

## Chapter # 16

### DESIGNING A CURRICULUM FOR SUPPORTING THE TRANSITION TO ADULT LIFE OF YOUNG INDIVIDUALS WITH INTELLECTUAL DISABILITIES

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#### ABSTRACT

Individuals with intellectual disabilities (ID) are faced with significant barriers relating to the transition to adult life and employment. The proposed chapter's purpose consists of presenting the results emerged by the project of research E-IDEAS (Empowerment of youth with Intellectual Disabilities through Educational and training curricula for Acquiring employment Skills). In particular, the curriculum developed for supporting the acquisition of independent living and employment skills and the consequent transition to adult life of young persons with ID. Starting from a systematic analysis of literature on the topic, the chapter highlights the elements emerged that were used to develop the curriculum. Besides the search findings that led to curriculum elaboration, it includes the description of the methodology adopted, learning contents, as well as teaching strategies and tools utilized. Lastly, the results achieved by participants who attended the curriculum are presented, its assessment discussed, and future research directions defined.

*Keywords:* curriculum, transition programs, independent living skills, employment skills, youths, intellectual disability.

#### 1. INTRODUCTION

This chapter presents a specific curriculum for supporting the transition to adult life of young persons with intellectual Disabilities (ID). It intends to highlight the learning contents and teaching strategies adopted during the implementation of the intervention, developed in the framework of the research project E-IDEAS (founded by the charity RESPECT and the Programme Marie-Curie Actions) and carried out at National University of Ireland Galway, School of Psychology.

From the initial search analysis conducted before the design of the curriculum emerged that to date teaching and learning programs addressed to individuals with ID have focused almost exclusively on childhood and early interventions. The adolescents and young persons with ID are an under-studied population (Lai, Elliott, & Ouellette-Kuntz, 2016) and, even if in recent years some studies have been conducted on methodologies that prepare for adult life and favour social inclusion, little research has been conducted on detailed curricula for the acquisition of independent living or employment skills (McGlinchey, McCallion, Burke, Carroll, & McCarron, 2013; Gilson & Carter, 2016; Poppen, Lindstrom, Unruh, Khurana, & Bullis, 2017). In fact, the current situation is often characterized by special or mainstream schools with an outdated focus on caring for the individual, rather than promoting specific paths aimed to prepare individuals for an active and productive role in society (World Health Organisation, 2011).

In paragraph 1 the author summarizes the results of the research that analysed existing curricula, learning paths and transition programs from school to adult life addressed to youths

with ID. In paragraph 2 is presented the curriculum developed in the framework of E-IDEAS, its contents, structure, and features. Paragraph 3 reports the main finding of the intervention and some implication for practices. Lastly, paragraph 4 includes conclusions and limitations. The information reported in this chapter intend to be useful for designing and developing curricula to facilitate the transition from school to adult life of youths with ID, proving interesting elements to inspire care givers, educators and teachers that wish to enhance the acquisition of independent living and employment skills.

## **2. BACKGROUND**

This chapter intends to highlight the importance of promoting better acquisition of independent living and employment skills and outcomes achievement for youth with ID. Employment is a crucial aspect of adult life (Wehman et al., 2014) and a primary aspiration for every individual. Being employed involves integrating into a social network, contributing to society, making choices and decisions. Employment promotes social status, self-esteem, financial independence, independent living, physical and psychological health, cognitive functioning, greater participation, and emancipation (Alevriadou & Lang, 2011). In fact, studies indicate that long-term quality of life correlates with successful employment (Joshi, Bouck, & Maeda, 2012). Moreover, the UN Convention on the Rights of Persons with Disabilities (UN, 2006), Article 27 recognizes the right of persons with disabilities to work on an equal basis with others.

There is a need to develop specific strategies and methods for transferring skills for adult life to youth with ID, also taking advantage of supports as information and assistive technology (ICT-AT) with educational and employment purposes (Wehmeyer et al., 2006). Successful independent life and employment satisfaction contribute to improving the general quality of life (Fleming, Fairweather, & Leahy, 2013). However, it is harder for persons with ID to gain and maintain autonomy or a meaningful job, as they are often affected by challenging factors such as low expectations, limited experience with social interactions, lack of social communication skills, inappropriate behaviours, and other factors (Smiley et al., 2007).

### **2.1. Initial search findings that led to curriculum elaboration**

The aim of the initial search was to identify what curricula were empirically designed in the last decade for supporting the transition to adult life in order to define what elements were useful for design a successful learning program for acquiring independent living and employment skills. The method used to collect information was based on the systematic search of publications investigating transition programs from school to adult life and employment addressed to youths with ID. It was carried out using the PRISMA method (Evans, 2002; Cronin, Ryan, & Coughlan, 2008; Moher, Liberati, Tetzlaff, & Altman, 2009) and conducted to review the literature covering the period 2008 (from the entry into force of the UNCRPD) to 2020. This search focused on different databases (PsycINFO, CINHALL, Social & Behavior Science and ERIC). In addition, manual searches were conducted on specific journals (European Journal of Special Needs Education, Disability & Society, Journal of Intellectual and Developmental Disability and Equality, and Diversity and Inclusion: An International Journal) to identify suitable studies currently in press and not yet indexed in the databases considered.

The review process has identified 9979 records, then a titles review considering one or more keyword related to most important subjects for research (transition programs, employability skills, special education, students with disability and youths) led to 151 results. Abstracts review followed based on the inclusion criteria (see Appendix A), and 46 articles

were identified and subjected to full-text analysis. Forty-four were excluded after the quality assessment. Following the manual search, one record was included in the final sample, resulting in a total of three programs included in studies being selected. These presented an original empirical research design and outline a functional curriculum for acquiring employment and independent living skills including information and data on the achievement of more independence and paid jobs. The programs are:

1. Job coaching program<sup>1</sup>.
2. Project SEARCH program<sup>2</sup>.
3. Transition Service Program (TrP) at Montgomery County Public Schools<sup>3</sup>.

The programs reported have some common themes: use of a person-centred approach based on person's needs, provision of internships within community or in real life employment settings, and support of job coach during the internship. Also, the collaboration between educational environments, adult services and employers emerged as a successful factor for realizing experiences that help to acquire self-esteem, self-advocacy, and independence (Pascall & Hendey, 2004), besides the knowledge and competences to gain competitive employment. Other common features are the age of participants (18-21) and the use of intensive instruction for acquiring social, communication, and job skills.

In addition, the search identified 13 interventions for supporting the transition from school to adult life and work addressed to young adults with ID (reported in Appendix B). The evidence emerged through the analysis of the curricula, programs and projects identified and aimed to allow the acquisition of independent living and employment skills concerned mainly four aspects:

1. Curriculum with contents facilitating the acquisition of self-determination skills as independent living and job-related skills.
2. Chance to have real life work experiences through individualized internship.
3. Support provided by job coaches and technological solutions.
4. Transition programs anchored in community-based rather than school-based settings.

Another important aspect emerged through the analysis of literature searched and projects analysed is that youths with ID who participated in specific interventions for supporting the transition from school to adult life have better long-term employment outcomes than those who did not attend any transition program or specific intervention (Clodagh & Gleeson, 2017; Fleming et al., 2013; OECD, 2011; Green, Cleary, & Cannella-Malone, 2017).

Also, the search allowed to determinate, on the basis of literature analysed, what skills are important to transfer for improving the chances to have an independent life and a paid job.

The skills needed for an effective transition to adult life are social communication and employment skills for performing the everyday and work-related tasks (OECD, 2011; Santos & Costa, 2016).

As studies showed, deficits in such skills and professionalism represent a significant barrier for obtaining independence and maintaining a job, especially for individuals with ID (Bremer & Smith, 2004; Matson, Dempsey, & Fodstad, 2009; Kearney & Healy, 2011). In fact, the difficulties in understanding social rules in the workplace, the communicative

<sup>1</sup>Website not available

<sup>2</sup>Additional readings on research outcomes of Project SEARCH are available at: <https://www.projectsearch.us/outcomes-research/>

<sup>3</sup>Additional readings on research outcomes of Transition Service Program at Montgomery County Public Schools are available at: <https://www.montgomeryschoolsmd.org/departments/sharedaccountability/>

intent of others or being unable to understand facial expressions and tones of voice or the inability to seek help when needed and handling job feedback, often result in barriers (O'Reilly et al., 2004; Matson, Terlonge, González, & Rivet, 2006; Nota, Ferrari, Soresi, & Wehmeyer, 2007; Lemaire & Mallik, 2008). Further lack of personal hygiene and inability to understand emotions of others can impact the overall employment experience, as the majority of workplaces require understanding and adherence to social norms. For these reasons the skills for health and well-being were included in the curriculum, as functional to have positive relations with others.

### **3. THE CURRICULUM**

#### **3.1. The methodology adopted**

The methodology adopted for the development of the curriculum was based on task analysis and chaining. It is based on the Applied Behavior Analysis, and it is used to break complex tasks into a sequence of smaller steps or actions (Steege, Mace, Perry, & Longenecker, 2007). The understanding of all steps involved for a particular task can assist in identifying any steps that may need extra instruction, and this helps to learn the task in a logical progression. Also, a person-centred approach was used for designing the teaching activities and employment tasks. This curriculum was designed to be functional, that means a type of curriculum focused on teaching learners the necessary skills to function in adult life (Bouck & Joshi, 2012) and promote the self-determination. For example, it included functional math and reading skills for preparing a young person with ID for actively participating in the community, because studies show (Guy, 2006) adult literacy education is an important bridge to adult life and employment<sup>4</sup>.

#### **3.2. Contents and structure**

The curriculum was divided in two phases with different learning activities, delivered concurrently and representing a unique learning program: the Employment preparation phase and the Individualized work-placement phase.

The Employment preparation phase was developed using a “top/down” driven approach, as it was based on previous research and projects outcomes. While the Individualized work-placement was organized adopting a “bottom/up” driven approach that consists of analysing the work placement context, identifying employment needs, organizing focus groups, and collecting feedback from all the stakeholders involved (Beyer, Kaehne, Grey, Sheppard, & Meek, 2008; Cheong & Yahya, 2013; Kaehne & Beyer, 2014).

The curriculum was developed starting from the identification of skills that are significant to overcome barriers for obtaining a more independent life and maintaining an employment. These have been further analysed and organised in four categories of didactic units:

1. Basic skills
2. Social skills
3. Independent living skills
4. Employment skills

Each unit included specific learning contents and teaching activities as detailed in table 1 and 2. Concerning the second part of the curriculum, the Individualized work-placements phase, it took place within the community, because individuals who learn in authentic and integrated environments are more likely to acquire competences for community living,

<sup>4</sup>Retrieved from: <http://unesdoc.unesco.org/images/0014/001462/146281e.pdf>

mobility, social and other skills for adulthood (Rogan, Updike, Chesterfield, & Savage, 2014). This aspect fostered a direct involvement of local employment providers (a hair dress shop, a cafeteria, a restaurant, a supermarket, and a youth organisation), necessary to validate employment outcomes and promote effective social inclusion (Lysaght, Cobigo, & Hamilton, 2012).

The job-related tasks were defined and performed with the support of job coaches that guaranteed an effective realization of the internship. Examples of activities performed were folding the towels for the barbers, pricing different products using the pricing gun, cleaning counters, tables, and chairs, emptying and filling the dishwasher, recycling, organising the drawers. Many of these activities were previously introduced and explained to participants through the educational platform AVAIL®<sup>5</sup> and this helped to understand the different steps required to successfully perform the tasks.

Table 1.  
Learning contents of the curriculum.

Didactic Unit	Learning content
1. Basic skills	<p><b>1.1 Health and Wellness:</b></p> <ul style="list-style-type: none"> <li>• Care of their own</li> <li>• Follow correct nutritious diet</li> <li>• Follow a healthy lifestyle, stress management</li> <li>• Linking good physical and mental health with personal achievement</li> </ul>
	<p><b>1.2 ICT-AT*:</b></p> <ul style="list-style-type: none"> <li>• Basic knowledge of ICT</li> <li>• Turn on and off a computer, smartphone, or tablet</li> <li>• Access and manage Apps for supporting learning and work activities</li> <li>• Use technology to locate basic information</li> <li>• Online safety</li> <li>• Basic knowledge of AT</li> <li>• Use of AVAIL platform</li> </ul>
	<p><b>1.3 Money Management:</b></p> <ul style="list-style-type: none"> <li>• Counting and sorting of money</li> <li>• Knowledge of basic financial information</li> <li>• Identification of methods of withdrawing and deposit funds</li> </ul>
2. Social skills	<p><b>2.1 Communication Skills:</b></p> <ul style="list-style-type: none"> <li>• Use of verbal, nonverbal, written and electronic communication skills</li> <li>• Use of appropriate conversational skills with peers and adults</li> <li>• Identity, express and understanding feelings of oneself and others</li> <li>• Follow and give information</li> <li>• Presentation skills</li> </ul>
	<p><b>2.2 Adult related Social Skills:</b></p> <ul style="list-style-type: none"> <li>• Getting an adult attention</li> <li>• Responding to requests from parents, teachers, employers</li> <li>• Working independently</li> </ul>
	<p><b>2.3 Self-related Skills:</b></p> <ul style="list-style-type: none"> <li>• Using self-control</li> <li>• Feeling good about her/his-self</li> <li>• Resolve problems with others</li> </ul>

<sup>5</sup>Available at: <https://www.availsupport.ie/>

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<b>3. Independent living skills</b>	<p><b>3.1. Navigation in the community:</b></p> <ul style="list-style-type: none"><li>• Knowledge of the transportation system</li><li>• Knowledge of the main signals</li><li>• Knowledge on how to orientate in the community</li><li>• Ability to move and travel independently</li></ul> <p><b>3.2 Time management:</b></p> <ul style="list-style-type: none"><li>• Knowledge and understanding of time</li><li>• Being organized</li><li>• Ability to plan, prioritize work and setting clear goals</li><li>• Dealing with unexpected events</li></ul> <p><b>3.3 Professionalism:</b></p> <ul style="list-style-type: none"><li>• Knowledge of appropriate interview etiquette</li><li>• Ability to keep track of appointment and be on time</li><li>• Demonstrate appropriate conversational skills with co-workers and customers</li><li>• Maintaining an appropriate appearance</li></ul> <p><b>3.4 Advocacy skills:</b></p> <ul style="list-style-type: none"><li>• Identify barriers and difficulties in the community</li><li>• Understand Advocacy and Self Advocacy</li><li>• Reflect on what it means to be a person with a disability in Ireland</li><li>• Identify resources and support within local community</li></ul>
<b>4. Employment skills</b>	<hr/> <p><b>4.1 Team Building:</b></p> <ul style="list-style-type: none"><li>• Ability to communicate personal needs</li><li>• Team-building practice</li><li>• Solve conflicts within a team</li><li>• Complete assigned tasks, establish procedures, respect a timeline</li></ul> <p><b>4.2. Job Searching:</b></p> <ul style="list-style-type: none"><li>• Develop a personal resume and cover letter</li><li>• Identify interests, abilities, personal priorities and family responsibilities affecting carrier choice</li><li>• Identify employment opportunities related to personal employment goal</li><li>• Identify various sources to use in finding job opportunities</li></ul> <p><b>4.3. Safety at work:</b></p> <ul style="list-style-type: none"><li>• Knowledge of the workplace</li><li>• Identify safe working practices</li><li>• Knowledge of personal safety practices</li></ul>

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\*ICT-AT: Information Communication Technology and Assistive Technology

### 3.3. Teaching activities

The teaching activities provided during the Employment preparation phase took place in two locations: at the National University of Ireland Galway (NUIG) and at the Ability West St. Joseph training centre, a local disability service provider, for a total of 4 months (96 hours). The activities were delivered by one researcher supported by two undergraduate students from the School of Psychology of NUIG and one staff member from the disability service provider.

The activities carried out during the individualized work-placement phase took place in five different job placements (2 hours for 2 days per week for 3 months) with the support of five job coaches provided by a local organization (EmployAbility Galway) involved in the

intervention, and the support of the assistive technology AVAIL®. Participants were trained to use this education platform through tablets during the classroom activities at the training centre and during their work-placement with the support of job coaches. The specific teaching strategies used during the curriculum delivery are reported in table 2.

*Table 2.  
Teaching strategies used.*

<b>Teaching strategy</b>	<b>Purpose</b>
Individual reflections	Stimulate by questions and answers for examining participants personal experiences, beliefs and needs.
Group discussions	Provide the opportunity to share perceptions, feelings, and experiences.
Group activities	Guide participants to understand, practice and solve problems.
Role-play	Provide a friendly setting to practice skills needed.
Team-working	Focus on strengthening participants oral communication skills, sense of collaboration, problem solving aptitude, conflict resolution and to make decision.
Practical cases and exercises	Complete ad-hoc exercises based on specific real-life situations or imagined scenarios.
Slides, photos, and videos	Provide simple information to support participants' learning and understanding.
Non-structured interviews	Collect participants feedback about their work placement experiences.

### **3.4. Materials and tools utilized**

The materials and tools utilized during the curriculum delivery (Employment preparation and the Individualized work-placement) were selected on the basis of participants' need to have as many sources of information as possible to stimulate their interest and attention.

These include simple and intuitive tools, like paper maps and Power Point presentations developed using an Easy-to-Read style, as well as technological devices consisting of assistive technologies as tablets and education platform. In particular, the education platform AVAIL® was adopted because it utilises key strategies, task analysis, chaining, prompt-fading and positive reinforcement (Jacobson, 2000). Basically, the prompts used were composed by instructions and demonstrations of job-related tasks to increase the likelihood that individuals will make the right response. For example, the audio/video modelling was used to show to participants how to clean tables, to use a dishwasher, to introduce oneself and other tasks addressed to skills acquisition (Davies, Stock, & Wehmeyer, 2002). In table 3 are reported the means utilized during learning activities.

*Table 3.*  
*Materials and tools.*

<b>Materials and tools</b>	<b>Purpose</b>
Power point presentations	Help participants to stay focused on each argument presented during sessions and provided a visive support to better understand the content delivered. These were developed using an Easy-to-Read style.
Photos/images	Text alternatives for identifying learning contents and for helping participants to improve the accessibility of topic presented.
Videos	Add details or make focus on the arguments presented in order to support learning process.
Worksheets	Elaborate exercises and practical cases.
Maps and timetables	Support participants to orientate in the community as well as for familiarizing with travelling resources.
Tablets	Enhance engagement in learning as well as increase participants independence.
AVAIL® platform	Adoption of a specific assistive technology used through Tablets. It is an educational platform that utilizes the principles of Applied Behaviour Analysis (ABA), Audio/Video modelling and other prompting for helping individuals to acquire skills that are critical to their success and to live independently.

### **3.5. Findings**

#### **3.5.1. Participants' achievements**

Five participants ranging in age from 19 to 22 years were recruited from a vocational training centre in Galway. One participant was diagnosed ID and four with Down Syndrome and a co-occurring mild to moderate ID. Participants' scores relating to diagnoses were obtained from their case files. All participants had been enrolled in special education services throughout their lives. Participation in the research was voluntary and informed written assent was also obtained from participant's parents. Pseudonyms were assigned to all participants to preserve anonymity and confidentiality. To be part of the research, participants had to meet the following inclusion criteria:

- 18 years or older.
- A diagnosis of ID.
- Mild to moderate disability.
- Can provide informed consent.
- Live in the community.

Exclusion criteria were a cognitive impairment that would affect reliable participation or capacity to give informed consent or to use materials (e.g., the assistive technology, tablets, worksheets, etc.) or to actively participate during lessons.

A 3-month follow-up probes conducted after the completion of the curriculum provided information about participants, and additional work experiences were carried out by some of them. Following completion of the curriculum, F. was successful in gaining employment in a restaurant four days per week. Mt. obtained a paid job at a supermarket and for M. the work-placement period was extended for two additional months. The other two participants (K. and G.) were appointed for job interviews at a cafeteria and a restaurant. All participants also demonstrated to have reached more autonomy and independence in the execution of everyday tasks and activities.

### 3.5.2. Curriculum assessment

To assess the efficacy of the curriculum to transfer social, communication, independent living and employment skills, an inductive approach was taken (Braun & Clarke, 2006) to analyse qualitatively the data collected through two different measuring tools: the San Martín Scale (Verdugo, Gómez, Arias, Navas, & Schalock, 2014) and Vineland-II Adaptive Behavior Scales – 2nd edition (Sparrow, Cicchetti, & Balla, 2005). The first tool was used to evaluate the variation in the quality of life of participants, the second to measure the acquisition of independent living skills before and after the participation in the curriculum.

Changes in scores obtained from pre- and post-intervention were analysed. Also, the effect of intervention was interpreted using observations and informal interviews with the job-coaches that supported participants. The small number of participants has not allowed a significative statistical or quantitative analysis of data collected, but all participants were evaluated using pre- and post-testing in order to provide a social validity of intervention.

Moreover, outcomes were evaluated using questionnaires administered directly to participants, families, and care givers. The scales used allowed the collection of data to assess the improvement of participants' quality of life and acquisition of skills<sup>6</sup>.

Across all curriculum areas (units), including social, communication, independent living and employment skills, participants demonstrated they acquired these skills correctly following the implementation of teaching activities. This improvement occurred when the intervention was implemented and the individualized work placements started, suggesting that the curriculum was responsible for the improvements in job related tasks performed by participants. Results show that young persons who attended the curriculum have higher scores at post-test. The San Martín and Vineland-II scales, which were the primary outcome measures of the study, showed an increase in the achievement of independent living and employment skills.

The domains where they have most improved were communication, daily living skills and socialisation. In addition, job coaches and care givers reported that social, communication, independent living and employment skills improved following the curriculum, demonstrating a significant progress in overall social competencies. These included peer and adults-related social skills and independent living skills, which have led to more appropriate social behaviors in employment settings and improved personal competence in managing daily activities. Based on job coaches feedback collected through reports and interviews, the main employment skills acquired by participants consisted of communication and interaction skills with colleagues, timekeeping, cleanliness, and independence.

After completion of the curriculum a measure of social validity was undertaken by the researchers with each participant through a questionnaire to rate the participant's satisfaction with transition program. Another social validity questionnaire was sent out to families for assessing parent's satisfaction with the intervention and the progress they felt their son/daughter made in social, communication, independent living, and employment skills.

## 4. FUTURE RESEARCH DIRECTIONS

Future research could explore the effects of the intervention on larger group samples. Research could explore the use of group designs, as the small sample size included in this

<sup>6</sup>For a complete reporting and discussion about the scores obtained by participants see the publication: Traina, I., Mannion, A., & Leader, G. (2022). Transition Program from School to Employment in Youths with Intellectual Disability: Evaluation of the Irish Pilot Study E-IDEAS. *Developmental Neurorehabilitation*, 25(2), 87-100.

research might reflect an issue. Further study could examine the effects of this program in other countries, as the topography of skills useful to obtain more independence, maintain a job and respect social norms can vary across cultures and locations. What is needed is to carefully examine and replicate features of the curriculum that builds capacities for transition to adult life. While this research utilized a methodical approach to evaluate empirically the efficacy of curricula and transition program, potential sources of bias exist. These are due to the lack of specific tools for measuring the acquisition of skills by persons with ID as well as for analysing specific achievements. The lack of testing for generalization within the workplace environment to ascertain true social fit is another limitation.

## 5. CONCLUSION

Although there are some promising studies and methods for training youths with ID designed to facilitate the transition from school to adult life, currently, there are no standard programs and limited research on effectiveness. Research generally addresses a limited subset of skills, and none have been validated for general acceptance. Starting from this evidence, this research provided an important foundation for future study in this area. Since there is not much empirical research focusing on transition programs, including the availability of curricula showing evidence of the achievements in many aspects of adult life, especially the employment. This research delivered useful elements to replicate, adapt or re-design program grounded on evidence-based research and real work experiences, such as the person-centred approach or the methodology adopted for the development of activities based on task analysis. These have shown to be successful in helping participants to understand and perform activities, allowing to learn the task in a logical progression.

Also, the learning activities included in the curriculum were provided concurrently with the individualized internship, allowing participants to immediately put into practice what learned. Finally, the use of assistive technology AVAIL® and support of job coaches have helped participants to actively perform job-related tasks.

To conclude, the research has analysed the literature on this topic to determinate what implications and successful elements consider to design, implement, and evaluate the curriculum, as tool to be used by care givers, educators, and teachers to enable the adoption of transition pathways that simultaneously provides an employment preparation and individualized work-placement which can successfully support the acquisition of skills for inclusion.

## REFERENCES

- Alevriadou A. & Lang L., (2011). *Active Citizenship and Context of Special Education*. CiCe Central Coordination Unit Guidelines. Institute for Policy Studies in Education London Metropolitan University. Retrieved August 6, 2022 from <http://www.cicea.eu/docs/GUIDELINES/general/guidelines-12.pdf>
- Beyer, S., Kaehne, A., Grey, J., Sheppard, K., & Meek, A. (2008). *What works? Good practice in transition to employment for young people with learning disabilities*. Cardiff: Welsh Centre for Learning Disabilities.
- Bouck, E. C., & Joshi, G. (2012). Functional curriculum and students with mild intellectual disability: Exploring postschool outcomes through the NLTS2. *Education and Training in Autism and Developmental Disabilities, 47*(2), 139-153.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

- Bremer, C. D., & Smith, J. (2004). Teaching social skills. *Information Brief*, 3(5), 1-5.
- Cheong, L. S., & Yahya, S. Z. S. (2013). Effective Transitional Plan from Secondary Education to Employment for Individuals with Learning Disabilities: A Case Study. *Journal of Education and Learning*, 2(1), 104-117. <https://doi.org/10.5539/jel.v2n1p104>
- Clodagh, N., & Gleeson, C. I. (2017). The transition to employment: the perspectives of students and graduates with disabilities. *Scandinavian Journal of Disability Research*, 19(3), 230-244. <https://doi.org/10.1080/15017419.2016.1240102>
- Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: a step-by-step approach. *British Journal of Nursing*, 17(1), 38-43. <https://doi.org/10.12968/bjon.2008.17.1.28059>
- Davies, D. K., Stock, S. E., & Wehmeyer, M. L. (2002). Enhancing independent task performance for individuals with mental retardation through use of a handheld self-directed visual and audio prompting system. *Education and Training in Mental Retardation and Developmental Disabilities*, 37(2), 209-218.
- Evans, D. (2002). Systematic reviews of interpretive research: interpretive data synthesis of processed data. *The Australian Journal of Advanced Nursing*, 20(2).
- Fleming A., Fairweather, J., & Leahy, M. J. (2013). Quality of life as a potential rehabilitation service outcome: The relationship between employment, quality of life, and other life areas. *Rehabilitation Counseling Bulletin*, 57(1), 9-22. <https://doi.org/10.1177/0034355213485992>
- Gilson, C. B., & Carter, E. W. (2016). Promoting social interactions and job independence for college students with autism or intellectual disability: A pilot study. *Journal of Autism and Developmental Disorders*, 46(11), 3583-3596. <https://doi.org/10.1007/s10803-016-2894-2>
- Green, J. C., Cleary, D. S., & Cannella-Malone, H. I. (2017). A model for enhancing employment outcomes through postsecondary education. *Journal of Vocational Rehabilitation*, 46(3), 287-291. <https://doi.org/10.3233/JVR-170863>
- Guy, T. (2006). *The adult literacy education system in the United States*. Paper commissioned for the EFA Global Monitoring Report. Retrieved August 22, 2022 from <https://unesdoc.unesco.org/ark:/48223/pf0000146281>
- Kaehne, A., & Beyer, S. (2014). Person-centred reviews as a mechanism for planning the post-school transition of young people with intellectual disability. *Journal of Intellectual Disability Research*, 58(7), 603-613. <https://doi.org/10.1111/jir.12058>
- Kearney, D. S., & Healy, O. (2011). Investigating the relationship between challenging behavior, co-morbid psychopathology and social skills in adults with moderate to severe intellectual disabilities in Ireland. *Research in Developmental Disabilities*, 32(5), 1556-1563. <https://doi.org/10.1016/j.ridd.2011.01.053>
- Jacobson, J. W. (2000). Converting to a behavior analysis format for autism services: Decision-making for educational administrators, principals, and consultants. *The Behavior Analyst Today*, 1(3), 6-16.
- Joshi, G., Bouck, E., & Maeda, Y. (2012). Exploring employment preparation and post-school outcomes for students with mild intellectual disability. *Career Development and Transition for Exceptional Individuals*, 35(2), 97-107. <https://doi.org/10.1177/0885728811433822>
- Lai, R., Elliott, D., & Ouellette-Kuntz, H. (2016). Attitudes of Research Ethics Committee Members Toward Individuals with Intellectual Disabilities: The Need for More Research. *Journal of Policy and Practice in Intellectual Disabilities*, 3(2), 114-118. <https://doi.org/10.1111/j.1741-1130.2006.00062.x>
- Lemaire, G. S., & Mallik, K. (2008). Barriers to supported employment for persons with developmental disabilities. *Archives of Psychiatric Nursing*, 22(3), 147-155. <https://doi.org/10.1016/j.apnu.2007.06.014>
- Lysaght, R., Cobigo, V., & Hamilton, K. (2012). Inclusion as a focus of employment-related research in intellectual disability from 2000 to 2010: a scoping review. *Disability and Rehabilitation*, 34(16), 1139-1350. <https://doi.org/10.3109/09638288.2011.644023>
- Matson, J. L., Terlonge, C., González, M. L., & Rivet, T. (2006). An evaluation of social and adaptive skills in adults with bipolar disorder and severe/profound intellectual disability. *Research in developmental disabilities*, 27(6), 681-687. <https://doi.org/10.1016/j.ridd.2005.10.001>

## I. Traina

- Matson, J. L., Dempsey, T., & Fodstad, J. C. (2009). The effect of autism spectrum disorders on adaptive independent living skills in adults with severe intellectual disability. *Research in developmental disabilities, 30*(6), 1203-1211. <https://doi.org/10.1016/j.ridd.2009.04.001>
- McGlinchey, E., McCallion, P., Burke, E., Carroll, R., & McCarron, M. (2013). Exploring the Issue of Employment for Adults with an Intellectual Disability in Ireland. *Journal of Applied Research in Intellectual Disabilities, 26*(4), 335-343. <https://doi.org/10.1111/jar.12046>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G., The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med, 6*(6), e1000097. <https://doi.org/10.1371/journal.pmed.1000097>
- Nota, L., Ferrari, L., Soresi, S., & Wehmeyer, M. (2007). Self-determination, social abilities and the quality of life of people with intellectual disability. *Journal of Intellectual Disability Research, 51*(11), 850-865. <https://doi.org/10.1111/j.1365-2788.2006.00939.x>
- OECD (2011). *Inclusion of Students with Disabilities in Tertiary Education and Employment*. Retrieved June 3, 2022 from [http://www.oecd-ilibrary.org/education/inclusion-of-students-with-disabilities-in-tertiary-education-and-employment\\_9789264097650-en](http://www.oecd-ilibrary.org/education/inclusion-of-students-with-disabilities-in-tertiary-education-and-employment_9789264097650-en).
- O'Reilly, M. F., Lancioni, G. E., Sigafoos, J., O'Donoghue, D., Lacey, C., & Edrisinha, C. (2004). Teaching social skills to adults with intellectual disabilities: a comparison of external control and problem-solving interventions. *Research in developmental disabilities, 25*(5), 399-412. <https://doi.org/10.1016/j.ridd.2003.07.003>
- Pascall, G., & Hendey, N. (2004). Disability and transition to adulthood: The politics of parenting. *Critical Social Policy, 24*(2), 165-186. <https://doi.org/10.1177/0261018304041949>
- Poppen, M., Lindstrom, L., Unruh, D., Khurana, A., & Bullis, M. (2017). Preparing youth with disabilities for employment: An analysis of vocational rehabilitation case services data. *Journal of Vocational Rehabilitation, 46*(2), 209-224. <https://doi.org/10.3233/JVR-160857>
- Rogan, P., Updike, J., Chesterfield, G., & Savage, S. (2014). The SITE program at IUPUI: A post-secondary program for individuals with intellectual disabilities. *Journal of Vocational Rehabilitation, 40*(2), 109-116. <https://doi.org/10.3233/JVR-140673>
- Santos, P. J. D. L., & Costa, R. S. (2016). Workers with disabilities in sheltered employment centres: a training needs analysis. *International Journal of Inclusive Education, 20*(7), 756-769. <https://doi.org/10.1080/13603116.2015.1111446>
- Smiley E., Cooper S. A. Finlayson J. Jackson A., Allan L., Matry D., McGrother C., McConnache A., & Morrison J., (2007) Incidence and predictors of mental ill-health in adults with intellectual disabilities. Prospective study. In *The British Journal of Psychiatry, 191*(4) 313-319. <https://doi.org/10.1192/bjp.bp.106.031104>
- Sparrow, S. S., Cicchetti, D., & Balla, D. A. (2005). *Vineland Adaptive Behavior Scales, Second Edition (Vineland-II)* [Database record]. APA PsycTests. <https://doi.org/10.1037/t15164-000>
- Steege, M. W., Mace, F. C., Perry, L., & Longenecker, H. (2007). Applied behavior analysis: Beyond discrete trial teaching. *Psychology in the Schools, 44*(1), 91-99. <https://doi.org/10.1002/pits.20208>
- U.N. (2006). *Convention on the Rights of Persons with Disability*, G.A. Res. 61/106, Dec. 13. Retrieved July 11, 2022 from <https://www.un.org/development/desa/disabilities/resources/general-assembly/convention-on-the-rights-of-persons-with-disabilities-ares61106.html>
- Verdugo, M. A., Gómez, L. E., Arias, B., Navas, P., & Schalock, R. L. (2014). Measuring quality of life in people with intellectual and multiple disabilities: Validation of the San Martin scale. *Research in developmental disabilities, 35*(1), 75-86. <https://doi.org/10.1016/j.ridd.2013.10.025>
- Wehman, P., Schall, C., Carr, S., Targett, P., West, M., & Cifu, G. (2014). Transition from school to adulthood for youth with autism spectrum disorder: What we know and what we need to know. *Journal of Disability Policy Studies, 25*(1), 30-40. <https://doi.org/10.1177/1044207313518071>
- Wehmeyer, M. L., Palmer, S. B., Smith, S. J., Parent, W. D., Daniel K., & Stock, S. (2006). Technology use by people with intellectual and developmental disabilities to support employment activities: A single-subject design meta analysis. *Journal of Vocational Rehabilitation, 24*(2), 81-86.
- World Health Organisation (2011). *World Report on Disability*. Geneva: Author. Retrieved March 9, 2022 from <https://apps.who.int/iris/handle/10665/44575>

## Appendix A. Search inclusion criteria

Age	Studies have to be transition programs for youths with ID (16-22 years old)
Diagnosis	Diagnosis has to refer to moderate and mild ID
Detailed curricula	Studies of transition programs have to include detailed curricula for facilitating the acquisition of self-determination skills or internship experiences realized in employment settings
Outcomes	Studies have to report production of tools, methodologies, guidebooks or manual
Original empirical research design	Studies have to outline qualitative, quantitative, longitudinal designs and/or intervention studies
Period	Studies have to be published between May 2008 and April 2018
Language	Studies have to be written in the English language

## Appendix B. List of projects and programs identified through the search

Best Buddies Jobs Program	<a href="https://www.bestbuddies.org/blog/2015/12/04/best-buddies-jobs-program/">https://www.bestbuddies.org/blog/2015/12/04/best-buddies-jobs-program/</a>
Better Outcomes & Successful Transitions for Autism (BOOST-A™)	<a href="https://step-a.azurewebsites.net/">https://step-a.azurewebsites.net/</a>
Bridges From School to Work Program	<a href="http://www.bridgestowork.org/about-bridges/what-we-do/">http://www.bridgestowork.org/about-bridges/what-we-do/</a>
Oregon Youth Transition Program (YTP)	<a href="https://ytp.uoregon.edu/">https://ytp.uoregon.edu/</a>
Postsecondary Education Research Center (PERC) project	<a href="https://perc.utk.edu/">https://perc.utk.edu/</a>
Project Panther LIFE's curriculum	<a href="http://fiuembrace.fiu.edu/home/fiu-embrace-panther-life/">http://fiuembrace.fiu.edu/home/fiu-embrace-panther-life/</a>
SITE Program	<a href="http://site.iupui.edu/">http://site.iupui.edu/</a>
TEACCH Program	<a href="https://teacch.com/">https://teacch.com/</a>
Getting a Life Project	<a href="http://www.gettingalife.org.uk/">http://www.gettingalife.org.uk/</a>
Greenside Studio	<a href="http://www.greenside.herts.sch.uk/Learning/GreensideStudio.html">http://www.greenside.herts.sch.uk/Learning/GreensideStudio.html</a>
TOPS Program	<a href="https://www.scvths.org/Page/149">https://www.scvths.org/Page/149</a>
Triumph Transition Program	<a href="https://triumphservices.org/">https://triumphservices.org/</a>
UI REACH Program	<a href="https://education.uiowa.edu/services/reach">https://education.uiowa.edu/services/reach</a>

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**Biographical sketch:** Ivan Traina is a PhD Researcher at the University of Verona, Department of Human Sciences. He obtained a post-doc Marie-Curie fellowship in 2017 with the research project “Empowerment of youth with Intellectual Disabilities through Educational and training curricula for Acquiring employment Skills (E-IDEAS)”. Also, he was employed as Research Manager at the University of Bologna, where he obtained his PhD in Special Education in 2014 at the Department of Education Sciences. His interests of research include inclusion of vulnerable groups, intellectual disability, transition programs, curriculum development and assistive technologies.