

## Examining a Proposed Job Retention Model for Adult Workers with Mental Retardation

Sandra L. Fornes

Florida International University

*This research provides an analysis of factors predicting job retention (JR), job satisfaction (JS), and job performance (JP) of workers with mental retardation (MR). The findings highlight self-determination as a critical skill in influencing three important employee's outcomes, JR, JS, and JP. The intent of the study was to develop job retention strategies that could offer rehabilitation and HR professionals a useful structure for understanding and implementing job retention interventions for people with MR.*

Keywords: Job Retention, Mental Retardation, Self-Determination

Job retention is a critical component in the efforts to assist individuals with MR move from dependency to self-sufficiency. Job retention and work plays a central role in adult life, crucially affecting self-concept and wellness. Involvement in the mainstream labor force fulfills both individual and societal expectations (Super, 1990). Employment statistics; whether they address the overall low employment rate of people with MR or their ability to stay employed over time, document the need for more intensive job retention efforts (Roessler, 2002). Several studies identified a lack of empirical data around working adults with MR and their JR, JP, JS. This paper begins with the problem, purpose, hypothesis, theoretical framework, method, and results, and conclusions. Implications for theory and practice and the limitations that lead to future research around adult workers with MR is presented.

### Problem Statement, Purpose, and Hypothesis

The problem examined is low job retention for adult workers with MR and whether various personal and work characteristics are related to employment retention, job performance and job satisfaction. Furthermore, the study examined the interrelationship between JR, JP and JS. The purpose of the study was to test hypothesized job retention (JR) model for adult workers with MR by examining the predictive relationships between such factors as work-related social behaviors (WRSB), self-determination (SD), person-job congruency (PJC), job performance (JP), job satisfaction (JS) and job retention (JR). To explore relationships among the variables three research hypotheses were tested.

H1. In working adults with MR, a linear combination of the variables WRSB, PJC, SD, JP, and JS would account for a significant amount of variance in the dependent variable, JR.

H2. In working adults with MR, a linear combination of the variables WRSB, PJC, SD, JS, and JR would account for a significant amount of variance of the dependent variable, JP.

H3. In working adults with MR, a linear combination of the variables WRSB, PJC, SD, JP, and JR would account for a significant amount of variance in the dependent variable, JS.

### Theoretical Framework

A literature review provided insights into the reasons low JR might exist and identified work variables related to JR of individuals with MR. These variables include work-related social behaviors (WRSB), person-job congruency (PJC), self-determination (SD), job satisfaction (JS) and job performance (JP). The researcher choose to focused on internal factors of workers' individual characteristics rather than external factors such as economic issues, levels of support and vocational transition. External factors were purposely excluded from the study in order to better identify factors that predict and contribute to work outcomes of workers with MR that are within the control of the individual.

#### *Work-Related Social Behaviors (WRSB)*

WRSB required for successful job retention includes social awareness, personality characteristics (Rosenberg & Brady, 2000), and temperament (Wehman & Kregel, 1998). Appropriate work-related social behaviors are important factors for long-term employment of individuals with MR. Good work-related social behaviors also affect job satisfaction and job performance, which leads to successful job retention (Rosenberg & Brady, 2000).

#### *Person-Job Congruency*

Person-job congruency is the match between a person's interests, characteristics, skills and abilities with the job requirements and work environment. Successful person-job congruency requires careful planning and increases employee job satisfaction and job performance leading to higher job retention (Holland, 1996; Roessler, 2002; Super, 1990).

### *Self-Determination*

SD is the “capacity to choose and to have the choices, rather than reinforcement contingencies, drives, or any other forces or pressures, to be the determinants of one’s actions” (Deci, 1992, p. 38). Self-determined behavior is also defined as a primary causal agent in one’s life and making choices regarding one’s quality of life free from undue external influences or interferences (Wehmeyer, 1996). Higher self-determination and increased capacity of the four essential characteristics result in better work outcomes for individuals with MR (Field, Martin, Miller, Ward, & Wehmeyer, 1998). When individuals capitalize on their self-determination, they are more likely to find competitive employment opportunities and achieve job satisfaction and maintain good performance (Wehmeyer & Palmer, 2003).

### *Job Performance*

Job performance depends on job responsibility and task production. Job responsibility is one’s commitment and dedication to a job and involves work endurance, work motivation, work initiative, and work attitude. For an individual with MR, job performance improves job retention and increases job satisfaction (Roessler, 2002).

### *Job Satisfaction*

Job satisfaction refers to the degree to which people like their jobs and the feelings about their jobs or job experiences in relation to previous experiences, current expectations, or available alternatives. Job satisfaction is linked to job retention (Balzer, Kihm, Smith, Irwin, Bacheochi, Robie, 2000) and job performance (Mueser, Becker, & Wolfe, 2001; Roessler, 2002) in individuals with MR.

### *A Hypothesized Job Retention Model*

The hypothesized job retention model suggests that if adult workers with MR maintain appropriate work-related social behaviors (Rosenberg & Brady, 2000), make their own decisions (self-determination; Wehmeyer & Palmer, 2003), and work at jobs that are congruent with their interests and abilities (person-job congruency; Holland, 1985); they will have high job satisfaction, good job performance, and long-term employment (job retention). Furthermore high job satisfaction in individuals with MR predicts job performance and job retention (Mueser et al., 2001). High job performance predicts job satisfaction and job retention (Brady & Rosenberg, 2002). Job retention will continue to predict high levels of job satisfaction and job performance, sustaining a circular performance/job retention model for workers with MR.

## **Method**

The following section discusses the method including the research design, sample, measurement instruments, and procedure for data collection and analysis.

### *Research Design*

The study used three multiple regression statistical analysis to test the hypotheses and examine the relationships between WRSB, PJC, SD and JP, JS, JR in adult workers with MR. Multiple regression is a predictive method that allows for the analysis of a large complex array of variables in an encompassing and integrated analysis accounting for correlations among several independent variables and one dependent variable. A research study incorporating concepts of multiplicity is more rigorous, generalizable, and reliable producing more valid results (Tabachnick & Fidell, 2001).

### *Participants / Sample*

The population of interest was composed of working adults age 18 or older with MR. A convenience sample was used due to the limited access to and availability of the MR population (Tabachnick & Fidell, 2001). A convenience sample is a purposely heterogeneous population from which generalizations of the population is possible (Tabachnick & Fidell, 2001). For prediction methods, such as multiple regressions, a sample size of at least 5 and up to 50 participants per independent variable is suggested (Green, 1991). Given that this study had five independent variables (IV), a minimum total sample size of 25 was suggested (Green, 1991). However, a sample size of at least 100 adults with MR was selected to account for unusable data because of missing information and to increase the statistical power. The participants were selected from supported employment agencies in South Florida. These individuals were employed in the open labor market earning a competitive wage for at least 3 months.

### *Measurement Instruments*

A test battery of four standardized instruments was used for the study. All instruments are standardized tests and were chosen for their ease of comprehension and use, theoretical base development, high reliability, and validation with populations with MR (Brady et al., 2006; Holland, 1985; Ironson et al., 1989; Wehmeyer, 1996). The Job Observation and Behavior Scale: Opportunity for Self-determination (JOBS:OSD) (Brady, Rosenberg, & Frain, 2006) was used to measure job performance and work-related social behaviors. Concurrent validity of *JOBS: OSD* was obtained through a factor analysis of the items on the *JOBS: OSD* to establish and compare Quality of Performance Composite scores against the Brigance Diagnostic Employability Inventory (Curriculum Associates, 1995). The 20 Brigance items were correlated with the *JOBS: OSD* Quality Performance items (Brady et al., 2006). Test/re-test reliability was established by comparing the Quality of Performance provided of the person to the scores of the same instrument 2 weeks later. The

test/re-test reliability for the Quality of Performance is 0.83 (Brady et al., 2006). The Job-in-General (JIG) Scale (Ironson, Smith, Brannick, Gibson, & Paul, 1989) was used to measure job satisfaction. Internal consistency and reliability was measured by Cronbach's alpha of .91 to .95 (Smith et al., 1969). Convergent validity has been demonstrated through statistically significant correlations with four other global job satisfaction scales, ranging from correlations of  $r = .66$  to  $.80$  (Balzer et al., 2000). The Arc's Self-Determination Scale (Wehmeyer, 1996; Wehmeyer & Palmer, 2003) was used to measure self-determination. The factorial validity was established by repeated factor analyses and discriminative validity and internal consistency (Wehmeyer et al., 1998). Internal consistency reliability was measured by coefficient alpha of 0.90 for the scales as a whole, 0.90 for the autonomy domain, 0.73 for psychological empowerment, and 0.62 for self-realization (Wehmeyer et al., 2000). Holland's (1985) Self-Directed Search (SDS) measured person-job congruency. Job retention was measured by the number of months the participant was employed continuously at the same job in the open labor market earning a competitive wage. Comprehensive data support the construct validity of the SDS scales, which have an average internal consistency of .88.

#### *Data Collection – Procedures*

The data were collected at the supported employment agencies rather than the place of employment to avoid disruptions from co-workers, supervisors, and customers that could bias the data. The battery of tests were administered to and completed by each participant. All instruments were designed for individual or group administration. For those participants that were able to read, the instruments were administered in small groups of 3 to 4 individuals. Questions were read orally to each group as participants followed along. For those individuals unable to participate in group administration, due to specific disabilities that require more individualized explanation of questions, instruments were administered one-on-one. Participants were allowed to ask for clarification of questions they did not fully understand, and assistance was provided by the administrator. It took 60 to 90 minutes for participants to complete all four instruments. To avoid fatigue, the instruments were administered in two separate sessions. The first session consisted of the JIG and ARC. The second session consisted of the SDS and JOBS:OSD. No more than 48 hours lapsed between the two sessions. Participation was voluntary and confidentiality was maintained (e.g., participants were identified by a code number). All participants were informed about the purpose and nature of the research.

### **Results - Analysis of Data**

An alpha level of .05 was used for all statistical analysis. Bivariate scatter plots, tests of normality, and preliminary multiple regression analyses were run to check for outliers, non-normality, nonlinear relationships, and multicollinearity. Two cases with extremely low  $z$  scores on SD scale were found to be univariate outliers and deleted. Four questionnaires were excluded due to substantial missing data or participant drop out. Thus, from the original sample of 100 participants, 94 were included in the analysis. No violations of assumptions were found other than evidence of multicollinearity between JP and WRSB.

Evaluations of multicollinearity showed a high correlation coefficient of .953 between JP and WRSB. This multicollinearity may be due to the work related behaviors being performance driven. Thus, WRSB and JP were combined in one variable and referred to as job performance (JP). To examine the relationship between variables, three multiple regression analyses were performed to analyze significant relationships (Tabachnick & Fidell, 2001). In all three hypotheses the null hypotheses were rejected due to the linear combination of predictor measures being significant. Beta weights and hierarchical multiple regression analysis were used to determine the percentage of the predictor variables contribution to the total variance of the selected criterion variables (Tabachnick & Fidell, 2001) of JR, JP, and JS.

#### *Hypothesis One – Regression Analysis One*

Entering all variables simultaneously, the linear combination predictor measure (PJC, SD, JP, and JS) was significantly related to job retention,  $F(4, 89) = 10.295$ ,  $p < .05$  and considered significantly better than would be expected by chance. The multiple correlation coefficient ( $R$ ) was .562, and  $R^2$  was .31 indicating that approximately 31% of the variance of job retention in the sample could be accounted for by the linear combination of the predictor variables, PJC, SD, JP, and JS. Table 1 presents indices to indicate the relative strength of the individual predictors by examining the significance, partial correlations,  $R$ ,  $R^2$ , adjusted  $R^2$ , and the change in  $R^2$ . All the bivariate correlations between the predictor measures (JP, SD, PJC, and JS) and the job retention (JR) measure were positive as expected. Two of the four work measures (JS and SD) were statistically significant at .05 ( $p < .05$ ). On the basis of these correlational analyses, it was concluded that the only useful predictors for predicting job retention of adult workers with mental retardation (MR) were SD and JS. These predictors alone accounted for 28% of the variance of the job retention scale. A stepwise hierarchical regression was used to assess whether a variable substantially added to prediction by examining the  $R^2$  and the change in  $R^2$ . In the sample, it could be concluded that SD was the most important predictor of JR and accounted for 24% of the variance of the job retention scale. JS accounted for 5% of the variance; PJC and JP were not significant and together accounted for 1% of the variance.

Table 1. *Partial Correlations and Hierarchical Regression for Job Retention*

	Sig	Partial Correlations	R	R Square	Adjusted R Square	R Square Change
SD	.000	.28**	.494	.244	.236	.244
JS	.012	.25**	.544	.296	.280	.051
JP.	.107	.17	.562	.315	.293	.020
PJC	.789	.02	.562	.316	.286	.001

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

*Hypothesis Two – Regression Analysis Two*

Entering all variables simultaneously, the linear combination predictor measure (PJC, SD, JS, and JR) was significantly related to JP,  $F(4, 89) = 16.881$ ,  $p < .05$ . The multiple correlation coefficients ( $R$ ) was .657, and  $R^2$  was .431, indicating that approximately 43% of the variance of job performance (JP) in the sample could be accounted for by the linear combination of the predictor variables PJC, SD, JS, and JR. Table 2 reports indices to indicate the relative strength of the individual predictors by examining the beta weights, partial correlations,  $R$ ,  $R^2$ , Adjusted  $R$  square, and the change in  $R^2$ . All the bivariate correlations between the predictor measures (SD, PJC, JS, and JR) and the job performance (JP) measure were positive as expected. Two of the four work measures (SD and PJC) were statistically significant at .05 ( $p < .05$ ). On the basis of these correlational analyses, it was concluded that the only useful predictors for predicting JP of adult workers with mental retardation (MR) were SD and PJC. These predictors alone accounted for 35% of the variance of the job performance scale. A stepwise hierarchical regression was used to assess whether a variable substantially added to prediction by examining the  $R^2$  and the change in  $R^2$ . In the sample, it was concluded that SD was the most important predictor of JP and accounted for 33.5% of the variance of the job performance scale. PJC accounts for 7.5% of the variance. JR and JS were not significant and together accounted for only 2% of the variance.

Table 2. *Partial Correlations, Hierarchical Regression for Job Performance*

	Sig.	Partial Correlations	R	R Square	Adjusted R Square	R Square Change
SD	.000	.35**	.579	.335	.328	.335
PJC	.001	.34**	.640	.410	.397	.075
JR	.077	.17	.656	.430	.406	.020
JS	.686	.04	.657	.431	.411	.001

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

*Hypothesis Three – Regression Analysis Three*

Entering all variables simultaneously, the linear combination of predictor (SD, PJC, JP, and JR) measures was significantly related to JS,  $F(4, 89) = 8.035$ ,  $p < .05$ . The multiple correlation coefficient ( $R$ ) was .516, and  $R^2$  was .267, indicating that approximately 27% of the variance of JS in the sample could be accounted for by the linear combination of the predictor variables, SD, PJC, JP, and JR. Table 3 presents indices to indicate the relative strength of the individual predictors by examining the significance, partial correlations,  $R$ ,  $R^2$ , adjusted  $R$  square, the change in  $R^2$ . All the bivariate correlations between the predictor measures (SD, PJC, JP, and JR) and the job satisfaction (JS) measure were positive as expected. Two of the four work measures (SD and JR) were statistically significant at .05 ( $p < .05$ ). On the basis of these correlational analyses, it was concluded that the only useful predictors for predicting job satisfaction of adult workers with MR were SD and JR. These predictors alone accounted for 26% (.26 + .25 = 0.51 squared) of the variance of the job satisfaction scale. A stepwise hierarchical regression was used to assess whether a variable substantially added to prediction by examining the  $R^2$  and the change in  $R^2$ . In the sample, it could be concluded that SD was the most important predictor of JS and accounted for 21% of the variance of the job satisfaction scale. JR accounted for 5% of the variance. PJC and JP were not significant and together accounted for less than 1% of the variance.

Table 3. *Partial Correlations, Hierarchical Regression with Job Satisfaction*

	Sig.	Partial Correlations	R	R Square	Adjusted R Square	R Square Change
SD	.00	.26**	.460	.211	.203	.211
JR	.01	.25**	.515	.265	.249	.054
JP	.64	.04	.515	.266	.241	.001
PJC	.85	.00	.516	.267	.232	.001

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

## Interpretations / Conclusions of Results

The findings of the data analyses confirm that not all the variables in the hypothesized JR model were statistically significant. In the study and consistent with the literature, JS and SD are predictors of JR; SD and PJC are predictors of JP; JR and SD are predictors of JS. Additionally, there is a predictive relationship between PJC and SD. Inconsistent with the literature and hypothesized model, there is no significant relationship between JR and JP or between JP and JS. The results also showed no significant relationship of PJC with JS, nor JR. This suggests that there is a limited fit between the hypothesis model and the study's findings. While, the findings revealed that only two of the study variables (SD, JS) were significant predictors of JR, the analysis revealed that SD has a unique and strong predictive capability for all three work outcomes (JR, JP, JS). Conclusions and interpretations drawn from the results of this study are discussed by each criterion variables; JR, JP, JS as well as SD. SD is discussed as this was the variable that contributed the most in all three hypotheses.

### *Interpretation/Conclusion 1 - Predictors of Job Retention*

Consistent with the hypothesized model, H1 supported the existence of a positive relationship between SD, JS, and JR of adult workers with MR. SD accounted for most of the variance, 24%, and is the major predictor of JR. Although significant, JS accounted for only 5% of the variance, and the correlations were low to moderate.

*SD – JR relationship.* The significant relationship between SD and JR indicates that individuals who possess high self-determination are more independent and more likely to find competitive employment (Wehmeyer & Palmer, 2003). These individuals are significantly more likely to be working for higher wages and receive more company benefits (Wehmeyer & Palmer, 2003). This leads to longer job retention and financial independence. This successful job retention helps people with MR establish social relationships, develop self-confidence, and further self-determination skills, improving their quality of life (Roessler & Rubin, 1998).

*JS – JR relationship.* The significant positive relationship between JS and JR supports the hypothesized JR model which suggests that individuals with MR who are satisfied with their job and their work environment are employed longer. Satisfaction occurs when the job provides activities that reinforce personal preferences. Job satisfaction refers to the degree to which people like their jobs (Spector, 1997) and the feelings about their job or job experiences in relation to previous experiences, current expectations, or available alternatives (Balzer, Kihm, Smith, Irwin, Bacheochi, & Robie, 2000).

*PJC - JR and JP – JR relationship.* Results indicated that both PJC and JP failed to demonstrate significant predictive relationships with JR. These results are inconsistent with the hypothesized JR model's prediction and with Roessler's (2002) 3M Job Retention Model. The 3M Job Retention Model suggests that the appropriate person-job match is a prerequisite to improving job retention and performance outcomes (Roessler, 2002). This inconsistency may be because supported employment is a controlled environment where workers with MR are placed on the job if they perform well and have good work related behaviors regardless of their interest in the job (PJC) and work environment. Therefore, whether people are employed 3 or 36 months, they have good work performance and work behaviors. Thus, in a supported employment environment the JP-JR and the PJC-JR relationship are difficult to measure.

### *Interpretations/Conclusion 2 - Predictors of Job Performance*

In the second regression analysis, JP was the criterion variable. Consistent with the hypothesized model, SD and PJC were significant and positive predictors of JP in adult workers with MR. SD was the strongest predictor of JP and accounted for the most variance, 33.5%. Although PJC was significant, it accounted for only a small portion of the variance 7.5%. JR and JS were not significant and together accounted for only 2% of the variance.

*SD – JP relationship.* The significant relationship between SD and JP adds to the current body of knowledge around SD and positive outcomes for working adults with MR. Workers who were more self-determined performed better on the job and are more independent (Wehmeyer & Palmer, 2003). Self-determination empowers individuals to plan and make choices about their careers, work, and life (Wehmeyer, 2001). Enhanced self-determination of adults with MR moves these individuals to community-based work and independent living environments (Wehmeyer & Palmer, 2003).

*PJC – JP relationship.* The significant relationship between PJC and JP further confirms Roessler's (2002) in that careful job match or person-job congruency results in good job performance. Additionally, proper placement, support, and careful job match that take into account individual interests, skills, and abilities results in good job performance (Rosenberg & Brady, 2000). With proper job match and support, workers with MR perform their jobs equal to or better than non-disabled workers at entry-level positions (Rosenberg & Brady, 2000).

*JS – JP relationship.* Results indicated that JS failed to demonstrate significant predictive relationship with JP. This result contrasts Roessler's (2002) model but is consistent with research (Iaffaldano & Muchinsky, 1985; Tett & Meyer, 1993) in non-disabled populations. It has been found that no relationship exists between JP and JS for individuals without MR (Iaffaldano & Muchinsky 1985). Thus, this study supports the research on the workers without MR in that JP is not predictive of JS and vice versa (Iaffaldano & Muchinsky, 1985; Tett & Meyer, 1993).

### *Interpretations/Conclusion 3 - Predictors of Job Satisfaction*

In the third multiple regression analysis, JS was the criterion variable. Consistent with the hypothesized JR model, SD and JR were significant predictors of JS. SD accounts for most of the variance in JS (21%), JR accounted for 5% of the variance. PJC and JP were not significant and together accounted for less than 1% of the variance.

*SD – JS relationship.* Consistent with the hypothesized model, when individuals with MR capitalize on their self-determination, they are able to solve unpredictable problems. In the 3-M Model, the mastery component involves workers' abilities to adjust to inevitable and unpredictable problems on the job. Resolving unexpected problems on the job requires self-determination skills to define problems accurately, generate feasible options, and implement the steps required to solve the problem. This self-determination skill of problem solving promotes job satisfaction as well job retention (Ironson et al., 1989).

*PJC – JS relationship.* Results indicated that PJC failed to demonstrate significant predictive relationship with JS that is inconsistent with the literature and the hypothesized job retention model. Roessler (2002) purports a high correlation between job match or person-job congruency, and job satisfaction and quality of life satisfaction (Roessler & Rubin, 1998). One possible explanation for this inconsistency might be internal motivation of individuals with MR and their aim to please and do a good job no matter what the job is (Rosenberg & Brady, 2000). Additionally, the inconsistency may also be because supported employment is a controlled environment where workers with MR are placed on the job regardless of their interest in the job (PJC). Thus in a supported employment environment, the PJC-JS relationship is difficult to measure.

### *Self-Determination – The Main Predictor of Important Work Outcomes (JR, JP, JS)*

Self-determination theory (SDT; Deci, 1992) is a general theory of human motivation concerned with the development and functioning of personality within social contexts and focuses on the degree to which human behaviors are volitional or self-determined or the degree to which people endorse their actions at the highest level of reflection by engaging in the actions with a full sense of choice (Ryan & Deci, 2000). Documenting the impact of self-determination on lives of individuals with disabilities helps to focus resources on this effort and to better understand how much self-determination contributes to educational and work goals to increase self-sufficiency, autonomy, and valued adult outcomes like employment, community integration, or independent living. However, opportunities to learn and practice skills related to self-determination for individuals' with disabilities are often limited because their intellectual capacity is underestimated by their co-workers, supervisors, and parents (Wehmeyer & Palmer, 2003). While there is no doubt that intellectual ability contributes to one's capacity to become self-determined, intelligence level does not account for differences in self-determination (Wehmeyer & Palmer, 2001; Wehmeyer & Palmer, 2003). Self-Determination Theory (Deci, 1992) is based on the assumption that people are active organisms, with innate tendencies to strive to master ongoing challenges and to integrate their experiences into a coherent sense of self. These natural human tendencies do not operate automatically, but require ongoing supports from the social, educational, and work environment to function effectively. Each of these environments can either support or thwart the natural tendencies toward active engagement and psychological growth. Given that this dialectic between the active organism and the environment serves as basis for SDT's predictions about work behavior, experience, and development (Deci, 1992), it should be a major focus of HRD and rehabilitation professionals. HRD and rehabilitation professionals are in the position to support the natural tendencies for workers with MR to master self-determination skills and professional growth.

### **Implications for HRD**

Contributions made by this study are that self-determination and person-job congruency are particularly relevant in predicting long-term employment, good job performance, and job satisfaction for people with MR. While vocational rehabilitation (VR) services encourage independent behavior and learning self-determination skills (Wehmeyer, 2001), HRD and organizations rarely provide services to address the training and development of these skills in workers with MR. Given similarities in the goals of both VR and HRD, there is a natural fit between these two disciplines regarding workers with MR.

A central goal of HRD professionals is to broaden understanding of the complex activities involved in assisting individuals and organizations to improve their abilities to develop themselves and others in the organization (McLean & McLean, 2001). McLean and McLean (2001) proposed a cross-national definition of human resource development: "Human resource development is any process or activity that, either initially or over the long term, has the potential to develop ... work-based knowledge, expertise, productivity and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation, or, ultimately, the whole of humanity" (p. 10). HRD is comprised of four primary functions: training and individual development, career development, organizational development, and performance improvement (Gilley & Egglund, 1995). Similarly, vocational rehabilitation focuses on individual development through skill training and career counseling to enhance work performance and satisfaction. Vocational rehabilitation (VR) offers individuals with mental or physical disabilities services that are designed to enable

participants to attain skills, resources, attitudes, and expectations needed to compete, get, and keep a job. Vocational rehabilitation services prepare individuals with MR to achieve a lifestyle of independence and integration within their workplaces, families and communities (Wehman, 2001).

Considerable planning and facilitation of individuals with MR participation in the workforce should include coordination between HRD and VR. Based on the data, HRD and VR strategies that encompass person-job congruency and self-determination skill development will predict long-term employment, job satisfaction and good performance of workers with MR. Areas to consider for individual and organizational performance improvement are individual development, including assessment and training, and career development/counseling strategies.

#### *Individual Development*

“Individual development refers to the development of new knowledge, skills, and/or improved behaviors that results in performance enhancement and improvement related to one’s current job (training)” (Gilley & Egglund, 1995, p. 15). While both HRD and VR professionals use training to provide new skills and knowledge, prior to training an assessment of current skills and behaviors must be conducted by the HRD or VR professional.

*Assessment for individual development.* Assessment gives employees an opportunity to review the work they have accomplished; to identify and illuminate particularly strengths, and to identify areas of weakness that need improvement. VR conducts assessments to identify transferable skills and job readiness (Cook & Cripps). The ultimate end of the assessment process should be a set of goals that the supervisor and employee mutually agree upon for the subsequent period. The data identified predictors to important work outcomes for individuals with MR. Validation of the study’s revised job retention model developed in this research could lead to the development of a diagnostic tool to assess performance and satisfaction of adult workers with MR. A diagnostic assessment tool developed from the results of this study will allow HRD and rehabilitation professionals to identify the strengths and limitations of workers with MR. This knowledge of the strengths and weakness of a worker with MR will allow for more focused training.

*Training.* Training includes learning that is provided in order to improve performance on the present job (Gilley & Egglund, 1995) or a method to stimulate individual change (Sredl & Rothwell, 1987). Skill acquisition as a result of formal education, vocational training, or on-the-job training is a significant employability and performance factor (Sredl & Rothwell, 1987). Based on the data and study’s results, self-determination is a strong and significant predictor of JR, JP, and JS. Furthermore person-job congruency is a strong predictor of JP. Training that promotes self-determination skills will enhance workers’ performance, job satisfaction, and promote their capacity to progress in the job that may enhance the overall organizational performance. HRD and VR professionals that help managers, supervisors, and co-workers teach individuals with MR self-determination strategies and goal-setting skills improves their critical learning skills and organizational involvement (Woods & Martin, 2004). Given the similarities in goals and objectives of HRD and VR professionals, VR could provide assistance to HRD in both training and career development.

#### *Career Development*

Career development is an organized, planned effort comprised of structural activities or processes that advance employees within an organization and result in their optimal utilization (Gilley & Egglund, 1995). Similar to person-job congruency, career development focuses on a strategic effort to create a balance between the individual’s interests, values, skills, strengths, abilities, and career aspirations (Gilley & Egglund, 1995; Leibowitz, 1987). Based on the data and results of this study when individual with MR that are allowed to be self-determined in their job choices, and select jobs that provide person-job congruency, their performance and job satisfaction maybe enhance leading ensuring long term employment. Thus, HRD and VR professionals that provide career development strategies that encompass self-determined choices based on person-job congruency may assist workers with MR to perform better and be more satisfied on the job leading to long-term employment. Career development is frequently equated with upward mobility which is a misconception that should be clarified. Organizational information regarding other opportunities for job movement should be shared and explored with workers with MR, such as job enrichment, job rotation, lateral moves, and realignment moves. VR professionals can assist HRD professionals in designing career development strategies that align a worker with MR in a lateral or realignment move versus termination. To enhance workers with MR self-determination skills, career development should encompasses a career planning sub-component. Career planning refers to individual processes and intent to meet individual needs (Gutteridge & Otte, 1983). Career planning programs should focus on enhancing the following competencies in workers with MR: self-appraisal and career exploration and career goal setting.

This study provides HRD with the understanding of the importance of developing individuals with MR to be self-determined and allowing them to work at jobs that meet their interests and abilities, leading to better job performance, satisfaction, and longer employment of individuals with MR.

## References

- Balzer, W. K., Kihm, J. A., Smith, P. C., Irwin, J. L., Bacheochi, P. D., & Robie, C. (2000). Users' manual for the Job Descriptive Index (JDI; 1997 version) and the Job in General scales. In J. M. Stanton & C. D. Crossley (Eds.), *Electronic resources for the JDI and JIG* (pp. 34-37). Bowling Green, OH: Bowling Green State.
- Brady, M. P., & Rosenberg, H. (2002). Job observation and behavior scale: A supported employment assessment instrument. *Education and Training in Mental Retardation & Developmental Disabilities, 37*, 427-433.
- Brady, M. P., Rosenberg, H., & Frain, M. (2006). *Job Observation and Behavior Scale: Opportunity for Self-Determination (JOBS: OSD); Examiner's manual*. Wood Dale, IL: Stoelting.
- Cook, M., & Cripps, B. (2005) *Psychological assessment in the workplace*. West Sussex, England: John Wiley & Sons Ltd.
- Deci, E. L. (1992). *Intrinsic motivation*. New York: Plenum Press
- Field, S., Martin, J., Miller, R., Ward, M., & Wehmeyer, M. (1998). Self-determination for persons with disabilities: A position statement of the division on career development and transition. *Career Development for Exceptional Individuals, 21*(2), 113-128.
- Gilley, J., & Egglund, S. (1995). *Principles of human resource development*. Reading, MA: Addison-Wesley.
- Green, S. B. (1991). How many subjects does it take to do a regression analysis? *Multivariate Behavioral Research, 26*(2), 449-510.
- Holland, J. L. (1985). *The self-directed search professional manual*. Odessa, FL: Psychological Assessment Resources.
- Iaffaldano, M. T., & Muchinsky, P. M. (1985). Job satisfaction and job performance: A meta-analysis. *Psychological Bulletin, 97*, 251-273.
- Ironson, G. H., Smith, P. C., Brannick, M. T., Gibson, W. M., & Paul, K. B. (1989). Constitution of a Job in General Scale: A comparison of global, composite, and specific measures. *Journal of Applied Psychology, 74*(4), 193-200.
- McLean, G. N. & McLean, L. D. (2001). If we can't define HRD in one country, how can we define it in an international context? *Human Resource Development International 4*(3), 313-326
- Mueser, K. T., Becker, D. R., & Wolfe, R. (2001). Supported employment, job preferences, job tenure and satisfaction. *Journal of Mental Health (UK), 10*(2), 411-417.
- Roessler, R. T. (2002). Improving job tenure outcomes for people with disabilities: The 3M model *Rehabilitation Counseling Bulletin, 45*(3), 207-212.
- Roessler, R. T., & Rubin, S. (1998). *Case management and rehabilitation counseling*. Austin, TX: Pro-Ed.
- Rosenberg, H., & Brady, M. P. (2000). *JOBS – Job Observation and Behavior Scale examiner's manual*. Wood Dale, IL: Stoelting.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(3), 68-78.
- Sredl, H.J., & Rothwell, W. J. (1987). *The ASTD reference guide to professional training roles & competencies, Vol. 1 & 2*. New York: Random House
- Super, D. E. (1990). A life-span life-space approach to career development. In D. Brown, L. Brooks, & Associates (Eds.), *Career choice and development: Applying contemporary theories to practice* (2<sup>nd</sup> ed., pp. 197-261). San Francisco: Jossey-Bass.
- Switzky, H. N. (1997). Individuals' differences in personality and motivational systems in persons with mental retardation. In W.E. MacLean (Ed.), *Ellis' handbook of mental deficiency, psychological theory and research* (3<sup>rd</sup> ed., pp. 343-377). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariable statistics* (4<sup>th</sup> ed.). Boston: Allen & Bacon.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, an turnover: Path analyses based on meta-analytic findings. *Personnel Psychology, 46*, 259-293.
- Wehman, P. (2001). *Support employment in business: Expanding the capacity of workers with disabilities*. St. Augustine, FL: Training Resource Network.
- Wehmeyer, M. L. (1996). Self-determination as an educational outcome: Why is it important to children, youth, and adults with disabilities: In D.J. Sands & M.L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp. 17-36). Baltimore: Paul H. Brookes Publishing.
- Wehmeyer, M. L. (2001). Self-determination and mental retardation. In L. M. Glidden (Ed.), *International review of research in mental retardation* (Vol. 24, pp. 1-48). San Diego, CA: Academic Press.
- Wehmeyer, M. L., & Palmer, S. B. (2003). Adult outcomes for students with cognitive disabilities, three-years after high school: The impact of self-determination. *Education & Training in Developmental Disabilities, 38*(2), 131-144.
- Wood, L.L., & Martin, J.E. (2004). Improving supervisor evaluations through the use of self-determination contracts. *Career Development for Exceptional Individuals, 27*(2), 207-220.