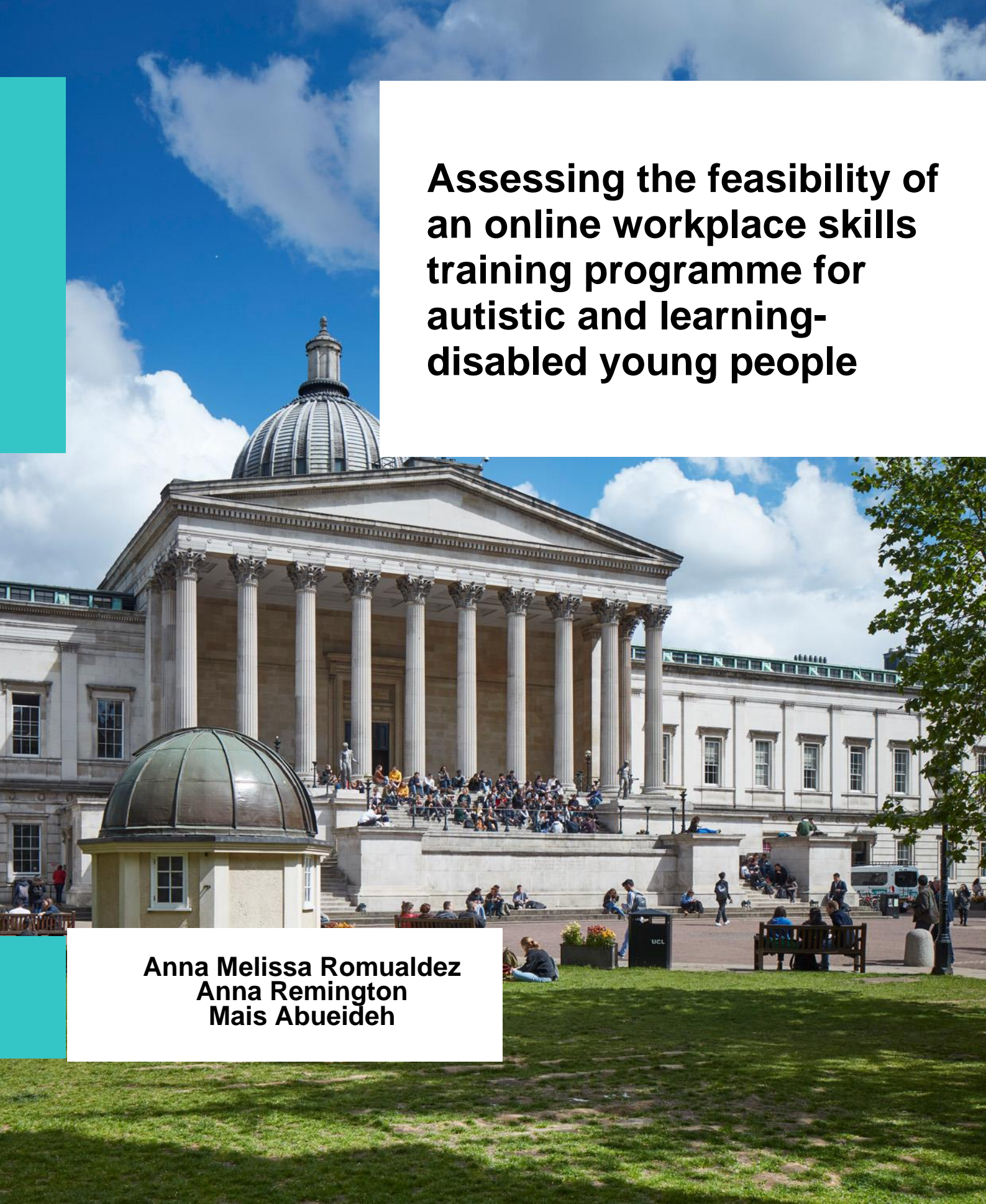




Assessing the feasibility of an online workplace skills training programme for autistic and learning- disabled young people

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1. Executive Summary

- This research study evaluated the feasibility of the *Inclusive Working* training programme, an online course comprising eight modules designed to prepare autistic young people with learning disabilities for work.
- Seven autistic and learning-disabled young people (aged 19-26) participating in a Project SEARCH supported work internship programme, were interviewed before and after completing the training programme and answered online questionnaires before and after completing each module.
- Common motivations for undergoing the training programme were to become more employable and to get a job. Some interns spoke in more detail about this, such as helping their family and wanting to be more independent as a result of being employed.
- Previous experience with both online and in-person training, as well as work experience, varied among the interns.
- Positive feedback was focused on how the modules made the participants feel safer and more equipped to deal with situations at work after completing the training. Students also spoke about the helpfulness of the supplementary booklets for taking notes and retaining information, as well as how they enjoyed the mode of delivery – particularly the audio and video elements of the training.
- Suggestions for improving the online training course included making the interface customisable, lessening the amount of information in the modules, and developing a mobile app to make the training more accessible. The participants also flagged up technical glitches that they wanted to see fixed.
- Overall, feedback on *Inclusive Working* was positive, but interns raised concerns with technical glitches encountered while using the platform, the difficulty of the quizzes, and the amount of information in each module. They also suggested improvements such as making the interface customisable, giving more detailed instructions, and developing an app through which they could complete the modules on their mobile phones.

2. Background

The transition from education to employment is a significant phase for all young people, but it poses considerable difficulties for autistic and learning-disabled young people. Autistic individuals who also have learning disabilities may be particularly vulnerable during this stage of their lives due to a multitude of factors that further limit already scarce opportunities to secure meaningful employment (Howlin et al., 2005). These challenges include difficulties in social interaction, different ways of processing information from their environments, and, in many cases, a lack of necessary job adaptations tailored to their needs (Howlin et al., 2005). As a result, autistic individuals tend to have much lower employment rates compared to those without disabilities: 29% of autistic people aged 16-64 are in employment compared to 52% of disabled people and 81% of the general population (Office for National Statistics, 2022). Crucially, there is a gap between those who want to work, and those who are able to obtain and maintain a job (National Autistic Society, 2016).

As such, it is important to find effective ways to promote the inclusion of autistic people with learning disabilities within the workforce (Baldwin et al., 2014). This project focuses on evaluating the feasibility of implementing an online workplace skills training program, *Inclusive Working*, specifically designed for autistic young people with learning disabilities. The primary goal of the programme is to enhance job readiness by equipping these individuals with the necessary skills for the types of jobs typically available in the market. Additionally, this initiative aims to foster greater societal acceptance of autistic

individuals with learning disabilities as valuable employees. Addressing the unique challenges faced by autistic people during the transition from education to employment is crucial, as these challenges often result in significant barriers to achieving meaningful employment (Goana et al., 2019). By tailoring the training to their specific needs, this programme seeks to not only improve employability outcomes but also to promote greater inclusion and equality in the workplace.

The *Inclusive Working* course comprises eight modules designed to prepare autistic young people with learning disabilities for work: Data Protection, Fire Safety, Health & Safety, Infection Prevention, Introduction to Employability, Introduction to Hospitality, Moving & Handling, and Personal Safety. The course is designed to be self-paced, with a timer to indicate progress through each module. The online platform also has built-in options for participants to take breaks when needed, and there is a quiz at the end of each module that participants must pass in order to complete the training.

3. Methods

The research outlined in this report gained the perspectives of the autistic and learning-disabled young people on the online training programme.

Inclusive Working.

3.1 Participants

The participants were seven autistic and learning-disabled young people participating in a Project SEARCH supported work internship scheme in London, and undertook the online training as part of their preparations for the

scheme. Participants were identified and approached via key members of staff involved in the Project SEARCH internship. All participants were provided with information about the research study, and gave written consent to take part. Written consent was also obtained from a parent or guardian of each participant. Participants were predominantly male, aged between 19 and 27 years of age. Six of the seven participants completed a short questionnaire about their background information:

Table 1: Participant demographics (N=6)

Age range	19-27
Gender	
Male	4
Female	2
Ethnicity	
White British	3
Black African	2
Mixed Race	1
Diagnoses	
Autism	6
Learning Disability	5
Moderate Developmental Delays	1

3.2 Materials

Researchers used the following approaches to elicit the views of the participants:

Interview Questions. A bespoke interview was designed for the study. The questions aimed to gauge the participants' existing perceptions of workplace skills, their confidence levels in these skills, and their expectations from the training modules. Pre-course interview questions focused on

participants' work history, anticipated challenges related to the online course, and areas they hoped to improve. Post-course interviews revisited these topics, providing participants with an opportunity to reflect on how the training was implemented, the skills they felt they had acquired, and any challenges they had encountered on the course.

Questionnaires. Online questionnaires, presented via Qualtrics, were integrated into each module. Participants completed a short set of questions before starting the module, indicating their confidence about the topic In question. After the module, they were presented with a further set of questions that asked again about their confidence level, and also about their views of the module (enjoyment, difficulty, usefulness etc).

3.3 Procedure

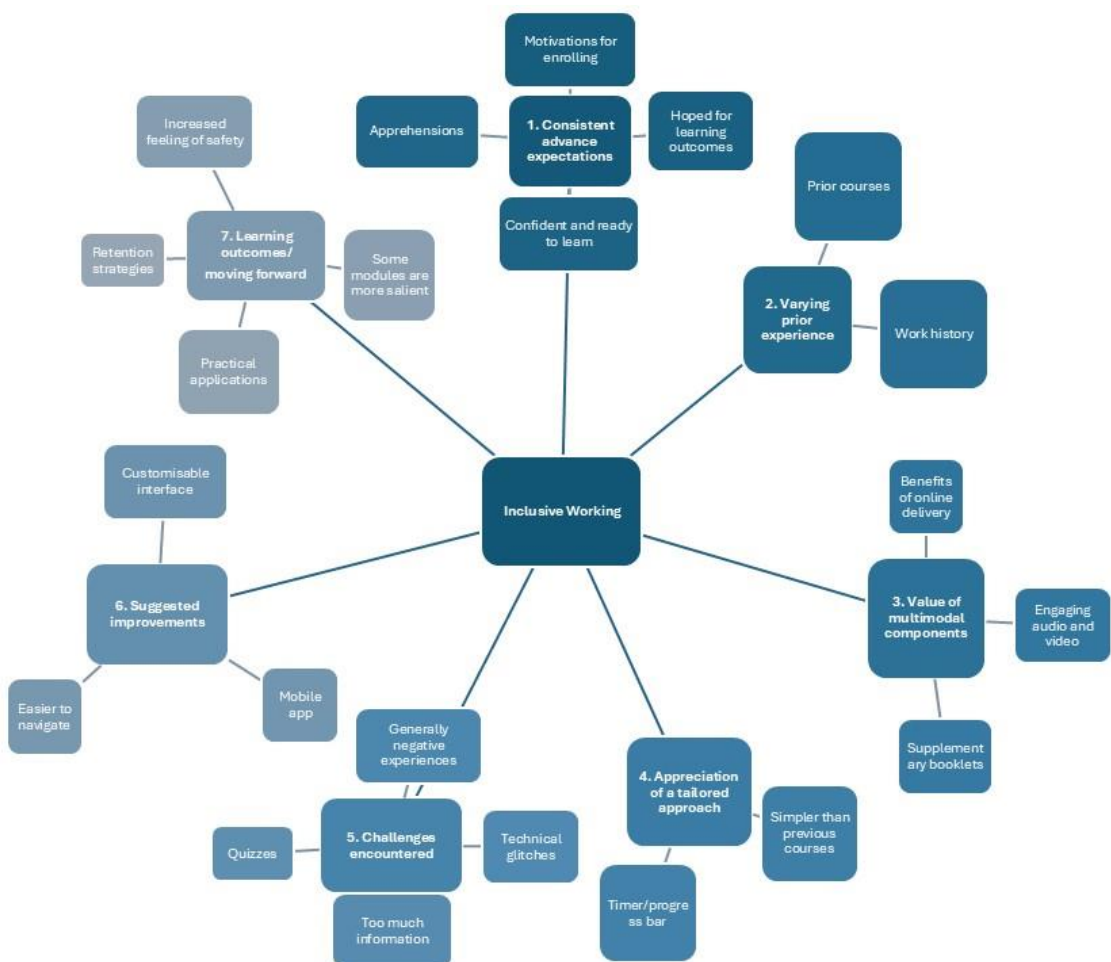
Before enrolling on *Inclusive Working*, all participants were interviewed by researchers face-to-face, and audio recorded with their consent. Participants subsequently began the *Inclusive Working* course, and were prompted to answer the online questionnaires before and after each module. Three months later, they completed a face-to-face, post-course interview with the researchers. Within this three-month period, all participants had successfully completed and passed the eight *Inclusive Working* modules.

4. Qualitative Results

Data from the interviews, and responses to open-ended questions in the questionnaire, were analysed using thematic analysis. This involved looking for commonalities across participants' answers and classifying them into categories. The researchers then further refined these categories into themes and sub-themes (see Figure 1).

Figure 1. Thematic map of themes and sub-themes identified through analysis of qualitative data from interviews and open-ended survey questions

N=7



Sub-themes are *italicised and emboldened* under each of the following themes.

4.1 Consistent advance expectations

In advance of starting the course, participants expressed being **confident and ready to learn**: “I feel confident about everything.” [Participant W]. Nonetheless, they also shared their **apprehensions**: “It’s very very tricky because you have to learn each information.” [Participant Y]. Participants had varied **motivations for enrolling**, but almost all mentioned that they wanted to undergo the training to become more employable and get a job (“*So I can get employment.*” Participant E). Some went into more detail about what that meant for them: “*Because I want to do it for my family.*” [Participant W]. The young people also talked about their **hoped for learning outcomes**. These included increased independence, managing finances, and improving their interview skills: *What am I excited to learn? Is [to] get better interview skills.* [Participant H]

4.2 Varying prior experience

Some of the participants had done **prior courses** similar to *Inclusive Working*. Some mentioned the NHS online training that they had completed: “*I did fire safety and health and safety.*” [Participant Z]. Others were not familiar with online training and had not participated in any previous courses (“*No this is my first time.*” [Participant E]). The participants also had varied **work histories** and spoke about previous jobs that they had had prior to joining Project SEARCH. One participant said, “*I used to work in a student union shop.*” [Participant E], while another explained, “*I did have a job before this, when I was 16, I was working in the suit job during my work experience when*

I was 16. Especially when I was at college, my previous college I was working in Asda for my work experience.” [Participant Y].

4.3 Value of multimodal components

The participants recognised the **benefits of online delivery** of the programme: *“Easier to do on computer? Quicker. Because I’m typing.”* [Participant L]. They also shared positive feedback on the **engaging audio and video** components of the modules. They enjoyed seeing their job coaches in the videos, with one participant responding, *“Because of the videos we see of Josh and Oscar”* [Participant Z] when asked why this was their favourite part of the training. A few of the interns also mentioned that the **supplementary booklets were helpful**: *“I think they were very helpful writing the stuff down.”* [Participant H]. Another participant said that *“Yes because if I did it without the booklets, I couldn’t be able to know.”* [Participant Y].

4.4 Appreciation of a tailored approach

A positive aspect of the online training programme was that it was **simpler than previous courses**. One participant compared the online delivery to their previous experience undergoing an online training course and said that they preferred *Inclusive Working*: *“Learnt more knowledge about GDPR and safeguarding and training, the ones you normally do before you start a job, but broken down in an easier way to learn.”* [Participant L]. Another said that, compared to previous courses, *Inclusive Working* was *“much simple[r] and not complicated”* [Participant E]. Participants also found that **the timer or progress bar was helpful** because it showed them how much of the

course they had left to complete. They talked about how this was helpful to them in response to a question about why this made the training easier: *“The amount of time you were given. there was a time on the side.”* [Participant E].

4.5 Challenges encountered

Some of the participants had **generally negative experiences** of the course, but did not elaborate on what made these experiences negative. One participant referred to the course as being *“difficult”* [Participant T] while another said, *“It was hard”* [Participant Z] when asked how they found the course. Participants also found the **technical glitches** that they experienced to be challenging: *“It’s not too loud, it’s just the system is playing up. It would take me all the way to the start.”* [Participant Y]. A few of the participants said that the course contained **too much information**. In particular, they spoke about the Data Protection module content as being overwhelming. When referring to this module, one participant said that it was, *“a lot of information I would say”* [Participant H] while another expressed that, *“It was too much information.”* [Participant T]. The participants also found that the **quizzes were particularly challenging**: *“With the quiz I did some of them right because I knew it from my head but the rest of them it was tricky. I couldn’t pass 90 by 90. Then I had to retry.”* [Participant Y]. One of the participants suggested that they should be allowed to take the quiz as many times as they needed to pass, rather than being taken back to the beginning of the module after a certain number of failed attempts. Another said that, *“There [were] too many questions there.”* [Participant Z].

4.6 Suggested improvements

A few of the participants had suggestions for how to improve *Inclusive Working* after completing the training. One participant did not like the colours used for the platform's interface and spoke about how being able to choose the colours through a **customisable interface** would make the training more appealing to them: "*Yeah change the layout, and the colours. Different colours.*" [Participant Z]. Another participant also suggested that a **mobile app** be created so that they could do the training on their phone, responding, "*By using apps*" [Participant E] when asked how they would improve the course. In general, participants also spoke about how the course could be improved by **making it easier to navigate**. One participant said that this could be done "*by, what could improve by some more instructions*" [Participant H] while another suggested, "*Like making the options more like easier for people to understand.*" [Participant E].

4.7 Learning outcomes and moving forward

Participants spoke about how they had an **increased feeling of safety** after completing the training. They explained that the modules made them more aware of how to deal with certain situations at work, and that they felt better equipped to handle these after completing the online training "*The reason why it made me feel safe is because so it could help me be safe like from any abuse or any harm.*" [Participant H]. One participant simply stated, "*It made me safe.*" [Participant Z]. A few participants mentioned the same

modules during the interviews, such as the safety-related modules and Moving & Handling, indicating that **some modules are more salient** within the *Inclusive Working* course: “*I remember the safe thing.*” [Participant W]. When asked what they remembered from the course, one participant said, “*Like health and safety and stuff like that*” [Participant T]. During the interviews, participants also spoke about the training and its **practical applications in the workplace**: “*It can like help me get like better at my job interviews.*” [Participant H]. One participant spoke about how the course “*helped me be able to achieve what I need to do.*” [Participant E]. Some of the participants discussed **retention strategies** for remembering what they had learnt from the modules so that they could keep using the information in their workplaces. One participant responded that they would remember some aspects of the course “*by using the booklets*” [Participant Y] while another said that they would “*look at the videos*” [Participant Z] to remember the information they learnt.

5. Quantitative Results

Numerical data from the questionnaires were analysed using descriptive statistics only, with no statistical comparisons made. The charts below show the interns’ average ratings for all modules according to each survey question. The questionnaire included items such as “How much did you learn in this module?” and “How much do you think you will remember from this module?”, with interns assigning ratings between 1-10. There were

good completion rates for all questionnaires. One participant did not complete the pre-questionnaire for the personal safety module, and all other pre-questionnaires were completed by all seven participants. Following the modules, two participants did not complete the Infection Prevention and Introduction to Hospitality Questionnaires. For all other modules, six out of seven participants completed the post-questionnaires. The missing data was distributed across the participants.

5.1 Confidence Ratings Pre- and Post-module

Encouragingly, the participants' confidence ratings for each of the topics covered in *Inclusive Working* increased after completing the modules.

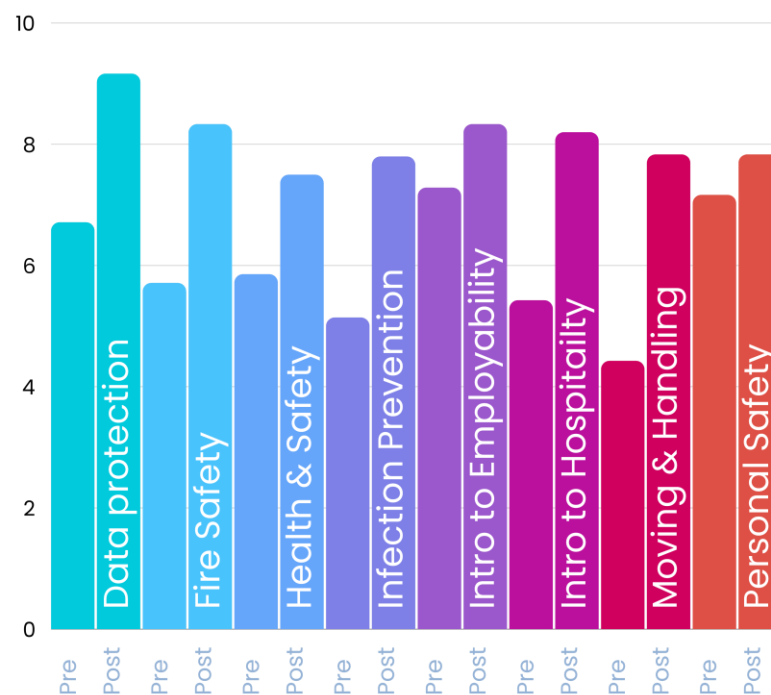


Figure 2. Chart showing average confidence ratings pre- and post- module

5.2 Level of Learning

Participants rated each module in response to the question, “How much did you learn in this module?”. All modules were rated highly, with an average of X/10. The Health & Safety module and Introduction to Hospitality module were rated the highest in terms of amount learnt.



Figure 3. Chart showing average ratings in response to the question, “How much did you learn in this module?”

5.3 Level of Enjoyment

When asked to rate their level of enjoyment for each of the training modules, participants rated Fire Safety, Introduction to Employability, and

Moving & Handling extremely highly, with each of these three modules rated at 9 or above. All modules were well-received, however, with average enjoyment levels of over 7 out of 10 across the board.

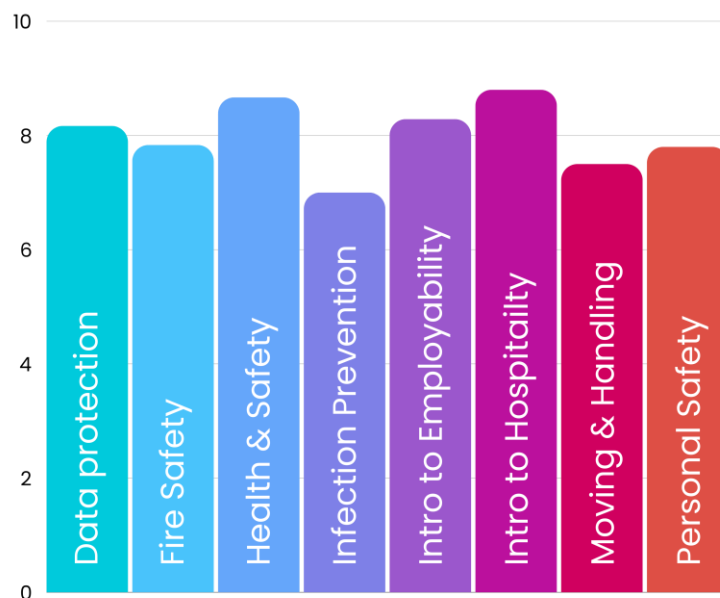


Figure 4. Chart showing average ratings for level of enjoyment for each module

5.4 Level of Interest

When asked to rate their level of interest in each of the modules, the participants rated Introduction to Employability and Moving & Handling extremely highly at 9 or above. There was a reasonable level of interest for all modules, with average ratings at 7 or above for all.

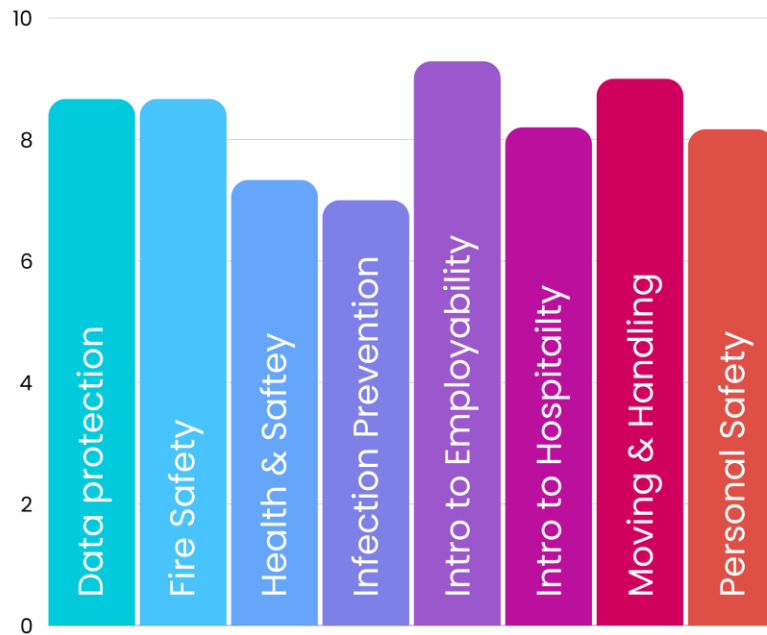


Figure 5. Chart showing average ratings for level of interest for each module

5.5 Level of Difficulty of the Modules

Participants rated the difficulty of each module. They rated Introduction to Employability, Introduction to Hospitality, and Moving & Handling as the most difficult modules. However, all modules were rated as reasonably difficult, with average ratings between 5 and 8.

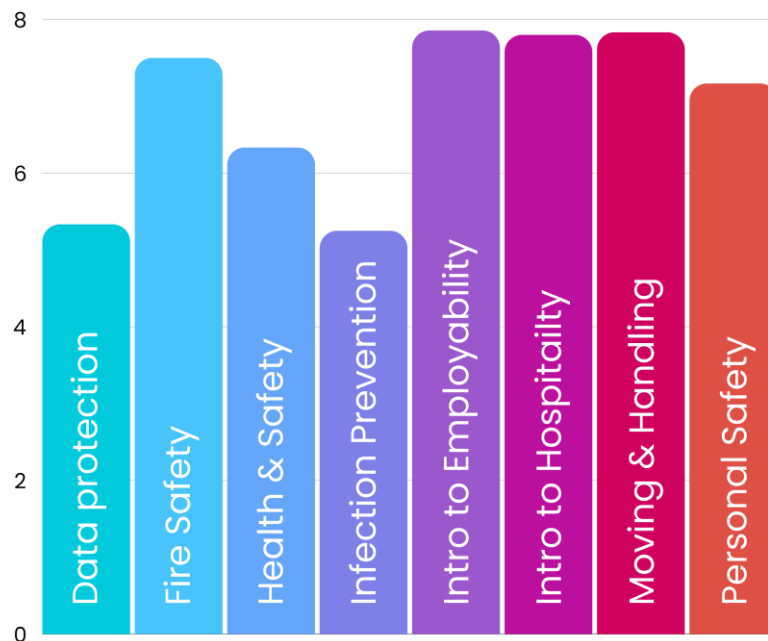


Figure 6. Chart showing average difficulty ratings for each module

5.6 Retention of Information

Participants answered the question, “How much do you think you will remember from this module?” for each of the training modules. The modules with the highest ratings for this question were Fire Safety, Introduction to Employability, and Introduction to Hospitality, indicating that these may have been the most salient modules for the participants. Health & Safety was rated lowest, at below 6; however, participants rated all other modules at 7 or above in terms of how much information they retained.

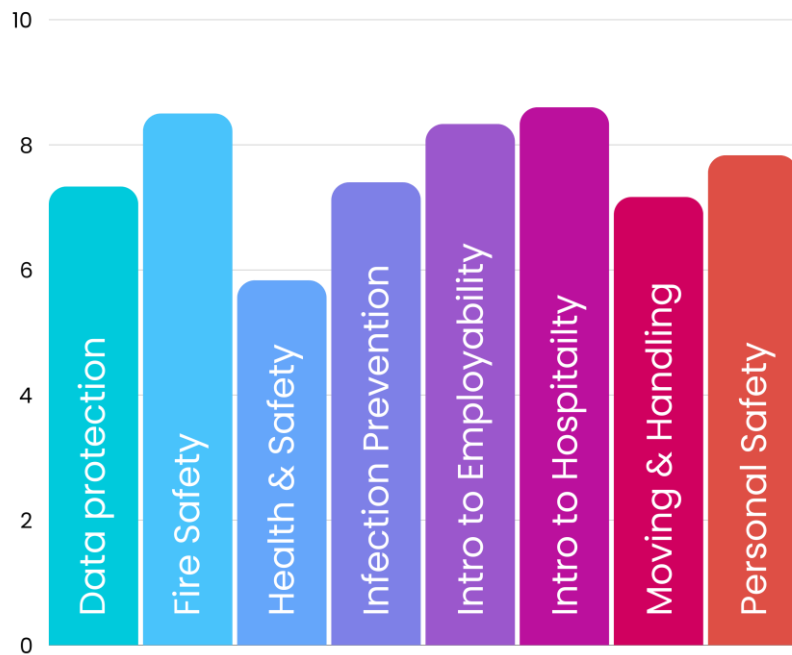


Figure 7. Chart showing average ratings in response to the question, “How much do you think you will remember from this module?”

5.7 Feeling Safer

Participants responded to the question “To what extent did the module make you feel safer?” after completing each of the training modules. The figure below indicates that Introduction to Employability was rated highest in terms of making them feel safer, followed by Moving & Handling. All modules were rated reasonably highly at 7 or above in terms of making the participants feel safer.

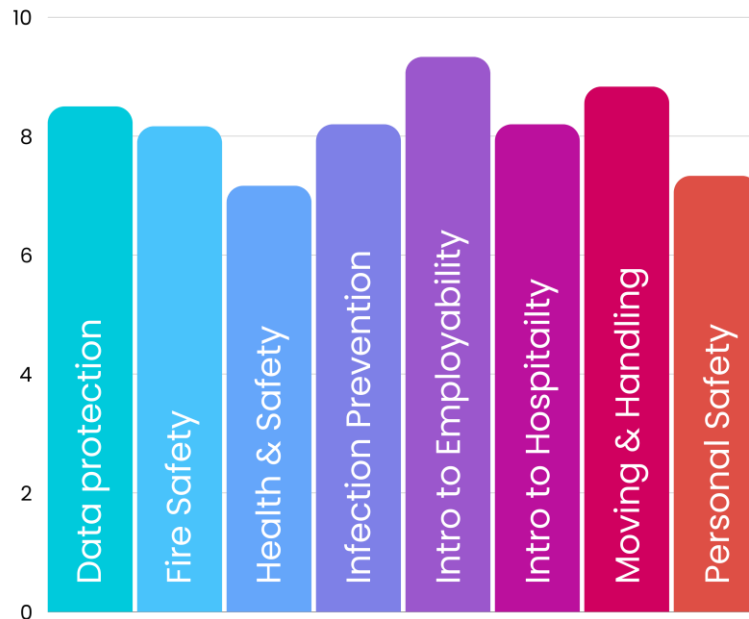


Figure 8. Chart showing average ratings in response to the question, “To what extent did the module make you feel safer?”

5.8 Using What Was Learnt

In response to the question, “How much do you think you will use what you learnt in this module in the workplace?”, participants assigned similar high ratings to each of the modules, with average scores of around 8 out of 10.



Figure 9. Chart showing average ratings in response to the question, “How much do you think you will use what you learnt in this module in the workplace?”

5.9 Helpfulness of the Supplementary Booklets

To supplement their online training programme, each of the young people was given a paper booklet, which they used to take down notes on each of the modules. Participants rated the booklets highly (8 or above) for all modules when asked how helpful they were. This is consistent with findings from the interviews, when the young people involved in the programme spoke

about using the booklets to help them note down and remember information from the modules.



Figure 10. Chart showing average ratings in response to the question, “To what extent were the booklets helpful?”

However, when asked if they would have remembered as much if they had used online content only (no booklets), responses were more mixed:

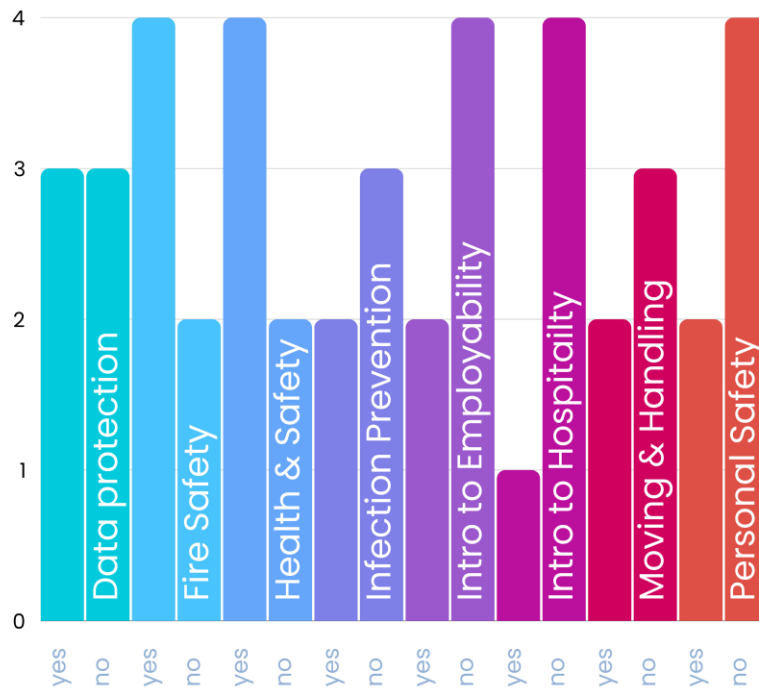


Figure 11. Chart showing average ratings in response to the question, “Would you have remembered as much if you had done the online training only, without the booklets?”

6. Recommendations

Overall, the interns had positive feedback about *Inclusive Working*, with a few suggestions for improving the training programme. We suggest the following recommendations:

1. Reduce Uncertainty. Providing detailed information about what the *Inclusive Working* training platform looks like and what the

interns will be asked to do may help to alleviate apprehensions in advance of starting the programme.

2. Highlight the supplementary booklet as an extremely useful tool for remembering the content of the module; all interns should be encouraged to use their booklets regularly.
3. Some modules were more salient than others to the interns. It may be useful to explore further what makes these modules more salient, and see if this can be applied to the other modules to help with retention of information.
4. Students felt that the Data Protection module contained too much information. This could be reviewed to see if the language can be simplified and the content broken down into smaller chunks to make the information easier to access.
5. Technical glitches, such as the platform bringing the trainee back to the beginning of the module just before they take the quiz, should be reviewed and addressed.
6. Consider developing a mobile app for *Inclusive Working*, which will allow interns to complete the training on their phones. This will help to make the training more accessible.

7. Conclusion

The present study examined the feasibility of online employability training *Inclusive Working*. The views of a small group of participants enrolled on the course indicated excellent potential for this programme to

be used widely as a pre-employment training opportunity. All participants successfully completed the eight modules, and there was almost exclusively positive feedback on the course, highlighting its potential for use in preparing autistic and learning-disabled young people for employment. Concrete recommendations for improving the platform will help to make it even more accessible and effective for this population, ensuring a better experience for future users.

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9. Partners



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