS-WOrkS staff training module). This narrative data also highlighted the potential need for training that involved more opportunity for modelling and rehearsal of using the paper-based systems as well as the instructional methods that touched upon in the lecture by Prof Toogood. This

mirrors the ideas of Behavioural Skills Training, in that what is needed to fully train staff is a combination of both classroom-based/lecture-style teaching (such as what was featured in the event), as well as training in the performance-based components such as modelling, rehearsal and obtaining feedback of said taught skills and monitoring systems. This further highlighted the need for the use of in-situ coaching, tailored and delivered individually to staff rather than as a large group, so as to make the training more tailored and focused for that staff members strengths and areas for improvement.

In the planning stages for this conference, it was realised that this conference may confound results of the baseline phase for Study 2 (in which data collection for the baseline was planned to start from the 9th September 2019, seven days after the conference was due to take place). There was an assumption that engagement levels in students may increase upon staff being taught the theoretical aspects of Active Support, through these staff beginning to incorporate that training into their own support and adapting said support levels when working with students. In relation clinical significance, this would not have been an undesirable effect as a rise in engagement levels would ultimately be in the students benefit. However, in an experimental sense a confounding variable such as this would be problematic. Therefore in an attempt to display engagement levels pre-intervention as accurately as possible it was decided that data would be collected before the summer term as soon as ethics was approved (approved on the 23rd of June 2019). This phase was named the ‘Indicative Baseline’ and is described further within the following manuscript.

Published Manuscript

What follows is the published manuscript of this study, which was submitted in December 2020 to the *British Journal of Special Education* (BJSE) and subsequently accepted, post-revisions from peer-review, and published on the 27th of August 2021. The

BJSE was chosen as a target journal so that the authors could attempt to disseminate the research to special education leaders, researchers, teachers, professionals, and the public, as far as possible. Chapter 6 contains a more general discussion of the implications, applications, and limitations of this research. Please note the following manuscript was written in line with APA 6th edition guidelines, so some elements may not be formatted in line with APA 7th edition (as it was thought important to keep the manuscripts in its published form). However, figures and table numbering has been altered to fit in with the thesis conventions.

The link to the online version of the published article, for reference:

<https://doi.org/10.1111/1467-8578.12380>

CHAPTER PLACE HOLDER:

The following chapter (Chapter 4) has been removed as the published version is currently under paywall. The access to article, please see the reference below:

Evans, C. A., Toogood, S., Owen-Leeds, S., Dwyfor, L., Jorammanawar, S., Issa, N., & Hughes, J. C. (2021). Adapting Active Support Interactive Training to a special school context to upskill classroom staff and increase engagement in pupils. *British Journal of Special Education* 48(3), 369-392 <https://doi.org/10.1111/1467-8578.12380>

Chapter 5: Study 3: Final Report.

Study 3. “Upskilling staff to develop vocational and job-related social-skills for the workplace in young adults with intellectual disabilities: Initial collaborative development of the *Active Support: WOrkS Module*. Final Report”.

Evans, C. A.¹, Toogood, S.¹, Thirsk, E.², Rees-Roberts, D.³, Morris-Jones, B.³, & Hughes, J. C.¹. (2022). Upskilling staff to develop vocational and job-related social-skills for the workplace in young adults with intellectual disabilities: Initial collaborative development of the *Active Support: WorkS Module*. Final Report.

Affiliations

1. School of Educational Sciences, Bangor University
2. Antur Waunfawr, social enterprise (company partner supervisor)
3. Ysgol Hafod Lon, special education school (company partner supervisor)
4. Ysgol Pendalar, special education school (company partner supervisor)

Preface

Due to the collaborative nature of a KESS2 scholarship, it is a common expectation at the end of the project that there will be a series of take-home messages for the company partners' subsequent use. For many company partners' the presentation of findings and suggestions for change moving forward suffice as the end product. However, in the case of this scholarship, the three company partners expected understandably more tangible outcomes and take-home products given the need to make actionable change in the lives of the people they provide support for, such as new training resources for staff or paper-based monitoring systems.

Toward the conception of the final study in the PhD it was originally proposed that the co-creation of an entirely novel in-situ training manual would take place targeting work-related social skills for young adults with intellectual disabilities, and building upon findings from the prior studies. However, due to the COVID-19 pandemic the in-situ aspect of the package alongside the feasibility of training staff and testing for student work-related social

skill-acquisition became an obvious challenge. After numerous deliberation it was decided that this novel training package would be transferred into an online-format, to reflect the move the company partners were taking toward online materials and resources for education and training-based purposes.

It was intended that a more robust research project would ensue for Study 3, however company partners ceased research activity during COVID-19 (and concurrently the final stages of the PhD funding), causing difficulties in the empirical testing of the module. What follows therefore is the write-up of the initial conceptualisation and creation of the module written in the style of a report. There is also a section which presents the data from a small-scale validity pilot that was conducted, although response rate from this was too limited to conduct a meaningful analysis therefore results are only reported to illustrate a starting block for future piloting/testing. The report is split into the following sections:

1. Introduction
2. Phase 1: Skeleton of resource based on prior stakeholder research
3. Phase 2: Collaborative development and design of the module
4. Methods: Validity pilot
5. Results: Validity pilot
6. Discussion

Excerpts of the final module prior to piloting are available as images within Appendix D and the live product containing interactive video recordings of the PhD student talking through slides and modelling various teaching strategies are available on request from the student.

Introduction

Within services supporting adults with intellectual disabilities a persistent barrier to embedding systems change and uptake of evidence-based practices can be the lack of skills direct support staff possess around utilising said practices; an issue which often persists throughout the lifetime of their role if limited training opportunities to upskill are made available (Denne et al., 2015; Gormley et al., 2019). In mainstream educational settings, despite the rhetoric around the importance of embedding evidence-based practices within schools, recent research raises concerns over the extent to which schools fully embed evidence-base practices, over practices with unsubstantiated evidence-bases (Pegram et al., 2022). This can also extend to special educational settings, where consistent adoption of evidence-based practices are not always applied or maintained, and staff tend not to receive proper, full training in said practices that are utilised (O’Boyle & Hoerger, 2021; Dillenburg, 2017). Due to this, staff often lack the skills to effectively carry-out and sustain evidence-based practices (Rapp et al., 2010), particularly evidence-based behaviour analytic approaches that can be complex and require a significant amount of staff skill and upkeep (Dillenburg, 2017).

Existing training packages designed to upskill staff working with children and adults with intellectual disabilities can focus on a wide range of outcomes, from training focusing on coaching staff in the how to enhance engagement in meaningful activities for adults with intellectual disabilities living in community settings (Totsika et al., 2009); increasing staff fluency when developing content of behaviour support plans (Branch et al., 2016); to teaching staff in behaviour-analytic instructional procedures (Sarakoff & Sturmey, 2004). Many of these incorporate methods known in the literature to increase the likelihood that trainees will be successful in their learning outcomes, with much of that literature focusing upon the effectiveness of incorporating a Behavioural Skills Training model into the training

package to ensure trainees reach competence (Parsons et al., 2013), and implement practices with high fidelity (Sherman et al., 2021).

Behavioural Skills Training (BST) is a competency-based model combining both instruction-based and performance-based components in order to fully equip trainees to carry out a range of complex skills and interventions (Miles & Wilder, 2009; Gormley et al., 2019). Behavioural Skills Training consists of four main steps, 1. *Instructions*, 2. *Modelling*, 3. *Rehearsal*, and 4. *Feedback*, and are tied together by a competency-based assessment that sets out to provide a benchmark figure or criterion for trainees to meet before being signed-off from the training (Parsons et al., 2013). Overall, the trainee will gain the understanding of why the training is important and any values-base or philosophy underpinning the training (step 1, *instructions*); observe the trainer carrying out the skill or intervention (step 2, *modelling*), have a chance to have a go and practice the skill or intervention (step 3, *rehearsal*), all whilst gaining corrective real-time feedback from the trainer (step 4, *feedback*). Training packages that rely solely on classroom-based or lecture-style sessions have been demonstrated as ineffective at fully training staff to retain and adopt the skills or procedures they are required to learn, hence the need for the inclusion of modelling, rehearsal and corrective real-time feedback (Parsons et al., 2013).

In relation to its application in training staff supporting children and adults with intellectual disabilities, BST has a substantial body of literature evidencing its use as both a model for training staff in a particular intervention and as an actual intervention in its own right (Grob et al., 2019); ranging from demonstrations of its use in training school teachers to implement behaviour-analytic procedures (Sarakoff & Sturmey, 2004), to teaching staff members, via BST, to learn and use BST with other junior staff members via a pyramidal ‘train the trainer’ style approach (Parsons et al., 2013). One piece of research demonstrating the successful use of BST as an intervention for job-related skills is that of Roberts et al.’s

(2021) study around teaching interview skills to autistic young adults. The authors found BST could be utilised to improve interview skills and subsequent employment opportunities for the participants, going on to suggest that the BST model could also be used in online interviews opposed to face-to-face interviews, reflecting the current landscape of post-COVID-19 pandemic changes to the workplace.

Research has demonstrated that many efficacious instructional strategies exist for teaching young adults with intellectual disabilities vocational, work-related skills, many of which build upon behavioural methods such as shaping of behaviours and breaking skills down into manageable, smaller component steps, such as task-analyses (Szidon & Franzone, 2009; Bross et al., 2019). One of the most common instructional approaches used in the literature to teach work-related skills is that of video modelling, whereby the learner watches either another person modelling the steps of a skill within a video, watches themselves completing that skill, or from a ‘point of view’ perspective of someone else completing the skill (Laarhoven et al., 2009; Sun & Brock, 2022). Video modelling has been demonstrated as not only a cost-effective and less staff-intensive method of teaching skills to people with intellectual disabilities (Charlop-Christy & Freeman, 2000), but also a method that can typically result in faster skill acquisition and generalisation of said skill to untrained settings (Ayres & Langone, 2005; Mechling, 2005). Video modelling can also be used to train staff in evidence-based practices (Catania & Almeida, 2009), is recognised as an evidence-based practice by the National Clearinghouse on Autism Evidence and Practice (2020), and is often used alongside other evidence-based practices such as task analyses, prompting and reinforcement strategies. Other types of instructional approaches can include use of chaining procedures, the technique used to teach multistep skills that form a behaviour chain, with demonstrations of its use ranging from food preparation and other daily living skills (Schuster, Gast, Wolery & Guiltinan, 2011), to more work-related skills such as assembling

bicycle brakes or carburettors (Walls, Zane & Ellis, 1982). In relation to utilising these practices to teach work-related *social* skills, research demonstrating positive outcomes exist and research continues to grow in its evidence-base (Whittenburg et al., 2020; Walsh et al., 2018).

Although specialised training in interventions is important, adjusting the mindsets of staff and their guiding philosophies towards teaching, support, and care is equally as important in changing staff behaviour (Emerson et al., 1994). Models of support underpinned by a person-centred philosophy and designed to change the preconceptions staff may have toward the people they support are well-established, such as that of the model of Active Support (Totsika et al., 2008; Beadle-Brown et al., 2013). Empirical testing of Active Support training for staff, which aims to upskill staff in ways that they can provide better quality support, promote engagement in meaningful activities and relationships, and help develop skills for the person supported, has demonstrated staff behaviour and mindsets can be changed to result a less restrictive view around the capabilities of the people they support (Jones et al., 1999; Stancliffe et al., 2008).

However, there appears to be little research around the transfer of these evidence-based practices and training packages for staff between services that cater for young adults transitioning from educational settings to adult services (Beyer et al., 2016; Hedley et al., 2018). The need for training packages informed by the focal person and family/caregiver experiences and designed to target different staff groups working with young adults at the precipice of transition, may be warranted; to ensure consistency of staff support and skill-level in teaching and developing skills for the focal young adult.

Existing training packages in the field of autism and intellectual disabilities less commonly utilise a collaborative approach to the development of content and structure, such as that used within the recent development of mandatory training courses in autism for health

and care staff (Department of Health & Social Care, 2019). Close-to-practice research aims to support practitioners and researchers to work together and can help to foster a research culture within non-academic organisations (Owen et al., 2022). The close-to-practice evidence-base for the process of co-developed staff training packages for special education and social enterprise settings remains limited in evaluation and recommendations.

The following manuscript details the collaborative development of a staff-training online module which attempted to: 1. Incorporate the initial steps of a Behavioural Skills Training protocol; 2. Has content that introduces behaviour-analytic-derived, evidence-based practices for enhancing vocational and work-related social skills in young adults; 3. Is underpinned by the person-centred model of Active Support to attempt to instil a values-base within staff, change existing perceptions on the capabilities of people staff support, and finally; 4) Highlights the positive outcomes of social relationships, so that staff can truly appreciate the *why* behind promoting work-related social skills in young adults with intellectual disabilities.

The online module detailed is not intended to be used in isolation and should be combined with in-situ coaching delivered by an Active Support Interactive Training trainer (Toogood, 2010); so as to include all components of a Behavioural Skills Training model to ensure that trainee staff reach full competence. It is expected that trainees would work through the module, reach competence and be signed off by the supervisor, and then receive one-to-one training in Active Support via the Interactive Training procedure by a supervisor/practice leader (in the case of this thesis, the in-house behaviour specialists trained for Study 2) (Toogood, 2010).

Phase 1: Skeleton of resource based on prior stakeholder research

The development of the module occurred in two phases. **Phase 1** was the collation of findings from prior qualitative studies to help construct the skeleton of the module. **Phase 2** consisted of the development of the finer detail of the module with collaboration from industry, company partners.

Prior qualitative research with people with intellectual disabilities and support staff

Twenty-two young adults in special education ($n = 11$) and adults ($n = 11$) with intellectual disabilities partook in either an interview or a focus group; and 48 staff working in either special education ($n = 37$), at a social enterprise ($n = 3$) or in a supported employment programme ($n = 8$) partook in a focus group (detailed within Study 1a. and Study 1b.).

Findings concluded that exposure to work experience opportunities in a variety of settings, particularly open employment settings, appeared low for both young adults and adults during time at school or the social enterprise. There appeared a limited number of opportunities to expand existing social networks and make and sustain friendships. Findings from focus groups with special education, social enterprise and supported employment staff, reported the main barriers to successful transition into open employment continued to stem from lack of support for all involved, and poor employer education. It was unclear the direct teaching strategies that were utilised to teach vocational skills and work-related social skills in the settings staff worked within, despite numerous shared themes around the difficulties people with intellectual disabilities can face when performing vocational skills and making social relationships. A number of staff, particularly special education staff, appeared limited in their viewpoints of what the people they supported could achieve, due to existing barriers and difficulties experiences during transition. Transition between services was noted as a

challenge due to lack of continuity in support and breakdown of communication between child- and adult-provisions.

These findings were accounted for by underpinning the module with the model of Active Support, that promotes a values-driven way of thinking about how support is offered and how staff view the capabilities of the people they support. Active Support research has evidenced that upon training in the model, staff can change their viewpoints around the capabilities of even those with the most severe of intellectual disabilities, by releasing that the staff themselves can be the barrier to the person achieving better outcomes if their support is not of good quality (Jones et al., 1999). The findings from this qualitative research further strengthened the need for inclusion of clear instructional approaches and evidence-based practices in enhancing work-related social skills for all staff working in these settings.

Phase 2: Collaborative development and design of the module

An initial ‘working-group’ in-person meeting took place with the aim of generating ideas and fleshing out the content of the module. The working group consisted of the PhD student and one representative from each company-partner ($n = 3$), all of whom had extensive experience in working with and supporting individuals with intellectual disabilities in accessing employment or work-placements, as well as knowledge of what was needed in a staff training resource. Two of these were headteachers of two special education schools and one was a senior human resources manager at a social enterprise specialising in work opportunities for people with intellectual disabilities. Two academic supervisors specialising in research, policy, and practice in intellectual disabilities and education were also heavily involved.

A four-slide prototype was then developed via PowerPoint that introduced each proposed ‘unit’; which was then sent to the working group members for feedback. Due to the

COVID-19 pandemic and heavy stress upon company partners, feedback for the prototype took around nine months to be returned, even with several prompts. Upon gaining feedback, a full working version of the module was developed via PowerPoint. In the final stages prior to piloting the full working version on staff, a one-hour meeting was held via the video-conferencing platform 'Microsoft Teams', in which the supervisors from each company partner went through the module slide-by-slide with the PhD student providing feedback and suggested amendments.

It was decided that the module would be termed the 'Active Support: Work and Organisational Skills for Success Module' or 'AS-WorkS Module', to reflect the underpinning philosophy being that of the model of Active Support as well as the target outcomes in relation to vocational skills and work-related social-skills. Two versions of the module were initially created, one that focused upon special education staff, and another that focused on support staff working in the social enterprise.

Design of the module

The final module was split into three units. Content was the same for both types of modules (special education and social enterprise staff), as work-related social skills teaching, engagement and staff philosophy should not be exclusive to one setting over the other.

Unit 1: An introduction to Active Support, and methods for enhancing engagement

The start of Unit 1 included written and audio-detail around the underpinning values of Active Support to in part target staff preconceptions and overall staff culture raised within prior qualitative study findings. This unit discussed the importance of engagement in meaningful activities and relationships for people with intellectual disabilities, human rights around community living and access to employment, and the need for evidence-based practices. Unit 1 aligned with the first step of the Behavioural Skills Training (BST) model:

Instructions, as it gave an overview of the underpinning philosophy, models, and rationale behind the training.

Unit 2: Methods for increasing general skills learning and maintaining progress overtime

This unit began with an introduction toward consideration around evaluating the social significance of target skills and behaviours (Figure 3.7.; Cooper et al., 2019) and the need to include stakeholders in the selection of meaningful goals and targeted skills (Gore et al., 2019). Linking to this, the Unit discussed the importance of conducting skills assessment with the young adult/adult learner in order to identify the vocational and general skills which are needed to be targeted first (including any pre-requisite skills). Suggestions were made around the use of communication aids (i.e., Talking Mats) to help enable all students to have a voice in their selection of target skills (Gore et al., 2021). Incorporating evidence-based practices derived from behaviour-analytic principles, the second unit focused upon ways to increase general skills learning and monitor progress overtime. This included detail around how to use a ‘task-analysis’, whereby skills are broken into manageable steps (Williams & Burkholder, 2004). Relating to this, forward- and backward- chaining were also detailed here, by demonstrating how to teach skills either by starting with teaching the first or final step (Williams & Burkholder, 2004), with reinforcement delivered either at the end of each step, or terminally at the end of all steps. For the special education module, a ‘Red-Amber-Green’ traffic light system was also incorporated as this was the current system utilised within the post-16 classrooms in both special educational schools. This monitoring system required staff to mark in each step of a task analysis whether that step was completed independently by the student (green), whether the student needed prompting in the form of model prompts, verbal prompts or gestural prompts (amber), or whether they needed full physical prompting (red) to complete the step. Video-modelling was detailed and how staff could create a video to demonstrate a skill, including the different types of video-modelling formats available to

learners (point of view, other model, self model), based upon prior research indicating the effectiveness of video-modelling (Sun & Brock, 2022). Each slide around instructional approaches contained an embedded video or audio-clip of the PhD student talking through the approach and how it could be implemented in practice.

Toward the end of this unit was a brief introduction to graphing and ways in which skill-acquisition progress can be monitored (with again, video-clips modelling how to graph included). The monitoring systems derived from the Active Support model (opportunity plans, participation indexes) and the unpublished system of ‘Structured Learning Scripts’ which details how to create teaching scripts for targeted skills (Toogood et al., unpublished) were also drawn upon in this section and details given to trainees around how to use these monitoring systems. Despite the differences in the special education and social enterprise module staff-populations, it was still deemed important to include evidence-based instructional approaches within both module types, as skills development should not be dismissed for adult populations working in social enterprise settings or accessing other forms of adult provision.

Unit 2 included the BST components of *Instructions* and *Modelling* through the use of video clips of model demonstrating the instructional approaches and monitoring systems.

Unit 3: Work-related social skills and considerations around community employment

Building upon the instructional approaches detailed in Unit 2, Unit 3 introduced considerations around employment and transition for young adults with intellectual disabilities based upon prior qualitative findings. The importance of creation of social networks and relationships was also detailed and how social relationships can be fostered in the workplace.

Unit 3 included the BST component of *Instructions*.

Accompanying Resource

Alongside the online module was an ‘Accompanying Resource’ that provided further information and suggested readings around Active Support, Social Networks and Evidence-Based Practices for trainees. It also included templates and resources from the ‘Structured Learning Scripts’ resource (Toogood et al., unpublished).

Supervisor Resource: Rehearsal, Feedback and Competence Assessment

The content within Unit 1, 2 and 3 aligned with the *Instructions* component of Behavioural Skills Training, with Unit 2 further aligning with the *Modelling* component. Therefore, the module taken in isolation does not include the *Rehearsal*, *Feedback* or overall Competence Assessment components. It is intended that a supervisor, trained as an Active Support Interactive Training trainer (Toogood, 2010), would oversee the remaining components. A ‘Supervisor Resource’ was included within the training package and detailed how to work through the module with trainees, providing aspects such as modelling, time for rehearsal of skills, completion of paper-based monitoring systems and reminders for providing real-time corrective feedback.

The Active Support Interactive Training for trainers manual (Toogood, 2010) includes information around methods of providing coaching to trainees, including suggestions such as using verbal rehearsal whereby the trainee tells the trainer what they intend to do, direct observation of the trainee performing the target skill, providing prompts to the trainee to help correct any errors in their performance, as well as problem-solving with the trainee around areas that present as a challenge. Therefore, the supervisor resource utilised much of the Interactive Training manual content to provide supervisors with helpful and established way of ensuring trainees reach competence in each skill or system when working through the module. Information around best ways to structure feedback were also detailed here, adapted from the Interactive Training manual.

The supervisor resource also contained a ‘procedural fidelity checklist’ to ensure the module was carried out as intended. Procedural fidelity is the extent to which an intervention, training package, research protocol, or support plan is carried out as intended, and typically involves the development of a self-made ‘fidelity checklist’ to aid in ensuring that each step is implemented as planned (Brady et al., 2019). The inclusion of this aimed to ensure that all elements of the training had been completed by staff and that no Unit or component was omitted. The procedural fidelity checklist further extends to the one-to-one Active Support Interactive Training staff would receive from the supervisor, upon completion of the module.

Upon completion of the design of the module and after several rounds of development with the working group the next step was to conduct a pilot of the module with staff working in the schools and social enterprise. Due to persistent issues faced due to the COVID-19 pandemic the data received was too limited to produce a meaningful analysis. However, the results of what has since been termed as a ‘small-scale validity pilot’ have been presented below as an initial starting point for a future pilot and then subsequent robust testing and evaluation of the module.

Methods: Validity Pilot

Ethical approval

Ethical approval was sought and granted by the Bangor University School of Educational Sciences Ethics Committee via an amendment to an existing ethics application that was originally approved pre-COVID-19. Upon ethical approval and development of module with feedback from the working group the pilot version of the full module was sent via the company partners to all staff working within the special educational settings and social enterprise. This included teachers, behaviour specialists, teaching assistants and direct support staff in the social enterprise.

The feedback questionnaires included an information section and consent form, detailing how the participants data would be used to inform the further refinement of the online module.

Participants

Due to the pilot design it was intended that 7 staff from each setting ($n = 3$) would partake in working through the module and providing feedback, including the behaviour specialists who had been previously trained as Active Support Interactive Trainers and would be intended to act as the ‘supervisors’. However, due to persistent challenges and competing priorities caused by COVID-19, only four staff in total returned feedback despite several prompts (19% response rate of 21 participants anticipated).

Four staff worked through the module and provided feedback via a questionnaire. Of these staff, three were special education teachers working as the lead teacher in their classroom, and one was a behaviour specialist intended to act as a ‘supervisor’.

All three teachers had experience working within the post-16 classrooms, whereby much of the teaching is focused upon developing vocational skills. The behaviour specialist commonly worked amongst the foundation-stage classrooms with young children, however, did have experience working with post-16 students who displayed behaviours that challenge.

Procedure

Participating staff were sent a copy of the full AS: WOrkS online module, in the form of PowerPoint and Word for the Accompanying Resource (and Supervisor Resource for the behaviour specialist). Staff were given instructions, via an email that the working group had devised, to work through each Unit and asked to then provide feedback via a questionnaire at the end. Staff were instructed that the module should take approximately 1 hour to complete but were also asked to time themselves to provide data on the length of time it took. No participating staff member reported on the length of time it took to complete said module.

Feedback questionnaires included Likert-scale questions ranging from 1 (Strongly Agree) to 5 (Strongly Disagree) and were asked to rate positively phrased statements. Each statement gave space below to include written comments to attempt to capture reasonings behind ratings. No statement required reverse coding. At the end of the questionnaire there was a section which provided participants with the opportunity to comment on any suggestions for improvement of the module, or comment on areas that worked well or did not work well. A slightly different version of the feedback questionnaire was given to behaviour specialists due to act as supervisors. This version followed the same Likert-scale design and included the same statements, however included additional statements to ensure that the module was accurate in the information it was providing to staff and reflective of what was currently done in practice within the settings (to ensure good contextual fit of the module).

The final section of the feedback questionnaire asked participants to provide the number of correct MCQ questions they achieved whilst working through the pilot, as each MCQ slide had an in-built mechanism that asked the participants to provide the answer before displaying the correct answer. Each MCQ was accompanied by an audio-clip detailing the reasoning behind the answer to further aid in staff understanding.

The purpose of the feedback questionnaires were to collate suggestions for improvement, to ensure the module was accurate and comprehensive in the information provided, to ascertain validity, and to check for the contextual fit and feasibility of the module within school and social enterprise settings.

Analysis

For the Likert-scale quantitative data, due to the small number of data obtained, responses were hand calculated for overall mean rank of responses per item. To account for human error, these calculations were then inputted into the data software programme SPSS to ascertain accuracy.

For the qualitative data responses, only one participant (the behaviour specialist) provided comments. Therefore, due to the limited data collected here, the responses were still listed and taken into consideration for the finer refinement of the module and future testing, but no thematic analysis or other form of qualitative analysis was undertaken.

Results: Validity Pilot

Due to only special education staff providing responses the following results are only relevant to the special education version of the module.

The feedback received by teachers are displayed in Table 5.1. Feedback from the behaviour specialist is displayed in Table 5.2 and Table 5.3 (qualitative comments), due to the minor difference between types of feedback sourced.

For mean statistics, a figure of '1' is equivalent to 'strongly agree', '2' as 'agree', '3' as 'neutral', '4' as 'disagree' and '5' as 'strongly disagree'. Due to the small sample size of respondents, results should be interpreted with caution; and results are biased toward the staff group of special education teachers (opposed to other classroom staff groups such as teaching assistants).

Table 5.1.*Special education teacher feedback questionnaire**Likert-scale questions on feedback questionnaire*

Q1. The module contains information that is relevant to my job-role	$m = 2$, Agree
Q2. The information and language used in the module is presented in a clear and easily understandable way	$m = 1$, Strongly Agree
Q3. The module contains information that is relevant to all classroom or special school staff	$m = 1$, Strongly Agree
Q4. The MCQ quiz questions at the end of each Unit are appropriate to the Unit, and also challenging/difficult	$m = 1$, Strongly Agree
Q5. The layout of the module is visually appealing, in terms of colour-scheme, size of font etc.	$m = 2$, Agree
Q6. The 'Accompanying Resources' document contains relevant and useful information	$m = 1$, Strongly Agree
Q7. The majority of the information provided in the module was new to me, and would be new to others members of the classroom-staff team (including teaching assistants)	$m = 2$, Agree
Q8. I was already aware, before taking the module, of the data collection and graphing methods used within my school for tracking pupil progress	$m = 2$, Agree
Q9. I already collect data for skills for each pupil	$m = 3$, Neutral
Q10. I already graph the data I collect for skills for each pupil	$m = 3$, Neutral

Table 5.2.*Behaviour specialist feedback questionnaire*

<i>Likert-scale questions on feedback questionnaire</i>	<i>Rating</i>
Q1. The module contains information that is relevant to all staff working within a special school classroom	Agree
Q2. The information and language used in the module is presented in a clear and easily understandable way, which all classroom staff should be able to make sense of	Agree
Q3. The MCQ quiz questions at the end of each Unit are appropriate to the Unit, and would, in your opinion, be challenging/difficult to the classroom staff member	Strongly Agree
Q5. The layout of the module is visually appealing, in terms of colour-scheme, size of font etc.	Strongly Agree
Q6. The ‘Accompanying Resources’ and ‘Supervisor Resources’ document contains relevant and useful information	Strongly Agree
Q7. The majority of the information provided in the module would be new to classroom staff (including teaching assistants)	Agree
Q8. The data collection and graphing methods exemplified in the module reflect methods used within my school	Agree
Q9. All classroom staff (including post-16 classrooms) working within my school collect data on pupil IEP goals	Neutral
Q10. All classroom staff (or those who may have been nominated too) graph the data which is collected on pupil IEP skill/goal progression	Neutral

Q11. In Unit 3 around the RAG traffic light system, the prompting levels per stage (red, amber, green) are correct. If not, please do include the correct version used within your school in the comments below.	Neutral
--	---------

Results from the special education teachers on average indicated that the information delivered in the module was presented in a clear and easily understandable manner and that the layout was visually appealing. Findings indicated that data collection of individual skills per student and graphing may be inconsistent with the mean response of Neutral, however no further information was provided on what was meant by this. All three teachers disagreed with the statement that all classroom staff collected and graphed data.

For the MCQ assessment of knowledge accrued in each Unit, teachers reported on average to achieve 60% correct answers first time around for the 20x MCQ's featured throughout the module.

Results from the behaviour specialist were similar in relation to the overall presentation of the module. However, statements asked specifically to the behaviour specialist around the types of graphing and data collection methods used and the consistency of these resulted in disagreements to the statements; to which the participant provided details around within the comments section for each question, as displayed below in Table 5.3.

Table 5.3.*Behaviour specialist narrative comments*

Statement	Narrative response
Q9.	This can be inconsistent at our school. Some classrooms collect accurate data, whereas other classrooms don't collect data or maybe don't have specific goals defined and/or a data collection system to coincide. Some classrooms use subjective data collection for systems such as 'B-squared'. But this is something the school as a whole is working on.
Q10.	Again, this is inconsistent among classrooms. Some staff within some classrooms do, but not every classroom or every staff member within the class.
Q11.	The definitions for the RAG system needs to be re-defined and specified in our post-16 class that uses this system. Other classrooms don't use this system at the moment.
Other comments	I think some further short video clips may be useful, our staff have often commented that they benefit from this type of instruction. The resources and example task analysis and Structured learning scripts are very useful.

Results from the narrative responses indicated inconsistencies in data collection, definition of target skills and graphing methods across classrooms; with the note that not all staff working within classrooms possess the skills or undergone training to collect data and/or graph said data.

In relation to the post-16 classrooms the original 'red-amber-green' traffic light system embedded into task analyses for monitoring skill acquisition appeared to have existing issues prior to the creation of the module. After retrieving this feedback discussions were undertaken with the behaviour specialist to gain further information around this comment, and it became clear that staff working in those classrooms were unsure of what the different

prompting levels were and typically confused different prompting levels (e.g., could not discriminate between gestural and modelling prompts).

Discussion

This report detailed the collaborative design process and scale-small validity pilot of an online training module for staff working in special education and social enterprises supporting people with intellectual disabilities. The validity pilot was impacted heavily by COVID-19 and resulted in insufficient data and the inability to produce a meaningful analysis. However, these weak results from the limited data highlight if anything the challenges that can be faced when collaboratively designing staff-training packages, and on a positive note highlight the promise of the online module as a feasible resource for upskilling staff in a number of skill-type areas; albeit upon further piloting, testing and refinement.

Results from the small-scale pilot designed to test the real-world validity of the module indicated many strengths including the information provided and design of the module. Areas in need of further consideration were raised, including further inclusion of video-clips embedded within slides to help illustrate instructional approaches and methods for monitoring student/focal person outcomes, which mirror research demonstrating the use of video modelling as useful for staff-trainees learning how to implement complex skills and instructional approaches (Catania & Almeida, 2009). The need for addition of detail around types of prompt level and how each differentiate from the other were also raised. Results however should be interpreted tentatively here, due to limited sample size and participation of purely special education staff opposed to social enterprise staff. It is therefore considered that one next step of this research would be to collate feedback from a number of social enterprise staff, and to fully pilot the module on at least 21 staff.

Each component included within this module, whether that be an introduction to the model of Active Support, or an introduction of data collection methods, was designed to be just that: an introduction. Each individual component of the module was only touched upon lightly and does not reflect the many nuances behind each component/skill/model/approach. However, this was purposely designed this way due to the assumption that staff within direct support roles and teaching assistant roles may not possess existing qualifications upon starting their role (Denne et al., 2015; Gormley et al., 2019), therefore needing more of an introduction rather than an advanced level of training. The module is designed to be taken by new staff starting their role followed by in-situ one-to-one training delivered by the designated Active Support Interactive Training trainer, therefore an introduction to such models and methods needed to take place before delving into the complexities and nuances of each topic (which could be done through higher learning).

Collaborative design of staff training packages

The process of co-development of the content of the module was useful in determining how feasible suggested components would be for staff to implement. Results from the pilot, such as inclusion of more video-modelling components, mirrored suggestions made by the company partners during the first initial rounds of development i.e., it was a headteacher who requested the use of video-clips to model instructional approaches.

Despite this, issues with the delay in responses to feedback caused barriers to the speed that the research could be undertaken, hindering its progress at times. This was understandably due to issues caused by the COVID-19 pandemic, however suggestions for future collaborative design of staff-training packages would be to incorporate clear rules and contingency contracts so that all members of the working group are aware of exactly what is expected of them and the reward delivered contingent upon providing feedback within a set time limit (Tarbox et al., 2011).

Suggestions for future development of the module

Following on from the pilot with a greater number and variety of staff the next logical step for future research is the need to empirically test the module itself, regarding whether the knowledge-base and skills-ability of staff increases alongside the skill acquisition of students' and adults supported upon staff completion of the module, specifically vocational and work-related social skills. A number of other outcomes could also be measured here, such as quality of staff support (mirroring measures utilised in Jones et al., 1999 and Beadle-Brown et al., 2013), engagement in meaningful activities and learning opportunities for the students, and objective and subjective measurement of quality of life outcomes for those working within the social enterprise (Beyer et al., 2010).

As the module alone only fully covers the *Instruction* and *Modelling* components of the Behavioural Skills Training model, it is theorised that the module alone would not suffice in increasing skill acquisition of people with intellectual disabilities, or engagement and quality of support and teaching in staff. That it not to say that these later components have not been attempted to be included, as this is what makes up the 'Supervisor Resource', but that as the module stands there has been no testing to whether these later elements would be carried out correctly by 'supervisors' or are feasible and have contextual fit for the schools and services.

It was planned that this 'supervisor' would be the behaviour specialists working in the schools, who were trained as 'Interactive Trainers in Active Support' during Study 2 (Chapter 4), and staff in senior management positions within the social enterprise intended to be trained as trainers or as practice leaders (Bigby et al., 2019). As noted previously, within the 'Supervisor Resource' there is inclusion of a procedural fidelity checklist to help ensure trainees work through every intended step as well as a competence table to help guide supervisors in deciding whether or not a staff member has fully reached mastery criterion on

the module. This competence-based assessment would further require empirical testing, to ascertain its validity and whether meeting the benchmark criterion set is enough to ensure full trainee competence.

A further method for increasing competence could be to develop upon the assessment element in the form of MCQ quizzes which currently stands at five questions per unit interspersed throughout the slides. Methods of assessment are crucial in ascertaining competence of trainees (PBS Academy, 2017). Feedback from the validity pilot around these were promising and teachers reported to achieve an average of 60% correct answers first-time around. The suggestion here would be to include a more advanced, sleeker system in which trainees cannot move on to the next unit until they have passed a certain criterion (e.g., four out of the five questions; 80% correct).

Finally, the online module is not intended to be used in isolation. It is expected that trainees would work through the module, reach competence and be signed off in the module and then receive one-to-one training in Active Support via the Interactive Training procedure that supervisors are hypothetically trained in (Toogood, 2010). Testing of training in the module alone without Active Support Interactive Training versus training in both is also warranted.

Conclusion

In summary, the initial development and validity pilot reveal promising results. It demonstrated that setting-specific bespoke online training *could* be a viable and beneficial tool in increasing staff's education, skill set and awareness; particularly in relation to vocational and work-related social skills and engagement in meaningful activities for young adults with intellectual disabilities; on receipt of more piloting and empirical testing. Overall conclusions highlight the success and importance of researchers adopting a collaborative approach in designing training resources for staff, as well as the incorporation of multiple

stakeholders' opinions to inform designs of training modules. Through utilising a close-to-practice research methodology the appreciation for research and development of a research culture within the company-partner settings has continued to grow. The promise that promoting knowledge exchange between staff in different types of provision and at different points in the transition pathway, along with the uptake of evidence-based practices and an underpinning theory and model to guide values and tackle pre-existing staff culture, may help to increase the quality of life for both young adults and adults with intellectual disabilities receiving support; hence the need to ascertain the modules effectiveness in doing so is warranted.

References at end of thesis.

Chapter 6: General Discussion

Broad overview of the thesis aims and empirical chapters

The overall aim of this thesis was to help contribute to the evidence base surrounding utilising evidence-based behaviour analytic teaching strategies to develop the vocational and work-related social skills of young adults with intellectual disabilities through staff training. Specifically, we explored how these methods can be used in special education and social enterprise provisions. By reviewing and evaluating the existing literature (Chapter 1) we were able to identify several research questions that had either not been addressed or were limited within the current published literature or would help in the development of a staff training package for special education and social enterprise staff. Chapter 2 outlined the aims, rationale, and research methods underlying each of the subsequent empirical chapters, particularly highlighting considerations undertaken when conducting research with people with intellectual disabilities and other stakeholders. The thesis then included three empirical studies written as manuscripts (Study 1a., Study 1b., and Study 2) and a fourth study written in the style of a report (Study 3): which have either been published (Study 2: Active Support Interactive Training in a school context), are intended to be submitted for publication (the two qualitative studies: Study 1a. and Study 1b.), or will act as a start and development for further research (Study 3).

Chapter 3, Study 1a and Study 1b.

Study 1a aimed to further identify the merits of social enterprises by exploring the lived experiences of those accessing them, to attempt to decipher whether more can be done to facilitate meaningful experiences during attendance, support the expansion of social networks and relationships, and aid in pursuit of work outside of the enterprise. Eleven post-16 students attending work-experience placements at two social enterprises through their special education schools, and 11 adults with intellectual disabilities routinely attending one of the enterprises, gave their time via focus groups or interviews. Data were analysed using

thematic analysis, which yielded three main themes: (1) Feelings around work and limited social networks and integration, (2) Thoughts around open employment and future career aspirations and goals, and (3) The importance of discretionary weekly payment for the adult group. Four students and four adults expressed interest to experience work placements in open employment settings, with two of those adults expressing firm aspirations to move on from the social enterprise. This mirrors existing research such as McConkey & Mezza's (2006) staff-completed survey looking at open employment aspirations for those attending a day centre, as this population is technically 36% (one third) of the sample, as found with McConkey and Mezza. Many voiced their enjoyment of work at the respective social enterprises, although exposure to, and promotion of, other forms of employment types within the local community appeared low; alongside limited opportunity to expand and create new social relationships which mirrored existing research (Harrison et al., 2019).

The transition to employment can be a challenging time for young adults with intellectual disabilities, with societal barriers to accessing and retaining work in open-employment settings often persisting into adulthood (Hedley et al., 2018; Beyer et al., 2016). Whilst prior qualitative studies exist around specific staff groups such as special education-based staff (Crane et al., 2021), research focusing on drawing the opinions of multiple groups supporting transition-age young adults is limited. Study 1b. therefore aimed to further explore the experiences of different groups of staff supporting young adults with intellectual disabilities during transition to employment, their perspectives around essential skills needed for creating and maintaining social relationships in the workplace, and barriers and enablers to open employment. Forty-eight staff members from either special education, a social enterprise or a supported employment programme gave their time through a one-off focus group. Four themes identified through thematic analysis emerged: (1) The need for an explicit focus on teaching skills to enhance independence, vocational skills, and social relationships;

opposed to academic skills, (2) Preconceptions and persistent barriers to accessing open employment, (3) Supported employment programmes and social enterprises as ‘stepping stones’ and a method of aiding transition in open employment, and (4) Solutions for increasing employment success for people with intellectual disabilities.

Findings mirrored that of existing research in the area, such as utilising supported employment style programmes as stepping stones into open, non-supported employment (Beyer & Kaehne, 2008; Beyer et al., 2016). Furthermore, better support and communication between services and provisions involved in transition process, further development of work-related social skills, and a call for better employer education and support were identified as solutions to enable more people with intellectual disabilities to experience success in open employment.

Chapter 4, Study 2

After generating multiple stakeholder experiences of factors associated with success in employment it was intended that the next step would be to utilise these responses to inform the development of a staff training package, and to begin direct skills-teaching interventions for work-related social skills for students in the special education schools. However, it became evident in discussions had with the special education schools headteachers, teachers, and external consultants, and through opportunities for informal observations, that teachers and classroom-staff were facing a challenge in enabling, promoting, and sustaining engagement throughout the school-day in the 16–19-year-old students. Research indicates that engagement acts as an important precursor for learning, yet sustaining the engagement of students with additional learning needs can be a challenge for classroom staff (Carpenter et al., 2011; Pennington & Courtade, 2015). Therefore, it was decided that increasing engagement in this cohort of students and upskilling staff in how to provide good quality support should be the initial target of focus before moving onto a staff

training package for vocational and work-related social skills teaching (again, mediated through staff).

In this study we focused on utilising the model of Active Support which has been evidenced as an effective staff-training model for increasing engagement in adults with intellectual and developmental disabilities in community-based settings (Beadle-Brown et al., 2013; Toogood et al., 2016). Specifically, this was achieved by adapting an Active Support training package, *Interactive Training for Active Support* (Toogood, 2010), from its adult-learning disability service intended design, into a training procedure that could be utilised within a special education school context. It was thought that testing whether the logic of Active Support could extend into special educational contexts where engagement and quality support may be lacking, and whether the *Interactive Training* package specifically had good contextual fit, would be of use in the ongoing expansion of Active Support in other contexts (this was the first empirical demonstration of Active Support Interactive Training in a special education context).

In this study classroom-based staff were trained in methods for increasing engagement in students, and student ($n = 9$) engagement levels were measured pre- and post-training intervention (the school-adapted *Interactive Training for Active Support* intervention); by utilising a multiple-baseline across settings design. Social validity data was also collected around staff ($n = 14$) experience of the training intervention, and how relevant they felt the techniques taught during the training were to their role within the classroom, and the outcomes said training had for students within the classroom.

Findings showed increases in overall engagement for combined student scores for all three settings (classrooms) immediately after intervention, which continued to ascend or stabilise at 3-month follow-up. This was particularly evident for students with severe intellectual disabilities, mirroring existing research evaluating the effects of Active Support

training (Jones et al., 1999). In relation to feedback from staff, staff generally scored the training session with high satisfaction, with no overall percentage scores below 50% (7 out of 14 staff). The aspects staff on average rated highly (>80%) were the organisation of the training, the feedback given to them during coaching phases and the clarity of the feedback, the trainers use of helpful and effective suggestions, whether they were informed in advance of the training, and their perception of how typical their performance was during in-situ coaching. Areas which received lower scores (< 55%) were the staff's perception of how well the student (who was being supported during the coaching phases) enjoyed the session, how comfortable staff were during the session, and whether the staff member learnt new techniques that they could utilise in the classroom setting. This brought into question whether staff needed a more detailed guide to instructional approaches that they could utilise in the classroom, and most importantly, the changes that may need to take place to ensure that the student being supported finds the training enjoyable and meaningful also.

Chapter 5, Study 3

The final empirical study, Study 3, looked to develop a staff training package for developing vocational and work-related social skills in young adults learners. The staff training package was designed as an online training module for both special education and social enterprise staff and was in-part modelled on a Behavioural Skills Training method. Ongoing, despite an abundance of knowledge around employment for people with intellectual disabilities, there still remains few evidence-based interventions or supports available that are underpinned on theoretical ideas and concepts. As Carr (2007) notes, “without great ideas, there are no great data (Butterfield, 1968), because ideas are what make data meaningful” (p. 3). The need for more novel ideas, initiatives and strategies that are grounded in a values-base and theoretical framework is still present. Therefore, Study 5 incorporated both Active Support and behaviour analytic concepts to underpin the module.

Four staff took part in what was termed a ‘validity’ pilot, that aimed to test the validity, relevance, and proposed feasibility of the module. Results from the pilot designed indicated many strengths including the relevance of the information provided and design of the module. Several areas in need of further consideration were raised, including further inclusion of video-clips embedded within slides to help illustrate instructional approaches and methods for monitoring student/focal person outcomes, which mirror research demonstrating the use of video modelling as useful for staff-trainees learning how to implement complex skills and instructional approaches (Catania & Almeida, 2009). The need for addition of detail around types of prompt level and how each differentiate between prompts was also raised by the behaviour analyst participant (who was given a different feedback questionnaire).

Results for this study should be interpreted tentatively and are not considered a meaningful analysis, due to limited sample size and participation of purely special education staff opposed to social enterprise staff. However, as thorough creation of training packages can typically take several rounds of refinement, and due to the numerous difficulties faced when designing and testing this module during the height of the Covid-19 pandemic, results of this study are still of worth, and provide a promising platform for future development of the module.

Implications and applications

Throughout each chapter we have discussed several implications and applications for each associated research question. In the following section, we aim to summarise the implications and applications of this research for young adults and adults with intellectual disabilities, for staff, for organisation leads, and for researchers.

Supporting a research culture in special education schools and social enterprises

Research can be a useful tool in evidencing the impact that a service has on a range of outcomes for the people they support. Fostering an appreciation for research and embedding a research culture into different organisations and provisions, through utilising close-to-practice research, can help support these settings to critically think about evidence-based practices currently in use, use appropriate practices to elicit change, and then evaluate the impact of those practices on outcomes (Owen et al., 2022). The British Educational Research Association (BERA) defined ‘close-to-practice’ research as “research that focuses on aspects defined by practitioners as relevant to their practice and often involves collaborative work between practitioners and researchers” (Wyse et al., 2018, p. 1). A strength of this thesis was the collaborative approach and close-to-practice research that was undertaken due to the partnership between the special education schools and the social enterprise. All empirical research was conceptualized through discussion with practitioners, identification of what was needed and relevant to their current practice and working-context, and how the research could feasibly be conducted. Wyse et al. (2018) go on to further note that, specifically in relation to close-to-practice education-based research, that the robust use of research design, theory and methods are needed to ensure high quality research is conducted. Throughout this thesis every effort was made to ensure the research rigor was upheld as much as possible, given contextual limitations of conducting research in real-life, non-contrived settings.

In relation to tangible outcomes for the two special education settings we adopted a ‘train the trainer’ style approach in which in-house behaviour analysts were trained in Active Support Interactive Training, with the hope that this (typically costly) form of training would enable the schools to train up new starting staff in Active Support without the need to hire external consultants. Furthermore, the development of the staff training online module itself will continue to be developed and any improvements undertaken (even if through other forms of funding) will be shared with the schools.

For the social enterprise, the qualitative study featuring the individuals with intellectual disabilities working at the enterprise will help to feed into practices and shape up potential future ambitions around enhancing employment opportunities. A piece of work that was undertaken, and was not featured in this thesis, was the creation and dissemination of a questionnaire for caregivers. This questionnaire was sought to help the enterprise determine whether more could be done to improve the emotional wellbeing needs of caregivers of individual working at the enterprise. However, this activity was in addition to the thesis and ethical approval was not sought for the use of data due to time limitations.

It is hoped that all three company partners will continue to enhance their research culture within their staff and will maintain relationships with the University and associated researchers. What we could not fully achieve through this research was the demonstration of evidence-based practices in increasing vocational or work-related social skill acquisition in the young adults. It is hoped that despite this the schools and enterprise will still continue to assess and increase their use of evidence-based practices and engage in robust research in order to demonstrate impact and outcomes.

Dissemination of research

There are several ways that researchers can disseminate their work and maximise impact. The Research Excellent Framework defined ‘impact’ as “an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia” (UKRI, n.d.1). The emphasis here is that research findings should carry forward beyond academia and be disseminated to all in society, to fully ensure uptake of advice and suggestions from said research.

Of course, there are many barriers to achieving dissemination to non-academic sources in reality including pay-walls for journals, lengthy gaps between completion of

research and publication, rigidity of policy and guidance of journals, and technical jargon and complicated methodologies (NIHR, n.d.). However, efforts can be taken to break down these barriers and ensure research findings reach the target audience. One way of advancing the impact of research to other types of stakeholders is to utilise a stakeholder involvement/coproduction approach to the research. This involves working with stakeholders in all stages of the research process, from conceptualization through to write-up, so as to better ensure research findings reach those most in need of them. The Economic and Social Research Council (ESCR) ‘Impact Toolkit’ also notes that collaboration with research users and other stakeholders, at all stages of the research, can aid in enhancing impact and dissemination of findings (UKRI; n.d.2). Over the course of this PhD, we have continuously worked with key stakeholders and undertaken a heavily coproduced approach using collaboratively designed research with the company partner group members (as stated in the prior section). Efforts will also be made to ensure research findings are disseminated in an accessible way to participants. The findings from Study 1a. will be written up in an easy-read format so that the participants with intellectual disabilities who partook can contact the findings. Furthermore, an accessible report written in lay-language will also be devised, upon finalization of the thesis in line with KESS2 procedures, and given to the three company partners to then disseminate to all staff. Furthermore, talks to the staff themselves (that did not feature in the write-up of this thesis) were conducted in which the PhD student delivered talks about the research to all staff at both special education schools at the end of the first year of the PhD.

This is not to say that conventional academic dissemination is not also of importance. The most common method of dissemination amongst the academic community tends to be publication of research findings in academic journals, conferences and presentations at professional meetings (Edwards, 2015). This is useful within itself to help contact those who

may wish to directly replicate and evaluate the methods and interventions employed, however is limited in reaching other forms of key stakeholders if used in isolation. Throughout the thesis the findings from empirical studies were disseminated through publication (Study 2), presentation at academic conferences (Study 1a., Study 1b. & Study 2), and through an invited guest speaker talk for a group who share an interest in themes associated with this research (North Wales Active Support Community of Practice).

Limitations not previously addressed, and suggestions for future research

Limited stakeholder groups

For Study 1b., involving staff stakeholders, a limitation was the lack of inclusion of others forms of staff groups, particularly those from sheltered employment provisions, other forms of social enterprise, or from higher education colleges. Whilst we appreciate that this would have enabled us to draw findings that could be more generalized across settings and staff groups, we were unable to collect this data due to funding constraints with the funding company partners. The possibility of collecting this data after all at the funding companies had participated (if they opted in) was discussed amongst the project group (student, academic supervisors, company partners supervisors), however this did not become an option at later stages due to practical and time constraints. Going forward, it may be helpful to include other types of staff groups to create a more accurate picture of transition between services and the landscape of employment opportunities for young adults with intellectual disabilities, along with the notion that staff views, culture and practice may differ between provisions.

A further consideration should be afforded to caregiver perspectives, particularly around transition support and future employment goals of their children. As Beyer et al. (2016) stated successful transition to employment often hinges on collaboration with both the

young person and their family, including collaborative decision-making and coordinated planning. Despite this, family caregivers have often been reported to experience low levels of participation in the transition process (Davies & Beadmish, 2009). A suggestion for future research would be to mirror the methods utilised in Study 1b. with caregiver participants to further unpack their experiences of transition and employment support for their children.

Procedural fidelity for the intervention in Study 2

One area noted for improvement in future implementations for Study 2 (Chapter 4) was around procedural fidelity of the *Active Support Interactive Training* for special schools' intervention. Research on procedural fidelity continues to remain limited in the educational field, with more promising trends in terms of its inclusion and consideration in the intervention design-phase within research opposed to clinical practice (Ledford & Gast, 2013; Brady et al., 2019). For Study 2 a fidelity checklist was not considered as the lead trainer (PhD student) ran every training session with support and knew the procedure well due to spending a large amount of time planning and adapting it from the original procedure (and was aided by a list of steps, which is akin to what a fidelity checklist would appear like anyway). However, for future implementations of this training it would be advised to develop a fidelity checklist listing each step of the training intervention with clear definitions and contingencies in place if a step or component could not be completed, for inexperienced trainers or the behaviour analysts in the two schools who were trained as trainers. An example of what said fidelity checklist would look like is included in Appendix C, and was developed after completion of the study, in retrospect. The checklist itself draws heavily upon various resources included in the original Interactive Training (Toogood, 2010) manual, and the 'Competency-based assessment form', used to help experienced trainers determine when an inexperienced trainer has acquired the basic skills to train staff using the Interactive Training method. This competency assessment was already in a checklist format and included

aspects which the experienced trainer must look out for, which also happen to be at times in line with the steps of the intervention itself. Of course, adaptations still needed to occur to develop a fidelity checklist in line with a school-focus but care was taken to design something that does not stray too far from the original Interactive Training module (as with the protocol detailed in Study 2).

It will be advised that both the lead and support trainers complete the checklist in a ‘self-monitoring’ fashion and then collate once the session has finished to calculate a reliability score amongst themselves, to ascertain how accurate and similar both of their perceptions were of their own adherence to the training protocol. The checklist could also be used in a direct observation manner whereby one trainer observes the other, which may be of particular use if one trainer is less experienced and is still being trained themselves in how to correctly run the Interactive Training as planned.

Systems-wide change and practice leadership

For true change to be implemented and maintained across organisations, a systematic approach must be undertaken to ensure long-lasting adherence to the model / framework / intervention (Carr, 2007). Mansell et al. (2005) identified that aligning all elements of an organisation with the principles of Active Support is critical if the implementation of the model is to sustain in the long-term. This can be achieved through introduction of ‘practice leaders’, whereby a set of frontline or senior managers are trained in methods of ensuring the development of knowledge and maintenance of Active Support in the staff team (Bigby et al., 2019). In Study 2, this was attempted by training the in-house behaviour specialists as Active Support Interactive Trainers to in-turn train new starting staff and upkeep the model. However, a more complete approach to ensuring all senior management are trained in Active Support is needed to fully develop a staff culture that aligns with the values set out by Active Support (Bigby et al., 2019). This would include training all senior management staff,

including the headteachers, as Interactive Trainers, and to continuously monitor the supervision practices and competence of the practice leaders themselves to identify when booster training was needed (for both practice leaders and frontline staff).

A need to focus upon improving Autism knowledge first

Although this body of work focused more generally upon the field of intellectual disability many participants within the studies were also autistic. Having a good understanding of how having both autism and an intellectual disability can affect a person's life in different ways, than say solely having diagnosis of an intellectual disability, is imperative in developing a more person-centered and tailored portfolio of each individual person/learner (Beadle-Brown & Mills, 2019; Milton, 2020). It is common for many staff working within health and social care and educational settings to lack thorough, specialized training in autism (Beadle-Brown et al., 2015), which is of concern considering the different characteristics and support needs that autistic individuals can have. For example, a common characteristic associated with autism is that of sensory processing difficulties (Beadle-Brown & Mills, 2018), which could become a barrier to learning if implementing an intervention in a high-arousal environment, particularly if the staff member is unaware of such difficulties and misinterprets the learner as attempting to escape the academic demand opposed to the high-arousal environment.

One suggested direction for future research would be to train staff in autism-specific training to further test whether this has a greater effect on the way in which staff work with and support learners with intellectual disabilities. One suggested framework, and accompanying training, that could be utilized is that of the 'SPELL Framework' (Beadle-Brown & Mills, 2018). The SPELL framework was originally developed by the National Autistic Society with autistic people, their families and those who work with them (Beadle-Brown & Mills, 2018). However, the evidence base for the SPELL framework is still weak

with limited studies demonstrating its effectiveness (Beadle-Brown et al., 2015), therefore, caution would need to be applied here and more rigorous empirical testing undertaken first and foremost to ascertain it's effectiveness as a training tool to enhance staff support to autistic individuals.

Inclusion of less contrived scenarios for Interactive Training

For Study 2, the training simulation whereby the trainee staff member supported a student during a pre-planned activity lacked choice and control over activity on the students behalf and was in essence contrived. The reasoning behind selecting pre-planned tasks was due to difficulties faced with conducting the training in a naturalistic classroom setting (as the headteachers asked for the training to be conducted in a simulated classroom), and due to time limitations of the training itself (1-hour) which resulted in less time for staff trainees to prepare two tasks. However, this could be changed for future studies with the inclusion of requesting for more time for one-to-one training and to include students in the selection of the tasks, and to have a variety of tasks that students can choose from that are tailored to what that student would typically engage in.

Accounting for those with severe intellectual disabilities and complex needs

As noted within the introduction (Chapter 1), the SHIEC project aimed to support people with intellectual disabilities and complex needs to obtain paid employment in the south east of England in the early 2010's (Gore et al., 2013; Tame, 2016). The SHIEC project successfully demonstrated that it was possible to support people with profound intellectual disabilities and the most complex needs into finding and maintaining meaningful and paid employment, with the most recent report (before apparent discontinuation of project) reporting that between the 1st February 2014 and the 31st January 2015 SHIEC had provided support to between 29 and 43 individuals in employment (Tame, 2016).

This thesis did not focus upon one sole form of need-level due to the range of support needs experience by the target cohort of young adults and adults within the schools and social enterprise. However, findings from Study 2 (Chapter 4) did report the finding that once school education staff had been coached in how to provide consistent, tailored support to students with severe intellectual disabilities and better facilitate opportunities for meaningful activity and engagement, the engagement levels of students with the most complex needs (primarily profound intellectual and multiple disabilities) increased. This is further in line with findings from Jones et al. (1999) that reported staff contact with residents with severe intellectual disabilities increased after Active Support implementation and training.

During creation of the final study (Chapter 5) the SHIEC project was not known to the PhD student. Upon learning of this project during the write-up stage, it was realised that what SHIEC had attempted to achieve was to combine a person-centered focus with employment-related support to widen perspectives around what people with complex needs can be capable of achieving, which was somewhat similar to the theories that supported the creation of Study 3 (i.e., the theory that Active Support can be used to teach staff what the capabilities of the people they are supporting are in relation to meaningful activities; and in turn, employment capabilities). A suggestion for future research could explore the lessons learnt from SHIEC, and from this thesis, in order to fully develop a sustainable and stronger model of supported employment that is underpinned by a person-centered Active Support philosophy, incorporates instructional methods for skills teaching, and aims to focus on those with a more complex and profound level of need to ensure equal rights to employment opportunities for all regardless of complexity of support needs.

Accounting for those whose behaviours challenge and who are at risk of exclusion from employment

On a similar vein to the above, this thesis did not set out to support or focus upon young adults and adults with behaviour that challenges that would meet the definition of: those whose behaviour/s are at such intensity, frequency or duration, that they limit the person's quality of life and are likely to lead to increased risk of seclusion, exclusion and aversive, restrictive practices (Royal College of Psychiatrists, 2007). These types of impacts are what defines a behaviour that challenges and can also extend to those who support the person, such as physical harm, stress and emotional difficulties, and reduced opportunities and isolation (Hastings et al., 2013).

For this thesis several students in one of the post-16 classrooms displayed behaviours that challenge that would meet the above definition. These students were all supported through a Behaviour Support Plan (BSP) whereby a prior functional behaviour assessment and development of function-informed interventions included with the BSP had been undertaken by the in-house behaviour specialist. For Study 2, these students were excluded from the study due to difficulties in obtaining informed consent. However, this therefore painted a less accurate picture of the cohort of students within that classroom.

From informal observations at the social enterprise, and at other employment settings, there appeared no occurrence of behaviours that challenge from the young adults and adults. It was unclear whether those attending the social enterprise had never engaged in behaviours that challenge that resulted in increased restrictive impacts, whether the environment of the social enterprise itself was set up as to reduce the likelihood of behaviours that challenge occurring, or whether people with behaviours that challenge were simply excluded from gaining a place at the enterprise. It was also unclear how staff were trained to support workers with behaviours that challenge that could impact upon their ability to complete their assigned task.

Although Active Support has evidenced its efficacy in relation to improving the engagement in meaningful activities for people with intellectual disabilities it should not be viewed as a model that could reduce behaviours that challenge (Totsika et al., 2008). Where behaviours that challenge are concerned, Active Support does not incorporate the methods needed to identify contingencies surrounding behaviours such as setting events, antecedents, consequences, and the function or multifunction of said behaviour (Totsika et al., 2008). To meet the varied needs of people receiving support we need more than one tool in our toolkit, therefore, an integration of multiple person-centred approaches is needed. As a standalone component or model Active Support can be utilised to instigate change, but its effectiveness and maintenance would likely increase when implemented as part of a multicomponent framework.

Positive Behavioural Support (PBS) is a multi-component framework centred on improving the quality of life for people with intellectual and developmental disabilities whose behaviours challenge. In the 2022 UK-specific state of the nation report on PBS, Gore et al. (2022, p.13) state that PBS should include “multi-professional and cross-disciplinary approaches” including the inclusion of the model of Active Support in creating what is termed as a ‘capable environment’. It could be envisioned that for a highly effective implementation of a PBS framework, then Active Support should be one of the components embedded within that framework. It is suggested that the inclusion of a PBS framework and tailored behaviour support plans for the young adults in the special educational settings and adults at the social enterprise who display behaviours that challenge, that result in imposed restrictions on employment opportunities and specific placements, could help to reduce said behaviours and increase opportunities for inclusion and vocational experiences. Or, that employment provisions open themselves up to working with provisions supporting people with intellectual disabilities whose behaviours challenge by offering shorter placements and

taster sessions for said individuals and training staff in the person's behaviour support plan (and more thorough competence-based training around supporting people with behaviours that challenge also).

This idea of course is in its infancy and would need further consideration, trouble-shooting and exploration around how employment providers (in particular social enterprises) view the feasibility of supporting individuals with behaviours that challenge.

Cultural considerations

This thesis focused upon individuals who resided in a specific county in North West Wales whereby the majority of inhabitants are of white, Welsh descent. Several considerations around the Welsh culture were made throughout, however, little consideration was afforded to other cultures, meaning that the generalizability of all findings are limited.

These limitations could be overcome by conducting future research in a diverse range of countries, cultures, and contexts. This is particularly salient given the differences in policies, legislation and societal attitudes across countries indicating a pressing need to conduct employment research in different socio-economic and cultural contexts to produce a greater picture of global vocational research and practice.

A post-pandemic context

In March 2020 the coronavirus pandemic (COVID-19) caused national lockdowns and major disruptions to ordinary life for people across the world. For people with intellectual disabilities the impact of the COVID-19 pandemic was particularly damaging in relation to continued access to support, day occupation and employment, alongside the heightened risk of morbidity (Flynn et al., 2022).

The reduction and removal of such supports remains a serious issue for people with intellectual disabilities and their families, with particular issues arising from lack of social

care staff currently in employment in learning disabilities services (Flynn et al., 2022).

Undoubtedly, this will extend to supported employment agencies, social enterprises and other forms of employment provision supporting people with intellectual disabilities. It is therefore important to note that the continued effects of the COVID-19 pandemic will hinder future employment opportunities available. However, in this time it is imperative to not lose focus on the importance of promoting opportunities for employment for people with intellectual disabilities, and future research focusing upon ameliorating such impacts and barriers caused by the pandemic is crucial.

Toward the end of the write-up for this thesis, there was also the release of an action plan setting out “the Welsh Government’s overarching strategic agenda for the developmental and implementation of learning disability policy for the current term of government, 2022 to 2026” (Gov.Wales, 2022). At present this action plan is yet to be fully enacted, and how the action plan will ameliorate the ongoing issues caused (or at least, emphasised) by the COVID-19 pandemic are unclear. Either way, it will be of interest for future employment researchers, working in the context of Wales, to monitor the plan and how this type of policy can align with future research.

Conclusion

The three empirical chapters within this thesis aimed to develop the evidence base surrounding the development of vocational and work-related social skills by specifically focusing on changing staff behaviour through the person-centred model of Active Support. Active Support has the ability to change staff perspectives around the capabilities of people with more complex and profound needs in turn enabling those people to access a less restrictive and more ambitious level of support from staff. As reported by numerous Active Support researchers, and mirrored in Chapter 4 of this thesis, once staff are shown what people with complex needs are capable of achieving, they in turn begin to offer a better

quality of support and facilitate more meaningful activities for those individuals. Despite a need to focus in on the use of evidence-based practices to develop work-related social skills in young adults with intellectual disabilities, it is of importance to first upskill staff in the very basics of providing high quality support and diminishing disabling attitudes around the capabilities of those they support.

This thesis demonstrated the use of Active Support in enhancing engagement in young adult learners in classroom settings. Furthermore, exploratory qualitative findings unearthed important themes that could directly feed into the development of future employment-related supports. This thesis went on to highlight the constraints to close-to-practice and collaborative research. Effective communication between funding partners, adherence to methodological rigor, and staff buy-in can result in successful collaborative research. Further suggestions for research and implications for practice have been proposed across the areas investigated.

Reflections on PhD, and future aims

Throughout this PhD, I have been fortunate to have been given an abundance of learning opportunities from both the academic supervisors and the company partners, seen first-hand the impact of promoting behaviour change in staff in order to better enhance the engagement and subsequent quality of life of young adults with intellectual and developmental disabilities, as well as seen the positive impact collaboratively designed projects can have on fostering an appreciation in non-academic settings for the need to embed evidence-based practices within the staff team.

By far the most enjoyable aspect of this PhD has been the ‘real-world’ experience the collaborative partnership has given. Albeit challenging at times when ensuring the expectations of company partners are met whilst keeping the scientific rigor of the research to a high standard, the chance to test research questions in a real setting with participants that actually represent the cohort the research is setting out to directly impact has been invaluable.

My doctorate experience has enabled me to shape-up my own clinical practice and knowledge-base and I will be forever indebted to those, especially Carl and Sandy, who got me to where I am now. I hope that through my future research in this field I can make a real difference and aid in the enhancement of quality of life for individuals with intellectual and developmental disabilities and those within their support circle, in any amount I can. My future aims are to continue with producing collaboratively designed research that focuses on upskilling staff teams and driving systems change within learning disability organisations, whilst keeping front and center the aim of producing work that can directly benefit those who need it most.

References

- Akkerman, A., Janssen, C. G. C., Kef, S., & Meininger, H. P. (2016). Job satisfaction of people with intellectual disabilities in integrated and sheltered employment: An exploration of the literature. *Journal of Policy and Practice in Intellectual Disabilities*, 13, 205– 216. <https://doi.org/10.1111/jppi.12168>
- Almalky, H. (2020). Employment outcomes for individuals with intellectual and developmental disabilities: a literature review. *Children and Youth Services Review*, 109, 1-12. <https://doi.org/10.1016/j.childyouth.2019.104656>
- Apanasionok, M. M., Alallawi, B., Grindle, C. F., Hastings, R. P., Watkins, R. C., Nicholls, G., Maguire, L., & Staunton, D. (2021). Teaching early numeracy to students with autism using a school staff delivery model. *British Journal of Special Education*, 48(1); 90-111. <https://doi.org/10.1111/1467-8578.12346>
- Ayres, K. M., & Langone, K. (2005). Intervention and instruction with video for students with autism: A review of the literature. *Education and Training in Developmental Disabilities*, 40, 183-196.
- Bambara, L. M., Dunlap, G. & Schwartz, I. S. (Eds.) (2004). *Positive Behavioural Support: Critical Articles on Improving Practice for Individuals with Severe Disabilities*. Pro.ed.
- Barbaro, D., & Shankardass, K. (2022). Work-related social skills interventions for individuals with autism spectrum disorder throughout the life course. *Review Journal of Autism and Developmental Disabilities*, 1-13. <https://link.springer.com/content/pdf/10.1007/s40489-022-00317-7.pdf>
- Barriball, K. L., & White, A. (1994). Collecting data using a semi-structured interview: a discussion paper. *Journal of Advanced Nursing*, 19(2), 328-335.

Beadle-Brown, J., Mansell, J., Ashman, B., Ockenden, J., Iles, R. & Whelton, B. (2013).

Practice leadership and active support in residential services for people with intellectual disabilities: an exploratory study. *Journal of Intellectual Disability Research*, 58(9). <https://doi.org/10.1111/jir.12099>

Beadle-Brown, J., Bigby, C. & Bould, E. (2015). Observing practice leadership in intellectual and developmental disability services. *Journal of Intellectual Disability Research*, 59(12). <https://doi.org/10.1111/jir.12208>

Beadle-Brown, J., Murphy, B., & Bradshaw, J. (2017a). *Person-centred Active Support: A self-study guide to enable participation, independence and choice for adults and children with intellectual and developmental disabilities*. Pavilion Publishing and Media Ltd.

Beadle-Brown, J., Murphy, B. & Bradshaw, J. (2017b). *Person-centred active support: Learner's workbook*. (2nd Ed.). Pavilion.

Beadle-Brown, J., & Mills, R. (2018). *Understanding and responding to Autism – the SPELL framework: Self-study guide* (2nd Ed.). Pavilion.

Beail, N. & Williams, K. (2014). Using qualitative methods in research with people who have intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 27, 85-96.

Bear, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1(1), 91-97.
<https://doi.org/10.1901/jaba.1968.1-91>

Behavior Analyst Certification Board. (2020). Ethics Code for Behavior Analysts. BACB. Available at : <https://www.bacb.com/wp-content/uploads/2020/11/Ethics-Code-for-Behavior-Analysts-210902.pdf>

- Beyer, S., & Kaehne, A. (2008). The transition of young people with learning disabilities to employment: What works? *Journal on Developmental Disabilities*, 14(1), 81-90.
- 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. [Project Report]*. London: Department of Health.
- Beyer, S., Brown, T., Akandi, R., & Rapley, M. (2010). Brief Report: A Comparison of Quality-of-Life Outcomes for People with Intellectual Disabilities in Supported Employment, Day Services and Employment Enterprises. *Journal of Applied Research in Intellectual Disabilities*, 23, 290-295. <https://doi.org/10.1111/j.1468-3148.2009.00534.x>
- Beyer, S., Meek, A., & Davies, A. (2016). Supported work experience and its impact on young people with intellectual disabilities, their families and employers. *Advances in Mental Health and Intellectual Disabilities*, 10(3), 207-220. DOI 10.1108/AMHID-05-2014-0015
- Beyer, S., & Beyer, A. (2017). *A systematic review of the literature on the benefits for employers of employing people with learning disabilities*. Mencap
- Beyer, S., Vigna, E., Meek, A., & Meighan, J. (2019a., June). Research outcomes for the Engage to Change study: Report. National Centre for Mental Health.
- Beyer, S. (2019b., December). Engage to Change: Progress so far and what we have learned. National Centre for Mental Health.
- Beyer, S., Vigna, E. & Meek, A. (2021). *Engage to Change briefing: Jobs for people with a learning disability or autism – The role of the NHS. [Briefing paper for Welsh Government]*. Cardiff: NCMH Cardiff University.
- http://www.engagetochange.org.uk/wp-content/uploads/2021/02/Engage-to-Change-The-role-of-the-NHS-Jan21_final_eng2.pdf

- Bidwell, M. A. & Rehfeldt, R. A. (2004). Using video modeling to teach a domestic skill with an embedded social skill to adults with severe mental retardation. *Behavioral Interventions*, 19, 263-274.
- Bigby, C., & De Losa, L. (2021). After school jobs for students with intellectual disabilities. *Living with Disability Research Centre*, La Trobe University: Bundoora, VIC.
<https://dx.doi.org/10.26181/60876b527487b>
- Bigby, C., Bould, E. & Beadle-Brown, J. (2019). Implementation of active support over time in Australia. *Journal of Intellectual & Developmental Disability*, 44(2);
<https://doi.org/10.3109/13668250.2017.1353681>
- Bigby, C., Bould, E., Iacono, T. & Beadle-Brown, J. (2020) *Enabling engagement and inclusion: organisational factors that embed Active Support in accommodation services for people with intellectual disabilities: Summary Report*. Living with Disability Research Centre, La Trobe University.
- Boesley, L., & Crane, L. (2018). “Forget the Health and Care and just call them Education plans”. SENCos’ perspectives on Education Health and Care plans (EHCPs). *Journal of Research in Special Educational Needs*, 18(2), 36-47.
- Bogart, K. R., Bonnett, A. K., Logan, S. W., & Kallem, C. (2022). Intervening on disability attitudes through disability models and contact in psychology education. *Scholarship of Teaching and Learning in Psychology*, 8(1), 15-26.
<https://psycnet.apa.org/doi/10.1037/stl0000194>
- Bould, E., Bigby, C., Iacono, T. & Beadle-Brown, J. (2019). Factors associated with increases over time in the quality of Active Support in supported accommodation services for people with intellectual disabilities: A multi-level model. *Research in Developmental Disabilities*, 94; 1-12. <https://doi.org/10.1016/j.ridd.2019.103477>

- Botha, M., Hanlon, J., & Williams, G. L. (2021). Does language matter? Identity-first versus person-first language use in autism research: A response to Vivanti. *Journal of Autism and Developmental Disorders*, 51(1), 1-9. <https://doi.org/10.1007/s10803-020-04858-w>
- Bradshaw, J., McGill, P., Stretton, R., Kelly-Pike, A., Moore, J., Macdonald, S. Eastop, Z. & Marks, B. (2004). Implementation and Evaluation of Active Support. *Journal of Applied Research in Intellectual Disabilities*, 17(3), 139-148. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.521.8659&rep=rep1&type=pdf>
- Bradshaw, J., Gore, N. & Darvell, C. (2018). Supporting the direct involvement of students with disabilities in functional assessment through use of Talking Mats^R. *Tizard Learning Disability Review*, 23(2), 111-116.
- Brady, L., Padden, C., & McGill, P. (2019). Improving procedural fidelity of behavioural interventions for people with intellectual and developmental disabilities: a systematic review. *Journal of Applied Research in Intellectual Disabilities*, 32(2), 762-778, <https://doi.org/10.1111/jar.12585>
- Branch, A., Hastings, R. P., Beverley, M. & Hughes, J. C. (2016). Increasing support staff fluency with the content of behaviour support plans: An application of precision teaching. *Journal of Intellectual & Developmental Disability*, 43(2), 213-222, <https://doi.org/10.3109/13668250.2016.1267334>
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. Doi: 10.1191/1478088706qp063oa.
- Braun, V. & Clarke, V. (2012). Thematic Analysis. In H. Cooper (Ed.), *APA Handbook of Research Methods in Psychology: Vol. 2. Research Designs*. (pp. 57-71). *American Psychological Association*. DOI: 10.1037/13620-004.

- Braun, V. & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.
- Breeze, J. (2021). Including people with intellectual disabilities in the development of their own positive behaviour support plans. *Tizard Learning Disability Review*, 26(4), 199-205.
- British Educational Research Association (2018). Ethical guidelines for educational research, fourth edition. BERA. <https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-2018>
- Bross, L. A., Zane, T. L., & Kellems, R. O. (2019). Customer service skill development for students with autism spectrum disorder using video modelling. *Career Development and Transition for Exceptional Individuals*, 42(4), 246-252.
- Callus, A. M. (2017). 'Being friends means helping each other, making coffee for each other': reciprocity in the friendships of people with intellectual disability. *Disability & Society*, 32(1), 1016, <https://www.tandfonline.com/action/showCitFormats?doi=10.1080/09687599.2016.1267610>
- Cameron, L. & Murphy, J. (2007). Obtaining consent to participate in research: the issues involved in including people with a range of learning and communication disabilities. *British Journal of Learning Disabilities*, 35(2), 113-120.
- Carnahan, C., Musti-Rao, S. & Bailey, J. (2009). Promoting Active Engagement in Small Group Learning Experiences for Students with Autism and Significant Learning Needs. *Education and Treatment of Children*, 32(1); 37-61. <https://doi.org/10.1353/etc.0.0047>
- Carnett, A., Hansen, S., Tullis, C. & Machalicek, W. (2020). Using behavioural skills training via telehealth to increase teachers use of communication interventions and increase

student use of speech-generating devices in a high school functional skills classroom.

Journal of Intellectual Disability Research, 65(12), 133-148.

<https://onlinelibrary.wiley.com/doi/epdf/10.1111/jir.12794>

Carpenter, B., Egerton, J., Brooks, T., Cockbill, B., Fotheringham, J. & Rawson, H. (2011).

The Complex Learning Difficulties and Disabilities Research Project; developing pathways to personalized learning. *Specialist Schools and Academies Trust; Final Report*: <https://barrycarpentereducation.com/tag/cldd/>

Report: <https://barrycarpentereducation.com/tag/cldd/>

Carpenter, B., Carpenter, J., Egerton, J. & Cockbill, B. (2016). The Engagement for Learning

Framework: connecting with learning and evidencing progress for children with autism spectrum conditions. *Advances in Autism*, 2(1); 12-23.

<http://dx.doi.org/10.1108/AIA-10-2015-0021>

Carr, A., & O'Reilly, M. (2007). Diagnosis, classification & epidemiology. In A. Carr, G.

O'Reilly, P. Noonan Walsh & J. McEvoy (Eds.) *The Handbook of Intellectual Disability and Clinical Practice*. East Sussex: Routledge.

Carr, EG (2007). The expanding vision of positive behavior support: research perspectives on

happiness, helpfulness, hopefulness. *Journal of Positive Behavior Interventions*, 9: 3–14

Catania, C. N., & Almeida, D. (2009). Video modeling to train staff to implement discrete-

trial instruction. *Journal of Applied Behavior Analysis*, 42(2), 387-392.

Catania, A. C. (2013). A natural science of behavior. *Review of General Psychology*, 17(2),

133-139.

Cengher, M., Shamoun, K., Moss, P., Roll, D., Feliciano, G. & Fienup, D. M. (2016). A

comparison of the effects of two prompt-fading strategies on skill acquisition in

children with autism spectrum disorder. *Behavior Analysis in Practice*, 9(2), 115-125.

- Chadsey, J. & Beyer, S. (2001). Social Relationships in the Workplace. *Mental Retardation and Developmental Disabilities Research Review*, 7: 128-133, doi:10.1002/mrdd.1018
- Charlop-Christy, M. H., Le, L., & Freeman, K. A. (2000). A comparison of video modeling with in vivo modeling for teaching children with autism. *Journal of Autism & Developmental Disorders*, 30(6), 537-552. <https://doi.org/10.1023/a:1005635326276>
- Chi, C. G.-Q., & Qu, H. (2005). A study of differential employers' attitude towards hiring people with physical, mental, and sensory disabilities in restaurant industry. *Journal of Human Resources in Hospitality & Tourism*, 3, 1– 31. https://doi.org/10.1300/J171v03n02_01.
- Coolican, H. (2019). *Research methods and statistics in psychology*. (7th Ed.). Routledge.
- Cooper, J., Heron, T. & Heward, W. (2013). *Applied Behavior Analysis: Pearson New International Edition*. (2nd Ed.) Pearson Education Limited.
- Cooper, J., Heron, T. & Heward, W. (2019). *Applied Behavior Analysis: Pearson New International Edition*. (3rd Ed.). Pearson Education Limited.
- Crane, L., Davies, J., Fritz, A., O'Brien, S., Worsley, A., Ashworth, M., & Remington, A. (2021). The transition to adulthood for autistic young people with additional learning needs: the views and experiences of education professionals in special schools. *British Journal of Special Education*, 48(3), 323-346.
- Crane, L., Davies, J., Fritz, A., O'Brien, S., Worsley, A., & Remington, A. (2022). Autistic young people's experiences of transitioning to adulthood following the Children and Families Act 2014. *British Educational Research Journal*, 48(1), 22-4. DOI: 10.1002/berj.3753.

Damico, J. S., & Simmons-Mackie, N. N. (2002). The base layer and the gaze/gesture layer of transcription. *Clinical Linguistics & Phonetics*, 16:5, 317-327, doi:

10.1080/026992002101358577

Davies, M. D., & Beamish, W. (2009) Transitions from school for young adults with intellectual disability: Parental perspectives on “life as an adjustment”. *Journal of Intellectual & Developmental Disability*, 34(3), 248-257.

Denne, L., Jones, E., Lowe, K., Jackson-Brown, F., & Hughes, J. C. (2015). Putting positive behavioural support into practice: the challenges of workforce training and development. *International Journal of Positive Behavioural Support*, 5(2), 43-54.

Denne, L. D., Gore, N., Hughes, J. C., Toogood, S., Jones, E. & Jackson-Brown, F. (2020). Implementing evidence-based practice: the challenge of delivering what works for people with learning disabilities at risk of behaviours that challenge. *Tizard Learning Disability Review*, 25(3), 133-143. <http://dx.doi.org/10.1108/TLDR-05-2020-0009>

Department of Health (2001). *Valuing People: A new strategy for learning disability for the 21st century*. Department of Health, available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/250877/5086.pdf

Department of Health (2005). *Mental Capacity Act*. Department of Health, available at:
<https://www.legislation.gov.uk/ukpga/2005/9/contents>

Department of Health (2009). *Valuing People Now: A new three year strategy for people with learning disabilities*. Department of Health, available at:
http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_093375.pdf

Department of Work and Pensions. (n.d.). *Intensive Personalised Employment Support*.

Department for Work and Pensions: Benefits, available at:

<https://www.gov.uk/intensive-personalised-employment-support>

DiGennaro, F. D., Martens, B. K. & Kleinmann, A. E. (2007). A comparison of performance feedback procedures on teachers' treatment implementation integrity and students' inappropriate behaviour in special education classrooms. *Journal of Applied Behaviour Analysis*, 40(3), 447-461. <https://doi.org/10.1901/jaba.2007.40-447>

Dillenburger, K. (2017). Staff Training. In J. Matson (Ed.). *Handbook of Autism Treatments*. Springer.

Edwards, D. J. (2015). Dissemination of research results: on the path to practice change. *The Canadian Journal of Hospital Pharmacy*, 68(800), 465-469.
<https://doi.org/10.4212%2Fcjhp.v68i6.1503>

Ellenkamp, J. J. H., Brouwers, E. P. M., Embregts, P. J. C. M., Joosen, M. C. W., & Jaap van Weeghel. (2016). Work Environment-Related Factors in Obtaining and Maintaining Work in a Competitive Employment Setting for Employees with Intellectual Disabilities: A Systematic Review. *Journal of Occupational Rehabilitation*, 26(1), 56-69. <https://doi.org/10.1007/s10926-015-958>

Emerson, E. & McGill, P. (1989). Normalisation and applied behaviour analysis: values and technology in services for people with learning difficulties. *Behavioural Psychotherapy*, 17(2), 101-117. <https://doi.org/10.1017/S0141347300016086>

Emerson, E., Hastings, R. & McGill, P. (1994). Values, attitudes and service ideology. In Emerson, E., McGill, P. & Mansell, J. (eds). *Severe Learning Disabilities and Challenging Behaviours: Designing High Quality Services*, Chapman and Hall, London.

- Emerson, E., Robertson, J., Gregory, N., Kessissoglou, S., Hatton, C., Hallam, A., Knapp, M., Jarbrink, K., Netten, A. & Linehan, C. (2009). The quality and costs of community-based residential supports and residential campuses for people with severe and complex disabilities. *Journal of Intellectual and Developmental Disability*, 25, 263-279. <https://doi.org/10.1080/13668250020019575>
- Emerson, E., Hatton, C., Robertson, J., & Baines, S. (2014). Perceptions of neighbourhood quality, social and civic participation and the self rated health of British adults with intellectual disability: cross sectional study. *BMC Public Health*, 14, 1252. <https://doi.org/10.1186/1471-2458-14-1252>
- Emerson, E., Aitken, Z., Totsika, V., King, T., Stancliffe, R. J., Hatton, C., Llewellyn, G., Hastings, R. P., & Kavanagh, A. (2022). The impact of the COVID pandemic on working age adults with disability: Meta-analysis of evidence from four national surveys. *Health & Social Care in the Community*, 1-12.
- Felce, D., Kushlick, A., & Mansell, J. (1980). Evaluation of alternative residential facilities for the severely mentally handicapped in Wessex: client engagement. *Advances in Behaviour Research and Therapy*, 3(1), 13-18.
- Felce, D., & Toogood, S. (1988). *Close to home: a local housing service and its impact on the lives of nine adults with severe and profound mental handicaps*. BIMH Publishers.
- Felce, D. & Perry, J. (1995). The extent of support for ordinary living provided in staffed housing: the relationship between staffing levels, resident characteristics, staff:resident interactions and resident activity patterns. *Social Science & Medicine*, 40. [https://doi.org/10.1016/0277-9536\(94\)00152-J](https://doi.org/10.1016/0277-9536(94)00152-J)

Finlay, W. M. L. & Lyons, E. (2002). Acquiescence in interviews with people who have mental retardation. *Intellectual and Developmental Disabilities*, 40(1), 14-29.

[https://doi.org/10.1352/0047-6765\(2002\)040%3C0014:AIWPW%3E2.0.CO;2](https://doi.org/10.1352/0047-6765(2002)040%3C0014:AIWPW%3E2.0.CO;2)

Fiske, K. E. (2008). Treatment integrity of school-based behavior analytic interventions: a review of the research. *Behavior Analysis in Practice*, 1, 19-25.

<https://link.springer.com/article/10.1007/BF03391724>

Flynn, S., Totsika, V., Hastings, R. P., Hood, K., Toogood, S., & Felce, D. (2018).

Effectiveness of Active Support for adults with intellectual disability in residential settings: Systematic review and meta-analysis. *Journal of Applied Research in Intellectual Disability*, 6; 799-810.

<https://doi.org/10.1111/jar.12491>

Flynn, S., Hatton, C., Hastings, R. P., Hayden, N., Caton, S., Heslop, P., ... & Taggart, L.

(2022). Access to and use of health and social care services for people with learning disabilities during COVID-19: a longitudinal study. *Tizard Learning Disability Review*, 27(1).

<https://www.emerald.com/insight/content/doi/10.1108/TLDR-12-2021-0038/full/html>

Foran, D., Hoerger, M., Philpott, H., Walker Jones, E., Hughes, J. C. & Morgan, J. (2015).

Using applied behaviour analysis as standard practice in a UK special needs

school. *British Journal of Special Education*, 42(1). [https://doi.org/10.1111/1467-](https://doi.org/10.1111/1467-8578.12088)

[8578.12088](https://doi.org/10.1111/1467-8578.12088)

Forrester-Jones, R., Jones, S., Heason, S. & Di'Terlizzi, M. (2004). Supported Employment:

a Route to Social Networks. *Journal of Applied Research in Intellectual Disabilities*, 17(3), 199-208.

Forrester-Jones, R., Carpenter, J., Coolen-Schrijner, P., Cambridge, P., Tate, A., Beecham, J.,

Hallam, A., Knapp, M. & Wooff, D. (2006). The Social Networks of People with

- Intellectual Disability Living in the Community 12 Years after Resettlement from Long-Stay Hospitals. *Journal of Applied Research in Intellectual Disabilities*, 19, 285-285.
- Forrester-Jones, R., Gore, N. & Melling, K. (2010). How many people with intellectual disability are employed in the UK? *Tizard Learning Disability Review*, 15(1), 56-58.
Doi: 10.5042/tldr.2010.0031
- Fraser, M. & Fraser, A. (2001). Are people with learning disabilities able to contribute to focus groups on health promotion? *Methodological Issues in Nursing Research*, 33(2), 225-233.
- Frey, B. B. (2018). The Hawthorne Effect in Education; The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation (1st ed.). Thousand Oaks,, CA: SAGE Publications, Inc. doi: 10.4135/9781506326139
- Fryling, M. J., Wallace, M. D. & Yassine, J. N. (2013). Impact of treatment integrity on intervention effectiveness. *Journal of Applied Behavior Analysis*, 45(2), 449-453.
<https://doi.org/10.1901/jaba.2012.45-449>
- Galdas, P. (2017). Revisiting bias in qualitative research: Reflections on its relationship with funding and impact. *International Journal of Qualitative Methods*, 16, 1-2.
- Gast, D. L. & Hammond, D. (2010). Withdrawal and reversal designs. In D. L. Gast (Ed.), *Single subject research methodology in behavioral sciences*. (pp. 234-275). Routledge.
- Gilson, C. B., Carter, E. W., & Biggs, E. E. (2017). Systematic review of instructional methods to teach employment skills to secondary students with intellectual and developmental disabilities. *Research and Practice for Persons with Severe Disabilities*, 42(2), 89-107.

- Gore, N. J., Forrester-Jones, R. & Young, R. (2013). Staff experiences of supported employment with the Sustainable Hub of Innovative Employment for people with Complex needs. *British Journal of Learning Disabilities*, 42, 228-235.
<https://doi.org/10.1111/bld.12033>
- Gore, N. J., McGill, P., & Hastings, R. P. (2019). Making it meaningful: Caregiver goal selection in Positive Behavioral Support. *Journal of Child and Family Studies*, 28, 1703-1712.
- Gore, N. J., McGill, P., & Hastings, R. P. (2021). Personalized Goals for Positive Behavioral Support: Engaging Directly with Children who have Intellectual and Developmental Disabilities. *Journal of Child and Family Studies*, 30, 375-387
<https://doi.org/10.1007/s10826-020-01867-2>
- Gore, N. J., Sapiets, S. J., Denne, L. D., Hastings, R. P., Toogood, S., MacDonald, A., Baker, P., & the PBS Working Group (2022) Positive Behavioural Support in the UK: A State of the Nation Report. *International Journal of Positive Behavioural Support*, 12 (1).
- Gormley, L., Healy, O., O'Sullivan, B., O'Regan, D., Grey, I. & Bracken, M. (2019). The impact of behavioural skills training on the knowledge, skills and well-being of front line staff in the intellectual disability sector: a clustered randomised control trial. *Journal of Intellectual Disability Research*, 63(11), 1291-1304.
https://onlinelibrary.wiley.com/doi/pdf/10.1111/jir.12630?saml_referrer
- Gov.Wales (2013). Special educational needs code of practice for Wales. Available at:
<https://gov.wales/special-educational-needs-code-practice>
- Griffith, G. M., Fletcher, R., & Hastings, R. P. (2012). A national UK census of Applied Behavior Analysis school provision for children with autism. *Research in Autism*

Spectrum Disorders, 6(2), 798-

805. <https://psycnet.apa.org/doi/10.1016/j.rasd.2011.10.014>

Griffiths, M. L., Gray, B. J., Kyle, R. G., & Davies, A. R. (preprint, 2022). Good work in the COVID-19 recovery: priorities and changes for the future. Good work in the COVID-19 recovery: priorities and changes for the future | medRxiv

Grindle, C. F., Hastings, R. P., Saville, M. Hughes, J. C., Huxley, K., Kovshoff, H., Griffith, G. Walker-Jones, E., Devonshire, K. & Remington, B. (2012). Outcomes of a behavioral education model for children with autism in a mainstream school setting. *Behavior Modification*, 36(3), 298-319, DOI: 10.1177/0145445512441199

Grob, C. M., Lerman, D. C., Langlinais, C. A., & Villante, N. K. (2019). Assessing and teaching job-related social skills to adults with autism spectrum disorder. *Journal of Applied Behavior Analysis*, 52(1), 150-172.

Hafod Lon (2021). *2020-2021 School Prospectus*. Ysgol Hafod Lon.

<http://www.ysgolhafodlon.co.uk/eng/information.html>

Hall, E. (2010). Spaces of social inclusion and belonging for people with intellectual disabilities. *Journal of Intellectual Disability Research*, 54(1), 48-57, <http://dx.doi.org/10.1111/j.1365-2788.2009.01237.x>

Hall, E., & Wilton, R. (2011). Alternative spaces of ‘work’ and inclusion for disabled people. *Disability & Society*, 26(7), 867-880.

Harrison, R. A., Bradshaw, J., Forrester-Jones, R., McCarthy, M. & Smith, S. (2021). Social networks and people with intellectual disabilities: A systematic review. *Journal of Applied Research in Intellectual Disabilities*, 1-20, <https://doi.org/10.1111/jar.12878>

Haynes, K. (2012). Reflexivity in qualitative research. In Symon & Cassell (Ed.). *Qualitative organizational research: Core methods and current challenges* (pp.72-89). Sage.

- Hatton, C., Emerson, E., Robertson, J., Henderson, D. & Cooper, J. (1996). Factors associated with staff support and user lifestyle in services for people with multiple disabilities: a path analytic approach. *Journal of Intellectual Disability Research*. 40; 466-477. <https://doi.org/10.1046/j.1365-2788.1996.791791.x>
- Hatton, C. (2018). Paid employment amongst adults with learning disabilities receiving social care in England: trends over time and geographical variation. *Tizard Learning Disability Review*, 23(2), 117-122. doi: <http://dx.doi.org.ezproxy.bangor.ac.uk/10.1108/TLDR-01-2018-0003>
- Hastings, R. P., Allen, D., Baker, P., Gore, N. J., Hughes, J. C., McGill, P., Noone, S. J. & Toogood, S. (2013). A conceptual framework for understanding why challenging behaviours occur in people with developmental disabilities. *International Journal of Positive Behavioural Support*, 3, 2.
- Heal, L. W. & Chadsey-Rusch, J. (1985). The Lifestyle Satisfaction Scale (LSS) – assessing individuals’ satisfaction with residence, community setting, and associated services. *Applied Research in Mental Retardation*, 6, 475-490.
- Heal, L. & Rubin, S. (1993). Biases in responses during the interviews of individuals with mental retardation. *Annual meeting of the American Association on Mental Retardation*, Washington, DC.
- Hedley, D., Cai, R., Uljarevic, M., Wilmot, M., Spoor, J. R., Richdale, A., & Dissanayake, C. (2018). Transition to work: Perspectives from the autism spectrum. *Autism*, 22(5), 528-541, <https://doi.org/10.1177%2F1362361316687697>
- Heward, W. L. (2018). Use Strategies to Promote Active Student Engagement. In *High Leverage Practices for Inclusive Classrooms*, 1st Edition (pp. 251-263). Routledge. ISBN: 9781315176093.

- Hernandez, B., Keys, C., & Balcazar, F. (2000). Employer attitudes toward workers with disabilities and their ADA employment rights: A literature review. *Journal of Rehabilitation*, 66, 4– 16.
- Heyman, M., Jacobs, H. E., & Siperstein, G. N. (2019). *Vocational skills and their assessment*. In Matson, J. L. (Ed.). *Handbook of Intellectual Disabilities: Autism and Child Psychopathology Series*. Springer. https://doi.org/10.1007/978-3-030-20843-1_25
- HM Government (2021). The national strategy for autistic children, young people and adults: 2021 to 2026. Available at: <https://www.gov.uk/government/publications/national-strategy-for-autistic-children-young-people-and-adults-2021-to-2026>
- Homan, R. (1991). *The Ethics of Social Research*. New York: Longman.
- Hutchinson, S. & Wilson, H. S. (1992). Validity threats in scheduled semistructured research interviews. *Nursing research*, 41(2), 117-119.
- Isaacs, W., Thomas, J. & Goldiamond, I. (1960). Application of operant conditioning to reinstate verbal behavior in psychotics. *Journal of Speech and Hearing Disorders*, 25:1, 8-12.
- Jahoda, A., Kemp, J., Riddell, S., & Banks, P. (2007). Feelings About Work: A Review of the Socio-emotional Impact of Supported Employment on People with Intellectual Disabilities. *Journal of Applied Research in Intellectual Disabilities*, 21, 1-18. <https://doi.org/10.1111/j.1468-3148.2007.00365.x>
- Jerome, J., Frantino, E. P. & Sturmey, P. (2007). The effects of errorless learning and backward chaining on the acquisition of internet skills in adults with developmental disabilities. *Journal of Applied Behavior Analysis*, 40(1), 185-189.

Joint Committee on Human Rights (2012). *Implementation of the Right of Disabled People to Independent Living*. House of Lords, House of Commons. London: The Stationery Office Limited.

Jones E., Perry J., Lowe K., Felce D., Toogood S., Dunstan F., Allen, D., & Pagler, J. (1999). Opportunity and the promotion of activity among adults with severe intellectual disability living in community residences: The impact of training staff in Active Support. *Journal of Intellectual Disability Research*; 43(3)164–178 <https://doi.org/10.1046/j.1365-2788.1999.00177.x>

Jones, E., Felce, D., Lowe, K., Bowley, C., Pagler, J., Strong, G., Gallagher, B., Roper, A. & Kurowska, K. (2001). Evaluation of the Dissemination of Active Support Training and Training Trainers. *Journal of Applied Research in Intellectual Disabilities*. 14; 79-99. <https://doi.org/10.1046/j.1468-3148.2001.00064.x>

Jones, E., Perry, J., Lowe, K., Allen, D., Toogood, S. & Felce, D. (2011). *Active Support: A handbook for supporting people with learning disabilities to lead full lives*. ARC House. <https://arcuk.org.uk/cymru/files/2011/04/Active-Support-Handbook.pdf>

Jones, E., Lowe, K., Brown, S., Albert, L., Saunders, C., Haake, N., Leigh, H. (2013) Active Support as a primary prevention strategy for challenging behaviour. *BILD, International Journal of Positive Behavioural Support*, 3 (1), 16-30

Jones, E. (2019). What is behaviour that challenges? In P. Baker & T. Osgood (Eds.), *Understanding and responding to behaviour that challenges in intellectual disabilities*. (pp. 15-22). Pavilion

Kaehne, A. (2016). Project SEARCH UK – Evaluating Its Employment Outcomes. *Journal of Applied Research in Intellectual Disabilities*, 29, 519-530.

- Kaehne, A., Kiernan, J., Ridley, J., Maden, M., Onochie, D., & Pilkington, M. (2018). *Rapid Review. Transition for young people with learning disabilities in housing, social care, and health care, education/training, and employment*. Available at:
<https://research.edgehill.ac.uk/ws/portalfiles/portal/20055335/CCfW+final+report+04072018.pdf>
- Kazdin, A. (2011). *Single-Case Research Designs: Methods for Clinical and Applied Settings*. (2nd. Ed.) Oxford University Press.
- Kennedy, C. H. (2005). *Single-case designs for educational research*. Bostyn: Allyn and Bacon.
- Kennedy, S., Long, R., Parkin, E., & Powell, A. (2021). *Support for people with a learning disability: report*. House of Commons Library, available at:
<https://researchbriefings.files.parliament.uk/documents/SN07058/SN07058.pdf>
- Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016). Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism*, 20(4), 442-462. <https://doi.org/10.1177/1362361315588200>
- Knowledge Economy Skills Scholarships (KESS2). (n.d.). *About KESS2 (West Wales)*. KESS2, <https://kess2.ac.uk/>
- Kocman, A., Fischer, L., & Weber, G. (2018). The Employers' perspective on barriers and facilitators to employment of people with intellectual disability: A differential mixed-method approach. *Journal of Applied Research in Intellectual Disabilities*, 31, 120-131, <https://doi.org/10.1111/jar.12375>
- Koritsas, S., Iacono, T., Hamilton, D. & Leighton, D. (2009). The effect of active support training on engagement, opportunities for choice, challenging behaviour and

support needs. *Journal of Intellectual & Developmental Disability*. 33(3); 247-256.

<https://doi.org/10.1080/13668250802282944>

Kozma, A., Mansell, J., & Beadle-Brown, J. (2009). Outcomes in Different Residential Settings for People With Intellectual Disability: A Systematic Review. *American Association on Intellectual and Developmental Disabilities*, 114(3): 193-222.

Kurasaki, K. S. (2000). Intercoder reliability for validating conclusions drawn from open-ended interview data. *Field Methods*, 12, 179-194.

<https://doi.org/10.1177/1525822X0001200301>

Laarhoven, T. V., Zurita, L. M., Johnson, J. W., Grider, K. M., & Grider, K. L. (2009). Comparison of Self, Other, and Subjective Video Models for Teaching Daily Living Skills to individuals with Developmental Disabilities. *Education and Training in Developmental Disabilities*, 44(4), 509-522.

Lane, J. D. & Gast, D. L. (2013). Visual analysis in single case experimental design studies: Brief review and guidelines. *Neuropsychological Rehabilitation*, 24(3-4), 445-463.

DOI: [10.1080/09602011.2013.815636](https://doi.org/10.1080/09602011.2013.815636).

Langthorne, P., McGill, P., & O'Reilly, M. (2007). Incorporating 'motivation' into the functional analysis of challenging behavior: On the interactive and integrative potential of the motivating operation. *Behavior Modification*, 31(4), 466–

487. <https://doi.org/10.1177/0145445506298424>

LeBlanc, L.A., Raetz, P. B., Sellers, T. P. & Carr, J. E. (2015). A proposed model for selecting measurement procedures for the assessment and treatment of problem behavior. *Behavior Analysis in Practice*, 9, 77-83. <https://doi.org/10.1007/s40617-015-0063-2>

Ledford, J. R. & Gast, D. L. (2013). Measuring procedural fidelity in behavioural research.

Neuropsychological Rehabilitation, 24(3-4), 332-348.

<https://doi.org/10.1080/09602011.2013.861352>

Lequia, J., Machalicek, W. & Rispoli, M. J. (2012). Effects of activity schedules on challenging behavior exhibited in children with autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders*, 6(1); 480-492. doi:

<https://doi.org/10.1016/j.rasd.2011.07.008>

Lysaght, R., Petner-Arrey, J., Howell-Moneta, A., & Cobigo, V. (2017). Inclusion through work and productivity for person with intellectual disability. *Journal of Intellectual Disability Research*, 52(12), 1091-1101. [https://doi.org/10.1111/j.1365-](https://doi.org/10.1111/j.1365-2788.2008.01098)

[2788.2008.01098](https://doi.org/10.1111/j.1365-2788.2008.01098)

Mansell, J., Felce, D., Jenkins, J., De Kock, U., & Toogood, A. (1987). *Developing staffed housing for people with mental handicaps*. Costello.

Mansell, J. (1998). Editorial. Tizard Learning Disability Review, 3(2), 4-6.

<https://doi.org/10.1108/13595474199800011>

Mansell, J. (1994). Specialised group homes for persons with severe or profound mental retardation and serious problem behaviour in England. *Research in Developmental Disabilities*, 15(5), 371-388. doi: 10.1016/0891-4222(94)90023-x.

Mansell, J., Hughes, H. & McGill, P. (1994). Maintaining local residential placements. In E. Emerson, P. McGill, & J. Mansell (Eds.). *Severe Learning Disabilities and Challenging Behaviour: Designing High-Quality Services* (pp. 260-281). Chapman and Hall.

Mansell, J., Elliott, T., Beadle-Brown, J., Ashman, B. & MacDonald, S. (2002). Engagement in meaningful activity and “active support” of people with intellectual disabilities in

residential care. *Research in Developmental Disabilities*, 23(5), 342-352.

<https://doi.org/10.1007/s40617-015-0063-2>

Mansell, J. & Beadle-Brown, J. (2005). Engagement in meaningful activity and relationships (EMACR): Handbook for observers. Tizard Centre.

Mansell, J. (2006). Deinstitutionalisation and community living: Progress, problems and priorities. *Journal of Intellectual and Developmental Disability*, 31(2): 65-67.

Mansell, J. (2007). *Services for people with learning disabilities and challenging behaviour or mental health needs: Report of a Project Group (Chairman: Prof J L Mansell)*. London: Department of Health.

Mansell, J. (2010). *Raising our sights: services for adults with profound intellectual and multiple disabilities: A report by Professor Jim Mansell*. London: Department of Health.

Mansell, J., Beadle-Brown, J., and SIRG Comparative Policy and Practice. (2010). Deinstitutionalisation and community living: position statement of the Comparative Policy and Practice Special Interest Research Group of the International Association for the Scientific Study of Intellectual Disabilities. *Journal of Intellectual Disability Research*, 54(2), 104-112. Doi: 10.1111/j.1365-2788.2009.01239.x

Mansell, J. & Beadle-Brown, J. (2012). Active Support: Enabling and Empowering People with Intellectual Disabilities. *Jessica Kingsley Publishers, London*, 224 pp. ISBN 978-1-84905-111-8.

McCarron, M., Lombard-Vance, R., Murphy, E., May, P., Webb, N., Sheaf, G., McCallion, P., Stancliffe, R., Normand, C., Smith, V., & O'Donovan, M. A. (2019). Effect of deinstitutionalisation on quality of life for adults with intellectual disabilities: a

systematic review. *BMJ Open*, 9(4), 1-19.

<https://bmjopen.bmj.com/content/bmjopen/9/4/e025735.full.pdf>

McConkey, R., & Mezza, F. (2001). Employment aspirations of people with learning disabilities attending day centres. *Journal of Learning Disabilities*, 5(4), 309-318.
<https://doi.org/10.1177/146900470100500403>

McGill, P. & Toogood, S. (1994) Organizing community placements, in *Severe Learning Disabilities and Challenging Behaviours: Designing High Quality Services*, ed. Emerson, E, McGill, P and Mansell, J. London: Chapman & Hall.
<https://kar.kent.ac.uk/5434/>

Mechling, L. C. (2005). The effect of instructor created video programs to teach students with disabilities: A literature review. *Journal of Special Education Technology*, 20(2), 25-36

Meek, A., Vigna, E., Beyer, S., & Meighan, J. (2019). *Engage to Change: DFN Project SEARCH Report on an internship programme for young people with Learning Disabilities and/or Autism: The first three years*. Cardiff: National Centre for Mental Health, Cardiff University.

Meltzer, A., Kayess, R., & Bates, S. (2018). Perspectives of people with intellectual disability about open, sheltered and social enterprise employment: Implications for expanding employment choice through social enterprises. *Social Enterprise Journal*, 14(2), 225-244. <http://www.emeraldinsight.com/1750-8614.htm>

Meltzer, A., Robinson, S., & Fisher, K. R. (2019). Barriers to finding and maintaining open employment for people with intellectual disability in Australia. *Soc Policy Admin.* 2020;54-77-101. 101. <https://doi.org/10.1111/spol.12523>

- Mencap (n.d.). Employment – research and statistics; How many adults with a learning disability have a paid job? Retrieved from, <https://www.mencap.org.uk/learning-disability-explained/research-and-statistics/employment-research-and-statistics>
- Meys, E., Hermans, K., & Maes, B. (2021). The role of professionals in strengthening social relations of adults with a disability in independent supported living: Practices and influencing factors. *Journal of Intellectual & Developmental Disability*, 46(2), 150-163. <https://doi.org/10.3109/13668250.2020.1786963>
- Miles, N. I., & Wilder, D. A. (2009). The effects of behavioral skills training on caregiver implementation of guided compliance. *Journal of Applied Behavior Analysis*, 42, 405–410.
- Milton, D. (2012). So what exactly is autism? *Autism Education Trust*, 15. Online article. <https://kar.kent.ac.uk/id/eprint/62698>
- Moody, G., Coulman, E., Gillespie, D., Goddard, M., Grindle, C., Hastings, R. P., Hughes, C., Ingarfield, K., Taylor, Z. & Denne, L. (2022). The READ-IT study protocol for a feasibility randomized controlled trial of using a support worker/family carer mediated online reading programmes to teach early reading skills to adults with intellectual disabilities. *BMC Pilot and Feasibility Studies*, 8(13) 1-12. <https://doi.org/10.1186/s40814-022-00972-x>
- Morgan, P. L. (2006). Increasing Task Engagement Using Preference or Choice-Making: Some Behavioral and Methodological Factors Affecting Their Efficacy as Classroom Interventions. *Remedial and Special Education*, 27(3); 176-187. <https://doi.org/10.1177%2F07419325060270030601>
- Nagro, S. A., Fraser, D. W. & Hooks. S. D. (2018). Lesson Planning with Engagement in Mind: Proactive Management Strategies for Curriculum Instruction. *Intervention in School and Clinic*, 54(3); 131-140. <https://doi.org/10.1177%2F1053451218767905>

- National Clearinghouse on Autism Evidence and Practice Review Team (2020). *Evidence-Based Practices for Children, Youth, and Young Adults with Autism*. Available at: <https://ncaep.fpg.unc.edu/sites/ncaep.fpg.unc.edu/files/imce/documents/EBP%20Report%202020.pdf>
- NHS England. (n.d.). *Making information and the words we use accessible*. NHS England. <https://www.england.nhs.uk/learning-disabilities/about/get-involved/involving-people/making-information-and-the-words-we-use-accessible/>
- NIHR (n.d.). *How to disseminate your research*. National Institute for Health and Care Research. Available at: <https://www.nihr.ac.uk/documents/how-to-disseminate-your-research/19951>
- Nind, M. (2008) *Conducting qualitative research with people with learning, communication and other disabilities: Methodological challenges*. ESCR National Centre for Research Methods Review Paper.
- O'Boyle, H. & Hoerger, M. (2021). Implementing a classroom-based ABA model in a maintained special education school in Wales. *Wales Journal of Education*, 23(1), 1-16 <https://doi.org/10.16922/wje.23.1.2>
- O'Connor, C., & Joffe, H. (2020). Intercoder reliability in qualitative research: Debates and practical guidelines. *International Journal of Qualitative Methods*, 19, 1-13. <https://doi.org/10.1177/1609406919899220>
- O'Neill, R. E., Albin, R. W., Storey, K., Horner, R. H., & Sprague, J. R. (2014). *Functional assessment and program development for problem behavior: A practical handbook (3rd Edition)*. Cengage Learning.
- Odum, S. L., Collet-Klingenberg, L. C., Rogers, S. J. & Hatton, D. D. (2010). Evidence-based practices in interventions for children and youth with autism spectrum

disorders. *Preventing School Failure: Alternative Education for Children and Youth*, 54(4), 275-282,

<https://www.tandfonline.com/doi/pdf/10.1080/10459881003785506?needAccess=true>

Ohtake, Y., & Chadsey, J. (1999). Social disclosure among coworkers without disabilities in supported employment settings. *Mental Retardation*, 38, 25-35

Oliver, M. (1990). *The Politics of Disablement*. Basingstoke: Macmillan.

Oliver, M. (2013). The social model of disability: thirty years on. *Disability & Society*, 28(7), 1024-1026, DOI: [10.1080/09687599.2013.818773](https://doi.org/10.1080/09687599.2013.818773)

Owen, K., Watkins, R., & Hughes, C. (2022). From evidence-informed to evidence-based: an evidence building framework for education. *Review of Education*, 10(1), 1-25.

<https://doi.org/10.1002/rev3.3342>

Owuor, J., Larkan, F., & MacLachlan, M. (2017). Leaving no-one behind: using assistive technology to enhance community living for people with intellectual disability.

Disability and Rehabilitation: Assistive Technology, 12(5), 426-428.

<https://www.tandfonline.com/doi/full/10.1080/17483107.2017.1312572>

Parker, R. I., Hagan-Burke, S. & Vannest, K. (2007). Percentage of all non-overlapping data (PAND): An alternative to PND. *The Journal of Special Education*, 40(4), 194-204.

<https://journals.sagepub.com/doi/pdf/10.1177/00224669070400040101>

Parker, R. I., Vannest, K. J. & Davis, J. L. (2011). Effect size in single-case research: A review of nine nonoverlap techniques. *Behavior Modification*, 35(4), 303-322.

<https://journals.sagepub.com/doi/pdf/10.1177/0145445511399147>

Park, J., Bouck, E. C., & Duenas, A. (2020). Using video modelling to teach social skills for employment to youth with intellectual disability. *Career Development and Transition for Exceptional Individuals*, 43(1), 40-52.

- Parkin, E., Kennedy, S., Long, R., Hubble, S., & Powell, A. (2020). *Support for people with a learning disability: Briefing paper*. House of Commons Library.
- Parsons, M. B. & Rollyson, J. H. (2013). Evidence-Based Staff Training: A Guide for Practitioners. *Behavior Analysis in Practice*, 5(2), 2-11.
<https://link.springer.com/content/pdf/10.1007/BF03391819.pdf>
- Parsons, M. B., Rollyson, J. H. & Reid, D. H. (2013). Teaching Practitioners to Conduct Behavioral Skills Training: A Pyramidal Approach for Training Multiple Human Service Staff. *Behavior Analysis in Practice*, 6, 4-16.
<https://link.springer.com/article/10.1007/BF03391798>
- PBS Academy (2017). *Improving the quality of Positive Behavioural Support (PBS): The standards for training*. PBS Academy. <http://pbsacademy.org.uk/wp-content/uploads/2017/10/PBS-Standards-for-Training-Oct-2017.pdf>
- Pegram, J., Watkins, R. C., Hoerger, M. & Hughes, J. C. (2022). Assessing the range and evidence-base of interventions in a cluster of schools. *Review of Education*, 10(1), 1-49, DOI: 10.1002/rev3.3336.
- Pennington, R. C. & Courtade, G. R. (2015). An Examination of Teacher and Student Behaviors in Classrooms for Students with Moderate and Severe Intellectual Disability. *Preventing School Failure: Alternative Education for Children and Youth*, 59(1); 40-47. <https://doi.org/10.1080/1045988X.2014.919141>
- Perry, J. (2004). Interviewing people with intellectual disabilities. In Emerson, E. (Ed.). *The International Handbook of Applied Research in Intellectual Disabilities* (pp. 115-133). John Wiley & Sons, Ltd.
- Phillips, B. N., Kaseroff, A. A., Fleming, A. R., & Huck, G. E. (2014). Work-related social skills: definitions and interventions in public vocational rehabilitation. *Rehabilitation Psychology*, 59(4), 386-398. <http://dx.doi.org/10.1037/rep000001>

- Pitts, L., Gent, S. & Hoerger, M. (2019). Reducing pupils' barriers to learning in a special needs school: integrating applied behaviour analysis into Key Stages 1-3. *British Journal of Special Education*, 46(1), 94-112, <https://doi.org/10.1111/1467-8578.12251>
- Pockney, R. (2006). Friendship or facilitation: People with learning disabilities and their paid carers. *Sociological Research*, 11(3), 1-9. <https://doi.org/10.5153%2Fsro.1382>
- Rapp C. A., Etzel-Wise D., Marty D., Coffman M., Carlson L., Asher D. et al. (2010). Barriers to evidence-based practice implementation: results of a qualitative study. *Community Mental Health Journal* 46, 112–18.
- Reed, D. D. & Azulay, R. L. (2011). A Microsoft Excel^r 2010 based tool for calculating interobserver agreement. *Behavior Analysis in Practice*, 4(2), 45-52. Doi: <https://doi.org/10.1007%2F03391783>
- Regan, H. & Howe, J. (2017). Video self-modelling: an intervention for children with behavioural difficulties. *Educational Psychology in Practice*, 33(1), 93-102.
- Reid, D. H., & Fitch, W. H. (2011). Training staff and parents: Evidence-based approaches. In *International handbook of autism and pervasive developmental disorders* (pp. 509-519. Springer.
- Ritchie, J. & Lewis, J. (2013). *Qualitative research practice: A guide for social science students and researchers*. Sage Publications.
- Roberts, K., DeQuinzio, J. A., Taylor, B. A. & Petroski, J. (2021). Using behavioural skills training to teach interview skills to young adults with autism. *Journal of Behavioral Education*, 30, 664-683. <https://doi.org/10.1007/s10864-020-09389-z>
- 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. <https://doi.org/10.1111/jar.12632>
- Roller, M. R., & Lavrakas, P. J. (2015). *Applied qualitative research design: A total quality framework approach*. The Guilford Press.
- Royal College of Psychiatrists (2007). Challenging Behaviour: A Unified Approach. *Psychiatric Bulletin*, 31(10), 400-400. Doi:10.1192/pb.31.10.400
- Russell, G., Stapley, S., Newlove-Delgado, T., Salmon, A., White, R., Warren, F., Pearson, A., & Ford, T. (2021). Time trends in autism diagnosis over 20 years: a UK population-based cohort study. *The Journal of Child Psychology and Psychiatry*, 63(6), 674-682. <https://doi.org/10.1111/jcpp.13505>
- 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.
- Sarakoff, R. A., & Sturmey, P. (2004). The effects of behavioral skills training on staff implementation of discrete-trial teaching. *Journal of Applied Behavior Analysis*, 37(4), 535-528. <https://doi.org/10.1901/jaba.2004.37-5>
- Schalock, R.L., Brown, I., Brown, R., Cummins, R.A., Felce, D., Matikka, L., Keith, K.D., Parmenter, T (2002). Conceptualization, Measurement and Application of Quality of Life for Persons with Intellectual Disabilities: Report of an International Panel of Experts. *Mental Retardation*, 40 (6), 457- 470. doi: [http://dx.doi.org/10.1352/0047-6765\(2002\)0402.0.CO;2](http://dx.doi.org/10.1352/0047-6765(2002)0402.0.CO;2)
- Schalock, R. (2004) The concept of quality of life: what we know and do not know. *Journal of Intellectual Disability Research*, 48 (3), 203–216
<http://onlinelibrary.wiley.com.chain.kent.ac.uk/doi/10.1111/j.1365-2788.2003.00558.x/pdf>

- Schuster, J. W., Gast, D. L., Wolery, M., & Guiltinan, S. (1988). The effectiveness of a constant time-delay procedure to teach chained responses to adolescents with mental retardation. *Journal of Applied Behavior Analysis*, 21, 169–178
- Seebohm, P. & Beyer, S. (2003). Employment Creation in Social Enterprises: A Public Authority Perspective 2001-2003. *The Financial Net Cost Analysis*. London: King's College London, Institute for Applied Health & Social Policy.
- Shakespeare, T. (2006). *Disability Rights and Wrongs* (1st ed). Routledge.
<https://doi.org/10.4324/9780203640098>
- Sherman, J., Richardson, J., & Vedora, J. (2021). The use of behavioural skills training to teach components of direct instruction. *Journal of Applied Behavior Analysis*, 14(4), 1085-1091.
- Sigelman, C. K., Budd, E. C., Spanhel, C. & Schoenrock, C. (1981). Asking questions of retarded persons – a comparison of yes no and either or formats. *Applied Research in Mental Retardation*, 2, 347-357.
- Šiška, J., Beadle-Brown, J., Káňová, S., & Šumníková, P. (2018). Social Inclusion through Community Living: Current Situation, Advances and Gaps in Policy, Practice and Research. *Disability Enquiry: In Theory and Practice*, 6(1).
<https://doi.org/10.17645/si.v6i1.1211>
- Šiška, J., & Beadle-Brown, J. (2020). *Report on the Transition from Institutional Care to Community-Based Services in 27 EU Member States: Final Report*. Research report for the European Expert Group on Transition from Institutional to Community-based Care. Available at: <https://sid-inico.usal.es/wp-content/uploads/2021/12/Desinstitucionalizacion-en-Europa.pdf>

- Slocum, S. & Tiger, J. H. (2011). An assessment of the efficiency of and child preference for forward and backward chaining. *Journal of Applied Behavior Analysis*, 44(4), 793-805.
- Smith, J., Glossop, C., & Kushlick, A. (1980). Evaluation of alternative residential facilities for the severely mentally handicapped in Wessex: Client progress. *Advances in Behaviour Research and Therapy*, 3(1), 5-11. [https://doi.org/10.1016/0146-6402\(80\)90005-3](https://doi.org/10.1016/0146-6402(80)90005-3)
- Smith, C., Felce, D., Jones, E., & Lowe, K. (2002). Responsiveness to staff support: Evaluating the impact of individual characteristics on the effectiveness of active support training using a conditional probability approach. *Journal of Intellectual Disability Research*, 46(8), 594-604.
- Smith, J. D. (2012). Single-case experimental designs: A systematic review of published research and current standards. *Psychological Methods*, 17(4), 510-550. DOI: 10.1037/a0029312.
- Smith, P., McVilly, K. R., McGillivray, J., & Chan, J. (2018). Developing open employment outcomes for people with an intellectual disability utilising a Social Enterprise Framework. *Journal of Vocational Rehabilitation*, 48, 59-77. <http://dx.doi.org/10.3233/JVR-170916>
- Snodgrass, M. R., Meadan, H., Ostrosky, M. M. & Cheung, C. (2017). One step at a time: Using task analyses to teach skills. *Early Childhood Education Journal*, 45, 855-862. <https://link.springer.com/article/10.1007/s10643-017-0838-x>
- Spain, D., Mason, D., Capp, S. J., Stoppelbein, L., White, S. W., & Happé, F. (2021). “This may be a really good opportunity to make the world a more autism friendly place”: Professionals’ perspectives on the effects of COVID-19 on autistic individuals. *Research in Autism Spectrum Disorder*, 83, 1-13.

- Stancliffe, R. J., Harman, A. D., Toogood, S., & McVilly, K. R. (2007). Australian implementation and evaluation of active support. *Journal of Applied Research in Intellectual Disabilities*, 20(3), 211-227.
- Stancliffe, R. J., Jones, E., Mansell, J. & Lowe, K. (2008). Active support: A critical review and commentary. *Journal of Intellectual & Developmental Disability*, 33(3): 196-214.
<https://doi.org/10.1080/13668250802315397>
- Stancliffe, R. J., Harman, A. D., Toogood, S. & McVilly, K. R. (2008). Staff behaviour and resident engagement before and after active support training. *Journal of Intellectual & Developmental Disability*. 33(3); 257-270.
<https://doi.org/10.1080/13668250802318284>
- Sullivan, F., Bowden, K., McKenzie, K., & Quayle, E. (2016). The close relationships of people with intellectual disabilities: A qualitative study. *Journal of Applied Research in Intellectual Disabilities*, 29, 172-184.
- Sun, X., & Brock, M. E. (2022). Systematic review of video-based instruction to teach employment skills to secondary students with intellectual and developmental disabilities. *Journal of Special Education Technology*, 0(0), 1-13.
- Szidon, K., & Franzone, E. (2009). *Task Analysis*. Madison, WI: National Professional Development Centre on Autism Spectrum Disorder, Waisman Center, University of Wisconsin.
- Tame, J. (2016). *Sustainable Hub of Innovative Employment for People with Complex Needs: An Evaluation of SHIEC*. Retrieved from:
<https://www.challengingbehaviour.org.uk/wp-content/uploads/2021/03/reportforshiec.pdf>

- Tan, H. C., Hughes, M. R. & Toogood, S. (2016). Using task analysis to promote engagement in special educational settings. *European Journal of Behavior Analysis*, 17(2); 116-130. <https://doi.org/10.1080/15021149.2016.1247575>
- Tarbox, J., Zuckerman, C. K., Bishop, M. R., & Olive, M. L. (2011). Rule-governed behavior: teaching a preliminary repertoire of rule-following to children with autism. *The Analysis of Verbal Behavior*, 27, 125-139. <https://link.springer.com/article/10.1007/BF03393096>
- Thirumanickam, A., Raghavendra, P., McMillan, J. M. & van Steenbrugge, W. (2018). Effectiveness of video-based modelling to facilitate conversational turn taking of adolescents with autism spectrum disorder who use AAC. *Augmentative and Alternative Communication*, 34(4). 311-322.
- Toogood, S. (2010). *Interactive Training; Supporting people with severe and profound intellectual disabilities in meaningful activity. A trainer's implementation guide and workshop manual for training trainers*. Pavilion.
- Toogood, S., Totsika, V., Jones, E., & Lowe, K. (2016). Active Support. *Handbook of Evidence-Based Practices in Intellectual and Developmental Disabilities, Evidence-Based Practices in Behavioural Health*. https://doi.org/10.1007/978-3-319-26583-4_20
- Toogood, S., McLennan, K., Welch, C., McGolpin, J., & Erzsebet, M. (2020). Active Support in the digital age: practice paper. *International Journal of Positive Behavioural Support*. 10(2); 30-40.
- Toogood, S., Denne, L., Totsika, V., Smyth, P., Grant. C., Saville, M. & Lykomitrou, F. (unpublished). *Structured Learning Scripts*. Sharland Foundation Developmental Disabilities ABA Research and Impact Network (SF-DDARIN).

- Totsika, V., Toogood, S., & Hastings, R. P. (2008). Active Support: Development, Evidence-Based, and Future Directions. *International Review of Research in Mental Retardation*, 35; 205-249. [https://doi.org/10.1016/S0074-7750\(07\)35006-4](https://doi.org/10.1016/S0074-7750(07)35006-4)
- Totsika, V., Toogood, S., Hastings, R. P. & Nash, S. (2008). Interactive training for active support: Perspectives from staff. *Journal of Intellectual & Developmental Disability*, 33(3); 225-238. <https://doi.org/10.1080/13668250802283348>
- Totsika, V., Toogood, S., Hastings, R. P., & McCarthy, J. (2009). The Effect of Active Support Interactive Training on the Daily Lives of Adults with an Intellectual Disability. *Journal of Applied Research in Intellectual Disabilities*, 23, 112-121. <https://doi.org/10.1111/j.1468-3148.2009.00510.x>
- Toussaint, K. A., Kodak, T., Vladescu, J. C. (2016). An evaluation of choice on instructional efficacy and individual preferences among children with autism. *Journal of Applied Behavior Analysis*, 49(1); 170-175. <https://doi.org/10.1002/jaba.263>
- UK Parliament (n.d.). *White Papers*. UK Parliament Glossary, available at: <https://www.parliament.uk/site-information/glossary/white-paper/>
- UKRI (n.d.1). *Research Excellence Framework*. UK Research and Innovation. Available at: <https://www.ukri.org/about-us/research-england/research-excellence/research-excellence-framework/>
- UKRI (n.d.2). *Impact toolkit for economic and social sciences*. UK Research and Innovation. Available at: <https://www.ukri.org/councils/esrc/impact-toolkit-for-economic-and-social-sciences/>
- UK Society for Behaviour Analysis. (2017). *UK-SBA code of ethical and professional conduct*. UK-SBA, available at: https://uk-sba.org/wp-content/uploads/2022/07/UK-SBA-Code-of-Ethical-and-Professional-Conduct_Jul-2022-1.pdf

United Nations (2007). *United Nations Convention on the Rights of Persons with Disabilities*.

United Nations. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>

Van Den Bos, K. P., Nakken, H., Nicolay, P. G. & Van Houten, E. J. (2007). Adults with mild intellectual disabilities: can their reading comprehension ability be improved?

Journal of Intellectual Disability Research, 51(11), 835-849. doi.org/10.1111/j.1365-2788.2006.00921.x

Van Laarhoven, T., Carreson, A., Bonneau, W., & Lagerhausen, A. (2018). Comparing mobile technologies for teaching vocational skills to individuals with autism spectrum disorders and/or intellectual disabilities using universally-designed prompting systems. *Journal of Autism and Developmental Disorders*, 48, 2516-2529.

Verdugo, M. A., Navas, P. Gómez, L. E., & Schalock, R. L. (2012). The concept of quality of life and its role in enhancing human rights in the field of intellectual disability.

Journal of Intellectual Disability Research, 56(11), 1036-1045. doi: 10.1111/j.1365-2788.2012.01585.x

Voermans, M. A. C., Taminiau, E. F., Giesbers, S. A. h., & Embregts, P. J. C. M. (2020). The value of competitive employment: In-depth accounts of people with intellectual

disabilities. *Journal of Applied Research in Intellectual Disabilities*, 34(1), 239-249.

<https://doi.org/10.1111/jar.12802>

Walls, R. T., Zane, T., & Ellis, W. D. (1981). Forward and backward chaining, and whole task methods: Training assembly tasks in vocational rehabilitation. *Behavior*

Modification, 5(1), 61–74. <https://doi.org/10.1177/014544558151005>

Walsh, E., Holloway, J., & Lydon, H. (2018). An evaluation of a social skills intervention for adults with autism spectrum disorder and intellectual disabilities preparing for

- employment in Ireland. *Journal of Autism and Developmental Disorders*, 48, 1727-1741. <https://link.springer.com/article/10.1007/s10803-017-3441-5>
- Wehman, P., Hill, M., Goodall, P., et al. (1982). Job placement and follow-up of moderately and severely handicapped individuals after three years. *Journal of the Association for the Severely Handicapped*, 7, 5-16. <https://doi.org/10.1177/154079698200700201>
- Welsh Government. (2022). Learning Disability Strategic Action Plan 2022 to 2026: Our plan for developing and implementing learning disability policy from 2022 to 2026. Retrieved from, [Learning Disability Strategic Action Plan 2022 to 2026 | GOV.WALES](#)
- Whittenburg, H. N., Taylor, J. P., Thoma, C. A., Pickover, G. S., & Vitullo, V. E. (2020). A Systematic Literature Review of Interventions to Improve Work-Related Social Skills of Individuals With Autism Spectrum Disorder. *Inclusion*, 8(4), 320-334. <https://doi.org/10.1352/2326-6988-8.4.320>
- Williams, W. L. & Burkholder, E. (2004). Behavioral chaining. In W. O'Donohue, Fisher, J. E., & Hayes, S. C. (Eds.), *Cognitive behavior therapy: Applying empirically supported techniques in your practice*. (pp. 33-39). Wiley.
- Wolfensberger, W. P., & Glenn, L. (1978). Program Analysis of Service Systems (PASS3): A Method for the Quantitative Evaluation of Human Services (Field Manual). *Books: Wolfensberger Collection 3*. https://digitalcommons.unmc.edu/wolf_books/3
- Wyse, D., Brown, C., Oliver, S., & Poblete, X. (2018). The BERA close-to-practice research project: research report. *British Educational Research Association*. <https://www.bera.ac.uk/researchers-resources/publications/bera-statement-on-close-to-practice-research>

Ysgol Pendalar. (2021). *Prospectws Ysgol Pendalar 2020-2021*. Ysgol Pendalar.

<http://www.ysgolpendalar.org/>

Appendices

Appendix A: Chapter 3, Study 1a.

i. Ethical Approval, Psychology Ethics and Research Committee, Bangor University

Approval granted for **2018-16345** 'Focus Groups exploring perspectives on the essential social skills needed for the workplace and the current state of employability for young adults with intellectual disabilities'.

Approval granted for 2018-16345-A14452 *Amendment* to the request to include the methodology of interviews.

Approval granted for 2018-16345-A14449 *Amendment* to add Dr Gemma Griffith as an 'other researcher' so that they can aid in the initial qualitative analysis.

Approval granted for 2018-16345-A14334 *Amendment* to highlight the use of NHS staff but to argue against the need for NHS ethics for the two staff participating in the supported employment focus group.

Version 1.0 24/05/2018

ii. Information sheet for parents/guardians

“Focus Groups Exploring Different Perspectives on Employability for Young Adults with Intellectual Disabilities”

PARENT AND GUARDIAN INFORMATION SHEET

Dear sir/madam,

My name is Ceridwen Evans and I am a PhD student at Bangor University, working with Ysgol Hafod Lon and Ysgol Pendalar to enhance employability skills in Key Stage 5 pupils. As part of my PhD, I am conducting a Focus Groups study and I would like to invite your child to take part. Before you decide whether or not you would like your child to take part in this study, it is important that you understand why the research is being done and what it will involve, so please take time to read this information sheet.

What is the purpose of the study?

Research has shown that being engaged in meaningful employment is crucial to feelings of worth, wellbeing and mental health. However, many adults living with intellectual disabilities may still face barriers when it comes to gaining and maintaining work in the long-term. The transition of leaving school to venture into adult life can be a difficult process for most, and even more so for young adults with intellectual disabilities who may face additional challenges in developing workplace skills and accessing opportunities to join the workforce.

Therefore, it is of interest to the researchers to explore the perspectives of pupils living this experience first-hand, to find out what can be done to improve employment opportunities for them and whether they are aware of the help they can access when searching for employment. The researcher plans to run a series of Focus Groups aimed at involving the opinions of people who have a first-hand account of what it's like in supported employment, either through personal experience, working alongside or caring for a person with an intellectual disability; so that everybody, regardless of disability, can have a chance to express their views.

Other Focus Groups being run will involve staff from the school and employees at Antur Waunfawr both with or without a disability. Your child will only participate in one Focus Group for around 20-30 minutes, and their well-being will be monitored throughout the group discussion. The researcher will not be asking your child (or any other pupil) any questions which may hint at the barriers they may face in accessing the workforce, so to not induce any

Version 1.0 24/05/2018

anxiety or worry. Instead, the questions for the pupils will be based around their dream jobs, job aspirations and lived experience of their work placements.

Why has your child been chosen?

We are recruiting young people in Key Stage 5, aged between 16 and 19 years old and who are either currently or have previously attended work placements organised by their school.

Does your child have to take part?

It is entirely up to you and your child whether you would like your child to take part or not. This information sheet is to give you more information about the research, and to help you decide whether you would like your child to take part. If you would like your child to take part in this study, you will be asked to sign a parental/guardian consent form. If you decide to take part in the study **you are free to withdraw at any time point without giving a reason** and this will not affect your relationship with Bangor University or any of the researchers involved. **Any information collected during the study will be treated confidentially.**

What will happen if your child takes part?

Your child will be asked to join in on a group discussion with around 2-3 other pupils of the same age, lasting no longer than 40 minutes. The classroom teachers and teaching assistant will help the researcher to assign groups, so that if your child does not get on with another child in the school for whatever reason they will be in different groups. Please contact the researcher or classroom teacher if you would like to have more of a say in this.

The moderator of the group, who will be the PhD researcher Ceridwen Evans, will ask a series of open questions designed to get your child talking and thinking about the topic, and will provide PECs style pictures of work environments, photographs of their current work placements and 'easy-read' information sheets so that your child can understand the task. This is an opportunity for your child to voice their own concerns, perspectives and experiences of being on a work placement, and their future aspirations for a job. The Focus Group will be recorded using an encrypted dictaphone and all responses will be confidential; your child's name will be deleted from the transcript immediately to protect their anonymity and all audio files will be saved in a secure encrypted laptop. All the information will be kept in a locked filing cabinet at Bangor University.

Your child's well-being will be monitored throughout the group so that if the researcher, or staff, believe your child to be unhappy in anyway then they will be thanked and taken out of the group.

Who is funding this study?

Version 1.0 24/05/2018

The PhD project, in which this study is a part of, is funded by a KESS2 scholarship and Antur Waunfawr (an employment enterprise hiring adults with intellectual disabilities). The project is also partly funded by Ysgol Pendalar and Ysgol Hafod Lon.

Who has reviewed the study?

Ethical approval has been granted by the Bangor University School of Psychology Ethics Committee.

Who do I contact if I have a complaint?

If you have any complaints or comments regarding the study you can address/contact the Head of School of Psychology (Professor John Parkinson) by phone: (01248) 388340, or by email: **j.parkinson@bangor.ac.uk**. Complaints or comments can be made at any period during your study participation.

Thank you very much for taking the time to read this information sheet! If you are happy for your child to take part, please read and sign the consent form attached. This is also your copy to keep. I would be extremely grateful for your assistance.

Kind regards,

Ceridwen Evans

PhD researcher,

School of Psychology,

Bangor University,

Gwynedd, LL57 2AS

Version 1.0 24/05/2018

**“Focus Groups Exploring Different Perspectives on Employability for Young Adults
with Intellectual Disabilities”**

PARENTAL/GUARDIAN CONSENT FORM

Dear Parent or Guardian,

Before signing this form please thoroughly read the ‘Study Information Sheet’ attached.

Please place a tick next to the boxes that apply:

I confirm that I have read and understood the information sheet for this study

☐

I agree for my child/ child which I am a guardian for to participate in the study

☐

I understand that my child may withdraw from the study at any time, without penalty, and
without giving a reason

☐

I understand that I, and my child, have the right to receive a summary of the study results.

☐

If you wish to receive this information, please include your email address below:

**By signing this form, you consent to your child, or the individual you are a guardian for,
to take part in a Focus Group.**

Child’s Name

Date

Your Name (Parent or Legal Guardian)

Your Signature (Parent or Legal Guardian)

iii. Participant information sheet for students and adults (easy-read)



INFORMATION SHEET



Study title: Focus Groups and Interviews Exploring Different Perspectives on Employability for People with Intellectual Disabilities



You are being asked to take part in a research study. This research is being carried out by a student at Bangor University.

You can talk to others about this research study. This can be anyone you like.

Who is carrying out the research?



Ceridwen Evans

I am a student at Bangor University and I am interested in hearing about your experiences of work experience placements and your future job dreams.



Do I have to take part in the research?

- NO, you do not have to take part in the research.
- If you say YES, you can change it to NO later on.



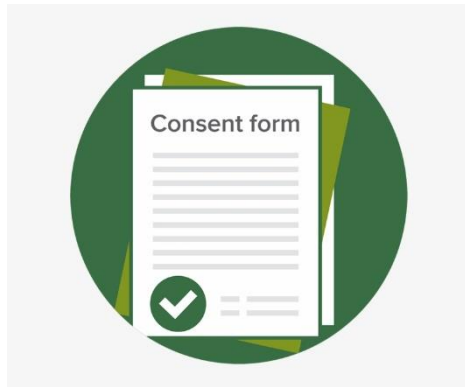
What happens if I decide to take part and then change my mind later on?

- You do not need to give a reason if you want to change your mind
- Any data about you collected will be destroyed



What happens if I say yes?

- You will be asked to take part in a focus group
- Ceridwen will ask you questions about your future dreams and some questions about jobs. Ceridwen will also ask you about the work experience you currently visit on a Tuesday morning
- This will be part of a focus group where you and four of your classmates will talk to Ceridwen at the same time. There will also be a member of staff there too.
- A focus group is where a group of people with similar interests or experiences are asked to chat about a certain topic
- This focus group will last about 30 minutes
- The focus group will be audio recorded and your answers written up by Ceridwen afterwards and your name removed.



What do I need to do if I want to take part?

- Before you take part in the focus group you will need to sign a form to say that you understand what the research study is and what you need to do.



Could anything bad happen if I take part in the focus group?

- We do not think anything bad will happen
- If anything is upsetting Ceridwen will talk to you and try to help
- There will also be a member of staff that you know well there too, so you can always talk to them



Could anything good happen if I take part in the focus group?

- By taking part in the focus group you will help Ceridwen and other researchers to understand more about future job goals of students



Will information about me be kept private?

- Yes the information Ceridwen will collect will be kept private and we will remove your name from any documents
- The only other people who will see the data collected is the research team at Bangor University (which includes Ceridwen's supervisors).
- What you say in the interview will be anonymised when it is being written up. This means all the information

that could let people know who you are will be changed to protect your identity. This includes your name, where you are from, your friends and family members names.

- The written up notes of what you say in the interview might be used in future research studies, but those researchers won't know who you are.
- Everything you say in the interview will be kept confidential, unless there are concerns for people's safety. This means the interviewer won't tell anyone what you said to anyone other than the researcher and supervisor, unless something you say makes the interviewer concerned for you or someone else.



Who can you speak to if you want more information?

If you want to ask some further questions or you want to make a complain you can call or write to:



- Prof Carl Hughes
- His email address is:
c.hughes@bangor.ac.uk

Who has approved the study?

- The research study has been reviewed by Bangor University's ethics committee. The ethics committee is a group of people who will look at information about research studies to see if the study is being done properly to protect people who are taking part in the study.





INFORMATION SHEET



Study title: Focus Groups and Interviews Exploring Different Perspectives on Employability for People with Intellectual Disabilities



You are being asked to take part in a research study. This research is being carried out by a student at Bangor University.

You can talk to others about this research study. This can be anyone you like.

Who is carrying out the research?



Ceridwen Evans

I am a student at Bangor University and I am interested in hearing about your experiences of work at Antur Waunfawr and your future job dreams.



Do I have to take part in the research?

- NO, you do not have to take part in the research.
- If you say YES, you can change it to NO later on.



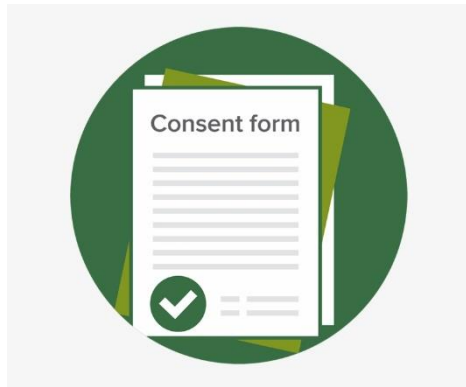
What happens if I decide to take part and then change my mind later on?

- You do not need to give a reason if you want to change your mind
- Any data collected about you will be destroyed



What happens if I say yes?

- You will be asked to take part in an interview
- Ceridwen will ask you questions about your future dreams and some questions about jobs
- Ceridwen will also ask you what it is like to work at Antur Waunfawr, what you like about it and what you don't like about it
- Ceridwen will also ask you if there is anywhere else you would like to work
- This interview will last about 30 minutes
- There will also be a member of staff there too
- The interview will be audio recorded and your answers will be written up by Ceridwen afterwards, and your name will be removed.



What do I need to do if I want to take part?

- Before you take part in the interview you will need to sign a form to say that you understand what the research study is and what you need to do.



Could anything bad happen if I take part in the interview?

- We do not think anything bad will happen
- If anything is upsetting Ceridwen will talk to you and try to help
- There will also be a member of staff there that you know well too, so you can always talk to them



Could anything good happen if I take part in the focus group?

- By taking part in the focus group you will help Ceridwen and other researchers to understand more about what it is like to work in a social enterprise like Antur Waunfawr, especially for people with learning disabilities.



Will information about me be kept private?

- Yes the information Ceridwen will collect will be kept private and we will remove your name from any documents
- The only other people who will see the data collected is the research team at Bangor University (which includes Ceridwen's supervisors).

- What you say in the interview will be anonymised when it is being written up. This means all the information that could let people know who you are will be changed to protect your identity. This includes your name, where you are from, your friends and family members names.
- The written up notes of what you say in the interview might be used in future research studies, but those researchers won't know who you are.
- Everything you say in the interview will be kept confidential, unless there are concerns for people's safety. This means the interviewer won't tell anyone what you said to anyone other than the researcher and supervisor, unless something you say makes the interviewer concerned for you or someone else.



Who can you speak to if you want more information?

If you want to ask some further questions or you want to make a complain you can call or write to:

- Prof Carl Hughes
- His email address is:
c.hughes@bangor.ac.uk



Who has approved the study?

- The research study has been reviewed by Bangor University's ethics committee. The ethics committee is a group of people who will look at information about research studies to see if the study is being done properly to protect people who are taking part in the study.

iv. Consent form for adults (easy-read)



CONSENT FORM [students and adults – delete where appropriate]

Please write the first and last letter of your name in the box if you agree with the sentence



I understand the information sheet that
was explained to me by Ceridwen



I have been able to ask questions.



I consent to my answers in the focus
group [interview] being recorded



I know that I can stop at any time and
I change my mind if I want too.

☐

I understand that the results of this
study may be printed in a journal or
talked about at meetings . I give my permission for
my anonymous data, which does not identify me, to
be used or talked about in this way.

☐

I agree to take part in the focus
group/interview [delete where
relevant]

☐

Please write your name here if you want to take part:

Thank you!

v. Semi-structured questions for student focus groups

Main questions	Prompts
1. What do you hope to do when you finish school?	Do you want to go to college, or into a job, or do something else?
2. What job would you like to do in the future?	
3. Do you think you would need any support or help to do that job?	What kind of help do you think you'll need? Do you know who to talk to if you need help getting a job?
4. Do you go on a work experience placement on a Tuesday morning, or have been on one in the past?	Where do you go on work experience?
5. What do you enjoy doing on your work experience placement?	What didn't you enjoy about your work experience placement?
6. Is there anything you struggle/struggled with doing on your work experience placement?	
7. A job in the community would mean working with others, and not only people with a learning disability. This could be somewhere like a supermarket or a hospital. Would you like to work in a place in the community in the future?	Why would you/wouldn't you like to work in a job in the community?
8. On your work experience placement, have you made any friends?	Who are your friends? Have you made any new friends, that you didn't know before going on the work experience placement?
9. What do you find easy about making friends on your work experience placement?	If not, then why is it hard to make friends?
10. Is there anything you struggle with doing on your work experience placement?	

viii. Semi-structured questions for adults with intellectual disabilities

Main questions	Prompts
1. What types of work placements* do you get to do in Antur**?	
2. What do you enjoy about working in Antur?	
3. Is there anything that you don't like about placement?	What don't you like about it?
4. Do you prefer to work with lots of other people around you, or by yourself?	Why do you like to [work with other people or by yourself]?
5. Have you made any friends whilst working at Antur?	Who are your friends? Are these new friends that you didn't know before coming to Antur?
6. Do you see any of these friends outside of Antur?	If so, where do you see them? Do you go to any social clubs or weekend social activities?
7. Would you like to work anywhere else in the future?	If so, where would you like to work? Do you think you would need any support, training or help to get that job?
8. A job in the community would mean working with others, and not only people with a learning disability. This could be somewhere like a supermarket or a hospital. Would you like to work in	Why would you/wouldn't you like to work in a job in the community?

a place in the
community in
the future?

9. If you could choose, how many days
a week would you work at Antur?
10. What do you like to do on your days
off?
11. If you wanted to get a paid job that
wasn't in Antur, do you know who
to talk too to help you do that?

Note. *Placements and **Antur is used to reflect the language used within the settings. No person called the social enterprise by it's full name, and the work experiences were called 'placements'.

ix. Thematic Frameworks per individual group**Table 3.4***Final Thematic Framework: Students in special education (transcripts n =4)*

Main themes (in bold) and subthemes (flushed right)	No. of lines across transcripts linked to main overarching theme
Theme 1: New friendships made during work experience placement somewhat limited to support staff	4
a. Friendships made in the work experience with support staff	2
b. New friendships made in the work experience with other co-workers (who are not classmates)	2
Theme 2: Future aspirations and next steps after graduating school	21
c. A desire to go to a local post-secondary college first	7
d. Uncertainty around what college courses are available or what to study at college (despite expressing a desire to attend college)	3
e. Preference to obtain employment in a non-segregated, open setting	4
f. A desire to work in a setting which doesn't employ only people with intellectual disabilities	1
g. Ambition to work at a social enterprise similar to the one the student had been too during work experience	5
h. Parents wanting the student to go to college so feeling like they should go	1
Theme 3: Experiences of the work-placements at the social enterprise	13

Main themes (in bold) and subthemes (flushed right)	No. of lines across transcripts linked to main overarching theme
i. The work experience placements are easy and not challenging	1
j. Preference to work alone during the work experience placements	1
k. Unhappiness expressed at the type of work experience placement allocated	2
l. Proximity of placements as a determining factor to whether the student would continue there after school	1
m. Enjoyment of the work experience placement	7
n. Hesitations of starting the work experience placement	1

Table 3.5*Final Thematic Framework: Adults with intellectual disabilities working at the social enterprise (transcripts n =10)*

Main themes (in bold) and subthemes (flushed right)	No. of lines across transcripts linked to main overarching theme
Theme 1: Social networks, friendships and working with others	16
a. Opportunities to attend parties and evening events with fellow c-workers	1
b. Support staff viewed as friends	7
c. Social lives outside of the enterprise	1
d. Preference to work around other people and finding working with others enjoyable	3
e. Preference to work alone due to behaviours that challenge and noise disruption of others	4
Theme 2: Future aspirations and community employment	13
f. A desire to stay at the enterprise for the foreseeable future	7
g. A desire to experience new work opportunities in open employment settings	4
h. Feeling ready to move on from the enterprise after being there a number of years	2
Theme 3: Discretionary payment	15
i. The importance of the discretionary payment and feelings of happiness and achievement associated with pay	8

COACHING STAFF TO DEVELOP VOCATIONAL SKILLS IN YOUNG ADULTS WITH IDD

- j. They would still stay at the enterprise even if they did not receive the discretionary payment 5
- k. A worry that working in community settings may impact upon the benefits they receive 2

Appendix B: Chapter 3, Study 1b.

i. Ethical Approval, Psychology Ethics and Research Committee, Bangor University

Approval granted for **2018-16345** 'Focus Groups exploring perspectives on the essential social skills needed for the workplace and the current state of employability for young adults with intellectual disabilities'.

Approval granted for 2018-16345-A14452 *Amendment* to the request to include the methodology of interviews.

Approval granted for 2018-16345-A14449 *Amendment* to add Dr Gemma Griffith as an 'other researcher' so that they can aid in the initial qualitative analysis.

Approval granted for 2018-16345-A14334 *Amendment* to highlight the use of NHS staff but to argue against the need for NHS ethics for the two staff participating in the supported employment focus group.

ii. Participant information sheet and consent form for staff

“Focus Groups Exploring Different Perspectives on Employability for Young Adults with Intellectual Disabilities”

INFORMATION SHEET (take-home copy)

Annwyl/Dear Sir/Madam,

You are being invited today to take part in a Focus Group study, where you will get to voice your opinions and perspectives on employability for young people living with intellectual disabilities. Before you decide to take part, it is important for you to understand why the research is being conducted and what your participation would involve. Please take a moment to read through the following information carefully.

Who am I?

I am a current PhD student in the School of Psychology at Bangor University, researching topics around employability, intellectual disability (ID) and applied behaviour analysis. I am working with, and funded by, Antur Waunfawr, Ysgol Pendalar and Ysgol Hafod Lon with the aim to further develop essential workplace skills in pupils. However, I need your help and collaboration to understand what is needed to improve employability prospects and the skills which are essential for the workplace; from a variety of different perspectives.

What is the purpose of the study?

Research has shown that being engaged in meaningful employment is crucial to feelings of worth, wellbeing and mental health. However, many adults living with intellectual disabilities (ID) still face barriers when it comes to gaining work and maintaining that employment in the long-term. The transition of leaving school to venture into the world of work can be a difficult process for most people, and even more so for young adults with ID who may face additional challenges in developing workplace skills and accessing opportunities to join the workforce. Therefore, it is of interest to the researchers to find out opinions on why this could be, what can be done to change this, what methods have been successful and other questions relating to employment satisfaction. These Focus Groups aim to involve the opinions of people who have a first-hand account of these topics, either through personal experience, working alongside or supporting a person with an intellectual disability; so that everybody, regardless of disability, can have a chance to express their views.

Do I have to take part?

This is entirely your decision. If you decide to take part you will be given this information letter to keep and be asked to read and sign the consent form on the back. If you decide to take part in the study **you are free to withdraw at any time point without giving a reason** and this will not affect your relationship with Bangor University or any of the researchers involved. **Any information collected during the study will be treated confidentially.**

What will happen?

You will be asked to join in on a group discussion with around 6-8 other people for no longer than 1 hour. I, the PhD student Ceridwen Evans, will be the moderator of the group, and will ask a series of open questions designed to get you talking and thinking about the topic, and will give you plenty of time to get your opinion across or debate with other group members. This is an opportunity for you to voice your own concerns, perspectives and experiences of either being someone or knowing someone living with an intellectual disability in terms of trying to gain and maintain employment. The Focus Group will be recorded using an encrypted dictaphone and all responses will be confidential; your name will be deleted from the transcript immediately to protect your anonymity and all audio files will be saved on a secure encrypted laptop.

Who has reviewed the study?

Ethical approval has been granted by the Bangor University School of Psychology Ethics Committee.

Who do I contact if I have a complaint?

If you have any complaints or comments regarding the study you can address/contact the Head of School of Psychology (Professor John Parkinson) by phone: (01248) 388340, or by email: j.parkinson@bangor.ac.uk. Complaints or comments can be made at any period during your study participation.

Thank you very much for taking the time to read this information sheet! If you are happy to take part, please read and sign the consent form attached, then return the form to your supervisor.

Kind regards,

Ceridwen Evans

PhD researcher,

School of Psychology,

Bangor University,

Gwynedd, LL57 2AS

CONSENT FORM

Please tick and put your initials next to the boxes that apply to you.

I confirm that I have read and understood the information sheet for this study ☐

I agree to participate in this study ☐

I understand that I may withdraw from the study at any time, without penalty, and without giving a reason ☐

I understand I have the right to receive a summary of the study results if I choose. If I wish to receive this information, then I will include my email address below. ☐

Printed Name

Signature

Date

I would like to receive a summary of the study results when the research is complete. Please email this to me at:

Thank you!

Diolch yn fawr!

iii. Questions for Study 1b. focus groups

Main questions

1. Okay so, to begin I'm going to go clockwise around the group and I want each of you to answer three questions – what your name is, what you work as in the school and what you enjoy most about your job.
2. So, I want to start broad, so my first question is, can any of you tell me the first thing that comes to mind when you think about employment opportunities for people with intellectual disabilities?
3. A social friendship within the workplace is defined as having a colleague that you meet up with outside of the working environment. So, for instance, who you may go to the pub with or to watch the football. Do you think, or know from experience, that workers with ID would find it easy to make lasting social friendships with other colleagues?
4. What do you think are the essential social skills we should be teaching these pupils so that they can make friends and be able to communicate appropriately with colleagues and customers?
5. For pupils with ID, do you think it's more important for us to be teaching them good interpersonal and social skills or more practical job-related skills?
6. I want you to be honest now, remember all your answers will remain anonymous after you leave this room and no-one is here to judge. Have you ever found it difficult to work alongside a person living with an intellectual disability? And if so, why was this?
7. For a minute if you put yourself in an employer role, what do you think are the benefits of having a person with an intellectual disability work for you or your company?
8. Do you think it will be harder for people with ID to access the workforce even if they are as skilled and competent as their job competitors without an ID? If so, why is this?
9. So a lot of my work so far has been working with social enterprises like [name of enterprise]. However, I'm also interested in why it can be difficult for people with ID to get jobs within integrated settings such as Tesco or Hospitals etc. What do you think are the main barriers for people with ID when accessing paid employment in these integrated settings?

10. What do you these integrated companies can do to improve their facilities so that more people with ID can be hired and settle in easier to the working environment?
11. In keeping with the last question, what can be done with other staff to promote building friendships with colleagues with ID?
12. Does anyone have experiences they would like to share in regards to working alongside a person with an ID? This can be a really positive experience also.

iv. Final Thematic Frameworks per individual group type.**Table 3.6***Final Thematic Framework: Special Education Staff Group (transcripts, n =4)*

Main themes (in bold) and subthemes (flushed right)	No. of lines across transcripts linked to main overarching theme
Theme 1: The barriers facing people with intellectual disabilities in accessing employment in community settings	22
a. The benefits systems and income as a hinderance in relation to paid employment	2
b. Prejudice and verbal abuse from public, and sometimes employers	4
c. Difficulties potentially faced with moving existing employees schedule around to suit the person with intellectual disabilities schedule	1
d. Employees with intellectual disabilities given undesirable and dead-end jobs	1
e. Employers unsure of how to offer after-care to employee with intellectual disabilities after an upsetting interaction or event	1
f. Financial cost of hiring a support worker or job coach for the employee with intellectual disabilities	3
g. Guilt experienced by staff not wanting to work with people with intellectual disabilities	2
h. Lack of employer awareness or education around intellectual disabilities	3

Main themes (in bold) and subthemes (flushed right)	No. of lines across transcripts linked to main overarching theme
i. Perceived responsibility by existing staff to have to support employee with intellectual disabilities	2
j. Poor treatment of the person with intellectual disabilities once in employment	1
k. Person with intellectual disabilities not fulfilling their potential in work	2
l. Limited support available for people with intellectual disabilities in employment	
Theme 2: The positive aspects and benefits of obtaining work with people with intellectual disabilities	4
m. Happiness felt not only by the person, but also by parents and family members when the person obtains a placement or job role	1
n. Inspires other to pursue work	1
o. People in general underestimate the capabilities of people with intellectual disabilities, and can have their own limiting mindsets changed	2
Theme 3: Excess of support and over-caring hindering opportunities to demonstrate skills in work	3
p. Attitude of some people without intellectual disabilities of ‘it’ll be quicker if I do it myself’ [opposed to the person with intellectual disabilities doing the task]	2
q. Families can be over-caring and foster reliance behaviour in the person	1
Theme 4: The essential social skills needed to create and maintain meaningful social relationships with others	18

Main themes (in bold) and subthemes (flushed right)	No. of lines across transcripts linked to main overarching theme
r. The skill of being able to make plans with new friends	2
s. Importance of learning about boundaries and not ‘crossing the line’ with new friends, and with support staff	3
t. Conversational skills and fluidity in conversation so that it does not feel ‘scripted’	1
u. Others can be impatient and not wait for the person with intellectual disabilities to finish talking	1
v. Understanding ‘banter’	3
w. Having a preference to talk with adult staff opposed to peers, viewed as problematic by members of the focus group	8
Theme 5: Parental anxieties and difficulties from staff perspective	3
x. Over ambitious for their child versus not ambitious enough	1
y. Parental anxiety over child transitioning from school to college or work	1
z. Parental concerns overshadowing what the pupil wants	1
Theme 6: Solutions to lack of employment opportunities for people with intellectual disabilities	25
aa. A need for better exposure into employment settings for pupils to build confidence	3
bb. Creating connections with the local community	4
cc. Education around intellectual disabilities for the general public and mainstream children	2

COACHING STAFF TO DEVELOP VOCATIONAL SKILLS IN YOUNG ADULTS WITH IDD

dd. External support workers coach ppl w IDD during initial placements	6
ee. Finding the right environment for the person i.e. some people may prefer day centers	2
ff. Finding ways to motivate employees w IDD - tapping into their interests	1
gg. Job role to suit the person rather than person to suit the job role	5
hh. Training employees with intellectual disabilities to help train new starters with intellectual disabilities	2

Table 3.7*Final Thematic Framework: Social Enterprise Staff Group (transcripts, n = 1)*

Main themes (in bold) and subthemes (flushed right)	No. of lines in transcript linked to main overarching theme
Theme 1: Importance of individualizing the transition process for each young adult entering the social enterprise	6
a. Continuity in support staff whilst transitioning so young adults feel at ease	1
b. Better communication between the social enterprise and the service the person is transitioning from (mainly school/educational settings), including information on how that person communicates	2
c. More time needed for young adults to transition and settle in to the new workplace	3
Theme 2: Essential skills needed to form social relationships, and other necessary skills for obtaining employment	6
d. Communication skills are a necessity and knowing how to communicate appropriately	1
e. Having skills around person hygiene and independent toileting skills	1
f. Understanding the important of respecting a person's "personal space"	2
g. How to interpret information such as bus timetables and signs for navigating their way to work	2
Theme 3: Barriers facing people with intellectual disabilities in accessing employment in the community	

Main themes (in bold) and subthemes (flushed right)	No. of lines in transcript linked to main overarching theme
h. The benefits system / state income support as a barrier for wanting paid work	2
i. Fear and prejudice from employers and the public	2
j. Lack of employer awareness or education around intellectual disabilities	2
k. Limited support available for people with intellectual disabilities, in particular around sick days due to ill health or injury	1
l. Existing ideologies around the capabilities of people with intellectual disabilities, including their ability to move up the career ladder	1
Theme 4: Experiences of working alongside or supporting a person with intellectual disabilities	5
m. As a person, you learn about how to interact with people with intellectual disabilities better, and others who may additional or complex needs	1
n. Every person is different and once you find their strengths, they tend to really enjoy the work	2
o. The importance of employment in providing a sense of identity and reward	1
p. Awareness that staff may be inadvertently blocking people with intellectual disabilities from aspiring for different jobs, especially those in the community	1
Theme 5: Solutions to the barriers to employment in the community	17
q. More exposure and education around intellectual disabilities for the general public	4
r. A need to find job roles that are rewarding for the person, and not just “ordinary, basic jobs”	2
s. The social enterprise to act as a ‘stepping stone’ to paid employment in the community	3

Main themes (in bold) and subthemes (flushed right)	No. of lines in transcript linked to main overarching theme
t. Education around intellectual disabilities starting from a young age (in mainstream schools)	4
u. Need really get to know the person, and to help foster their likes, needs and aspirations	2
v. Job expectations (number of breaks etc.) designed to suit the person and their working habits	1
w. Public needs to work on their perceptions of people with intellectual disabilities	1
Theme 6: Social networks of people with intellectual disabilities attending the social enterprise	13
x. Individuals with intellectual disabilities see support-staff as friends, and may sometimes cross a boundary	2
y. A need for more accessible social activities and for people with intellectual disabilities to meet people outside of the enterprise and “enhance their social circle”	3
z. Existing opportunities not utilized as they should due to multiple barriers e.g., inaccessibility to social activities via transport, ratios of support staff, not enough support staff to go with the person to social activities	4
aa. Difficulties of evening activities after-work for people who do not like change in routines, just want to “go home and do nothing” after finishing work for the day	2
bb. Groups of friends exist already in adults working at the social enterprise, but limited meet-ups outside of the enterprise	2

Table 3.8*Final Thematic Framework: Supported Employment Staff Group (transcripts, n = 1)*

Main themes (in bold) and subthemes (flushed right)	No. of lines in transcript linked to main overarching theme
Theme 1: Essential social skills needed in the workplace and for creation of lasting social relationships, based on informal observations of interns	14
a. The importance of not pushing or forcing friendships onto people, and trying to help facilitate friendships with people that actually have shared interests with the person	1
b. Consideration from employers around Autistic characteristics, and a person's understanding of social conventions such as 'banter' and 'teasing'	2
c. Creation of social relationships are a key area of difficulty for many people with intellectual disabilities	1
d. People with intellectual disabilities befriending staff members and potentially crossing boundaries	2
e. Importance of teaching skills around boundaries and socially conventional appropriate behaviour, particularly through the use of 'role-play'	3
f. Changing staff and public ideologies around the right for sexuality and intimate relationships people with intellectual disabilities and Autistic people with intellectual disabilities have	2
g. Consideration from staff around what the intern might not, understandably, like, and moving away from the typical required social expectations of acts such as 'eye contact' and 'hugging'	1
Theme 2: Persistent barriers to employment in community settings for people with intellectual disabilities	6

Main themes (in bold) and subthemes (flushed right)	No. of lines in transcript linked to main overarching theme
and Autistic people with intellectual disabilities	
h. The typical interview process and problems with conceptual interview tasks	2
i. The need for ‘work-trials’ in community employment so the person can showcase their skills and capabilities	2
j. People, including some supported employment group members, were “guilty” of underestimating the interns capability and assuming that they would struggle in a new role	2
Theme 3: Opinions around whether Project SEARCH / supported employment has been successful, what has worked well, and what hasn’t	9
k. The use of a large scale organization as the ‘host’ site has at times been challenging due to the range of different existing staff and preconceived perceptions of disability	1
l. Sheer size of the host site has resulted in lots of people “on hand to help” when supporting interns	3
m. Elimination of “fear” in those who have not spent time with people with intellectual disabilities before, through the project and supports available such as job coaches	1
n. Knock-on effect of improving the performance of staff already working in the host site, i.e., staff observe the intern doing a task thoroughly and in turn decrease the times which they “cut corners”	1
o. Partnership approach benefits everyone and helps to make everyone in that host site feel “safe” through use of job coaches	1
p. More cost efficient for the host sites to use the external support staff agencies opposed to their internal	1

Main themes (in bold) and subthemes (flushed right)	No. of lines in transcript linked to main overarching theme
supports	
q. Collaboration between multiple services that in turn aid transition for that person/intern	1
Theme 4: Solutions to the barriers interns face when trying to obtain paid employment in community settings	10
r. Difficulties arise when others do not know the person and how to interact with them, so better effort needed to really get to know the person and their needs, likes and preferences	3
s. Knowing the person and their needs is more effective than knowing general information about intellectual disabilities	1
t. Better employer education around not grouping people with intellectual disabilities and instead appreciating each person talents and strengths	2
u. Realization that hiring a person with an intellectual disabilities can be a positive experience for other colleagues	2
v. The need for local councils to play a more active role in facilitating supported employment initiative, particularly Project SEARCH	2

Appendix C: Chapter 4, Study 2

i. Ethical Approval, Psychology Ethics and Research Committee, Bangor University

Approval granted for **2018-16443** Utilising in-house behaviour analysts to deliver and maintain a school-adapted Active Support intervention to increase engagement in pupils

Approval granted for 2018-16443-A14587 *Amendment* to add two masters students as ‘other researchers’ to aid in the data collection and utilise some of the data as part of their dissertations. Their supervisor (Dr Helena O’Boyle) was also added as an ‘other researcher’.

ii. Parent/guardian information sheet and consent form

“Using ‘Active Support’ to Increase Engagement Levels in Post-16 Pupils”

PARENT AND GUARDIAN INFORMATION SHEET

Dear sir/madam,

My name is Ceridwen Evans and I am a PhD student at Bangor University, funded by and working with Ysgol Hafod Lon and Ysgol Pendalar to enhance employability skills in Key Stage 5 pupils; using a model of support called ‘Active Support’. As part of my PhD, I am conducting a short study testing the effectiveness of ‘Active Support’ within the classroom, in order to enhance engagement in pupils and get pupils participating in more activities throughout the school-day. Therefore, I would like to invite your child to take part. Before you decide whether or not you would like your child to take part in this study, it is important that you understand why the research is being done and what it will involve, so please take time to read this information sheet.

What is the purpose of the study?

Active Support is an approach that aims to improve the quality of life for individuals with intellectual disability and/or Autism, by training staff in how to provide the best possible support to enable engagement and participation in daily life. Active Support has been successfully used to increase engagement levels in residential settings for adults with complex needs, however the implementation of Active Support in educational settings is less common. Therefore, it is of interest to see whether Active Support can be used in a school-setting to increase independence, participation and engagement throughout the typical school-day.

Why has your child been chosen?

We are recruiting young people in Key Stage 5, aged between 16 and 19 years old and who are currently in the Key Stage 5 (Post-16) classrooms. We (the headteachers, my supervisor Professor Carl Hughes and I) are interested in seeing whether training the classroom staff in Active Support will increase engagement levels in pupils.

Does your child have to take part?

It is entirely up to you and your child whether you would like your child to take part or not. This information sheet is to give you more information about the research, and to help you

decide whether you would like your child to take part. If you would like your child to take part in this study, you will be asked to sign a parental/guardian consent form (which is attached to the back of this letter). If you decide to take part in the study **you are free to withdraw at any time point without giving a reason** and this will not affect your relationship with Bangor University or any of the researchers involved. **Any information collected during the study will be treated confidentially.**

What will happen if your child takes part?

Three pupils from each of the three classrooms will be chosen at random to be observed over a ten-minute period five times. All pupils in the classroom will be told that there is a visitor who will be observing some of them; and all pupils have previously met the researchers (the behaviour analysts and myself) as we have all spent time in the classrooms getting to know the pupils and finding out about their current work-placements. I also conducted Focus Groups with some Key Stage 5 pupils, who had consent, in January; around employability skills and their future career aspirations.

The researchers will treat all data collection with the highest confidentiality. Your child's name will be anonymised upon analysis of data and all files will be kept in a locked filing cabinet at Bangor University. Your child's well-being will be monitored throughout the study so that if the researcher, or staff, believe your child to be unhappy in anyway at being observed then the data collection will end immediately. The researcher observing your child will do so at a distance, and will not make it obvious that they (the three chosen pupils) are being observed. All researchers are also DBS checked and no researcher will be left alone with any pupil.

Who is funding this study?

The PhD project, in which this study is a part of, is funded by a KESS2 scholarship and Antur Waunfawr (an employment enterprise hiring adults with intellectual disabilities). The project is also part-funded by Ysgol Pendalar and Ysgol Hafod Lon.

Who has reviewed the study?

Ethical approval has been granted by the Bangor University School of Psychology Ethics Committee.

Who do I contact if I have a complaint?

If you have any complaints or comments regarding the study you can address/contact the Head of School of Psychology (Professor John Parkinson) by phone: (01248) 388340, or by email: j.parkinson@bangor.ac.uk. Complaints or comments can be made at any period during your child's study participation, and afterwards.

Thank you very much for taking the time to read this information sheet! If you are happy for your child to take part, please read and sign *the consent form attached*.

PRIFYSGOL BANGOR
ADEILAD BRIGANTIA
FFORDD PENRALLT
BANGOR, GWYNEDD, LL57 2AS
FFÔN: (01248) 382211
FFACS: (01248) 382599



This is also your copy to keep. I would be extremely grateful for your assistance.

Kind regards,

Ceridwen Evans

PhD researcher

“Using ‘Active Support’ to Increase Engagement Levels in Post-16 Pupils”

PARENT AND GUARDIAN CONSENT FORM

Dear Parent or Guardian,

Before signing this form please thoroughly read the ‘Study Information Sheet’ attached.

Please tick the boxes that apply:

I confirm that I have read and understood the information sheet for this study ☐

I agree for my child/ child which I am a guardian for to participate in the study ☐

I understand that my child may withdraw from the study at any time, without penalty, and without giving a reason ☐

I understand that I, and my child, have the right to receive a summary of the study results. ☐

I understand that, if chosen, my child will be observed by the researcher ☐

If you wish to receive this information, please include your email address below:

By signing this form, you consent to your child, or the individual you are a guardian for, to take part in a Focus Group.

Child’s Name

Date

Your Name (Parent or Legal Guardian) _____

Your Signature (Parent or Legal Guardian) _____

iii. Direct observation data sheets for pupil engagement measurement inc. topographical definition of ‘engagement’ behaviour

BASELINE

Observer 20s MTS Recording Form; Rotational Per Pupil Every 10m

Observer Instructions - Set your timer to vibrate every 20s for a 10-minute period.
Please put an ‘X’ in the box to mark whether target behaviour is occurring at the precise moment your timer vibrates.

Observer:	Classroom:
IOA (please circle): Yes / No	Date:

Target Behaviour – **Engagement** (Engage’ on sheet) – please check back of sheet for topography of engagement behaviour.

Pupil A	20s	40s	(1m) 60s	80s	100s	(2m) 120s	140s	160s	(3m) 180s	200s	220s	(4m) 240s	260s	280s	(5m) 300s	320s	340s	(6m) 360s	380s	400s	(7m) 420s
Engage’																					
Cont.	440s	460s	(8m) 480s	500s	520s	(9m) 540s	560s	580s	(10m) 600s	Total for Pupil (%)											
Engage’																					

Pupil B	20s	40s	(1m) 60s	80s	100s	(2m) 120s	140s	160s	(3m) 180s	200s	220s	(4m) 240s	260s	280s	(5m) 300s	320s	340s	(6m) 360s	380s	400s	(7m) 420s
Engage’																					
Cont.	440s	460s	(8m) 480s	500s	520s	(9m) 540s	560s	580s	(10m) 600s	Total for Pupil (%)											
Engage’																					

iii. Direct observation data sheets for pupil engagement measurement inc. topographical definition of ‘engagement’ behaviour

<u>Pupil C</u>	20s	40s	(1m) 60s	80s	100s	(2m) 120s	140s	160s	(3m) 180s	200s	220s	(4m) 240s	260s	280s	(5m) 300s	320s	340s	(6m) 360s	380s	400s	(7m) 420s
Engage'																					
Cont.	440s	460s	(8m) 480s	500s	520s	(9m) 540s	560s	580s	(10m) 600s	Total for Pupil (%)											
Engage'																					

Now, please begin the process again (starting with *Pupil A*); until in total 60 minutes of observation is complete (2x 10-minutes observations per child in one sitting).

Target Behaviour; ‘Engagement’

Pupil’s body and face are in the direction of the task designated by classroom staff or in the direction of classroom staff. Pupil is using learning materials for task or carrying out task in appropriate fashion and is not making conversation unrelated to task (through verbal speech, sign or gesture). Engaging in communication with classroom staff or fellow peer in regards to task is to be classed as ‘engagement’; as are non-social behaviours (such as not answering back to teacher) as long as the pupil is still interacting with learning material/task. Vocal Stereotypy should be ignored as long as pupil is interacting appropriately with learning material/task. Inappropriate interactions with learning material/task would be classed as tearing up worksheet etc. Engagement in behaviours that challenge by pupil will be classed as ‘not-engaged’; therefore, the box should be left blank.

This form has been adapted from the ‘Support Trainer Interval Recording Form’ featured in;

Toogood, S. (2010). Interactive Training; Supporting people with severe and profound intellectual disabilities in meaningful activity. A trainer’s implementation guide and workshop manual for training trainers. *Pavilion Publishing (Brighton) Ltd.*

iv. Adapted Interactive Training materials: Support and Lead Trainer data sheets for observations during training session

Support trainer interval recording form

Client / Pupil:	Lead trainer:	Date: Pre / Post
Staff:	Support trainer:	Address:

Panel A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	total
Staff on-task																					
Pupil on-task																					
Challenging behaviour																					

Panel B	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	total
Staff on-task																					
Pupil on-task																					
Challenging behaviour																					

Panel C	41	42	43	44	45	46	47	48	49	50	total
Staff on-task											
Pupil on-task											
Challenging behaviour											

Observer comments:

iv. Adapted Interactive Training materials: Support and Lead Trainer data sheets for observations during training session

Interactive training narrative recording sheet

Client / Pupil:	Lead trainer:	Date:	Pre / Post
Staff:	Support trainer:	Address:	

Preparation and presentation	Task design Pre-check activity materials Minimise distraction Arrange activity materials Avoid unnecessary waiting	e.g. "task was not prepared well before-hand – shuttlecocks shouldn't be by the sink!"
Providing support and assistance	Task analysis Appropriate language Avoid questions Wait for a response Prompt most to least Prompt least to most Timeliness of prompting, correction and prompt fading	
Making participation rewarding	Intrinsic, Social, Tangible, Contextual, Timing, Varied, Respectful, Completion and closure	
Style	Focus of attention Body language and posture Relative body position Appropriate handling of materials Appropriate physical guidance Commitment and enthusiasm Positive phrasing – 'what to do' Appropriate use of 'No' Cross talk and interruption	

v. Retrospective procedural fidelity checklist of the entire research protocol (inc. Interactive Training steps).

Adapted from the ‘Competency-based assessment form’ in the Interactive Training for Active Support manual (Toogood, 2010).

Step	Completed?
Engage in pre-data collection considerations such as ethical approval, consent, recruitment etc.	
Baseline Engagement data collection	
Print data collection measures and train any new observers that will collect inter-observer agreement data. Train new observers via a Behavioural Skills Training protocol (instructions, modelling how to record observational data on the data sheet, give time for new observer to practice and then provide corrective feedback).	
Arrange observation time with classroom lead teacher	
Data collection – choose time of day in which a group-based activity is occurring with at least three students present.	
Collect direct observational data using momentary-time sampling measurement technique (as outlined on the data collection sheet). Rotate every 10-minutes around students. Collect a minimum of 30-minutes of data (so three rotations of students).	
Utilise a second observer for inter-observer agreement . For this, both observers should be observing the same student per rotation and should keep their scores hidden from the other. Observers will compare their scores and calculate using an interval-by-interval calculation.	

Interactive Training Intervention for staff	
<p>Introduce the session to the trainee staff.</p> <p>Outline the three phases of the training to staff and expectations of staff. Instruct staff to work with the person being supported (student or adult) to choose a natural activity.</p>	
<p>Pre-coaching phase observation.</p> <p>If acting as the lead trainer then collect data on staff quality of support via narrative recording (making sure to use the narrative recording form and categories).</p> <p>If acting as the support trainer then collect data on staff on/off task behaviour, student on/off task behaviour and any behaviours that challenge exhibited by the student</p>	
<p>Feedback phase. Find a suitable location to deliver feedback. Begin with open-ended questions and comment on positive aspects of the staff members' performance.</p> <p>Then state three to four areas for coaching and agree on these areas with the staff trainee.</p>	
<p>Coaching phase. Utilise appropriate methods such as verbal instruction (you tell the staff member what to do), gestural or modelling prompts (you show the staff member what to do or gesture what you want to them do), praise and correction.</p>	
<p>Post-coaching observation. Repeat the measures you collected during the pre-coaching observation (either as lead or support trainer).</p> <p>Feedback to staff trainee after the coaching and comment on any areas for improvement as well as positive areas and strengths of the support.</p>	

Summarise main training issues with the trainee staff member at the end and detail what will happen during follow-up (if you are able to conduct follow-up observations).	
Complete staff summary of training feedback within 24-hours and return to staff trainee.	
Post-intervention Engagement data collection	
Repeat data collection measures as in baseline for at least five datum points.	
Conduct follow-up observations 3 months and 6 months after post-intervention data collection has ceased.	

vii. Raw data and analysis

Table 4.6.

Raw data for pupil engagement in Setting 1 from first observer

		Pupil A	Pupil B	Pupil C	Overall mean %^a
<i>Indicative Baseline</i>					
	Session 1	33.3	40	16.6	30%
	Session 2	26.6	33.3	20	27%
	Session 3	20	30	23.3	24%
	Session 4	20	33.3	26.6	27%
<i>Baseline</i>					
	Session 1	40	50	23.3	38%
	Session 2	33.3	26.6	20	27%
	Session 3	43.3	33.3	16.6	31%
	Session 4	43.3	40	16.6	33%
<i>Intervention (21/10/2019)</i>					
	Session 5	IOA2^a 56.6	60	43.3	53%
	Session 6	IOA2 70	60	IOA 23.3	51%
	Session 7	66.6	63.3	33.3	54%
	Session 8	60	60	43.3	54%
	Session 9	66.6	66.6	30	54%
	Session 10	70	63.3	40	58%
	Session 11	70	56.6	43.3	57%
<i>Follow-up</i>					
	Session 1	IOA3 60	IOA3 50	IOA3 43.3	51%
	Session 2	IOA3 56.6	IOA3 43.3	IOA3 33.3	44%
	Session 3	50	50	30	43%

^a Rounded to the nearest decimal place. 'IOA1', 'IOA2' and 'IOA3' represents the three extra observers used to assess reliability (inter-observer agreement) of direct observations.

vii. Raw data and analysis

Table 4.7.

Raw data for pupil engagement in Setting 2 from first observer

		Pupil D	Pupil E	Pupil F	Overall mean %^a
<i>Indicative Baseline</i>					
	Session 1	60	50	86	65%
	Session 2	63.3	70	83.3	72%
	Session 3	43.3	76.6	80	67%
	Session 4	60	73.3	86	73%
<i>Baseline</i>	Session 1	63.3	76.6	86	75%
	Session 2	73.3	83.3	86	81%
	Session 3	IOA1 50	IOA1 86.6	IOA1 100	79%
	Session 4	IOA1 96.6	83.3	86	89%
<i>Setting 1 Intervention Begins</i>	Session 5	63.3	83.3	80	76%
	Session 6	60	96.6	83.3	80%
<i>Intervention (implemented on 06/11/2019)</i>					
	Session 7	83.3	100	100	94%
	Session 8	83.3	96.6	100	93%
	Session 9	80	83.3	96.6	87%
	Session 10	96.6	86.6	90	91%
	Session 11	86.6	100	96.6	94%
<i>Follow-up</i>					
	Session 1	IOA3 83.3	IOA3 80	IOA3 96.6	87%
	Session 2	76.6	83.3	86.6	82%
	Session 3	96.6	80	83.3	87%

^a Rounded to the nearest decimal place. 'IOA1', 'IOA2' and 'IOA3' represents the three extra observers used to assess reliability (inter-observer agreement) of direct observations.

vii. Raw data and analysis

Table 4.8.

Raw data for pupil engagement in Setting 3 from first observer

		Pupil G	Pupil H	Pupil I	Overall mean %^a
<i>Indicative Baseline</i>					
	Session 1	30	60	50	47%
	Session 2	23.3	56.6	40	40%
	Session 3	20	63.3	43.3	42%
	Session 4	26.6	66.6	46.6	47%
<i>Baseline</i>					
	Session 1	33.3	63.3	40	46%
	Session 2	30	66.6	40	46%
	Session 3	23.3	66.6	36.6	42%
	Session 4	26.6	70	43.3	47%
	Session 5	IOA3 23.3	IOA3 50	IOA3 36.6	37%
<i>Setting 2 Intervention Begins</i>					
	Session 6	IOA2 36.6	IOA2 43.3	IOA2 56.6	46%
	Session 7	IOA3 26.6	IOA3 63.3	IOA3 50	47%
<i>Intervention (implemented on 15/11/2019)</i>					
	Session 8	40	80	56.6	59%
	Session 9	46.6	76.6	60	61%
	Session 10	43.3	73.3	60	59%
	Session 11	46.6	76.6	60	61%
<i>Follow-up</i>					
	Session 1	IOA2 46.6	IOA2 76.6	IOA2 60	61%
	Session 2	IOA2 53.3	IOA2 76.6	IOA2 76.6	69%
	Session 3	43.3	80	63.3	62%

^a Rounded to the nearest decimal place. 'IOA1', 'IOA2' and 'IOA3' represents the three extra observers used to assess reliability (inter-observer agreement) of direct observations.

Appendix D: Chapter 5, Study 3

i. Ethical Approval, School of Education Research Ethics Committee, Bangor

University

Approval granted for **20-403** Collaborative Development and Teacher-Led Pilot of the Active Support: WorkS Manual: Testing the Effect on Employability-Skill Acquisition in Pupils attending a Special-School Classroom

ii. AS-WorkS pilot feedback questionnaire for teachers

AS: WORKS Module – Pilot Feedback Questionnaire

Please take the time to fill out this feedback questionnaire **upon completion** of the AS: WORKS module for special school staff. Your responses are highly valued by the research team, which includes your school's headteacher and other stakeholders who have collaboratively designed this module.

Your feedback will be used to develop the final version of this module, which will aim to be published for special schools across Wales. Therefore, please provide as much feedback as possible to enable the research team to develop a high-quality module which suits the current needs of special school staff.

Please write all responses in English.

Consent:

Please put initial the box which you most agree with, and write your **initials** next to that box:

Do you consent to your feedback being used in the further development of the module?

Yes ☐ No ☐

Do you understand that your name, and any other information you may wish to provide, will be anonymised in any write-up or reports produced from this pilot feedback stage?

Yes ☐ No ☐

Your Full Name: _____

Electronic Signature*: _____ **Date:** _____

**Due to current circumstances regarding the pandemic, if you do not have an electronic signature, you can simply re-write your name on this line again.*

Feedback Questionnaire:

COACHING STAFF TO DEVELOP VOCATIONAL SKILLS IN YOUNG ADULTS WITH IDD

Please put an **X** in the box underneath the score and statement which you most agree with.

A score of **1** is ‘**strongly agree**’, and a score of **5** is ‘**strongly disagree**’.

A) The module contains information that is relevant to my job-role:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

B) The information and language used in the module is presented in a clear and easily understandable way:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

C) The module contains information that is relevant to all classroom or special school staff:

COACHING STAFF TO DEVELOP VOCATIONAL SKILLS IN YOUNG ADULTS WITH IDD

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

D) The MQC quiz questions at the end of each Unit are appropriate to the Unit, and also challenging/difficult:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

E) The layout of the module is visually appealing, in terms of colour-scheme, size of font etc.:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

F) The 'Accompanying Resources' document contains relevant and useful information:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

G) The majority of the information provided in the module was new to me, and would be new to other members of the classroom-staff team (including teaching assistants):

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

H) I was already aware, before taking the module, of the data collection and graphing methods used within my school for tracking pupil progress:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

I) I already collect data for IEP skills for each pupil:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

J) I already graph the data I collect for IEP skills for each pupil:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

If you have any other comments or feedback regarding the module, or have suggestions for information that may be missing and should be put into the module, please write this out on the lines below:

Thank you so much for taking the time to fill out this feedback questionnaire, your responses are highly valued by the research team and will aid in the final development and refinement of the module.

If you have any further queries around this module, please do not hesitate to contact by using the email ceridwen.evans@bangor.ac.uk . Or, alternatively, you can contact the lead supervisor of this project, Carl Hughes, on c.hughes@bangor.ac.uk

iii. AS-WorkS pilot feedback questionnaire for behaviour analysts

AS: WORKS Module - Pilot Feedback Questionnaire

Please take the time to fill out this feedback questionnaire **upon completion** of the AS: WORKS module. Your feedback will be used to develop the final version of this module, which will aim to be published for special schools across Wales. Therefore, please provide as much feedback as possible to enable the research team to develop a high-quality module which suits the current needs of special school staff.

As a behaviour analyst, it would be greatly valued if you could in particular comment on the data collection and graphing unit (Unit 3); so as to make sure that the information presented in this unit is relevant to what is actually used in the school environment, and also accurate. As we plan to share this module with schools where access to consultation with a behaviour analyst may be limited or unavailable, we intend to limit the amount of ABA-specific language, to support school staff without ABA knowledge to fully understand and use the information in the module within their classrooms.

In line with that, if there's anything that you notice that staff don't do (for example, graphing of data) which needs to be included in this module, or something that you feel is missing, please do comment on the lines at the end of the questionnaire.

Consent:

Please initial the box which you most agree with, and write your **initials** next to that box:

Do you consent to your feedback being used in the further development of the module?

Yes ☐ No ☐

Do you understand that your name, and any other information you may wish to provide, will be anonymised in any write-up or reports produced from this pilot feedback stage?

Yes ☐ No ☐

Your Full Name: _____

Electronic Signature*: _____ **Date:** _____

**Due to current circumstances regarding online consent, if you do not have an electronic signature you can simply re-write your name on this line again.*

Feedback Questionnaire:

Please put an **X** in the box underneath the score and statement which you most agree with.

A score of **1** is ‘**strongly agree**’, and a score of **5** is ‘**strongly disagree**’.

- A. The module contains information that is relevant to all staff working within a special school classroom:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

- B. The information and language used in the module is presented in a clear and easily understandable way, which all classroom staff should be able to make sense of:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

- C. The MQC quiz questions at the end of each Unit are appropriate to the Unit, and would, in your opinion, be challenging/difficult to the classroom staff member:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

- D. The layout of the module is visually appealing, in terms of colour-scheme, size of font etc.:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

- E. The ‘Accompanying Resources’ and ‘Supervisor Resources’ document contains relevant and useful information:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

- F. The majority off the information provided in the module would be new to classroom staff (including teaching assistants):

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

G. The data collection and graphing methods exemplified in the module reflect the methods used within my school:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

H. All classroom staff (including post-16 classrooms) working within my school collect data on pupil IEP goals:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

- I. All classroom staff (or those who may have been nominated too) graph the data which is collected on pupil IEP skill/goal progression:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

- J. In Unit 3 around the RAG traffic light system, the prompting levels per stage (red, amber, green) are correct. (If not, please do include the correct version used within your school on the comments below):

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Here, please provide any comments you may have which are relevant to this statement:

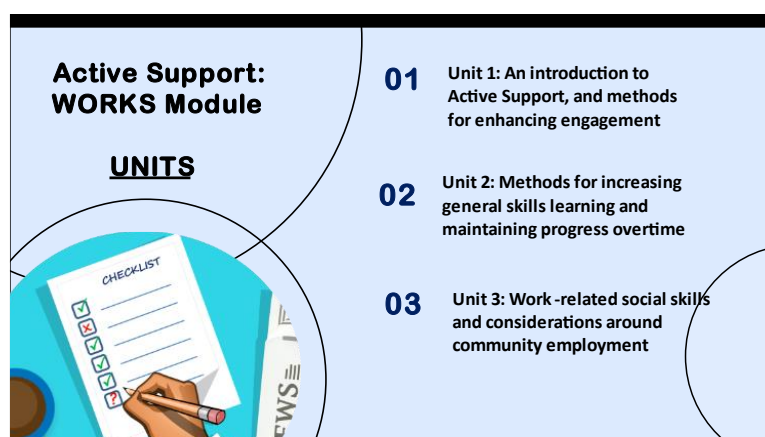
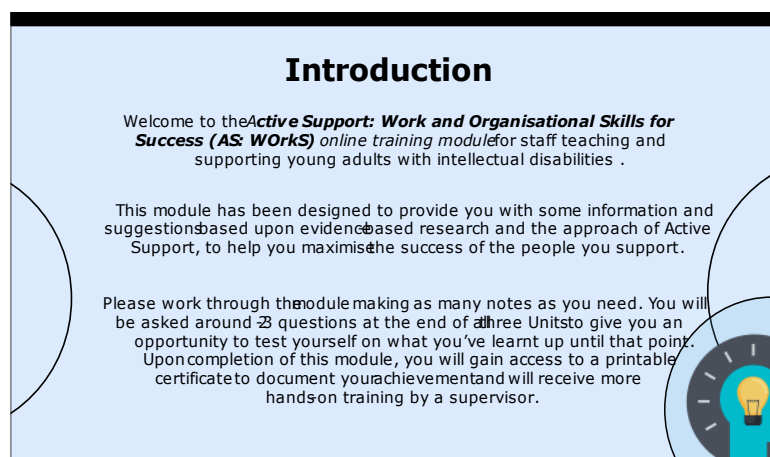
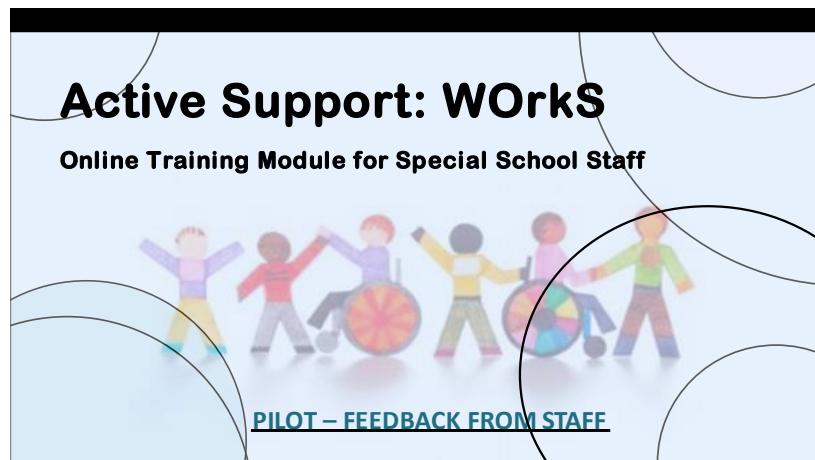
If you have any other comments or feedback regarding the module, or have suggestions for information that may be irrelevant, missing or should feature in the module, please write this out on the lines below:

[illegible]

Thank you so much for taking the time to fill out this feedback questionnaire, your responses are highly valued by the research team and will aid in the final development and refinement of this module.

If you have any further queries around this module, please do not hesitate to contact by using the email ceridwen.evans@bangor.ac.uk . Or, alternatively, you can contact the lead supervisor of this project, Carl Hughes, on c.hughes@bangor.ac.uk

iv. Excerpts of Final working version of AS-WOrkS online module



Breaking down a skill or task into simple, manageable steps can help to increase the chance that the person supported will experience success.

We call this a **task analyses**. It is important to note however that task analyses should be tailored to that learner, as each person will require a different amount of support and will have their own preference toward completing that skill.



What are some of the reasons why ~~you might~~ break down a skill?

- A person is having **difficulty** in learning a new skill and is continuously struggling each time you try to teach it.
- The skill is **complex and has numerous steps which first have to be taught before mastering the entire skill**; such as when making a pasta bake you must first be taught how to boil the water for the pasta.
- The skill needs to be taught in a specific way therefore it must be broken down so that **every staff member teaching that skill to the person does so in the exact same way**.



An example of a **Structured Learning Script...**

Name: Brian	Week beginning: 1 st Aug
Ultimate Aim: Brian will load the washing machine, when asked, once a day.	
Learning outcome: Brian will open the washing machine door following a verbal instruction.	
How many times: Once a day	How well: Three consecutive days
Where: Laundry room	When: Morning around 11am
Materials and preparation: Check the machine is empty, and make sure the door is in the closed position. Check that the power is on, and that the opening mechanism is working. Have five pieces of laundry by the machine ready to load. Make sure access is clear and that no one else wants to use the machine at the same time.	
Introduction and support: Find Brian and say, "Hi Brian, it's time to load the machine" and gesture toward the laundry room door. Go to the laundry room together. Let Brian go in first. Stand behind Brian slightly to his right-hand side. Make sure Brian is standing in front of the machine with the switch to his right-hand side, then say, " <u>Brian</u> ", open the door".	

Lets **practice** filling one out!

On the next slide you will be talked through how to complete a Structured Learning Script...

Make sure to access your template first from the '**Accompanying Resources**' document.

Example taken from:
 Toogood, S., Totsika, V., Deme, L., Smyth, P., Grant, C., Seville, M. & Lykouris, B. (2019). Structured Learning Scripts Module.
 Sharnland Foundation Developmental Disabilities ABA Research and Impact Network (SARIN).

v. Accompanying Resource

AS: WORKS *Accompanying Resources* Document

This document accompanies the ‘Active Support: Works and Organisational Skills for Success’ module for special-school and social enterprise staff; and contains further information, links to reading materials, references and blank templates relevant to the module content.

If you require information which is not featured on this document, please contact Ceridwen Evans, on ceridwen.evans@aol.co.uk, and she will attempt to assist you with your request.

Contents of document:

Appendix A – MQC’s

- i. Answers for MCQ Test Questions

Appendix B - Unit 1

- i. Links to readings (ARC UK Active Support Handbook; Published Articles)

Appendix C - Unit 2

- i. Structured Learning Scripts reference (Toogood, unpublished)
- ii. Structured Learning Scripts model (Toogood, unpublished)
- iii. Progress Log template
- iv. Structured Learning Script template

Appendix D – Certificate

- i. Printable blank certificate to be signed by headteacher upon completion on module by staff member

Accompany Resource Appendix A – MCQ's

Answers for MCQ Test Questions

Unit 1:

- a) 2
- b) 1

Unit 2:

- a) 1
- b) 2

Unit 3:

- a) 1
- b) 3

Unit 4:

- a) 1
- b) 2

Accompanying Resource Appendix B – Unit 1

You will find a printable version of the **ARC-UK Active Support handbook**, created by Edwin Jones, Jonathan Perry, Kathy Lowe, David Allen, Sandy Toogood and David Felce; produced by ARC Cymru on behalf of the authors, through the below link:

<https://arcengland.org.uk/shop/active-support-handbook/>

In this handbook you will find examples of the monitoring systems discussed in the module.

Here are some further readings around Active Support that may be helpful:

Beadle-Brown, J., Murphy, B., & Bradshaw, J. (2017a). Person-centred Active Support: A self-study guide to enable participation, independence and choice for adults and children with intellectual and developmental disabilities. *Pavilion Publishing and Media Ltd.*

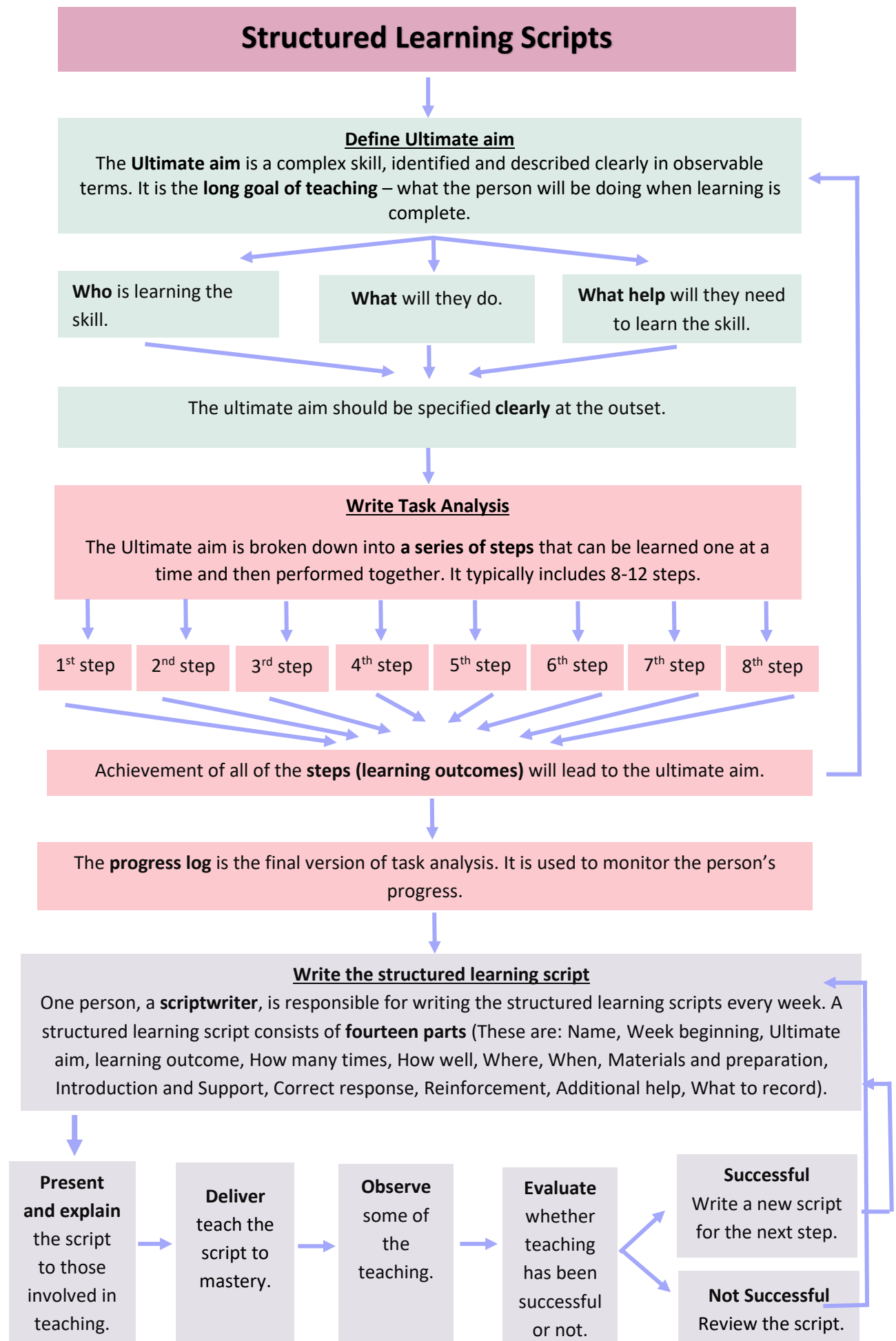
Harrison, R. A., Bradshaw, J., Forrester-Jones, R., McCarthy, M. & Smith, S. (2021). Social networks and people with intellectual disabilities: A systematic review. *Journal of Applied Research in Intellectual Disabilities*, 1-20, <https://doi.org/10.1111/jar.12878>

National Clearinghouse on Autism Evidence and Practice Review Team (2020). *Evidence-Based Practices for Children, Youth, and Young Adults with Autism*. Available at: <https://ncaep.fpg.unc.edu/sites/ncaep.fpg.unc.edu/files/imce/documents/EBP%20Report%202020.pdf>

Totsika, V., Toogood, S., & Hastings, R. P. (2008). Active Support: Development, Evidence-Based, and Future Directions. *International Review of Research in Mental Retardation*, 35; 205-249. [https://doi.org/10.1016/S0074-7750\(07\)35006-4](https://doi.org/10.1016/S0074-7750(07)35006-4)

Accompanying Resource Appendix C

Structured Learning Scripts Model (Toogood, unpublished)



Progress Log Template

Name		Period from	
Ultimate aim			
Current skills			
Learning outcomes (weekly steps to ultimate aim)	Date set	Attained	

Structured Learning Script template

Name:	Week beginning:
Ultimate aim:	
Learning outcome:	
How many times:	How well:
Where:	When:
Materials and preparation:	
Introduction and support:	
Correct response:	

Reinforcement:							
Additional help:							
What to record:							
Days		<i>Days of</i>	<i>the week</i>	<i>teaching</i>	<i>is to take</i>	<i>place</i>	
Staff		<i>Names of</i>	<i>Those</i>	<i>teaching</i>	<i>each day</i>		

vi. Supervisor Resource

AS: WorkS *Supervisor Resource Document*

This document accompanies the ‘Active Support: Works and Organisational Skills for Success’ module for special-school and social enterprise staff. This module bases itself on an evidence-based training model called ‘Behavioural Skills Training’. Behavioural Skills Training is commonly used as a staff training model and involves four steps; 1. Instructions, where the trainee learns the what and the why behind what they are learning as well as any technical skills, 2. Modelling, which is where the trainer would model what they want the staff trainee to do, 3. Rehearsal, where the trainee gets to practice what they’ve learnt all whilst gaining the final step, 4. Feedback (from the trainer and ideally corrective feedback).

You have been assigned as the ‘supervisor’ for new staff completing the AS: WorkS Module which means that you will be required to assess the trainee staff members performance to ensure that all steps of the module have been completed. You will also need to train the trainee staff one-on-one and in-situ, following the ‘Active Support Interactive Training’ guide (to which you have been trained as a trainer in).

This resource therefore is to support you as the supervisor to support the new trainee staff member and to continuously assess the performance of staff in case any staff need booster training etc.

If you require information which is not featured on this document, please contact Ceridwen Evans, on ceridwen.evans@aol.co.uk, and she will attempt to assist you with your request.

Contents of *Supervisor* resource:

Appendix A – Suggested readings

- i. Suggested readings associated with Active Support, staff training, Behavioural Skills Training and evidence-based practices

Appendix B - Procedural fidelity checklist

- i. Fidelity checklist of all of the steps to the module and then subsequent Interactive Training in Active Support

Appendix C – Methods for effective feedback

Supervisor Resource Appendix A – Suggested readings

This study used Behavioural Skills Training to teach job-related social skills to autistic young adults, therefore the procedure might be useful for you to use:

Grob, C. M., Lerman, D. C., Langlinas, C. A., & Villante, N. K. (2019). Assessing and teaching job-related social skills to adults with autism spectrum disorder. *Journal of Applied Behavior Analysis*, 52(1), 150-172.

This is a comprehensive list of evidence-based practices in particular for skills-teaching:

National Clearinghouse on Autism Evidence and Practice Review Team (2020). *Evidence-Based Practices for Children, Youth, and Young Adults with Autism*. Available at: <https://ncaep.fpg.unc.edu/sites/ncaep.fpg.unc.edu/files/imce/documents/EBP%20Report%202020.pdf>

A helpful guide to Behavioural Skills Training and staff training in general (what works well and what doesn't work well when trying to upskill staff):

Parsons, M. B. & Rollyson, J. H. (2013). Evidence-Based Staff Training: A Guide for Practitioners. *Behavior Analysis in Practice*, 5(2), 2-11.
<https://link.springer.com/content/pdf/10.1007/BF03391819.pdf>

The PBS Academy has some useful resources for training staff, including use of competence-based assessment:

PBS Academy (2017). Improving the quality of Positive Behavioural Support (PBS): The standards for training. *PBS Academy*. <http://pbsacademy.org.uk/wp-content/uploads/2017/10/PBS-Standards-for-Training-Oct-2017.pdf>

Sun, X., & Brock, M. E. (2022). Systematic review of video-based instruction to teach employment skills to secondary students with intellectual and developmental disabilities. *Journal of Special Education Technology*, 0(0), 1-13.

Supervisor Resource Appendix B - Procedural fidelity checklist

Step	Completed by staff member?
Print out all associated materials for the trainee staff member including the accompanying resource (particularly the Structured Learning Scripts templates).	
Staff trainee has worked through all Unit 1 of the AS-WorkS Module	
Staff trainee has completed all MCQ questions of Unit 1 and kept a note of their scores	
For Unit 2 ensure that you are nearby to support the staff member are they work through the data collection methods. Make sure to prompt staff to pause and work through the monitoring systems and Structured Learning Script activity. Remind the staff member of the video and audio recordings.	
After the staff trainee has completed the Structured Learning Script template based upon someone they support, check over this and ensure that all areas have been covered adequately. At this stage you may need to provide some feedback around areas to improve.	
After the staff trainee has completed Unit 3 ask them if there were any areas that they found interesting or any areas of the entire module that were new to them or that they found difficult. Make a note of these answers as these could help inform how you tailor your future coaching sessions.	
Interactive Training Intervention for staff	

<p>You should plan to deliver the one-to-one training in Active Support no longer than 1-month since they completed the AS-WorkS Module.</p> <p>Make sure to conduct the training in-situ during an activity that the staff would normally be partaking, facilitating or leading in.</p>	
<p>Introduce the session to the trainee staff.</p> <p>Outline the three phases of the training to staff and expectations of staff. Instruct staff to work with the person being supported (student or adult) to choose a natural activity.</p>	
<p>Pre-coaching phase observation.</p> <p>If acting as the lead trainer then collect data on staff quality of support via narrative recording (making sure to use the narrative recording form and categories).</p> <p>If acting as the support trainer then collect data on staff on/off task behaviour, student on/off task behaviour and any behaviours that challenge exhibited by the student</p>	
<p>Feedback phase. Find a suitable location to deliver feedback. Begin with open-ended questions and comment on positive aspects of the staff members' performance.</p> <p>Then state three to four areas for coaching and agree on these areas with the staff trainee.</p>	
<p>Coaching phase. Utilise appropriate methods such as verbal instruction (you tell the staff member what to do), gestural or modelling prompts (you show the staff member what to do or gesture what you want to them do), praise and correction.</p>	

<p>Post-coaching observation. Repeat the measures you collected during the pre-coaching observation (either as lead or support trainer).</p> <p>Feedback to staff trainee after the coaching and comment on any areas for improvement as well as positive areas and strengths of the support.</p>	
<p>Summarise main training issues with the trainee staff member at the end and detail what will happen during follow-up (if you are able to conduct follow-up observations).</p>	
<p>Complete staff summary of training feedback within 24-hours and return to staff trainee.</p>	
<p>Continue to monitor staff through direct observations (once per month minimum), through record reviews of person-centred plans of the people supported, and through one-to-one supervision. If needed, consider providing booster training for those who need it.</p>	

Supervisor Resource Appendix C – Methods for effective feedback

Effective feedback

How to structure your feedback (adapted from Toogood, 2010).

Feedback can be a daunting experience for staff. Therefore to make the experience more beneficial for all, ensure that you choose a quiet and convenient place to provide feedback.

Be mindful of your body language, eye contact and tone of voice. It may be best to start your feedback discussion with an open question such as “What did you enjoy about that module?” or “What do you think went well then in our one-to-one Active Support training”? You can also use closed questions too, but try to keep these for moments where you need a direct answer or further clarification so as not to close off potential responses.

It might be helpful to structure your feedback (particularly for the one-to-one Active Support Interactive Training) like so:

- How do you think that went?
- Was that typical of your performance?
- Here are some things I noticed... (emphasise positive performance).
- Develop three or four key themes or areas to improve upon
- Use specific examples to help illustrate your meaning
- Summarise the themes and seek agreement from the member of staff around when you will work on these (perhaps they require further modelling, rehearsal, observation etc.).

End of thesis