The Effects of Self-Efficacy on Career Choices and Job Readiness among People with Intellectual Disability in Singapore

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Abstract

This pilot study aimed to examine the effects of general and social self-efficacy on job readiness among people with ID. Further, it investigated the influence of social self-efficacy on their career choices. Participants were 47 students enrolled in a special school, with an intelligence quotient (IQ) ranging from 50 to 75. Three self-report instruments, General Self-Efficacy Scale - ID version, Glasgow Social Self-Efficacy Scale, and Job Readiness Scale – ID version were used. Students were also asked to rate their career choices. Research findings will provide information regarding the career choices and job readiness levels of some students with ID. It will also shed some light on the role of self-efficacy on career choices and job readiness among the ID population.
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Intellectual disability (ID), also known as mental retardation, is defined as a condition that develops before the age of 18 in which there is significant subaverage intellectual functioning with a measured intelligence quotient (IQ) of 70 to 75 or below, concurrent with limitations in at least two of ten adaptive skill areas (AAMR, 1992). Due to their limitations in cognitive ability and adaptive functioning, it is a challenge for people with ID to gain successful employment, particularly in this increasingly competitive and complex 21st century.

Moran, McDermott, and Butkus (2001) raised the issue of finding and sustaining employment among individuals with ID. Unemployment rates were found to be relatively higher among the ID population. Hirst’s (1987) study on careers on young people with disabilities revealed that the ID population has a more limited range of career options compared to the physically disabled population. Other research has revealed that students with disabilities showed a significant lag in career maturity (Orsini, Riccio, & Beaber, as cited in Och and Roessler, 2001) and often times individuals with disabilities failed to maintain employment due to poor social skills or inappropriate interpersonal skills on the job (Hanley-Maxwell, Bordieri, and Merz, as cited in Keim and Strauser, 2000).

These studies pointed to the importance of implementing a variety of vocational programs for students with disabilities to help them gain the skills and self-confidence required in entering the workforce. Furthermore, given the fast paced and changing industry in Singapore where many jobs are becoming service-oriented jobs and short term contract positions, it is essential that people with ID are able to perform service-related jobs and are equipped with varied skills to multi-task.
Vocational rehabilitation is a vital component in the education and training of people with ID. In Singapore, several special schools have aimed towards improving work skills and behaviour of students with ID to help them better transit from the school setting to work environment. Various vocational training programs have been implemented over the years. These programs primarily focus on enhancing their life skills, social skills, as well as cultivating the work habits and skills of identified jobs they can possibly perform. Jobs available for people with ID in Singapore are often manual jobs like factory operators, cleaners, dishwashers, housekeeping staff, store helpers, and repair/maintenance workers; or service related jobs such as retail assistants, food and beverage service crews, waiters/waitresses, baking assistants, assistant hairdressers, and office assistants. Job opportunities in the office settings are relatively fewer for the ID population now as the job nature requires more multi-tasking and varied office skills in comparison to the past, and people with ID often have difficulty coping with.

Various studies have shown that factors such as age, gender, work experience, and IQ affect an individual’s career development (Och & Roessler, 2001; Ohler, Levinson, & Barker, 1993). The current research framework suggests that apart from these characteristics, self-efficacy can play a role in the development of job readiness and type of career choice among individuals with ID. This study is based on a social cognitive perspective using Bandura’s self-efficacy theory as its theoretical framework. As postulated by Bandura (1994), self-efficacy can affect our cognitions, motivation, affect, and choices. Individuals with high levels of self-efficacy for a specific task are more likely to engage in the task, put in more effort, produce quality performance, and persist in the face of obstacles. Conversely, individuals with low self-efficacy are more likely to avoid situations that exceed their perceptions of their ability to cope,
produce poorer performance, and give up more easily in the face of difficulties (Bandura, 1977, 1986; Bandura & Adams, 1977).

Many researchers have extended self-efficacy theory to vocational behaviour. Studies on the mainstream and some special populations have shown that self-efficacy expectations significantly influence career choices, performance, persistence, and employment outcome (Ásmundsdóttir, 2004; Betz & Hackett, 1981; Lent, Brown, & Larkin, 1986; Panagos & Dubois, 1999). In addition, the research provided evidence to support the influence of social efficacy on the efficacy for occupational pursuits through aspirations and academic achievement (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001).

The current research builds on existing literature on the relation between self-efficacy theory and vocational behaviour and extends it to the ID population. It is posited that individuals with higher general self-efficacy are more likely to approach work-related tasks, produce quality work, persist during difficulties, and thus, demonstrate higher job readiness levels. In this study, job readiness is defined as a state of being prepared for employment by acquiring the skills and behaviour required to transit from school to work. Job readiness is measured by four main areas: life skills, affective skills, employability skills, and job seeking skills (Chan, Rubin, Lee, & Pruett, 2003; Goodship, 1990; Hegner, 1991; Kallio, 1993; Knight and Aucoin, 1999). Life skills include independent daily living skills such as grooming and maintaining personal hygiene, use of public transportation, appropriate behaviour, verbal and non-verbal communication skills, and vocational aspirations. Affective skills are related to self-confidence, awareness of own interests and abilities, recognition of authority, ability to work as a team, and conflict resolution. Employability skills encompass work attitude, work habits such as good attendance, job knowledge and skills, quality work production, ability to give and request assistance, and
knowledge of employee versus employer relations. Last, job seeking skills include ability to gain employment such as knowledge of job search process and interview skills.

Given the vital aspect of social and communication skills required in most jobs, it is hypothesized that social self-efficacy will also predict job readiness levels. Social self-efficacy refers to one’s belief about his or her capability to form and maintain social relationships, work cooperatively with others, and manage various types of interpersonal conflicts. Individuals with high social self-efficacy will envision social success and seek to cultivate social relationships while individuals with low social self-efficacy tend to envision rejection or ridicule even before they establish social contact (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Bandura, et al., 2001; Pejares, 2002).

Further, it is suggested that individuals with higher social self-efficacy are more likely to choose service-related jobs which require social skills while individuals with lower social self-efficacy are more likely to avoid service-related jobs, choosing manual jobs instead.

The major challenges facing the field of rehabilitation regarding people with ID are the preparation for career and the expansion of employment opportunities (Walls & Fullmer, as cited in Cinamon & Gifsh, 2004). The relation between career development and disability, particularly ID, has been much neglected by career researchers and theorists (Conyers, Koch, & Szymanski, 1998). Research in this area which would have been helpful in the development and evaluation of vocational training programs for the ID population has been lacking. This research aims to find out how perceived self-efficacy can play a role in the development of job readiness and type of career choice among individuals with mild ID.
The purpose of this study is to: (1) examine the relationship of general and social self-efficacy on the job readiness levels among people with ID; and, (2) find out the effects of social self-efficacy on their type of career choice. The study posits the following research hypotheses:

1) General self-efficacy is a predictor of job readiness level among individuals with ID.
2) Social self-efficacy is a predictor of job readiness level among individuals with ID.
3) Social self-efficacy is a predictor of the type of career choice. Individuals with higher social self-efficacy are more likely to choose service-related careers requiring social and communication skills, while individuals with lower social self-efficacy are less likely to do so.

The results of this study will provide information regarding the job readiness levels and choice of career among some students with ID in Singapore. Research findings will also shed some light on the role of general and social self-efficacy on the job readiness levels among people with ID. Further, it studies the relationship of social self-efficacy on the type of career chosen, that is, service-related or manual jobs. This will provide vocational rehabilitation counselors and school professionals with information on the importance of self-efficacy and...
advocate for developing self-efficacy enrichment programs apart from life skills and job skills training. Efforts in raising the students’ general and social self-efficacy can be increased, such as implementing vocational exploration and training programs, to improve their confidence in performing tasks, handling various social situations, and thus widen their career options and improve their job readiness levels.

Method

Participants

The sample comprised of 47 students from a special school catered to people with mild ID in Singapore. All the students in the vocational classes of the special school who meet the criteria: aged from 16 to 21, IQ ranging from 50 to 70, and able to understand and provide information, are included in the study. Willing participants who gave consent are interviewed to obtain their basic demographic characteristics. This is also part of the selection process where participants who exhibit poor ability to understand or unable to provide information are excluded from the study. Issues that may impede participation or accuracy of data are taken into consideration. Participants who gave contradictory answers to similar items or showed response biases, such as providing the same answer to every question will be excluded. This is to minimize results being biased by acquiescence, which can affect the reliability of the data.

Instruments

The survey consists of four sections: (i) Questionnaire Part I: Demographic Characteristics, (ii) Questionnaire Part II: Career Choice Inventory (CCI), (iii) The Job Readiness Scale – ID version (JRS-ID), (iv) The General Self-Efficacy Scale – ID version (GSES-ID), and (v) The Glasgow Social Self-Efficacy Scale (GSSES).
Demographic characteristics. Demographic characteristics of each participant will be gathered. This included name (optional), gender, date of birth, age, school, race, religion, IQ level, presence of other disability or medical condition, length of vocational training received, work experience, and the trainer’s feedback on the students’ behavioural or family issues. [Appendix B] The date of birth, length of vocational training received, and work experience will be obtained from the participants, while the other information will be gathered from the school records, teachers, or job placement officers. The demographic characteristics such as age, gender, IQ level, length of vocational training received, and work experience will be controlled for during data analyses to examine the relationship between the variables measured in the study.

Career Choice Inventory (CCI). The CCI is modified from a self-directed career preference selection inventory for individuals with ID developed by Stock, Davies, Secor, and Wehmeyer (2003). They identified 12 job categories available to the ID population in the United States: laundry services, food services, janitorial/housekeeping services, warehouse/material handling, clerical/office work, personal/human services, animal care, lawn/outdoor maintenance, store/retail work, automotive repair/maintenance, building trades, and hand labor/tool use. Due to some cross-cultural differences, a similar but different set of job categories were used in this study for the ID participants to rate their job preferences. The 12 occupations that match their capabilities and are commonly available for people with ID in Singapore were identified with the help of the job placement officers in the special schools. The career choices consists of two main categories, (i) service related jobs which includes retail assistants, food and beverage service crews, waiters/waitresses, baking assistants, assistant hairdressers, and office assistants; (ii) manual jobs like factory operators, cleaners, dishwashers, housekeeping staff, store helpers, and repair/maintenance workers. The CCI consists of 12 career options, each presented with the
description of the basic job function and a corresponding picture of each gender performing the same work. This is to clarify their understanding of the job options and to minimize any possibility of gender stereotypes. The students will then be asked to indicate their choice of career. [Appendix B]

The Job Readiness Scale – ID version (JRS-ID). Job readiness will be assessed with a 32-item instrument, which was developed after a review of literature (Chan, et al., 2003; Goodship, 1990; Hegner, 1991; Kallio, 1993; Knight & Aucoin, 1999) and feedback from experts in the field. The JRS-ID measures various skills required for transition from school to work as suggested in researches discussed earlier: an individual’s life skills, interpersonal skills, employability skills, and job seeking skills. A 5-point Likert-type response scale, ranging from 1 (will not do this at all) to 5 (will always do this), was used for each item. [Appendix C] Psychometric properties are not available for this instrument.

The General Self-Efficacy Scale – ID version (GSES-ID). The GSES-ID version consists of 12 items, which was adapted from Bosscher and Smit (1998). A 5-point Likert-type response scale, ranging from 1 (will not do this at all) to 5 (will always do this), was used for each item. [Appendix D] The items measured an individual’s perceived initiative, effort, and persistence. Bosscher and Smit (1998) reported a coefficient alpha of .69 for the total scale, with the three subscale internal consistency coefficients equivalent to .64, .63, and .64, respectively. They conducted a confirmatory factor analysis of the factor structure and results supported the three-factor model.

The Glasgow Social Self-Efficacy Scale (GSSES). The GSSES, developed by Payne and Jahoda (2004) to measure social self-efficacy in people with intellectual disability, consists of 17 items. The items examined one’s belief in his or her ability to perform a number of
communication acts, which includes telling someone you are happy, telling someone you are sad, telling someone you think they are wrong, and talking to someone when they are busy. These acts are considered in relation to several communication partners like a co-worker, family member, best friend, and new people. A three-point response format was used to answer each question: not at all (0), a little bit (1), or a lot (2), giving a range of possible scores from 0 to 34. [Appendix E] Payne and Jahoda (2004) reported an acceptable test-retest reliability correlation coefficient of .90 for an intellectually disabled sample. Cronbach’s alpha for internal reliability of the scale was .78.

**Design**

This research adopted a correlational survey design. This study involves a face to face survey on a sample ID population from a special school. This was done using a prepared survey questionnaire comprising of the demographic characteristics as well as measures of the four study variables, career choice, job readiness, general self-efficacy, and social self-efficacy. Associations of the variables were examined.

**Procedure**

Consent for conducting the research study in the special schools was sought by contacting the principals via emails and phone calls. Permission to conduct the survey in Metta School was obtained.

*Development and validation of the survey instrument- Phase I.*

An initial preliminary study was administered in two stages. In the first stage, the questionnaires were examined by two experts, a job placement officer from Metta School, and a psychologist, both of whom had several years of practical working experience with the ID
population. Feedback regarding the content, structure, and wording of the survey was obtained. These factors were taken into consideration in the revision of the survey instrument.

In the second stage, the survey instrument was administered on a student with ID who meets all the criteria of the present study. This process raised several methodological issues in interviewing people with ID. It was discovered that the participant faced difficulty understanding and rating items using reverse scales. In addition, some of the language and terminology used in the survey were too difficult and the questions had to be re-phrased in simpler language or Singlish. Further, the participant could not comprehend abstract concepts and required concrete examples for some of the items. It was also uncertain if the ID population could understand the 5-point rating scale as used in the study as the responses of the participant lacked variation.

Hence, a thorough literature review on the methodological difficulties in interviewing the ID population was carried out. The survey was again modified based on the findings of the validation process as well as suggestions listed in literature. For the present study, the use of reverse scales or negative wording was avoided in the survey as it has been shown to be difficult for people with ID to understand and respond to (Finlay & Lyons, 2001). The survey was further simplified by keeping to a minimum number of words, removing abstract concepts and avoiding complex phrasings. This will reduce the effect of acquiescence due to difficult or ambiguous items (Finlay & Lyons, 2002). A standardized administration manual was developed, where alternative questioning was scripted. This includes (i) the use of Singlish or familiar phrases taught in school to the ID participants; (ii) providing examples directly related to the item asked; (iii) breaking down questions into two stages, that is, presenting the two extremes as an either-or question, followed by asking the degree by directing the participant’s attention to the Likert scale;
and (iv) providing visual aids such as the numbered line scale and blocks to aid in their understanding. [Appendix F]

The face validity of the JRS-ID was re-examined. Question 28: ‘I know I can get money for working next time’ was deleted as it does not appear to contribute to the measure of job readiness as defined in the study. Three more questions which measures job maintenance and job seeking skills were added to the scale: Item 28. ‘I can work an 8-hour day’; Item 29. ‘I know how to look for a job myself’; and Item 30. ‘I know what to say and do at a job interview’.

Development and validation of the survey instrument- Phase II.

The revised survey was administered on two participants who meet all the criteria of the study. Both the 3-point and 5-point Likert scale format was being tested out on both participants. Findings showed that both participants were able to understand the 3-point and 5-point rating format. Coupled with evidence from existing literature, it was decided that the 5-point Likert scale be adopted for the main study. Following the administration, the item content of the JRS-ID was re-looked into. Information on life skills, interpersonal skills, employability skills, and job seeking skills were compiled. Item 2 ‘My clothes are neat’ was changed to ‘I wear the right clothes for work’. Item 7 ‘I think I am important to others’ was deleted due to the abstract nature. Three more questions were added to the scale: ‘When I am sick, I will inform my boss and give him/her my mc the next day’, ‘I can work on my own’, and ‘I can complete a job application form’. The instrument was then examined by a professor of special education and further revisions to the instruments were made according to the feedback provided.

Data Collection

The data collection will take place from August to October 2007 in the school. All participants will be briefed about the study and consent from the individual will be obtained
before the data collection. It will be explained to the participants that they are free to withdraw from the study at any time with no penalty [Appendix A]. The interviewers in the current study followed the standardized administration manual closely. They were experienced in working with people with various disabilities including individuals with ID.

Participants will be interviewed on a one-to-one basis to obtain their demographic characteristics such as date of birth, length of vocational training received, and work experience. Further, instructions for completing the survey are explained to all the participants. It will be emphasized that there is no right or wrong answers to the survey items. Participants will then be shown the Career Choice Inventory (CCI) and asked to indicate their choice of job. Subsequently, the participants will be interviewed using the Job Readiness Scale – ID version (JRS-ID), the General Self-Efficacy Scale – ID version (GSES-ID), and the Glasgow Social Self-Efficacy Scale (GSSES). In the event that participants do not appear to understand the survey content, questions in the survey will be explained in accordance to the standardized administration manual. Upon completion of the survey, participants are debriefed. For participants who still could not answer the survey items despite explanation, the survey will be discontinued; participants will be debriefed and excluded from the study.

Following the survey, other demographics such as their race, religion, IQ level and medical condition will be gathered from their school records. In addition, the trainer’s feedback on the student regarding any behavioural, family, or other issues that may hinder the student’s self-efficacy, career options, or job readiness is obtained for further analysis and discussion.

Data Analyses

Data from the survey will be entered into a computer and analyzed with the SPSS 14.0 version for Windows. The following statistical methods will be used in the study:
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Descriptive Statistics. The frequency of data will be assessed. The means and standard deviations of the variables general self-efficacy, social self-efficacy, and job readiness will be computed.

Pearson’s Product Moment Coefficient and Point-Biserial Correlation. A series of correlation tests will be used to test for the direction and strength of relationship of the variables: general self-efficacy, social self-efficacy, career option, and job readiness. Further, coefficients will be computed to determine if any correlation exists between job readiness and the five demographic variables: age, IQ, gender, length of vocational training, and work experience.

Hierarchical Regression Analyses. To validate Hypothesis 1, hierarchical regression analysis is employed to examine if general self-efficacy can predict job readiness, controlling for demographic characteristics, career choice, and social self-efficacy.

For Hypothesis 2, hierarchical regression analysis is also used to find out whether social self-efficacy can predict job readiness, controlling for demographic characteristics, career choice, and general self-efficacy.

Logistic Regression Analysis. To validate Hypothesis 3, logistic regression analysis is conducted to determine whether social self-efficacy can predict the type of career choice, i.e. service related careers or manual jobs. The demographic characteristics and general self-efficacy will be controlled for to isolate the effects.

Reliability Analysis. The internal consistency reliability coefficient, Cronbach’s alpha, will be computed for the three scales used in the study: the JRS-ID, the GSES-ID, and the GSSES.
Discussion and Limitations

Career development is a process that involves the interplay of various factors including an individual’s disability type, abilities, education, family, socioeconomic status, ethnic identity, culture, gender, self-efficacy, work personality, interests, and job satisfaction (Enright, Conyers, & Szymanski, 1996). The current study was not able to control for variables such as family, work personality, interests and satisfaction of the individuals with ID.

Self-efficacy theory suggests that expectations of significant others play an important role in the development of students’ choice of career and job readiness. Studies have shown that parental aspirations and efficacy are positively related to children’s academic, social, and self-regulatory efficacy (Bandura et al., 1996; 2001). Furthermore, the impact of parental aspirations on children’s occupational efficacy is mediated through children’s self-efficacy and academic achievement. Due to constraints in time and resources, the current research did not include the parents’ efficacy ratings, which may influence the students’ career choices and job readiness. Future research can measure parents’ perceived efficacy and explore the effects on the children’s efficacy levels, career choices, and job readiness.

As this study involves self-report from the students with ID, rehabilitation counselors and school professionals can find out the students’ perceptions and evaluations of their own job readiness as well as their preferred choice of career. Furthermore, results will suggest the specific areas they assess themselves to be weak or lack confidence in, and thus allow the professionals to identify relevant vocational interventions. The reliability of the self-report from individuals with ID is, however, likely to be raised. Studies have shown that acquiescence and social desirability are problems encountered when assessing individuals with ID (Finlay & Lyons, 2001, 2002). In this study, abstract concepts and negative wording were avoided in the survey. Survey
items were also simplified and presented in an either-or format to minimize effects of acquiescence. Other research has also shown that when people with ID are interviewed properly, they are able to provide information about themselves, their experiences, thoughts and feelings (Bull, as cited in Clare & Murphy, 1998). Moreover, the interviewers in this study followed a standardized administration closely.

Bandura (1994) stated that people tend to overestimate their capabilities when they err in their self-appraisal. A study by Keim and Strauser (2000) also revealed significant differences in the perceptions of participants and the job readiness evaluations of their instructors in relation to job readiness self-efficacy and work personality. Results suggested that people tend to overrate their vocational ability and aptitudes. Further research can involve both self-report rating and teacher’s rating of the individual’s job readiness. This will allow a comparison between the individual and teacher’s report, and thus gain insight to any differences or help them to assess their abilities and performance more accurately.

Future research should include a bigger sample of students with ID in various special schools to increase the reliability and validity of the results, and hence increase the generalizability of the study.
References


