

## **Annotated Bibliography**

### **Interventions Affecting Successful Secondary Transition of Adolescents with Visual Impairments**

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## Introduction

With passage of the No Child Left Behind (NCLB) Act of 2001, the U.S. Department of Education (Education) began a major push to identify effective programs and practices that had been evaluated using scientifically-based research. The What Works Clearinghouse (WWC), created in 2002, was charged with developing a systematic review process to identify and summarize the best available evidence from educational research (WWC, n.d.). Additionally, Education's National Institute on Disability and Rehabilitation Research (NIDRR), through its National Center for the Dissemination of Disability Research (NCDDR), began initiatives to identify evidence-based disability research, including maintaining a registry of systematic reviews of disability research and providing technical assistance to NIDRR grantees conducting systematic reviews (NCDDR: Systematic Reviews, 2011).

The Rehabilitation Research and Training Center (RRTC) on Blindness and Low Vision at Mississippi State University conducted a systematic literature review to identify studies investigating interventions and practices affecting successful transition of adolescents with visual impairments from high school to employment. Included in the review were quantitative data-based articles published between January 1987 and July 2010. Nonintervention studies (e.g., descriptive, correlational) were excluded. All study participants were adolescents with visually impairments; most were legally blind. This annotated bibliography summarizes findings from 16 intervention studies identified in the review. These studies are categorized by research design as follows:

- Two-group designs with random assignment or comparison groups
  - Howze (1990)
  - Johnson and Johnson (1991)
  - Kim (2003)
  - McConnell (1994)

- Single group designs (no control or comparison groups)
  - Bell (2010)
  - Bieber-Schut (1991)
  - Leonard, D'Allura, and Simpson (1997)
  - Miller (2001)
  - Mitchell and Zampitella-Freese (2003)
  - Peavy and Leff (2002)
  - Shapiro, Moffett, Lieberman, and Dummer (2005)
  - Whitman (1990)
  
- Single Subject Designs
  - Howze (1987)
  - Gumpel and Nativ-Ari-Am (2001)
  - Taras (1992)
  - Trask-Tyler, Grossi, and Heward (1994)

The Department of Education considers experimental designs using random assignment and quasi experimental designs the most rigorous in assessing effectiveness of programs and practices (Scientifically Based Evaluation Methods, 2005). Unfortunately with low incidence populations such as blindness, sufficient numbers of participant may not be available to support studies using random assignment or comparison groups. Of the 16 studies identified, only four were *two-group designs* with control or comparison groups. The majority of studies (8) were *pre-experimental* designs (no control or comparison group). Pre-experimental designs are often used in evaluating interventions when small numbers of participants or ethical/legal concerns preclude the use of random or comparison groups. Multiple threats to validity are the most critical concern in interpreting findings from these designs (for example, see Meltzoff, 1998). In efforts to lessen these threats, two of the single group (pre-experimental) designs included data collection on three occasions (Bell, 2010; Leonard, D'Allura, & Simpson, 1997). Four studies used *single subject designs* in assessing program effects on outcomes. Single subject designs are often

considered the design of choice when measuring treatment effects on a single subject or group of single subjects.

The bibliography is organized by two research outcomes: studies investigating treatment effects on *career awareness and job seeking skills* and studies investigating treatment effects on *social and related skills*. Examples of career exploration and job seeking skills include career decision-making efficacy, interview skills, career knowledge, career certainty, and job readiness. Social skills are broadly defined and include outcomes related to social behaviors such as cooperation, self-concept, assertiveness, social acceptance, and blindness-specific independent living skills. Each annotated entry includes information describing the research participants, intervention/practice, measures used to operationally define the research outcome, and study results. When findings from studies were published in more than one source (e.g., peer reviewed journal and dissertation database), summaries were developed from the peer-reviewed publication with the additional citation at the end of the entry.

The purpose of this bibliography is to provide informative, not evaluative annotations. With the exception of two dissertations, all studies were published in peer-reviewed journals; thus, we summarized rather than assessed strengths, weaknesses, or usefulness. Further information regarding the systematic review process and related findings will be provided in a peer-reviewed journal publication.

## Outcome: Career Awareness and Job Seeking Skills

**Bell, E. C. (2010).** Mentoring transition-age youth with blindness. *Journal of Special Education*, doi:10.1177/002246691037421, Retrieved from <http://sed.sagepub.com/content/early/2010/06/25/0022466910374211>

A *single-group pre-experimental design* was used to investigate the effects of a mentoring program on adolescents with visual impairments. The author described a two-year mentoring intervention developed and implemented by the Jernigan Institute of the National Federation of the Blind and how participation in the intervention influenced factors identified in previous research as predictors of successful employment outcomes among transition-age youth. Fifty-seven individuals with legal blindness ages 16 to 26 in four states were matched with adult mentors who were also legally blind. Forty-nine mentees completed the 2-year program: 21 males and 28 females. Sixty-seven percent were attending school (10<sup>th</sup> grade through postgraduate) at the time of participation. Mentors were required to have an undergraduate or graduate degree or be near completion of a degree, and to have 2 years of competitive employment experience. Difficulties in identifying sufficient numbers of youth for a control or comparison group resulted in a one-group design. To lessen threats to validity in using a one-group design, data were collected on three occasions: pre-, mid- (1-year), and post-intervention.

Mentors and youth participated in an initial orientation activity and 9-10 group events during the 2-year program. Group events included a blend of seminars and physical activities. For example, participants attended sessions relating to career exploration, job seeking skills, and successful employment of blind adults. They also had opportunities to become involved in water skiing, yoga, a "ropes" course, and other physical activities. Mentee-mentor dyads were expected to spend an average of 8 hours per month in face-to-face contact (including both group and individual activities) and additional time via other types of interactions (e.g., telephone, emails, instant messaging). Examples of face-to-face activities included cooking; informal talks about education, career, and blindness issues; going to movies, restaurants, and conferences;

working with technology; using public transportation; and attending and participating in sporting activities. The researcher hypothesized that mentees participating in the mentoring program would have gains in (a) career knowledge and decision-making confidence, as measured by the Career Decision Self-Efficacy Scale (CDMSE; Betz & Taylor, 2001); (b) hope and expectations for their future, as measured by the Miller Hope Scale (MHS; Miller, 1986), and (c) attitudes about blindness, as measured by the Social Responsibility about Blindness Scale (SRBS; Bell, 2010).

*Results.* The 49 youth completing the program had significant increases in career decision-making efficacy (Cohen's *d* of 1.08 from pre- to post-testing) and in positive attitudes toward blindness (Cohen's *d* of 0.84 from pre- to post testing). There were no significant gains in feelings of confidence or hope for the future as measured by the Miller Hope Scale (Miller, 1986), although scores did increase from pre-, to mid-, to post-intervention.

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**Howze, Y. S. (1987).** The use of social skills training to improve interview skills of visually impaired young adults: A pilot study. *Journal of Visual Impairment & Blindness*, 81(6), 251-255.

*A single subject (multiple baseline) research design* was used to assess the efficacy of a social skills training intervention to improve job interviewing skills of adolescents with blindness. The intervention included seven training sessions 20-30 minutes in duration where participants received instructions, modeling, behavior rehearsal, and feedback on responses to 10 questions selected from a list of questions frequently asked by job interviewers. Four 17 to 22-year-old male students at a residential school for the blind who were classified as legally blind and recommended by their vocational education teacher as needing improvement in verbal communication skills participated. Frequency data on three job interview behaviors were collected during 3 baseline sessions, training sessions, and pre-training and post-training (3 weeks following end of training) interviews. Pre- and post-training interviews were conducted in unfamiliar surroundings with actual personnel managers asking 10

questions which differed from those used in simulated training interviews. The three job interview behaviors—giving job-related information, sharing relevant personal information, and asking relevant questions—were identified from previous research as being associated with positive ratings by personnel managers.

*Results.* Individual level data for only one participant was provided. Average mean scores for all three interview behaviors more than doubled from baseline sessions to the training phase and from the pre-training to post-training job interviews with personnel managers. For example, *job-related statements* increased from a mean of 3.5 (range 1-7) in pre-training interviews to a mean of 8.3 in the post-training interviews (range of 7-9); *personal information statements* increased from a mean of 4.0 (range 2-6) to a mean of 9.3 (range 8-12); and *subject-generated questions* increased from a mean of 0.5 to mean of 7.6 (range 2-15). The number of personal and job-related responses given by two students dropped substantially following a 1-week vacation midway during the training phase before resuming previous response rates in later training sessions, suggesting the need for systematic long-term instruction for some youth to maintain appropriate interview skills.

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**Howze, Y. S. (1990).** The use of assertiveness training to improve the job interview behaviors of visually impaired adolescents. *Dissertation Abstracts International*, 51(5-A), 1577.

A *two-group experimental design* was used to investigate the effects of two assertiveness training approaches on improving job interview behaviors of adolescents with visual impairments. Sixteen legally blind students with congenital eye conditions participated in the study. Individuals were students from a state residential school for the blind ranging in age from 15 to 19 years with average to high intelligence, low initial self-reported assertiveness, and little or no prior interview skill training. Findings from the author's pilot study and a review of the literature on social competence of youth with visual impairments were used to develop an assertiveness skills training package to improve job interview skills.



The intervention lasted approximately two months. Weekly training sessions focused on appropriate verbal and non-verbal behaviors during job interviews. Participants were randomly assigned to control and experimental groups. First, the control group received three, 1-hour, "instructions-only" weekly training sessions with minimal verbal feedback (okay, good, not bad, etc.). Next, the experimental group received three, 1-hour and 15-minute weekly sessions which included instruction, behavior rehearsal (role playing), and feedback training. After completing experimental group sessions the control group received one half-hour booster session. Behavioral measures assessed effects of training using (a) a self-reported measure of assertiveness, the Modified Rathus Assertiveness Schedule (MRAS, Vaal & McCullah, 1975), to assess changes in participants' assertiveness and (b) pre-, post-, and follow-up job interviews to assess changes in five verbal and two non-verbal interviewing behaviors. Verbal behaviors included appropriate entry and exit behaviors, using positive "I" statements, asking relevant questions, and duration of reply. Non-verbal behaviors included handshake and duration of gaze (time turned facing interviewer and holding head upright). Training sessions were conducted at the residential school in a simulated office setting. Pre- and post-training interviews were conducted by the same interviewer in the office of an actual employer. Follow-up interviews were conducted 3 weeks following post-training interviews by an unfamiliar interviewer in a new employment setting. Interviews were videotaped, and two special education teachers recorded interview behaviors.

*Results.* There was no significant difference from pre- to post-training in gain scores (or when using the pre- as a covariate) between the experimental and control groups on self-reported assertiveness, as measured by the MRAS. Although both groups had substantial gains in targeted interview behaviors across all interview settings—pre- training, post-training, and follow-up interviews—neither training approach (instruction-only compared with instruction, role modeling, and feedback) was found to be superior than the other. Surprisingly, the control group asked significantly more questions, although neither group averaged more than two questions. In summary, findings indicated that although verbal and non-verbal job-related behaviors improved at post-training and were maintained at the follow-up interview, there were no

differences in behaviors between the group receiving instruction-only and the group receiving instruction, role-modeling, and feedback training. The author suggested several possibilities regarding the inconsistency of findings in the present study with findings of similar assertiveness training studies with participants from different populations.

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**Leonard, R. M., D'Allura, T., & Simpson, F. (1997).** Preparing youths with visual impairments for work: Evaluation of a pilot program. *Journal of Visual Impairment & Blindness*, 91(3), 271-279.

*A single-group pre-experimental design* was used to assess the effectiveness of a pilot residential program to enhance the transition of adolescents with visual impairments from school to work. Twenty-one participants who were legally blind attended one of two 2-week summer sessions at Lighthouse International in New York. Nine students ranging in age from 12-16 attended the first 2-week session, followed by 12 students ranging in age from 15-19 attending the second session. The overall goal of the program was to prepare participants for a variety of careers consistent with their individual skills and interests.

Participants were required to attend classes in computer skills, orientation and mobility, activities of daily living, creative arts, career development seminars and interviewing, and to participate in field trips to explore a variety of careers. It was expected that program participants would acquire additional independent living skills, gain more awareness of careers and rehabilitation services, have greater acceptance of assistive technology devices, and have opportunities to socialize and share experiences with their peers. Data were collected at program intake, telephone interviews with participants 1 month and 4 months after the program, and telephone interviews with parents or guardians 4 months after the program. Descriptive data (e.g., frequencies, percentages) were reported on overall satisfaction with the program, acquisition and ongoing use of skills, gains in career interests and awareness, knowledge of job seeking skills, and use and acceptance of assistive devices.

*Results.* Seventeen of the 21 participants liked the program "very much" or "mostly" with the most commonly noted reason being opportunity to socialize and meet other youth with visual impairments. The majority of parents/guardians also perceived the program as valuable because it provided opportunities for participants to socialize. Nineteen of the 21 participants reported learning at least one new skill with the majority reporting they had used this skill 1 month and/or 4 months following the program. Approximately 60% of parents reported that their children acquired and were using at least one new skill learned during the program. Mobility was used by the highest number of students, with a majority also reporting improved mobility skills. Approximately 40% of parents also reported that their children had improved mobility skills. Using information collected at intake and during 1-month follow-up interviews, participants appeared to have improved knowledge about careers they were interested in and careers in general. At 4-month follow-up interviews, approximately 40% of participants reported using assistive devices not used before the program, with talking clock and mobility cane use reported most frequently.

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**McConnell, J. (1994).** Parent participation in career planning for adolescents with visual impairments. *B.C. Journal of Special Education, 18(2)*, 149-156.

*A two-group crossover control experimental design* was used to investigate the benefits of participation in a career planning program (Partner's Program, Cochran, 1985) in which adolescents and parents teamed to examine career options. The Partner's Program had been successfully used with Canadian adolescents and was adapted for students with visual impairments by adding two resources, the Canadian National Institute for the Blind Survey of Occupations (Campbell, 1985) and Career Choices for the Visually Impaired (Eddy, 1984). Previous research had shown that programs with parent involvement were more effective for children with visual impairments than programs without parent involvement.

Participants were 20 high school students with visual impairments in grades 10-12 in British Columbia school districts and their parents/guardians. Information on degree

of visual impairment was not provided. The 20 student/parent pairs were randomly assigned to one of two groups. Prior to random assignment, the Career Decision Scale (CDS, Osipow, 1987) measuring career certainty was used as a blocking variable to minimize initial differences between groups on that variable. Group 1 received the 5-week training program with Group 2 serving as a control group. After Group 1 completed the program, participants in Group 2 received the intervention. The author hypothesized that program participants would have improved (a) career decision making and planning, as measured by the CDS; (b) parent-adolescent communication, as measured by the Parent-Adolescent Communication Scale (PAC, Barnes & Olson, 1985); (c) perceptions of the importance of work, as measured by the Career Salience Scale (CSS, Greenhaus, 1971, 1977); and (d) parental perceptions of their children's career decisions and planning, as measured by qualitative analyses of semi-structured interviews with parents. All participants were administered the CDS, PAC, and CSS on three occasions—before either group received the intervention, after Group 1 completed the intervention, and after Group 2 completed the intervention.

*Results.* After Group 1 ( $n = 10$  student/parent pairs) completed the program, and before Group 2 ( $n = 10$  student/parent pairs) began the program, a between subjects multivariate analysis of variance (MANOVA) was used to evaluate program effectiveness. An overall significant effect was found indicating that Group 1, when compared to Group 2, had improved scores on career certainty and career salience and a decline in career indecision scores. After Group 2 completed the program, a within subjects MANOVA showed an overall significant effect in that Group 2 participants had significantly increased scores in career certainty, career salience, and adolescent-parent communication, and a decline in career indecision scores from pre- to post-intervention. Findings from the qualitative analyses supported these results. Measures of effect size were not reported.

*Special Note.* Findings from this study were reported in the author's doctoral thesis (1994) and in a manuscript published in the *Journal of Visual Impairment & Blindness* (1999). Additional information about participants, research design, and results are included in these publications. For example, information about reading media used by participants indicated that one student used a combination of braille and tape, one

student used tape, one student used a combination of print and tape, and the remaining 17 students used print. MANOVA within group comparisons of Group 1 ( $n = 10$ ) indicated no overall significant difference on the combined dependent measures (i.e., career certainty, career salience, adolescent-parent communication) from pre- (before 5-week intervention) to post-testing (at completion of intervention), although substantial gains were made in Group 1 scores from pre to post on career certainty (effect size =  $+ .77$ ), with smaller gains in scores on career salience (effect size =  $+ .17$ ). As with many studies of participants from low incidence populations, the small sample size resulted in reduced statistical power to detect statistical significance if, in fact, there were differences from pre- to post-testing. Readers are encouraged to review the following two publications for more detailed information.

McConnell, J. (1999). Parents, adolescents, and career plans of visually impaired students. *Journal of Visual Impairment & Blindness*, 93(8), 498-515.

McConnell, J. (1994). *Parent Participation in Career Planning for Adolescents with Visual Impairments* (Doctoral Thesis, The University of British Columbia, Canada). Retrieved from <http://hdl.handle.net/2429/6893>

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**Mitchell, P.J. & Zampitella-Freese, C. (2003).** Using the workforce investment act of 1998 to benefit youth with visual blindness and visual impairment. *Education of the Visually Handicapped*, 35(3), 109-119.

*A single-group pre-experimental design* was used to investigate changes in employment readiness of students with visual impairments participating in a Year-Round Youth Program conducted by staff at Overbrook School for the Blind (OSB). Seven students aged 17 through 20 from OSB and surrounding public schools districts participated in the program from July 2001 through June 2002. Students in the Year-Round program also participated in OSB's CHOICE (Career Help at Overbrook for Individuals who Choose Employment) or IDEAL (Individual Development through Employment Assessment and Learning) Programs. The CHOICE program provided paid summer work experience with job support services and included mostly OSB

students with a few public school students. The IDEAL program included full day classes with group and individual activities that focused on career development, work readiness, blindness and residential living skills, and paid summer work experience. Mostly public school students with a few OSB students participated in IDEAL. Five of the seven students found or were placed in year-round employment opportunities during the year. Other than activities available through CHOICE or IDEAL, no further services appeared to have been provided to participants in the Year-Round Youth Program, although they were monitored for 12 months on factors related to employment readiness.

The Year-Round Youth Program was evaluated using the Survey of Functional Adaptive Behaviors (SFAB), a self-report measure of the student's level of functioning and readiness for work experiences. Functioning is measured in four areas: residential living skills (e.g., self care, cooking, cleaning needed in home or residential setting); daily living skills (e.g., money management, using public transportation, going to local post office); academic skills (e.g., basic academic, language, and problem solving skills such as numerical reasoning, reading, writing competencies); and vocational skills (e.g., basic skills and behaviors such as physical ability, work attitude, and stress tolerance associated with many areas of vocational functioning). In addition, parents and students were interviewed using the Work Experience Follow-up Program Continuum of Services Report (Zampitella, 2000), a semi-structured instrument used to collect student demographic, educational, and vocational data and to assess the 10 required program elements of the Workforce Investment Act (WIA) of 1988. Students were measured on the SFAB at the beginning and the end of the program year. Parent-student interviews were conducted quarterly—face-to-face at the beginning of the program and thereafter by telephone.

*Results.* Overall functional scores of all participants except one, as measured by the SFAB, increased from the beginning to the end of the program. Although the average subset scores for Residential Skills and Daily Living increased, average scores for Academic Skills and Vocational Skills decreased. Three of the seven students showed improvement in Vocational Skills. The authors suggested several possibilities for the decline in vocational skills, including a possible lack of emphasis in this area and, given

self-report data, possible inflated scores at the beginning of the program. Average scores on the WIA program elements were highest in the fourth quarter. The authors concluded higher score at the end of the program could have been a result of increased services received by students throughout the year.

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**Whitman, D. (1990).** Paid summer work experience for rural blind youth. *Journal of Visual Impairment & Blindness*, 99(1), 15-25.

*A single-group pre-experimental design* was used to investigate if participation in a summer work experience resulted in increased work knowledge of adolescents with visual impairments. Youth ages 14-18 from three rural counties in Ohio were recruited to participate. Six of the seven participants completed the program, which included a 2-week work evaluation period at a local rehabilitation facility followed by 6 weeks of paid employment. An orientation and mobility specialist served as program coordinator and provided blindness-specific training to rehabilitation facility staff and three job coaches. The 2-week work adjustment period was used to collect baseline data and to provide orientation to participants, and, if needed, remediation on factors related to being an employee. Job coaches accompanied participants to their jobs on an as-needed basis. Job Training Partnership Act (JTPA) monies were used to pay wages of participants. The program was evaluated using the Knowledge of the World of Work instrument. Psychometric properties of the instrument were not provided, other than noting it was developed by a certified vocational evaluator and modified for the target population by project staff.

*Results.* Five of the six participants who finished the program completed the knowledge of work instrument at the beginning and end of the program. Results from descriptive tests indicated a 17% gain in knowledge from pre- to post-testing (76% vs. 93%).

## Outcome: Social Skills

**Bieber-Schut, R. (1991).** The use of drama to help visually impaired adolescents acquire social skills. *Journal of Visual Impairment & Blindness*, 85(8), 340-341.

*A single-group pre-experimental design* was used to investigate if participation in a drama workshop enhanced the social skills of adolescents with visual impairments. Twelve visually impaired mainstreamed students, 6 males and 6 females, ranging in age from 13 to 18, participated in the 4-day drama workshop. The purpose of the workshop was to investigate if participation enhanced social skills. All participants except one were legally blind (seven were totally blind). Participants were involved in activities expected to increase sensory and self-awareness, interpersonal skills, and group cohesion. The 4-day workshop culminated in participants developing and performing an improvisation for staff and parents. An adapted form of the Social Skills Inventory (SSI) from the Living Skills Center for the Visually Handicapped in San Pablo, California, was used to assess social skills. No psychometric properties or information about items included in the SSI were provided. Pre-tests were completed by 11 parents/guardians and one teacher. Post-tests were completed by 8 parents/guardians and one teacher.

*Results.* Pre- and post-test scores were available for nine participants. Testing indicated a significant difference in pre- and post-test scores, indicating a gain in the social skills of participants; participants had improved scores on items related to individual concentration, interaction within the group, and self-esteem.

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**Gumpel, T. P., & Nativ-Ari-Am, H. (2001).** Evaluation of a technology for teaching complex social skills to young adults with visual and cognitive impairments. *Journal of Visual Impairment & Blindness*, 95(2), 95-107.

*Single subject (multiple baseline) research designs* were used to assess the efficacy of two interventions for teaching grocery shopping skills to transition-age youth



with visual and cognitive impairments. Participants were three females and one male ages 17-21 attending a school for persons with visual impairments in Israel; acuities ranged from 1/60 to 6/60. A 2-stage model (general case [GC] method; use of expert performers) was used. First, researchers randomly selected supermarkets to identify relevant discriminative stimuli (GC method). Finding that physical layouts were similar in all stores, this information was used to instruct participants about how to move through the aisles of merchandise and check out peripheral walls. Second, families were randomly selected to develop an ongoing list of their grocery purchases. Researchers used this information to develop a master list of 16 common grocery items. Four adult volunteers (use of expert performers as normative models) then purchased items in supermarkets. They wore microphones attached to their lapels and were instructed to verbalize their actions in purchasing items. Audiotapes and physical layout information were used to develop a list of 17 skill steps for purchasing grocery items.

Participants were assigned to one of two training methods: task analysis or self-management. The dyad receiving task analysis training were taught 5-6 behavior steps for purchasing items. Initially training sessions were taught in the classroom but as individuals became more proficient, training was moved to supermarkets. The dyad receiving self-management training received 10 task cards with brief descriptions of each behavior skill. The dyad was taught to read each card aloud and perform the skill. Skills were taught to a 90% criterion in the classroom before moving to the supermarket. Trained observers collected data on participants' behaviors twice a week. The number of correct skill steps and number of items independently and correctly purchased were recorded. Depending upon participant, baseline data was collected from 3 to 10 occasions, training data from 7-13 occasions, with follow-up data collected at 3, 9, and 12 week intervals.

Results. All participants, regardless of training method, improved on the two target skills: skills sequencing and skill accuracy (independently purchasing items) and showed strong maintenance of skills at follow-up. Treatment efficacy was quicker for two individuals (one received task analysis training; the other, self-management training). The data suggested that sequentially following the training sequence may not be necessary to independently and correctly purchase grocery items. Although the

study used two training protocols, they were not compared. The authors suggested that future research with larger sample sizes be used for comparison purposes and to determine which protocol works best for each individual.

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**Johnson, C. L., & Johnson, J. A. (1991).** Using short-term group counseling with visually impaired adolescents. *Journal of Visual Impairment & Blindness*, 85(4), 166-170.

*A two-group experimental design* was used to assess the effect of short-term group counseling on self- concept, attitudes toward blindness, and locus of control of visually impaired adolescents. Fourteen adolescents with congenital visual impairments attending public schools participated in the study: 7 assigned to the experimental group and 7 assigned to the control group. (Although parental permission was given for 18 students, 11 parents provided permission for their child to participate only in the control group.) The researcher accepted all seven students for the experimental group and selected seven control group participants matched as closely as possible on age, IQ, race, and sex variables of experimental participants. Participants ranged in age from 12 to 18; 10 were Caucasian and 4 were African American. All were visually impaired as defined by the North Carolina Department of Public Instruction.

The treatment group participated in a group counseling intervention developed by the author. Sessions were conducted during the summer, 3 days a week for 1 hour and 15 minutes each, for a period of 4 weeks. The twelve sessions included discussions and role playing dealing with topics such as self-perception; myths about blindness; educational, occupational, and social roles; occupational and independent living skills such as job seeking skills, interview techniques, finances, and consumer information; assertive behaviors; relationships and friendships; and taking personal responsibility for actions. Control group participants did not receive any counseling. The author hypothesized that compared to the control group, the experimental group would have larger gains in self- concept, favorable attitudes toward blindness, and internal locus of control. Self-concept was measured by the Tennessee Self-Concept Scale (TSCS;

Greenberg, 1968), attitudes toward blindness by the Attitudes toward Blindness Scale (AB Scale; Cowen, Underberg, & Verillo, 1958), and locus of control by the North Carolina Internal-External Scale, Short Form.

*Results.* Results of independent t tests indicated that there were no differences between the control and experimental groups on the dependent variables (self-concept, attitudes toward blindness, and locus of control) at pretesting. At post-testing all three hypotheses were supported. The experimental group's change in self-concept, favorable attitudes toward blindness, and internal control was significantly greater than the control group, with the greatest change in locus of control. The author also provided his perceptions of positive behavioral changes not specifically measured in the experimental group, such as increases in self-assertiveness, independence, self-awareness, and improved social skills. Readers are encouraged to review the following publication for more detailed information on the study.

Johnson, C. L. (1990). Using group procedures to improve self-concept, attitudes toward blindness and internality among congenitally blind adolescents. *Dissertation Abstracts International*, 50(9-B), 4223.

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**Kim, Y. (2003).** The effects of assertiveness training on enhancing the social skills of adolescents with visual impairments. *Journal of Visual Impairment & Blindness*, 97(5), 285-297.

A two-group experimental design was used to assess the effects of assertiveness training on the social skills of adolescents with visual impairments. The author reviewed previous studies supporting the importance of social skills on the successful transition of students with visual impairments to college and to employment. Twenty-six students at a school for children who are blind in the southeastern U.S. participated in the study. Selection criteria include: enrollment in grades 7-12, standardized scores lower than 90<sup>th</sup> percentile on the Social Skills scale of the Social Skills Rating System (SSRS)—Secondary Teacher Rating form (Gresham & Elliott, 1990), and no serious learning or behavioral problems. All participants were legally

blind; 10 had vision ranging from count fingers to no light perception. Participants were first matched for gender and then ranked by level of visual acuity within gender group. Next participants were paired, starting with lowest level of vision upward and then from each pair, individuals were randomly assigned to treatment or control groups. Three students dropped out of the study: one from the control group and two from the treatment group.

Individuals in the treatment group participated in an assertiveness training intervention developed by the author. Training was provided by the author once a week for 12 weeks during a 55-minute class period and included instruction in (a) the concept of assertiveness; (b) nonverbal, paralinguistic, and verbal aspects of assertive behavior; (c) assertiveness themes (requests, refusals, compliments, and interpersonal embarrassment); and (d) cognitive strategies (problem solving, challenging irrational beliefs, self-management). A variety of methods were used to deliver the intervention, including didactic instruction, discussion, modeling, and role playing. Control group participants did not receive any training.

Null hypotheses relating to post-intervention differences between the control and treatment group on social skills, assertiveness, and cognitive distortion were tested. Social skills of participants were assessed using the Social Skills Rating System (SSRS Student, Teacher, and Parent forms; Gresham & Elliott, 1990); assertiveness (student-reported) was assessed using the Modified Rathus Assertiveness Scale (MRAS; Vaal & McCullagh, 1977); cognitive distortion (student-reported) was assessed using the Cognitive Distortion Scales—Modified (CDS-M Self-Criticism and Helplessness scales; Briere, 2000); and assertiveness (observer-rated) was assessed using the Role-Play Test (author-developed using various sources).

Results. Chi-square and independent sample t-tests were used to examine equivalence between treatment and control groups before the intervention; there were no initial differences between groups on gender, age, grade level, and level of vision. One-way analysis of co-variance (ANCOVA) was used to test for differences on independent variables at post-intervention. The pretest score was used as the covariate for all hypotheses, other than for the test of parent-rated social skills, due to missing pretest data. Results indicated that both treatment and control groups showed

improvement at posttest on *student-reported social skills* and *teacher-reported social skills*, although differences were not significant. Using post-test data only, *parent-rated social skills* approached, but was not significant ( $p=.06$ ) in favor of the control group. There were no significant differences in *student-reported assertiveness*, *observer-rated assertiveness*, or *student-reported cognitive distortion*. In suggesting potential reasons for non-significant findings, the author suggested that the assertiveness intervention may not have been intensive enough to show treatment effects and provided recommendations for strengthening it. The author also suggested that similar to many experimental studies evaluating treatment effects on low-incidence populations, statistical power to assess group differences was weak as a result of the small sample size. Although not related to study hypotheses or purpose, the author reported that teacher-rated, parent-rated, and student-reported scores on social skills were not different from the SSRS norm group scores. Readers are encouraged to review the following publication for more detailed information on the study.

Kim, Y. (2001). The effects of assertiveness training on enhancing the social skills of adolescents with visual impairments. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 62(4-A), 1376.

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**Miller, J. (2001).** The use of self-reports and parent observations in assessing performance outcomes for teenagers who received vision rehabilitation services. *Journal of Visual Impairment & Blindness*, 95(4), 229-234.

A *single-group pre-experimental design* was used to assess the efficacy of teaching independent living skills in a summer program setting to youth with visual impairments. Although specific ages were not provided, the 7 participants (3 males and 4 females) were described as teenagers and legally blind: two were braille readers attending a residential school during the academic year, and the remaining five were print readers attending public or private integrated schools. The intervention included opportunities for training in 27 skill areas: 8 food preparation skills, 7 home management skills, 2 orientation and mobility skills, 2 personal grooming skills, 7

shopping skills, and slate and stylus skills. Before the intervention began, each student was interviewed by project staff to jointly identify training needs and to develop an individualized program. Training needs included learning new skills and/or improving existing skills. The number of skill areas varied: one student received training in five areas, the remaining six received training in 16-19 areas. Length and intensity of training was not reported.

*Results.* Approximately two months post-training, students completed a telephone interview and parents completed a mail survey regarding use of skills taught during the summer program. Six of the seven students reported using a majority of the skills taught (58% to 100%). One student received training in 19 skill areas but had performed only five skills during the 2 months following training. Findings from parental interviews were consistent with student reports. For example, one student received training in 16 skill areas, and both he and his parent reported that 13 (81%) skills had been performed post-training, most of them frequently. Participants also identified new skills that could not be performed before training. Students and parents tended to identify two new skills performed post-training. Examples of new skills included using a stove, threading a needle, shaving, using a slate and stylus, making a sandwich, and using a washer and dryer. Qualitative data describing additional perceived training benefits for each participant was also reported.

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**Peavy, K. O., & Leff, D. (2002),** Social acceptance of adolescent mainstreamed students with visual impairments. *Journal of Visual Impairment & Blindness*, 96 (11), 808-811.

*A single-group pre-experimental design* was used to investigate the effects of participation in diversity, team building, and trust-creating activities on the social acceptance of mainstreamed students with visual impairments. Five students ages 10-15 participated in the study. Students had no academic or behavioral problems and were mainstreamed in the regular curriculum in public school; three were totally blind and two had low vision. The authors formed five groups; each group consisted of one

student with a visual impairment and 3-6 sighted peers selected by the school counselor. The intervention was presented to administrators, parents, and students as a means to better understand diversity, enhance leadership and team-building skills, and potentially develop new friendships, rather than a way to improve the social acceptance of students with visual impairments. Length of intervention was not provided other than to indicate that all five groups were conducted during the school year. Students were released from extracurricular classes or study halls.

Group members participated in multiple trust-building and thought provoking activities. After trust was established, sighted students in the group had opportunities to ask the student with visual impairment about his or her vision. Before and following the intervention, teacher of students with visual impairments completed the Social Skills Assessment Tool for Children with Visual Impairments (Sacks & Wolffe, 1994). At pre- and post-intervention, students were asked which person in their group they would choose to be with, if only one choice was allowed, and why. Next, students were asked to choose their next favorite person, and so on until all group members were chosen.

*Results.* Given our focus on studies involving transition-age adolescents, results are based only on the experiences of the three older students ages 13-15, one of whom was totally blind. Findings indicated that two of the three students had positive outcomes: comparison of pre- and post-intervention scores showed improved social acceptance (as indicated by their sighted peers) and improved social skills (teacher-reported). The third student, who was totally blind, expressed anger at, and refused to assume any responsibility for, the lack of acceptance felt by members of the group and late in the intervention, asked to be excused. Pre- and post-intervention scores did not show improvements in social acceptance or social skills. Although general findings were reported, quantitative data on pre- and post-scores were not included in the article.

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**Shapiro, D. R., Moffett, A., Lieberman, L., & Dummer, G. M. (2005).** Perceived competence of children with visual impairments. *Journal of Visual Impairment & Blindness*, 99(1), 15-25.

A *single-group pre-experimental design* was used to investigate the relationship between participation in a summer sports camp and perceptions of competence of children and youth with visual impairments. Participants were 33 children (ages 8-14 years) and 10 adolescents (ages 15-21) who attended a one-week summer sports camp for individuals with visual impairments. Parental self-report of visual acuities and fields were provided for 30 participants who were classified into three sports categories on basis of level of visual impairment: no functional vision; less than 20/400 or visual field of less than 5 degrees; or less than 20/200 or visual field from 5 to 20 degrees. Research procedures and data analysis were presented for children and adolescents.

Given the focus of this bibliography, information presented here focuses on procedures and findings related to the 10 adolescents. Competence was measured using three scales of the Self-Perception Profile for Adolescents (SPPA; Harter, 1988): physical appearance, athletic competence, and social acceptance. The SPPA was administered verbally at the beginning and at the end of the camp. Each subscale contained 5 items. Subscale scores were an average of the five items, ranging from 1 (low perception of competence) to 4 (high perception). A six-item demographic profile developed by the researcher was also administered, with age and gender used in the data analyses.

*Results.* Although a main effect for confidence was found (physical appearance was significantly higher than athletic competence), there was no significant age interaction. This differs from previous findings that adolescents with disabilities tend to have more positive perceptions of their athletic competence than children with disabilities. There was also a main effect for time (pre-to post-test) in that perceived competence across all three domains was higher for the total group at the end than at the beginning of camp, but again no age interaction. Descriptive data for the adolescent group indicated some improvement from pre- to post-camp on social acceptance (2.92



to 3.08) and physical appearance (3.06 to 3.26). There was a slight decrease in athletic competence from pre- to post-camp (3.06 to 2.92).

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**Taras, M. E. (1992).** *Using independence training to teach independent living skills to visually impaired children and youth.* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. AAT 9317003)

*Single subject (multiple baseline) research designs* were used to assess the efficacy of two interventions for teaching independent living skills to elementary and transition-age youth with visual and cognitive impairments. Participants were 3 children (ages 7-9; 2 males and 1 female) and 4 adolescents (ages 19-20; all males) attending a residential school for children who are blind. All participants were legally blind, had cognitive disabilities, and were selected based on their lack of, and need for, daily living skills. Given the focus of this bibliography, information on procedures and findings related to the four adolescents participating in the intervention will be presented.

The researcher used an *independence training* model (Matson, 1981, 1982) in teaching participants independent living leisure skills; e.g., construction of a leather coin purse, belt, and bolo tie. Independence training adds self-evaluation and peer reinforcement components to standard behavior modification procedures. Modifications were made to procedures to account for the significant visual impairments of participants; e.g., physically guiding the participant's hands while modeling behavioral steps. Participants were instructed in 1-hour small group sessions for 9 weeks, Monday through Thursday.

A task analysis of leatherwork activities resulted in development of six generic steps: getting work out of bag; correctly aligning pieces for the next step; completing one step correctly, completing two steps correctly; completing three steps correctly; and returning work materials to the bag. During baseline sessions (no fewer than three for each leatherwork task), each participant was provided materials to complete the task and the number of completed steps were recorded by independent raters. Participants were randomly selected to perform tasks in turns. During training sessions, participants

were also randomly selected to perform tasks, so the same individual did not always go first. The trainer verbally described, modeled, and physically guided the performing participant through each step, with peers actively involved in providing corrective feedback. The trainer provided verbal and then manual prompts until the task was completed. The performing participant was asked to evaluate his performance. The trainer and the performing participant's peers were then asked to evaluate, using positive statements. Finally, the performing participant was asked to complete the task again without assistance. Sessions were videotaped, and raters recorded the number of steps correctly performed.

Social validation measures were completed by the school psychologist and 15 undergraduate psychology majors. The psychologist completed a 5-point Likert-type scale to rate six items assessing the acceptability, success, and importance of independence training on teaching leisure skills. The psychology majors reviewed pre- and post-videos to answer 1 question using a 5-point Likert-type scale to assess participants' skills in performing leatherwork tasks. One parent was asked general questions regarding her son's use of skills during spring vacation.

*Results.* Averaging across the four participants, the mean number of steps correctly performed on all three leather tasks improved following independence training. On the coin purse task, there was a mean training gain of 3.6 steps (from 1.9 baseline to 5.5 after training); on the belt task there was a mean training gain of 3.3 steps (1.9 to 5.2); and on the bolo tie task there was a mean gain of 1.9 steps (2.3 to 4.2). Although all four participants were able to successfully complete the 6-step task analysis for the coin purse and belt, only 2 participants were able to successfully complete all six steps for the bolo tie. Results of the 6-item social validation measure by the school psychologist were very favorable with a 4.2 (out of possible 5.0) overall mean rating. Results of a one-tailed Wilcoxon on match-pairs signed-ranked test by the group of psychology students indicated that post-test sessions were rated significantly higher than pre-test sessions. Feedback from one parent confirmed the importance and use of leatherwork skills in the home environment. Findings supported the efficacy of group independence training slightly modified for adolescents with visual impairments.

Trask-Tyler, S.A., Grossi, T.A., & Heward, W.L. (1994). Teaching young adults with developmental disabilities and visual impairments to use tape-recorded recipes: Acquisition, generalization, and maintenance of cooking skills. *Journal of Behavioral Education, 4*(3), 283-311.

*A single subject (multiple baseline) research design* was used to assess the efficacy of a self-prompting audio intervention for teaching independent living (IL) cooking skills to students with visual and mild intellectual disabilities. Participants were three young adults ages 17, 20, and 21 (two males and one female) attending a residential school for students who are blind. Participants were identified as having no functional vision and as having deficits in daily living skills with a desire to learn cooking skills.

The researcher replicated previous research on use of self-operated prompting systems in teaching IL skills to youth with intellectual disabilities (i.e., Briggs et al., 1990) to determine if a similar system could be used to train young adults with visual and mild intellectual impairments to prepare simple recipes and if it would generalize to similar and more complex recipes without additional training.

Step-by-step verbal instructions about how to prepare nine different recipes were provided to participants on separate tapes. Participants received a tape recorder with a remote on/off switch and a cooking apron with pockets for the recorder and switch. Hi-marks liquid plastic was used to label the microwave and measuring utensils. Each participant was instructed in multiple sessions lasting one hour to one and one half hours. In baseline sessions, students completed three recipes using only tape-recorded steps. In training sessions, students completed the three recipes (referred to as trained recipes) using tape-recorded steps, plus teacher prompts and feedback. In assessing simple and complex generality, students completed similar (required same skills as trained recipes) and more complex untrained recipes (required combination of skills learned in trained recipes) using only tape-recorded steps. At follow-up, students performed steps to complete selected untrained recipes without the recording, and if they were unable to do so, to complete recipes using the tape-recorded steps. The

researcher recorded the number of steps to successfully prepare recipes during all trials. An additional observer recorded steps at approximately half of the sessions. Social validity was measured by whether prepared food could be eaten.

*Results.* At baseline none of the students could successfully prepare any recipes, with or without audio steps. Following instruction, all three students successfully completed trained recipes (using the audio system with instructor prompts and feedback) at maintenance and follow-up. Students successfully prepared untrained similar recipes at post instruction (10 of 10 trials, 9 of 11, 7 of 8) and follow-up (1 of 1, 2 of 3, 3 of 3). Two students were successful in preparing untrained complex recipes at all post instruction and follow-up trials. After receiving instruction, students prepared edible food in 86% of the trials using trained recipes, 90% of the trials using simple generality recipes, and 83% of the trials using complex generality recipes. At follow-up, (4-weeks to 4 months following instruction) students prepared edible foods 100% on trained trials, 82% on simple generality trials, and 71% on complex generality trials. Findings supported the efficacy of self-operated audio prompting systems to facilitate training, generalization, and maintenance of cooking skills of young adults with visual impairments and mild intellectual disabilities.

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