Meeting the Needs of Students with Disabilities in the State of Hawai'i: Current Challenges and Initiatives

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Like many other states, Hawai'i faces tremendous challenges in attempting to provide quality education and related services for individuals with disabilities. These challenges have emerged via increased awareness and advocacy for disability rights, and the passage of recent legal mandates, including the *Felix vs. Waihee Consent Decree (1)* and the 1997 reauthorization of the *Individuals with Disabilities Education Act* (IDEA), at a time when: (a) Hawai'i's economy lags behind the favorable growth experienced on the continental United States; (b) the State's appropriations for K-12 and higher education are less than desirable; (c) the number and percentage of students in Hawai'i who are identified for special education and related services has increased rapidly from levels which suggested under identification during the early-mid 1990s to levels which more closely approximate national figures (8-10%); (d) the State faces critical shortages of certified special education teachers and related service providers; and (e) the trend toward progressive inclusion of individuals with disabilities within general education programs places additional pressures on educators to provide creative services and effective interventions.

In this section, three studies are described which illustrate how research links with practice to address important education and disability issues. Two of these studies applied research-based instructional interventions in classroom settings to effect positive outcomes for the challenged learners who participated as subjects. The other study examined a systemic issue - the working conditions of special education teachers. Each study represents an initiative on the part of University of Hawai'i faculty to address the challenges which face the State in an attempt to meet the needs of individuals with disabilities.

Schrag and McDougall examined the working conditions of special education teachers. This study was sponsored by the Felix Monitoring Project which oversees progress of the Hawai'i *State Implementation Plan (10). The Implementation Plan* was created in response to the *Felix* vs. *Waihee Consent Decree (1)* and specifies corrective actions to be implemented by the State from 1995 to 2000. Plaintiffs in the *Felix vs. Waihee* class action suit (parents and organizations representing children and adolescents with mental health needs) and defendants [the State of Hawai'i including the Governor, the State Department of Health (DOH), and the State Department of Education (DOE)] entered into the *Consent Decree,* in 1994. The parties subsequently agreed to the *Implementation Plan* which seeks to redress the State's failure to provide adequate mental health services for children and adolescents who qualify for services under the *Individuals with Disabilities Education Act (IDEA) or Section 504 of the Rehabilitation Act.* All parties to the *Consent Decree* acknowledged that (a) shortages of qualified personnel exist in Hawai'i, (b) such shortages reduce the likelihood that systemic improvements will occur, and (c) actions must be instituted to address personnel shortages.

Abstract: Special Education Classroom Study: State of Hawai'i. Judy Schrag and Dennis McDougall. Report disseminated by Felix Monitoring Project, July, 1997, Honolulu, HI.

This study was conducted to (a) ascertain working conditions which are of concern to special education teachers throughout each of the State's seven school districts; (b) provide information to assist all parties in the *Felix vs. Waihee Consent Decree (1)* who are interested in improving working conditions, recruitment, and retention of qualified special educators - key components of the State's five-year *Implementation Plan* and (c) provide data for use by the DOE in producing a court-ordered recruitment and retention plan.

The population of interest in this study included the 1,305 individuals employed as special education teachers, during spring of 1997, in each of the State's seven districts. The investigators utilized stratified random sampling to select 180 teachers of which 171 completed the interview protocol (95% response rate). Eighty-four and one-half percent (84.5%) of the respondents were female and 15.5% were male; respondents averaged about 10 years of special education teaching experience; 83% of respondents had obtained certification to teach as special educators; 17% had not. District patterns of special education teaching experience reflected overall State patterns with the notable exception of the Leeward District which had a smaller percentage of veteran teachers and reflected a distinctive

and excessive attrition pattern of special educators. As for certification, with the exception of Leeward, the districts of Central, Honolulu, and Windward which are located on Oahu - Hawai'i's most populous island -had greater percentages of certified special education teachers (90%) than the outer island districts of Hawai'i, Kauai, and Maui (70-80%).

Special education teachers reported that they face specific working conditions that inhibit their job performance and their efforts to help students achieve IEP goals. For example, 80% of the respondents indicated that additional resources were needed to help students meet IEP goals. The five most frequently stated resources needed were educational assistants; additional staff, primarily teachers; materials such as books, software, and up-to-date curricular items; assistive technology and computers; and mental health services. The five most frequently stated reasons for why students' Individualized Education Program (IEP) goals were not being met included: (a) student attendance problems; (b) the need, but limited capacity, to provide individual instruction or attention; (c) lack of resources such as staff training, computers, and equipment; (d) student motivation; and (e) student behavior problems

Approximately 20% of the respondents indicated that their students were not adequately meeting IEP goals. Further analyses indicated statistically significant differences between certified special education teachers (M = 83.2%) and uncertified special education teachers (M = 76.7%) in their estimates of the percentage of students who were meeting IEP goals. Differences for mean percentages of teacher-reported IEP goal attainment across levels of special education teaching experience also attained statistical significance; teachers with the least experience (two years or less) reported lower and more variable percentages compared to teachers who had taught three to seven years and teachers who had taught eight or more years. Additionally, differences in teacher reported IEP goal attainment across districts approached statistical significance. Compared to the overall mean for the State (M = 82.1), teachers from Central (M = 88.5) and Honolulu (M=6.0) reported higher mean percentages, whereas teachers from Leeward (M = 78.9) and Maui (M = 75.9) reported lower mean percentages

When asked if their student-teaching ratios were adequate, 48.5% of the respondents indicated "yes" and 51.5% indicated "no." Additionally, 66.5% of the respondents indicated that their classroom space was adequate; 33.5% indicated that classroom space was inadequate. Higher percentages of special education teachers in Leeward (48.8%), Windward (44.0%), and Kauai (40.0%) indicated dissatisfaction with their classroom space when compared to teachers in other districts such as Honolulu (12.9%) and Central (16.7%). In addition, when asked to indicate if they had a regular-size classroom 58.8% of respondents stated "yes" and 41.2% stated "no."

When asked to identify additional circumstances *which* impacted their workload, respondents identified as the top factors: medically fragile students and special health conditions, such as seizures; physical accessibility problems; student medication; severe needs such as toileting; low incidence or very challenging disabilities; and transportation issues. Teachers reported that the impacts upon their workload of these additional or unique circumstances included: failure to meet student needs; changes in class functioning and routines; increases in teacher effort; need for more time; and further limitations upon the provision of individualized and one-to-one instruction.

Abstract: ***Promoting Generalized Social Interactions Using Puppets and Script Training in an Integrated Preschool: A Single-Case Study Using a Multiple Baseline Design.*** *Sarah S. Gronna, Loretta A. Serna, Craig H. Kennedy, and Mary Anne Prater (in press).* Behavior Modification.

Children with visual impairments sometimes have difficulties acquiring adequate social skills due to their inability to utilize important non-verbal and visual cues which facilitate social interaction. Without intervention, students with visual impairments are at-risk for social isolation. Therefore, it is essential that young children with visual impairments develop skills necessary to facilitate prosocial interactions. Teachers of children with disabilities have developed interventions, which include sociodramatic scripts to teach appropriate use of language in role-play scenarios (3; 8; 12). Sociodramatic script training often includes: (a) setting the stage for scripted role-play by making theme-related materials available to students, (b) teaching roles and routines of script theme, (c) prompting for maintaining scripted roles during activities, and (d) reinforcing desirable behavior (3).

The purpose of this study was to extend and combine the previous work of Goldstein and Cisar (3) and Middleton and Cartledge (11) by: (a) incorporating sociodramatic script training, puppets, social skills training, and systematic instruction which requires 100% mastery of skills; (b) using specific generalization techniques including naturally occurring contingencies, common stimuli, and multiple exemplars; (c) targeting a

child with severe visual impairments; (d) promoting independent social interactions during free play; (e) teaching scripts associated with the child's current social skills and (f) incorporating procedures based on entrapment to facilitate generalization of social skills to novel settings.

The authors used puppet script training as an intervention to teach Susie, a preschooler with visual impairments, the social skills of greeting a peer, responding to conversations, and initiating conversations. These three social skills comprised the dependent variable. The percentage of social skills performed correctly was calculated by counting occurrences of the target behavior exhibited in each session then dividing the occurrences by the number of opportunities available in each session. Responses were scored as correct when Susie performed all required skill components of a target behavior when opportunities to perform in a target behavior arose. During group training sessions, an adult taught the targeted social skills to Susie and four peers without disabilities by using puppets to enact sociodramatic scripts. Training sessions were immediately followed by free play activities among peers without disabilities to assess skill generalization.

Results of this multiple baseline research design demonstrated that Susie learned each targeted social skill, increased and improved her use of these social skills during recess with peers, and generalized application of these social skills to free-play activities with her peers. During baseline, Susie never emitted a greeting, or responded to the greetings of a peer. She demonstrated a mean of 4% of the skill components for conversation, 12% of the skill components for conversation when she approached a peer, and never initiated a conversation when she was approached by a peer (0%). After training the social skills included in Script One, Susie's mean percentage of skill components for greeting a peer and responding to a greeting increased to 100% of the available opportunities.

Following Script Two intervention, Susie's mean percentage of the skill components for responding to conversations initiated by peers increased to 94% per session (range, 86- 100%). After training Script Three social skills, Susie's mean percentage of her verbal initiations of a conversation when a peer approached her increased to 93% per session (range, 66-1.00%) and the mean percentage of her initiated conversations when she approached a peer increased to 100% per session. Prior to intervention, Susie failed to approach any peer during many sessions. After intervention, she approached peers a minimum of two occurrences per session.

Follow-up data were collected 3 and 24 months after the intervention was terminated to assess opportunities for, and maintenance of, Susie's most challenging target behavior (i.e., verbal initiating conversation when approached by a peer). During three month follow-up observations, Susie had a mean of 98% for initiation of peer approached conversations per session (range, 88 100%), with a mean of 6.3 opportunities per session (range, 4-8). During twenty-four month follow-up observations, Susie performed a mean of 97% of the skill components for initiating peer- approached conversations per session (range, 88-100%), with a mean of 7.5 opportunities per session (range, 6-9).

In addition to the observational data collected, Susie's two teachers were asked to rate her social skill performance before and after script training. A rating of five signified behaviors were performed very well and a rating of one signified poor performance. Susie's pre-intervention mean rating was 1.8 (range, 1-2); her post-intervention mean score was 5.0.

Abstract: ***The Effects of Self-Monitoring on Academic Performance on Students with Learning Disabilities and Attention Deficit Disorder****. Serena Shimabukuro, Mary Anne Prater, Amelia Jenkins, and Patricia Edelen-Smith.* Education and Treatment of Children*. (in press).*

Students with both learning disabilities (LD) and attention deficit disorder with or without hyperactivity (AD/HD) often exhibit dysfunctional behaviors which contribute to their learning, academic, and social problems in school settings. These behaviors include failures to self-regulate attention to task and academic performance. Fortunately, researchers and practitioners have developed effective self-regulatory strategies, including self-monitoring, self-evaluation, self-verbalization, and self-graphing. These strategies have proven effective in improving a host of student outcomes, including academic productivity, academic accuracy, time on task, and social behaviors, across a wide variety of settings for students with various disabilities (7, 8).

The present study utilized a multiple baseline design across three academic tasks to investigate the effects of self-monitoring on academic performance and on-task behavior of three male students with LD and AD/HD. Academic performance was defined as students' academic productivity and academic accuracy during independent practice tasks in reading comprehension, math calculation, and written expression. Academic productivity was measured by calculating the percentage of assigned problems completed by each student. Academic accuracy was measured by calculating the percentage of attempted problems completed correctly.

Observational data for the third dependent measure, on-task behavior, were collected daily by the classroom teacher using a 10-second time sampling procedure, for 10 minutes, during each of the three academic tasks.

The self-monitoring intervention consisted of training students to grade and record their work, then to graph on progress forms their daily scores for academic productivity and academic accuracy. Consistent with applied behavior analysis guidelines for using multiple baseline research designs: (a) a baseline (i.e., pre-intervention) phase was instituted first to establish each students' current performance levels on each dependent measure; (b) then intervention phases were instituted after students were trained to self-monitor; and (c) the interventions were "lagged" (i.e., self monitoring training was introduced on different days for each of the three academic tasks) in order to determine whether improvements in each students' academic performance could be replicated systematically (5).

Results indicated that each student's performance, on each of three dependent measures, for each of three academic tasks improved substantially from prior baseline levels after introduction of the self-monitoring intervention. Improvements in two dependent measures, academic productivity and on-task behavior, were somewhat stronger than improvements in academic accuracy. For example, students' academic productivity in reading and math increased from means that ranged from 30-60% during baseline, to means that ranged from 91-98% during intervention. Students improved their academic accuracy in reading, and math from means that ranged from 50-67% during baseline, to means which ranged from 80-89% during intervention. In addition, improvements in productivity, accuracy, and on-task behavior for the task of written expression, although substantial, did not typically attain the levels achieved by students for reading and math tasks. Finally, data indicated that the students tended to be on-task only about 50% of the observations conducted during baseline, whereas following self-monitoring training, subjects improved their on-task behavior to levels ranging from 66-94% of the observations.

Results of the three studies presented here provide direction for teachers, administrators, researchers, and others who seek to tackle the challenges of providing quality education and related services to individuals with disabilities. The first study examined specific working conditions related to a systemic challenge relatively common in many educational systems—the need for adequate supply, recruitment, and retention of qualified special educators. The second and third studies applied "best practices" interventions which were designed to meet individual student needs and resulted in substantial improvements in students' social behavior and academic performance. The following discussion suggests that a symbiotic relation exists between systemic issues, such as working conditions, and the application of best practices, such as teachers' instruction of social skills and self-monitoring. In the absence of best practices, working conditions and student outcomes are less than optimal. Correspondingly, the presence of adequate working conditions and qualified teaching staff is more likely associated with the application of best practices and positive outcomes for individuals with disabilities.

Studies two and three include examples of best-practices research applied in classroom settings. The interventions used in both studies incorporated multiple, research-supported, instructional components to produce positive outcomes for students. These interventions targeted important skills which teachers, parents, and the media lament, on a daily basis, in that many students appear to be deficient in social skills and self-management. Unfortunately, these skills are often relegated to a hidden curriculum. That is, although social skills and self-management appear to be valued highly as requisites for success in school settings, many teachers do not utilize formal curricula and instruction to promote these skills even though some students appear to require more formal instruction or systematic interventions to attain competence.

Whether implementing systematic social skills curricula and instruction for students with social skills challenges, or training students to use self-management techniques to become less reliant on adult supervision, educators would do well to consider some of the best practice elements applied in studies two and three. Study two incorporated many best practices guidelines including maintenance and generalization strategies, multiple exemplars, peer supports, and instructional relevance to improve the subject's social skills well beyond the relatively modest levels reported in comprehensive meta-analytic reviews of social skills. Forness and Kavale, for example, computed overall mean and median effect sizes of 0.21 and 0.18, respectively, in their review of 53 social skills studies which targeted students with disabilities (2). Study three incorporated consistent feedback by having students self-graph their daily academic performances. The students not only improved their on-task

behavior and academic performance, but also moved toward the greater goal of self-determination by learning to manage their own behaviors (7). Student outcomes, and perhaps working conditions of special educators, are likely to improve when effective pedagogical practices, like those used in studies two and three, are applied routinely in classroom settings.

Results from study one should raise levels of concern, provide some direction, and, hopefully, contribute to pre- and inservice initiatives within and across the Hawai'i State Department of Education, University of Hawai'i, and other State agencies responsible for providing services to individuals with disabilities.

Currently, Hawai'i lacks key elements of service provision, including adequate classroom working conditions and sufficient quantities of fully qualified special education teachers. In this study, special educators throughout the State expressed serious concerns about classroom working conditions to the extent that short- and long-term implications for occupational stress, recruitment, and retention must be addressed. Results here support conclusions from prior research that working conditions, especially heavy workloads, lack of support, and inadequate preparation contribute to occupational stress among special educators, and that excessive stress contributes to burnout, attrition, and other occupational problems in critical shortage areas (4). Results also suggest that Hawai'i's critical shortage of special education teachers will require initiatives which address attrition and retention of qualified teachers, initial recruitment and supply of new special education teachers, and collaboration between institutions of higher education and state departments of education.

Data collected by Schrag and McDougall identified a number of particularly challenging recruitment and retention issues related to working conditions. For example, distributions of special education teachers by years of experience indicate attrition of the work force at distinctive points. Excessively high "drop-offs" in the numbers of special education teachers occurred between years 1 and 2, 7 and 8, and 20 and 21. While the last drop off is likely associated with retirement, the other drop-offs suggest that serious support needs to be provided to first-year teachers and that mid-career transitions merit examination.

Two strategies, which might assist in reducing teachers' "flight" from special education, include instituting mentor programs for beginning teachers and using exit interviews to clarify further why teachers exit the field. In comparison to the Oahu districts of Central, Honolulu, and Windward, teachers in Leeward and in many areas of the less populous, outer island districts are particularly "embattled" in respect to working conditions. Not surprisingly, these embattled areas have the highest teacher turnover and highest percentages of uncertified teachers. Consequently, improvement of working conditions, development of "home-grown" or "local" residents as teachers, and implementation of incentive programs such as loan forgiveness programs and salary differentials for teaching in high attrition locales seems warranted (4).

Schrag and McDougall cited two additional problematic working conditions. First, although some teachers cited paperwork as a burden, most did not indicate paperwork as a major factor, which contributed to difficult working conditions. However, teachers did indicate that: (a) paperwork *and* associated duties such as making phone calls, obtaining signatures, and scheduling meetings contribute to job stress - especially for new and uncertified teachers and for qualified teachers who reported that they had to "clean up" after their less-skilled, uncertified peers.

Second, some teachers and their principals indicated problems with the "weighted count formula" used by the DOE to allocate special education teachers and educational assistants. A frequently cited problem was that the formula does not account for inclusion efforts and, thereby, is a disincentive for providing services for students with disabilities in general education classes. Thus, allocation procedures merit adjustment to better reflect the realities of providing inclusive educational services.

As the leading teacher education and research institution in the State, faculty members at UH have been challenged to increase the supply of certified special education teachers while maintaining quality standards.

The three studies reviewed here are examples of faculty initiatives that apply principles of best-practices research to help solve educational problems and provide community service. These faculty initiatives, when coordinated with other agencies' efforts to improve working conditions, and incentives which support beginning and veteran special education teachers (e.g., university and legislative support for scholarships and college loan reimbursements for beginning and recertified teachers contingent on subsequent teaching in special education programs; teacher union and colleagues' support for incentives such as differential salaries or additional planning time), will assist the State in meeting its obligation and overcoming the challenges of providing quality services for all individuals with disabilities.

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