Enhancing the Job Performance of Employees with Disabilities Using the Self-Determined Career Development Model

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Abstract: The purpose of this study was to examine the impact of the Self-Determined Career Development Model (SDCDM) on the job performance of four adults with moderate intellectual disabilities employed in competitive work settings. Employees learned to set work-related goals, develop an action plan, implement the plan, and adjust their goals and plans as needed. A multiple baseline design across employees was implemented. All four participants achieved their self-selected goal at levels that exceeded their supervisor and job coach expectations. Findings extend the current line of research utilizing the SDCDM and support the use of the model by personnel providing support to individuals with disabilities in work settings.

For over a decade promoting the self-determination of people with disabilities has greatly impacted both practice and policy in the fields of special education and adult service delivery (Agran & Hughes, 2005). In both systems, self-determination is viewed as a basic human right promising that individuals can and should exert control over their own lives. There has been emerging evidence of the direct relationship between enhanced self-determination and positive adult outcomes in lives of people with disabilities (Wehmeyer & Schwartz, 1998; 1997). For example, a recent investigation examining the impact of self-determination on young people with disabilities three years post graduation indicates that individuals exhibiting high self-determination fared better as adults than those with low self-determination in many major life areas including employment, access to health and other benefits, financial independence, and independent living (Wehmeyer & Palmer, 2003).

Self-determination has been defined as volitional actions that enable one to act as the primary causal agent in one's life and to maintain or improve one's quality of life (Wehmeyer, 2005). Experts in the field remind us that all individuals, including those with significant challenges, can become more self-determined given the skills, opportunities and necessary supports (Agran et al. 2005, Ward, 2005; Wehman, 2006; Wehmeyer). The literature suggests that the role of educators in enhancing self-determination is through teaching youth with disabilities the knowledge and skills related to component elements of self-determined behavior (i.e. choice-making, decision-making, problem-solving, goal-setting, self-regulation). Although there is consensus in special education that promoting these elements is important, evidence exists that self-determination has been given limited instructional emphasis. Research indicates that student IEP goals related to self-determination are minimal or nonexistent (Agran, Snow, & Swamer, 1999; Powers, Gil-Kashiwabara, Powers, & Greenen, 2005; Wehmeyer et al., 1998). Additionally, teachers report lack of knowledge, training, and experience in teaching self-determination skills (Mason, Field, & Sawilowsky, 2004; Thoma, Nathanson, Baker, & Tamura, 2002). Consequently, many youth with disabilities are leaving the educational system with little knowledge or skills in obtaining the outcomes they
desire in major life events such as employment and independent living.

The importance of service providers promoting self-determination to young adults with disabilities post graduation is also reported in the literature. There is growing evidence in the field of vocational rehabilitation (VR) that enhancing choice opportunities leads to better VR-related outcomes. For example, Farley, Bolton, and Parkerson (1992) evaluated the impact of consumer choice strategies and found that individuals who were actively involved in VR planning enhanced their vocational career development outcomes. Similarly, an investigation compared the costs, services and outcomes achieved for people served through the typical VR system and those involved in a “Consumer Choice Demonstration Project” in Vermont (Hartnett, Collins, & Tremblay, 2002). The Choice group was two times more likely to have completed rehabilitation and earned a mean income that was 2.7 times higher. The literature suggests that a major role of adult service providers is to continue to foster self-determination and self-advocacy skills to adult consumers through education and training strategies (Lamb, 2003).

The essence of self-determination is empowering people by providing skill instruction and practice so they can obtain the outcomes they desire (Ward, 2005). A noteworthy model has emerged both in the fields of special education and adult service delivery for teaching individuals a process in becoming causal agents in their own lives. The Self-Determined Learning Model of Instruction (SDLMI) was developed for educators to teach students how to become self-regulated problem solvers and to self-direct the instructional process toward self-selected goals (Mithaug, Wehmeyer, Agran, Martin, & Palmer, 1998). Students learn a series of questions that form a problem-solving sequence: “What is my learning goal?” “What is my plan?” and “What have I learned?” Through a self-regulated learning process, students are actively in control of their learning from goal setting through evaluation. The teaching model, based on component elements of self-determination and principals of self-regulated problem solving, has shown to be effective in enabling students to gain educationally valued goals and significantly enhance their self-determination (Agran, Blanchard, & Wehmeyer, 2000; Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000).

In recent years, the value of this model was recognized by adult services. The SDLMI was modified for Vocational Rehabilitation (VR) personnel to use in supporting adults receiving VR services. The Self-Determined Career Development Model (SDCDM) is identical in organization and function to the SDLMI however focuses specifically on job and career related goals for adults (Wehmeyer, Lattimore, Jorgenson, Palmer, Thompson, & Schumaker, 2003). The model provides a framework for teaching individuals to set career or job related goals, develop action plans, solve problems, and self-regulate their work behavior. A pilot study utilizing the model involved five adults seeking employment who were receiving services from a VR counselor (Wehmeyer et al.). Participant’s target goals were related to improving social interactions with supervisors and co-workers, gathering and responding to job-related information leading to employment, developing organization and time management skills, and improving personal presentation. Although action plan implementation was limited to role-play or simulations, positive increases toward goal attainment was observed in four of the five adults. The SDCDM enabled individuals to identify meaningful goals for themselves and take action towards achieving them. In turn, consumers were able to achieve more positive VR outcomes.

Participant outcomes are promising for use of The Self-Determined Career Development Model in adult service delivery, although application in real-life settings is limited. In addition to promoting greater consumer involvement in job attainment, it is hypothesized that the model would also be an effective tool in enhancing job performance after an individual secured employment. The purpose of this study was to extend the line of research utilizing the SDCDM by examining the impact of the model on the job performance of four individuals recently employed in competitive employment settings. The research was conducted at a Midwestern university, which has a unique program providing a comprehensive approach to employment, job retention, and career advancement for individuals with dis-
abilities on the college campus (Project SCOUT – Securing Career Opportunities at the UT). The program has been in existence for two years and offers customized job matching and ongoing supports in collaboration with community adult service agencies. At the time of the study, adult service agency partners provided ongoing support to individuals qualifying for services.

Method

Participants

The study involved four adult males with moderate intellectual disabilities employed at the University of Toledo as custodians through Project SCOUT. At the time of the study, all four participants worked 20 hours per week and had been employed between two and four months. All four employees had active case files with adult services and received initial and follow-up services from three job coaches. As a component of the program, all participants had received an initial one-month evaluation from their supervisor that focused on employee strengths and specific job-related areas needing improvement. Two supervisors at the university selected employee participants on the basis of their need for increased independence and autonomy in their work performance. Participants ranged in age from 20 to 32 with a mean age of 26. Table 1 displays participant characteristics. Employees expressed interest in the process and provided informed consent to participate in the study.

Setting

Work placements were part-time custodial positions at two adjacent buildings on the university campus. There were two employees in each building with work schedules during the same time each day. All four employees had general cleaning duties on different floors of the designated buildings. Fred, Matt, Kevin, and Steve had the following common duties: cleaning sinks and countertops in classrooms, vacuuming and sweeping classroom and faculty offices, sweeping and mopping hallways, sweeping stairwells, and cleaning windows, doors, and window ledges. Matt had the additional duty of cleaning two bathrooms. Kevin’s additional task was to clean the foyer, lounge area, and outdoor balcony on his floor. In addition to overall cleaning tasks, Steve also vacuumed a large auditorium. Since Fred completed his assigned tasks in a timely manner, he was given the additional duty of checking in with Kevin to assist him on an as-needed basis. The study took place over eight weeks during university summer sessions. During that time of year there was moderate activity throughout the time period the custodians were working.

<table>
<thead>
<tr>
<th>Employee</th>
<th>Age (years)</th>
<th>Classification</th>
<th>Support needs</th>
<th>Dependent Variable</th>
<th>Mos. in job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fred</td>
<td>M 32</td>
<td>Moderate intellectual disability</td>
<td>Limited</td>
<td>Reading work related words and phrases</td>
<td>4</td>
</tr>
<tr>
<td>Matt</td>
<td>M 20</td>
<td>Moderate intellectual disability</td>
<td>Limited</td>
<td>Job tasks completed correctly</td>
<td>2</td>
</tr>
<tr>
<td>Kevin</td>
<td>M 21</td>
<td>Mild intellectual disability</td>
<td>Limited</td>
<td>Job task completion Time to complete tasks</td>
<td>3</td>
</tr>
<tr>
<td>Steve</td>
<td>M 30</td>
<td>Moderate intellectual disability</td>
<td>Limited</td>
<td>Use public transit</td>
<td>3</td>
</tr>
</tbody>
</table>

*Based on program terminology used during employee screening process
*Based on support hierarchy from Mental retardation: Definition, Classification, and Systems of Support, American Association on Mental Retardation (AAMR)
Dependent Measures

The dependent measure for the study included the percentage of correct responses for each participant. Employees selected a targeted goal that they believed was important for improved independence and job performance. Participants met individually with the project facilitator, trainer, and job coach at the onset of the project to determine a work related goal they wished to achieve. Employees were asked to respond to the following questions (Phase 1): What do you do at your job? What do you like most about your job? What tasks do you do well? What tasks do you sometimes need help with? What task would you like to improve in to become better in your job? With the responses to these questions as a starting point, each employee chose a job-related target skill they wanted to perform more independently. Goals chosen were also areas identified as needing improvement on recent evaluations for two of the four employees. After identifying a goal that was of most interest, employees were asked what they needed to do to meet their goal. The project trainer and job coach clarified the action steps suggested and presented possible ideas to each employee for his approval.

The four participants chose a variety of goals. Fred’s goal involved learning to read work-related words and phrases. He was passionate about learning to read and to ultimately obtain a driver’s license. Fred’s supervisor acknowledged advantages to being able to communicate with him via written notes regarding work-related tasks. Importance was placed on words representing daily tasks along with temporal words such as “daily”, “weekly” and “every other day”. The dependent measure developed for Fred involved a list of 30 work related words and short phrases determined to be important by Fred and his supervisor. The second participant, Matt, was the least experienced employee in that he had recently transitioned from high school. Matt’s goal focused on his ability to determine if tasks were completed correctly when cleaning the bathrooms. The dependent measure developed to record baseline and progress for Matt included a five-task sequence with sequential steps for each task.

Kevin chose task completion and duration of time needed to complete tasks as his target goal. He displayed concern with his recent evaluation stating that at times he is not able to finish all of his tasks. The dependent measure involved a task sequence with sequential steps in the three areas indicated as being problematic for Kevin. Finally, Steve identified that he would like to learn how to take the local bus transit system to and from work. His supervisor had also commented that Steve was periodically late for work due to personal issues. The dependent measure developed involved a ten-task sequence focused on getting to and from the work site. All four employee-participants acknowledged that they wanted to work towards successful performance of their targeted goal.

Observation and Recording Procedures

Four trained observers collected data on a regular basis throughout the baseline, training, and maintenance conditions of the study. Data were collected at the employees respective work location with the exception of Steve, who was observed on his way to work. Each participant was observed two to four times per week for approximately eight weeks. The four observers collected individual coded data sheets on all participant employees. Each observer completed coded data sheets indicating employee response.

Observer Training

Observers were university staff and graduate students who had an interest in the transition of students from school to work. Observer training took place prior to collection of baseline data over four sessions. The initial training session introduced phases of the SDSDM model to all observers. After an employee goal and action plan was established, each observer was subsequently trained in the use of coding sheets for each participant. Since data collected differed based on target behavior of each participant, observers were trained in observable criteria specific to each employee response. In general, participants earned a “+” for tasks completed or criteria met, or “0” for tasks not completed or met. Beginning and ending time was additionally recorded for Kevin, who had the additional goal of com-
pleting tasks in an appropriate timeframe. Training observations were conducted until observers met an 80% reliability criterion across two consecutive sessions.

**Interobserver Agreement**

Interobserver data were gathered on approximately 30% of all observations across participants and conditions. A Point-by-point comparison was used to calculate inter-observer agreement. Agreement was computed by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100. Mean agreement during baseline was 100%. During training, mean agreement was 95% and 98% in the maintenance condition.

**Goal Attainment Scaling**

The Goal Attainment Scaling (GAS) process (Kiresuk, Smith, & Cardillo, 1994) was used to measure employee goal attainment. The process involves establishing goals and specifying a range of outcomes or behaviors that indicate progress in achieving these goals (Carr, 1979). The success of the model cannot be determined until the employee has satisfactorily achieved his self-selected goal. GAS scores were determined through the following sequence of actions. After talking with each participant about his goal and action plan, the supervisor and job coach collaboratively determined a possible outcome among a five-scaled continuum from the most unfavorable outcome of employee progress to the most favorable potential outcome. The five outcomes are described quantifiably (e.g. percent correct) and assigned a numerical value ranging from −2 to +2. The midpoint on the scale (0) is the expected outcome, which is what the supervisor and job coach would consider a satisfactory outcome from the training process. At the end of the instructional period, the supervisor and job coach referred to the five potential outcomes and selected the one that best described each employee’s actual progress on their goal. Using a raw-score conversion key for GAS developed by Cardillo (1994), raw scores were converted to standardized T-scores with a mean of 50 and a standard deviation of 10. The conversion of raw scores to a standardized score allows comparison between goal areas and subjects, independent of the particular goal area. When interpreting scores from the GAS it is important to note that the converted T-score of 50 represents an acceptable outcome, where an acceptable outcome means that the employee achieved the goal to the level expected by the supervisor/job coach. Standardized scores of 40 or below indicate that the employee did not achieve an acceptable outcome, and scores of 60 and above indicate that the employee’s progress exceeded expectations.

**Social Validation**

At the conclusion of the training period, information was gathered from supervisors and job coaches regarding their perception of the SDCDM. Specifically, they were asked to describe each employee’s performance before and after using the model, and their view of the various phases. Data of employee perception was obtained from responses to questions (Phase III) at the conclusion of training regarding participant feelings about their goals. Additionally, anecdotal information was obtained from employees.

**Treatment Integrity**

The project trainer was a Project SCOUT staff member and a previous special education teacher. To ensure integrity of the treatment, the trainer was observed by the project director and a job coach during training. An agreement was scored when both observers recorded each step of a training sequence protocol. This procedure was followed for each participant employee during treatment condition. Percent agreement was calculated by dividing the number of agreements by the number of agreements and disagreements and multiplying by 100. Training was implemented with 100% accuracy over all four participants.

**The SCDM**

The Self-Determined Career Development Model was developed to enable adult service providers to support individuals in becoming self-regulated problem solvers, to self-direct in
the career decision-making process, and to gain enhanced self-determination (Wehmeyer et al., 2003). Three phases constitute the framework of the model, each presenting a problem to be addressed by the individual (Table 2). The model uses a generic set of questions that can be altered based on individual understanding of the basic concept. The essential factor is that questions in each phase represent steps in the problem-solving sequence. Specifically, individuals answering the questions must: (a) identify a problem, (b) identify potential solutions to the problem, (c) identify barriers to solving the problem, and (d) identify consequences of each solution. These steps form the means-end problem solving sequence represented by questions in each phase. Questions that follow this basic framework allow individuals to modify their own behavior, and thus become self-directed in reaching their goal.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Problem/Overall Objective</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Set a career/job goal</td>
<td>Problem to Solve: What are my career and job goals? Enable person to identify strengths/needs and current status in relation to job and career</td>
<td>What career and job do I want? What do I know about it now? What must change to achieve this? What can I do to make this happen?</td>
</tr>
<tr>
<td>II. Take action</td>
<td>Problem to Solve: What is my plan? Assist person to gather information about opportunities/barriers/supports in relation to achieving prioritized job or career goal</td>
<td>What actions can I take to reach my career or employment goal? What could keep me from taking this action? What can I do to remove these barriers? When will I take action?</td>
</tr>
<tr>
<td>III. Assess/adjust goal or plan</td>
<td>Problem to Solve: What have I achieved? Enable person to self-evaluate progress toward goal and adjust as needed</td>
<td>What actions have I taken? What barriers have been removed? What has changed? Have I achieved what I want to achieve?</td>
</tr>
</tbody>
</table>

Experimental Design and Conditions

A multiple baseline across employees was used to evaluate effects of the training model. Experimental conditions included baseline, training, and maintenance. Prior to collecting baseline data, Phase I of the SDCDM was administered to each participant culminating in the establishment of self-selected goals. Dependent measures were then identified for each goal and baseline data collection began for all participants. Phase II of the SDCDM was subsequently administered to secure an approved action plan from each participant.
Instruction and self-monitoring strategies were taught and used by employees within the SDCDM process during this condition. The mastery performance criterion for all participants was 80% of targeted behavior on the dependent measure over two consecutive days.

**Baseline.** During the baseline data collection phase, participant’s performance of target behaviors related to self-selected goals was observed and recorded. No reinforcement or feedback was provided to employees during this condition. The criterion for movement into the next phase was a minimum of three consecutive days of stable responding with no apparent trends.

**Training.** The training condition involved implementation of Phase II of the Self-Determined Learning Model of Instruction. Participants initially addressed the following questions important to this segment of the model: What are ways to reach my goal? What could keep me from reaching my goal? What can I do so that this doesn’t happen? When will I take action? During this process the project trainer, job coach and employee worked together to identify specific self-directed strategies in the formation of individual action plans. A key component with each plan involved teaching participants a self-monitoring strategy – to observe their own behavior and indicate whether or not a target behavior had been achieved. The project trainer developed a teaching script for each participant consisting of direct instruction on how to use a strategy, modeling of the strategy by the trainer, and independent practice by the employee. During this condition, job coaches were present with the project trainer for at least one day of implementation depending on employee follow-up services. Awareness of the model and initial action-plan input was important; however job coaches observed the project trainer during actual training sessions.

Since Fred’s goal did not include work-related tasks, training and subsequent practice took place during his break. Fred and the trainer discussed strategies to learn to read work-related words and together decided on the use of a picture cue strategy paired with self-monitoring. Flashcards were made with text on one side and text with picture cues on the other side. Fred learned to read words and phrases utilizing a dual-self monitoring system. He would check to see if he correctly read each word by turning over the card, placing the card in one of two piles (correct/incorrect), and subsequently marking his response as either a “+” or “0” on a checklist.

Fred and the trainer agreed that five new words would be introduced each session. Fred stated that lack of practice would keep him from reaching his goal and was given a second set of flashcards to keep at home. Matt’s action plan involved teaching him to use picture cues in order to self-evaluate if the bathroom was cleaned to specifications. With positive examples (tasks completed properly) and negative examples (tasks completed incorrectly), Matt was first taught to distinguish between pictures. He was then taught to compare his work to the picture and use a self-monitoring form to mark a “+” if his work looked like the picture and a “0” if it did not.

Kevin agreed that he had trouble remembering all the steps involved in his work-related tasks and would often skip an entire assigned area due to the length of time it took to complete tasks. Initially, Kevin chose the sequence of his routine given a list of assigned areas and tasks. The hallway, lounge and balcony were targeted areas in this study. Through modeling and role-play he was taught to correctly complete all daily tasks in these areas and mark a checklist as each task was completed. Kevin’s beginning and ending time of specific work areas was also recorded each day. Steve was initially introduced to procedures for establishing a consistent pick-up and drop-off time with the local bus transit service. The process was simulated with practice in calling the service. A task sequence was then developed using his watch alarm as an antecedent auditory cue for beginning his task sequence each morning. Additionally, Steve utilized a pocket-sized self-monitoring card with picture cues paired with words. He circled the picture if he completed the step independently and placed an “X” through the picture if he did not complete the task independently.

**Maintenance.** Maintenance data were collected on all participants. During maintenance participants were observed for correct completion of their task sequence with no additional training, praise, or feedback about
their performance. Phase III of SDLMI was implemented at the conclusion of the maintenance condition. Employees were asked to respond to the following questions and were shown a Likert scale to reflect their feeling about their goals: (a) the goal that I made was too hard, too easy, just right; (b) keeping track of my goal was good, not so good, too hard for me to keep track of; (c) my plan of action was good, not so good, and I need to try something else, and (d) I feel the progress that I made was good but I didn’t meet my goal, good – I made my goal, or I didn’t meet my goal.

Results

Figure 1 displays the percentages of correct responses for the four participant employees for each phase of the study. Following the presentation of individual performance data, GAS scores and social validation data are presented.

Fred. During baseline Fred’s knowledge of reading work-related words ranged from 50% to 53% with a mean of 51%. After just one training session, Fred’s performance rose to 70%. After three training sessions, Fred’s performance reached the criterion of 80% even though there was a gap of two days between training sessions. Fred stated that he did practice reading the words at home with the second set of flashcards. During the intervention condition Fred’s performance ranged from 70% to 80% with a mean of 77%. During the maintenance condition Fred performed between 77% and 96% with a mean of 82% over a seven-session period (approximately 2 weeks).

Matt. Matt performed between 34% and 48% accuracy of his tasks with a mean of 42% during baseline. In the intervention-training condition, his performance ranged from 72% to 93% with a mean of 86%. Matt also had an immediate rise in task accuracy and task completion after learning his self-monitoring strategy. After two consecutive days of performing over 80% he was moved to the maintenance phase. During this condition Matt’s performance rose significantly ranging from 93% to 100% with a mean of 96% over a two-week period.

Kevin. During baseline, Kevin’s performance was inconsistent ranging from 14% to 36% with a mean of 22% task completion. Beginning and ending time was also collected for Kevin. During baseline, the average length of time to complete all tasks in designated areas was 40 minutes. After four training sessions Kevin achieved the goal of 80% task completion over two consecutive days. During this second condition Kevin performed between 32% and 100% with a mean of 74%. His average time for task completion was 51 minutes. In the maintenance condition, Kevin performed at a 77%-91% level with a mean of 86% and an average time for task completion of 53 minutes.

Steve. Steve’s level of performance during baseline was 44%. There was a gap in baseline data collection due to staffing issues, however Steve’s performance remained consistent over two three-consecutive sessions. During the training phase, his performance ranged from 64 – 88% with a mean of 76%. Steve was moved into maintenance, where his mean performance was 79% over four sessions (approximately 1 week).

GAS Scores

All employees exceeded supervisor/job coach expectation for achievement of their goals. Kevin and Matt obtained a GAS score of 70; Fred and Steve obtained a GAS score of 60. Employees attained a score higher than the satisfactory level of achievement (50). Thus, all participants achieved their personal goals above supervisor/job coach expected outcome levels.

Social Validation

At the conclusion of the study, job coaches (3) and supervisors (2) responded to questions regarding their perception of employee goal attainment and use of the SDCDM phases. The two supervisors were impressed with each employee’s progress towards their goal, especially Matt and Kevin’s improvement. Neither had prior experience supervising individuals with cognitive impairments and thought it would take a longer period of time to obtain the results that were seen with these employees. Supervisors were very satisfied with the
Figure 1. Percentage of correct responses of Fred, Matt, Kevin, and Steve across experimental conditions.
program and saw value in using the model for other custodial employees. Both reported the benefit of self-selected work goals and believed strategies chosen improved employee productivity. Job coaches also confirmed the benefit of teaching self-monitoring strategies to increase employee independence and responsibility. Overall, they reported the value in using the SDCDM for follow up services, however one job coach doubted that consumers would always chose appropriate target goals. All job coaches commented that the model was easy to learn and implement.

Employees provided feedback on their participation in the process. All participants reported they were happy with gains and achievements they had made. Fred wanted to continue learning additional words and commented that the pictures helped him learn to read. All participants stated that it made them feel good about themselves to set a goal and try to achieve it. Matt noted that now others are not telling him that a task “needs more work” which makes him feel proud. Although Kevin’s time to clean specific areas did not decrease, he was able to finish more areas before his break and complete all daily tasks on a regular basis. Steve commented that he had not been late for work in a while and was very proud to be “like the other guys” in taking the transit bus to and from work.

Discussion
The overall findings indicate that the Self-Determined Career Development Model represents an effective method to teach problem solving and suggests a functional relationship between employee’s use of the model and observed changes in job performance. All four employees improved work-related performances after following the three phases of the Self-Determined Career Development Model. Positive changes were evident between baseline and intervention conditions and continued in the maintenance phase. In addition, findings from the Goal Attainment Scaling process indicate that all employees exceeded expectations of their supervisors/ job coach in achieving work-related goals. Participants showed that they could set goals related to their current employment, participate in designing interventions to achieve those goals, implement and self-monitor those goals, and make progress toward those goals.

The essence of the SDCDM model is teaching individuals a problem-solving process. Participants are instructed by means-end questions to perceive and resolve a gap between a present situation and a desired goal. A key starting point of the SDCDM model is helping an individual establish a self-selected goal. Research indicates that one of the most important aspects of helping individuals attain happiness, success and competence is the process of helping them set goals (Copeland & Hughes, 2002). In the current investigation this first step took considerable time, as most participants needed explicit examples to understand the concept of choosing and setting work-related goals. It would have been easier to simply acquire information from each employee’s supervisor. However, it is believed that gains toward goal attainment may not have been as dramatic if they weren’t self-selected. Goals that have personal meaning are more likely to be attained (Doll & Sands, 1998). This powerful step empowered employees to take control of success in their job.

The second phase of the SDCDM model involved assisting employees in identifying an action plan to reach their goal and barriers that could impede their progress. Skills taught enabled participants to modify and self-regulate their actions. Picture cues, antecedent cues, and self-monitoring strategies proved to be very motivating to participant employees. For example, after using a checklist for a short period of time, Kevin was very proud to show others his completed list and requested that additional checklists be made for other areas that he cleaned. Matt commented that “I work so my card has all +’s”. A picture and audio cue was very effective in supporting Steve as he completed a sequence of steps in his action plan for independently using public transportation. Picture cues also served as self-correction symbols for Fred in checking to see that he read a word correctly. Fred also noted that lack of practice would be a barrier to learning his words, and was consistent in practicing his words and phrases at home. All of these self-directed instructional strategies enabled employees to implement and follow their action plans, evaluate the outcomes, and alter their strategies when necessary.
The third and final phase of the SDCDM involved employee reflection. Individually, participants were asked to think about their actions and progress toward their goal. All employees were extremely proud of the progress they had made in a short period of time. This step involved self-awareness and self-knowledge about strengths and limitations in the process. Phase III is important in promoting beliefs and attitudes that enable an individual to act in an empowered or self-realizing manner. This phase supported employee beliefs that they had control over their actions and ultimately attainment of their goal.

The Self-Determined Career Development Model was developed to promote greater consumer involvement in career and job decision-making and specifically to promote career and job attainment. Findings from this study extend the line of research utilizing the SDCDM as a method to enhance work performance for individuals having secured employment in real-life settings. The present study provides supporting evidence that the model is a valuable tool for case managers, job coaches, supervisors, and additional personnel providing support to adults with disabilities in work settings. The model challenges adult service providers to create opportunities for individuals to perceive and resolve gaps in their work performance in employment settings. Within job training and follow-up services, the SDCDM provides a process for promoting continued job success and acquisition of skills needed for individuals to become causal agents in their lives.

There are limitations to this study, and results should be interpreted cautiously for several reasons. First, the sample size was small and included participants in one type of employment. Researchers should continue to conduct investigations utilizing the model with employees in a variety of work settings. Second, performance data obtained in the maintenance phase was limited for some participants due to observer scheduling at the end of the semester. Analysis of longer maintenance phases would enable readers to discern if participants maintained improved levels of job performance over an extended period. Third, due to the nature of the program participants had been involved in a consumer-directed process in originally obtaining employment. Therefore, a ‘match’ between individual interests and employee needs was previously established. Different results may have been attained from individuals whose placements were a mismatch between workers’ preference and their job environments. Fourth, it is suggested that instruction in the model enhanced employee competency in goal setting, self-regulation and self-evaluation presumably leading to enhanced self-determination. Extension of the study utilizing assessments such as The Arc’s Self-Determination Scale (Wehmeyer & Kelchner, 1995), before and after training would provide data on the degree to which an individuals’ sense of self-determination was enhanced.

Despite the above limitations, the Self-Determined Career Development Model proved to be an effective method of instruction for increasing the job performance of employees hired through Project SCOUT at the University of Toledo. Participants learned a process of problem solving that allowed each of them to achieve a desired work-related outcome. Additional participant accomplishments have also been observed. Steve uses public transportation for traveling to various places in the community. Kevin is receiving supports to obtain his own apartment. Fred is now working 30 hours per week and actively pursuing his goal of acquiring a driver’s license. Since the time of the study, Project SCOUT has expanded so that program supports, students, and a supervisor are utilizing the SDCDM phases for improving job performance of employees with disabilities at the university. The model provides a promising approach for teaching skills and attitudes believed to enhance an individual’s self-determination. When acting on the basis of these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults in our society (Field, Martin, Miller, Ward, & Wehmeyer, 1998).

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