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The Role of Self-Efficacy on Job Readiness s and Career Choice among People with Intellectual Disability in Singapore

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Abstract

The study examined the role of general and social self-efficacy on job readiness and career choices among youths with intellectual disabilities (ID) in Singapore. Forty-seven students were recruited, with an IQ ranging from 50 to 70. Results showed that general self-efficacy was moderately related to social self-efficacy, but highly related to job readiness. Three self-report instruments were administered, including: the General Self-Efficacy Scale - ID version, the Glasgow Social Self-Efficacy Scale, and the Job Readiness Scale – ID version. Students were also asked to indicate their career choices and provided their demographic characteristics through a semi-structured questionnaire. Research findings provided both special educators and vocational rehabilitation professional with information on the importance of self-efficacy and suggested for interventions aimed at developing students' self-efficacy to improve their job readiness.

The Role of Self-Efficacy on Job Readiness s and Career Choice among People with Intellectual Disability in Singapore

The issues of finding and sustaining employment among individuals with intellectual disability (ID) have been raised among researchers (Goldstein & Morgan, 2002; Moran, McDermott, and Butkus, 2001; Wehman, 1992; Wolfe, Boone, & Blanchett, 1988). Unemployment rates were found to be relatively higher than general population. Hirst's (1987) study on careers on young people with disabilities revealed that the population with ID has a more limited range of career options compared to the population with physical disabilities.

Cinamon and Gifsh (2004) examined the perceptions of the world of work among individuals with mild ID and found that they showed strong willingness to work, but had little information regarding work, such as familiarity with the range of occupations and awareness of the various benefits of employment. Research has supported the need for individuals with ID to receive supported employment (Stevens & Martin, 1999) and specific instruction on how to behave at different work situations, such as handling conflicts, relating to colleagues, responding to supervision (Black & Langone, 1997; Cinamon & Gifsh, 2004).

The nature of work of modern times has evolved from production to knowledge and service base, requiring adaptability, effective cognitive and interpersonal skills across jobs. It was found that people persistently unemployed lack necessary social skills required in the work environment (Strauser, Waldrop, & Ketz, 1999). A Canadian study revealed that most employers desired employees who exhibit the ability to communicate, think, work with others, as well as demonstrate responsibility, a positive attitude and behaviour (McLaughlin, 1995). Other researchers have suggested that in order to sustain employment, individuals need to show interpersonal skills, conflict management ability, teamwork, emotional stability, follow supervision and instructions, be accountable, follow time schedule for work, and display motivation (Keim & Strauser, 2000; Lingg, 1996; Molseed, Alsup, & Voyles, 2003; Strauser, et. al, 1999). Further, researchers suggested that confidence in an individual's ability to execute work skills is essential for his or her employability (Carnevale, Gainer, & Meltzer, 1990).

A study by Och and Roessler (2001) revealed that students with disabilities showed a significant lag in career maturity. They found that special education students had significantly lower scores than their general-education peers on career decision-making self-efficacy, career outcome expectations, career exploration intentions, and vocational identity. Other research has shown that individuals with ID failed to maintain employment due to poor social skills or inappropriate interpersonal skills on the job (Greenspan & Shoultz, 1981; Hanley-Maxwell, Bordieri, & Merz, 1996).

These studies pointed to the importance of implementing a variety of vocational programs for students with ID to help them develop the knowledge, 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 perform multi-tasks.

Vocational rehabilitation is a vital component in the education and training of people with ID. In Singapore, several special schools have aimed towards improving vocational skills of students with ID to help them better transit from school setting to work environment. Various vocational training programs have been implemented over 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 people with ID now as the job nature requires more multi-tasking and varied office skills, which are difficult for people with ID to cope with.

The Singapore Government has also highlighted the need to be an inclusive society where persons with disabilities are supported to reach their full potential and be

contributing members of the society. In the efforts to fully integrate people with disabilities into the community, the Ministry of Community Development, Youth and Sports (MCYS) appointed the Steering Committee for the Enabling Masterplan in September 2006 to address various vital issues concerning people with disabilities such as physical environment, early intervention, education, and employment. One of the recommendations made by the Committee was the extension of special education schooling up to the age of 21 for students who can benefit from additional pre-vocational and vocational skills training. It is aimed that the students with special needs will be trained with relevant skills and be more adequately prepared before their transition into employment (Enabling Masterplan Steering Committee, 2007).

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 (Lingg, 1996; Och & Roessler, 2001), self-efficacy can play a role in the development of job readiness and type of career choice among individuals with ID. 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, Bandura & Adams, 1977). This current study is based on a social cognitive perspective using Bandura's self-efficacy theory as its theoretical framework.

Many researchers have extended and applied self-efficacy theory to vocational behaviour. Studies on people with and without disabilities 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).The current research extends existing literature on the relation between self-efficacy theory and vocational behaviour to people with ID specifically. 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. Lastly, job seeking skills include ability to gain employment such as knowledge of job search process and interview skills.

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). Although the general self-efficacy and social self-efficacy overlap on some concepts, they are also dissimilar in their specific focus. General self-efficacy is a judgment of perceived capability for performing a specific task in general. It has a broader framework in comparison to social self-efficacy, which focuses on one's perceived ability in forming interpersonal relationships with others such as colleagues, friends, or family members, and performing social roles (Bandura, et. al, 2001). Bandura posited that social self-efficacy has a direct effect on one's efficacy for jobs requiring social skills.

Researchers have found that many students with disabilities are not successful in finding appropriate jobs or sustaining employment due to a lack of social interpersonal skills (Goldstein & Morgan, 2002; Wehman, 1992; Wolfe, Boone, & Blanchett, 1988). Another study on people with ID showed that poor social competence posed as a major obstacle to successful employment and independent living (Greenspan & Shoultz, 1981). These findings suggest the vital role of social skills play in influencing career or job readiness.

Given the pivotal weight of social skills in employment success, the current research aims to find out the independent influence of social self-efficacy along with general self-efficacy on job readiness. Further, as one's perceived efficacy for different types of career pursuits play a determinative role in the career he or she chooses or actively avoids (Bandura, et. al, 2001), it is of specific interest whether social self-efficacy affects the type of career choice, that is, service related or manual jobs.

The major challenges facing the field of vocational rehabilitation regarding people with ID are the preparation for career and the expansion of employment opportunities (Walls & Fullmer, as cited in Cinamon & Gifsh, 2004). Little research was found in further exploring the relation between career development and people with specific disability, particular ID (Conyers, Koch, & Szymanski, 1998), which would have been helpful in the development and evaluation of vocational training programs for people with ID. 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 provide information regarding the job readiness levels and choice of career among students with ID in Singapore. Research findings also shed 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 (service-related or manual jobs), which provides 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

Participants comprised of 47 students from a special school catered to people with ID in Singapore. 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, were included in the study. Participants who gave consent were interviewed to obtain their basic demographic characteristics. This was also part of the selection process where participants who exhibited poor ability to understand or unable to provide information were excluded from the study.

Instruments

The survey consisted 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 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, working experience, and the trainer's feedback on the students' behavioural or family issues. The date of birth, length of vocational training received, and working experience were obtained from the participants, while the other information was gathered from the school records, teachers, or job placement officers.

Career Choice Inventory (CCI). The CCI was modified from a self-directed career preference selection inventory for individuals with ID developed by Stock, Davies, Secor, and Wehmeyer (2003). Due to cross cultural differences, a similar but different set of job

categories were used in this study for the participants to rate their job preferences. The career choices consisted 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 12 occupations commonly available for people with ID in Singapore were identified with the input of job placement officers in the special schools. Each of 12 career options was presented with the description of basic job function and a corresponding picture of man and woman performing the same work. This is to clarify their understanding of the job options and to minimize any possibility of gender stereotypes. The participants were then asked to indicate their choice of career. The choices were keyed in as '0' for manual jobs, and '1' for service related jobs.

The Job Readiness Scale – ID version (JRS-ID). Job readiness was assessed with a 32-item instrument, which was developed after a review of literature (Chan, Rubin, Lee, & Pruett, 2003; Goodship, 1990; Hegner, 1991; Kallio, 1993; Knight & Aucoin, 1999) and feedback from experts in the field, namely, a job placement officer, a psychologist, and a special education professor. The JRS-ID measures various skills required for transition from school to work as suggested in researches: 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. Psychometric properties are not available for this instrument.

The General Self-Efficacy Scale – ID version (GSES-ID). The GSES-ID version consisted 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. 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 disabilities, consisted of 17 items. The items examined one's belief in his or her ability to perform a number of communication acts, which included 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 were 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. Payne and Jahoda (2004) reported a test-retest reliability correlation coefficient of .90 for a sample of people with intellectual disability. Cronbach's alpha for internal reliability of the scale was .78.

Design

This research adopted a correlational survey design. This study involved a face to face survey on sample participants from a special school for people with ID. The survey questionnaires comprising of 4 parts, including the demographic characteristics and the measures of the four study variables, career choice, job readiness, general self-efficacy, and social self-efficacy.

Procedure

Consent for conducting the research study in the special schools was sought by contacting the principals via emails and phone calls. The survey instruments were revised and developed based on literature review as well as consultation from three experts, that is, a job placement officer, a psychologist, and a professor of special education. A standardized administration manual was also developed. Subsequently, the survey was pilot tested on three participants, and the content, structure, and wording of the survey were further revised.

Data Collection

All participants were briefed about the study and consent from the individual was obtained before the data collection. It was explained to the participants that they were free to withdraw from the study at any time with no penalty.

There were three interviewers in the current study. They all had knowledge about people with special needs, and were experienced in working with individuals with ID. One of the interviewers is the first author who was a psychologist, and has conducted psychological assessments and group trainings for people with various disabilities or developmental issues. The other two interviewers were trained in occupational therapy and have encountered people with disabilities during their internship or volunteer work in various voluntary welfare organizations. Further, they are comfortable conversing with individuals with ID. Prior to the actual interview, the researcher conducted a training session for the other two interviewers. They were briefed about the survey instruments and possible response biases from the participants. Thereafter, they were shown an actual administration and taught to probe the participants for clearer responses as instructed in the standardized administration manual. Subsequently, the researcher sat in each of the interviewers' first interview session to ensure that the survey instruments were administered properly.

The interviewers in the current study followed the standardized administration manual closely. Participants were interviewed on a one-to-one basis to obtain their demographic characteristics. Further, instructions for completing the survey were explained to all the participants. It was emphasized that there is no right or wrong answer to the survey items. Participants were then shown the Career Choice Inventory (CCI) and asked to indicate their choice of job. Subsequently, the participants were 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 did not appear to understand the survey content, questions in the survey were explained in accordance to the standardized administration manual. Upon completion of the survey, participants were debriefed. For participants who could not answer the survey items despite explanation and clarification, the survey process was discontinued; participants debriefed and excluded from the study.

Following the survey, other demographics such as their race, religion, IQ level and medical condition were 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 were obtained for further analysis and discussion.

Data Analyses

Data from the survey were entered into a computer and analyzed with the SPSS 14.0 version for Windows. The following statistical methods were used in the study:

*Descriptive Statistics***.** The frequency of data was assessed. The means and standard deviations of the variables general self-efficacy, social self-efficacy, and job readiness were computed.

Reliability Analysis. The internal consistency reliability coefficient, Cronbach's alpha, were computed for the three scales used in the study: the JRS-ID, the GSES-ID, and the GSSES.

Pearson's Product Moment Coefficient and Point-Biserial Correlation. A series of correlation tests were 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 were 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 was employed to examine if general self-efficacy can predict job readiness, controlling for demographic characteristics and social self-efficacy.

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

Further, a series of regression analyses was conducted to examine whether the effects of social self-efficacy on job readiness were mediated by the effects of general self-efficacy.

Logistic Regression Analysis. To validate Hypothesis 3, logistic regression analysis was 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 were controlled for to isolate the effects.

Results

There were 29 males and 18 females, ages from 15 to 19 years old (M = 16.97) among participants. Their IQ ranges from 50 to 70 (M = 59.55) and 25.5% of them had other co-morbid disability or medical conditions, such as William's Syndrome, Russell Silver Syndrome, autism, and epilepsy. Thirty participants had some working experience, while 17 of them had none.

Descriptive information was shown in Table 1 for the five demographic characteristics and four variables: general self-efficacy, social self-efficacy, career choice, and job readiness. Bivariate correlations for the main study variables were given in Table 2. General self-efficacy was moderately and positively related to social self-efficacy, but highly and positively related to job readiness. Social self-efficacy was also positively correlated to job readiness. Career choice did not relate to either of the variables. The internal consistency reliability coefficient, Cronbach's alpha, were computed for the three scales. The internal consistency of the JRS-ID scale is 0.80, suggesting high reliability. Cronbach's alpha for the GSES-ID scale is .75 and for the GSSES is .64.

To validate Hypothesis 1, hierarchical regression was performed so that the demographic characteristics and social self-efficacy can be controlled for in examining the contribution of general self-efficacy to the prediction of job readiness. Table 3 shows the results of hierarchical regression analysis. The results of the analysis indicated that the demographic characteristics and social self-efficacy accounted for a significant amount of job readiness variability, $R^2 = .28$, $F(6, 40) = 2.68$, $p < .05$. General self-efficacy accounted for a significant proportion of the job readiness variance, R^2 change = .32, $F(1, 39) = 32.45$, $p < .05$. The unique contribution of general self-efficacy was found to be significant ($\beta = .74$, $p < .05$). Of the control variables, none of the individual variables contributed significantly once all the variables were entered, whereas general self-efficacy retained its significant contribution to job readiness once all the variables were entered in the equation. Hence, general self-efficacy is a significant predictor of job readiness, supporting Hypothesis 1. This indicates that individuals with ID who have higher general self-efficacy tended to have higher levels of job readiness.

Another hierarchical regression analysis was conducted to find out whether social self-efficacy can predict job readiness, controlling for demographic characteristics and general self-efficacy. Two sets of variables were used. In the first step, the demographic characteristics (age, gender, work experience, IQ, length of training) and general self-efficacy were entered. Results indicated that the demographic characteristics and general self-efficacy accounted for a significant amount of job readiness variability, $R^2 = .61$, $F(6, 40) = 10.45$, $p < .05$ (Table 4). Social self-efficacy was entered in the second step of

this analysis, but did not account for a significant proportion of the job readiness variance (β = -.02, p > .05). Hypothesis 2 is not supported.

As literature suggest an overlapping relationship between general self-efficacy and social self-efficacy, a series of regression analyses was conducted to examine whether the effects of social self-efficacy on job readiness were mediated by the effects of general self-efficacy. The results of these analyses are summarized in Table 5. Results showed that social self-efficacy is a significant predictor of job readiness (β = .31, p < .05). Social self-efficacy also accounted for a significant amount of general self-efficacy variability (β = .43, p < .05). General self-efficacy is a significant predictor of job readiness (β = .75, p < .05). The joint contribution of social self-efficacy and general self-efficacy predicting job readiness showed a significant mediation effect. When social self-efficacy was entered simultaneously with general self-efficacy, the beta coefficient for social self-efficacy dropped to -.02 (*ns*), whereas the beta coefficient for general self-efficacy was .76 (p < .05). The drop-off in the contribution of social self-efficacy from Model 1 to Model 2 (i.e., from significant to nonsignificant) revealed a potent mediation effect. Hence, general self-efficacy overshadows the relationship between social self-efficacy and job readiness. This finding explains the lack of support for Hypothesis 2.

To validate Hypothesis 3, logistic regression analysis was 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 were statistically controlled for to isolate the effects. Results indicate that social self-efficacy is not a predictor of the type of career choice (OR = .56, p > .05).Thus, there is no support for Hypothesis 3.

Discussion and Limitations

The results of this study provided support for the hypothesis that general self-efficacy is a predictor of job readiness. Participants with a greater degree of general self-efficacy were more likely to have higher levels of job readiness than were participants with a lower degree of general self-efficacy. The present results are consistent with previous findings reported in preceding studies that self-efficacy is associated with vocational behaviour such as employment outcome (Ásmundsdóttir, 2004; Michon, Weeghel, Kroon, & Schene, 2005; Regenold, Sherman, & Fenzel, 1999). These findings lend support to the application of Bandura's (1977) self-efficacy theory to vocational rehabilitation.

Results also showed that social self-efficacy predicts job readiness, but the association drops to insignificance when general self-efficacy is considered concurrently. Thus, mediation effects were tested and shown to be significant. This indicated that general self-efficacy mediates the relationship between social self-efficacy and job readiness. The current findings are in line with the influence of social competence on job readiness as well as the overlapping relationship between general and social self-efficacy as suggested in literature (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Greenspan & Shoultz, 1981; Goldstein & Morgan, 2002; Wehman, 1992).

In addition, the present study provided information regarding the career choices of students with ID in Singapore. Out of 47 participants, 36 chose service related jobs, while only 11 chose manual jobs. One reason to explain for the lack of support that social self-efficacy predicts the type of career choice, i.e. service-related or manual jobs, could be that students have been primed to aim for service related jobs as such jobs are being viewed as higher ranking in comparison to manual jobs. There is a strong stigma for manual jobs such as cleaning and dishwashing, which are often less preferred in Singapore. Parents from higher socio-economic class might be concerned about issues like family status or 'losing face', and thus refrain their children from undertaking low status jobs such as cleaning.

Vocational training programs implemented in the special schools in Singapore has focused largely on developing life skills and job skills thus far. The current research findings suggest that self-efficacy beliefs are influential in shaping the career development of the students with ID. Therefore, apart from the current vocational training program implemented, interventions directed at strengthening the students' self-efficacy are important in their development of job readiness. Vocational rehabilitation programs should integrate job skills training, cultivating work habits, and enhancing self-efficacy components. Rehabilitation counselors can conceptualize and identify areas of low self-efficacy which impedes their job readiness. They can then use the four main sources of efficacy information, i.e. (i) performance accomplishments, (ii) vicarious experiences, (iii) verbal persuasion, and (iv) physiological states, to provide a framework for the implementation of intervention programs (Conyers, Enright, & Strauser, 1998; Regenold, et. al, 1999).

For example, ways of developing general and social self-efficacy by performance accomplishments and vicarious experiences may include involving students with ID in a variety of vocational programs where they constantly receive modeling from experts and opportunities to perform various tasks or behaviours until they reach mastery. In addition, they can be taught social skills such as communicating with others effectively and conflict resolution through a variety of methods such as story-telling, videos, and role-plays. It will be beneficial for the students if their parents and vocational rehabilitation trainers enhance their self-efficacy by verbal persuasion methods, such as, constantly encouraging and praising the students for the progress they attain. Techniques such as relaxation, biofeedback, systematic desensitization, and stress inoculation training can be used to help individuals in decreasing emotional arousal like fear and anxiety in new, threatening situations, such as starting their first job or handling social conflicts at work, and increase their efficacy expectations (Bandura, 1977; Conyers, et al., 1998). Research has also shown that supportive relationships allow individuals to have a model on managing difficult situations and cushion the negative effects of stressors (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996).

The responses participants provided on the job readiness and efficacy scales revealed the students' perceived common strengths and weaknesses, bringing to light some areas where the students will benefit from further training. In general, the participants exhibited

efficacy in following instructions, completing tasks, commuting to work independently, reporting to work on time and regularly, etc. This can be explained by the job training and exposure they have received in school and attachments at various work sites. However, it was evident that participants generally sense an inadequacy in their job seeking and interview skills. Many of them also related that they were unsure of their ability to handle unexpected problems. Upon identifying the students' self-perceived inadequacies which are limiting their job readiness, job trainers and counselors can adopt efficacy-based interventions to increase their self-efficacy. In this case, the vocational rehabilitation professionals can teach and model the job search process and job interview skills, such as writing a resume, or communicating effectively with employers. Subsequently, students can be taught techniques to reduce their anxiety when attending job interviews. They can then be provided with job interview opportunities for achieving performance accomplishments and be affirmed for effort and mastery. Future research can include the development and evaluation of training programs aimed at increasing the self-efficacy and job readiness of students with ID.

Due to their cognitive limitations, people with ID enter the workforce with a narrower range of job options compared to people without any disabilities. Having fewer options to exercise control over their lives negatively affects self-efficacy beliefs (Abery, 1994). It will be beneficial if school counselors or professionals work with parents to guide and facilitate their children in their vocational exploration, training, and job search process (Hall, 2003). Involving the students in the transition planning and career-decision making can enhance their self-efficacy (Blalock, 1996). The students with ID can be exposed to the various careers through career talks, job site visits, or work attachments, to increase their awareness about the roles and requirements of the different occupations. Further, they would benefit from assessment of their abilities and interests, as well as career counseling by trained vocational professionals to arrive at a career decision and job fit. It would allow individuals with ID to have a sense of control if they are given the information that is necessary and freedom to choose the type of job they would eventually undertake.

Parents and adults working with students with ID should believe that these students can succeed in various jobs. They should not overly lower their expectations, but encourage students to be actively involved in a wide range of vocational training and behaviours (Ryan, 1995). While pursuing to reach the children's fullest potential, parents should not be overly protective or unrealistic. Feedback from trainers and placement officers revealed that several parents insist on placing their children on jobs requiring high level of abilities which these children do not possess despite training. Adversely, parents refrained their children with very limited skills from choosing manual jobs can hinder their children from gaining any fruitful employment at all. It is important for them to realize that these are respectable jobs and their children can derive meaning and gain independence by participating in the labor force. Hence, parents can play a vital role in influencing the career development of children.

Some limitations of the current study include having a small sample size. The researchers had difficulty obtaining the support of other special schools to collaborate on this

research. Duplication of this study using a greater sample will increase the generalizability of the study. Research can also measure the effects of parental efficacy and guidance on the children's efficacy levels, career choices, and job readiness. The general self-efficacy scale can be refined to include the various dimensions, such as social self-efficacy, work-related self-efficacy, career search self-efficacy, etc. Further, due to reserved rights of parties involved and confidentiality issues, pictures of local people performing the various jobs could not be used in the Career Choice Inventory (CCI). Hence, it may be culturally biased to some extent. Future research may consider such factors and increase the time and budget allocated to make further revisions.

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Table 1

Means and standard deviations for demographic characteristics and variables

	M	*SD*
Demographic characteristics:		
Gender	0.38	0.49
Age	16.97	0.83
IQ	59.55	7.57
Length of training	0.43	0.58
Work experience	0.64	0.49
Variables:		
General self-efficacy	39.96	7.65
Social self-efficacy	17.26	4.58
Career choice	0.77	0.43
Job readiness	115.81	15.79

Note: Measures were based on $N = 47$.

Table 2

Correlation table for general self-efficacy, social self-efficacy, career choice, and job readiness

	General Self-Efficacy	Social Self Efficacy	Career Choice
General Self-Efficacy			
Social Self-Efficacy	.43**		
Career Choice	.21	.09	
Job Readiness	.75**	.31*	.25

**$p < .01$, *$p < .05$

Table 3

Summary of Hierarchical Regression Analysis for Variables

Predicting Job Readiness (N = 47)

Step	Variables entered	Increment in R^2	F	p	β
1	Demographic characteristics,				
	and social self-efficacy	0.287	2.684	0.028	
2	General self-efficacy	0.324	32.447	0.0001	0.74*

Table 4

Summary of Hierarchical Regression Analysis for Variables

Predicting Job Readiness (N = 47)

Step	Variables entered	Increment in R^2	F	p	β
1	Demographic characteristics,				
	and general self-efficacy	0.611	10.451	0.0001	
2	Social self-efficacy	0.0001	0.029	0.865	-0.021

Table 5

Mediating Role of General Self-Efficacy on the Relationship of Social Self-Efficacy and Job Readiness

Variable	Model 1 β	Model 2 β	*r*
Step 1			
Social self-efficacy	0.31*	-0.02	0.31*
Step 2			
General self-efficacy		0.76**	0.75**
ΔR^2		0.47**	
ΔF	4.75*	46.89**	
Total adjusted R^2	0.08	0.54	

**$p < .01$, *$p < .05$