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Unfinished Portraits: Envisioning an Inclusive Society for Individuals with Disabilities

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Table of Contents

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Inclusion: Where is the School Leader?

All organizations have an individual in the top leadership position. Most often that person is referred to as the chief executive officer. In public schools the organizational leader is the school superintendent and this individual serves as the board's executive officer (Blumberg, 1985). As the organizational leader, the school superintendent is obligated to provide direction to the board and others as they determine goals and objectives for the district. Hanson (1991), indicated that "the organization's formal leader is in a unique position to set the tone in schools … because of his/her broad mandate to carry out the unit's mission" (p. 177-178). The school superintendent's role in change is very complex. Thousand and Villa (1990), stated that "the educational leader, then, is in a position of shaping the organizational structure of the schools within the district and the beliefs of the school community" (p. 7). Superintendents concerns and thoughts influence the way those in the organization may think, feel, and behave toward change. School superintendents are the key leaders in their school districts in regard to the schools programs and their concerns can facilitate or discourage the school's personnel in the planning and implementation of desired changes.

Today's school leaders are challenged with the task of educating all students regardless of specific or individual needs. As a result of this, school leaders must meet the challenge of including all students in the educational mainstream, thus, affecting the success of the implementing inclusion to its fullest. The nature of these concerns regarding inclusion will likely have an impact on the success of the districts effort to help each and every child reach their full potential.

Today an inclusive school is defined as a school that educates in the mainstream (Lusthuas and Forest, 1989). It also means providing all students served within the mainstream appropriate educational programs that are challenging yet geared to their capabilities and needs. Furthermore, it is necessary to provide support and assistance to the identified students and their teachers as needed for them to be successful (Stainback and Stainback, 1988). Additionally, inclusive schools are a place where everyone belongs, is accepted and is supported by members of the school learning community in the course of having the students educational needs met. Therefore, schools today are deeply involved in inclusive environments and support for all students.

Leadership in school environments today are confronted with many social, economic, and political changes resulting in various modifications regarding the manner in which special needs children are served. Among these modifications is the increased concern over serving children with special needs. Many factors will influence the degree of success in serving these children.

Bennis and Nanus (1985), suggest that leadership can be the pivotal force behind successful organizations. They continue by saying that leaders know what they want and how to get what they want. They are able to unleash the energy and effort to achieve the desired goals and outcomes related to full inclusion. Absent leadership, the implementation of the aforementioned efforts may lessen and the program falls by the wayside.

Thus, if the leader maintains support of the change or innovation the more likely the change or innovation is likely to succeed. So, where is the school leader when it comes to inclusion? Reviewing the efforts of one former study we find that the position of the leader depends on the leader's level of concern and effort in support of particular innovations. Hord (1990), Senior Research Associate with the Southwest Educational Development Laboratory, reports that "when educational leaders understand and acknowledge that the change process itself is a factor to be accommodated in their school improvement efforts, when they consider the requirements of the changes or innovations that are introduced and the needs of all individuals who will be implementing the innovations, and when they develop plans that take these factors into account, then they will be providing leadership that guides, manages, and supports change" (p. 4). Hord and Czerwinski (1991), state that school administrators (superintendents) "have been encouraged to move beyond their stabilizing posture and step boldly out to provide guidance and leadership for instructional change and improvement" (p. 1).

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Motivated to Pay Attention! Increasing On-Task Behavior with a Tactile, Self-Monitoring Prompt

Abstract

The following study investigated the effects of a tactile, self-monitoring prompt to increase the on-task behavior of a second grade student with ADHD. The participant, Monty, was taught to self-monitor and record his on-task behavior using a device called the MotivAider. A partial interval recording system was used to identify the amount of Monty's off-task behaviors, as well as the amount of time spent academically engaged, or time on task. An A-B case study design was used to evaluate the effects of the MotivAider. Results of this investigation indicated that Monty's on-task behavior increased from baseline mean of 39% of observed intervals in the special education setting to 85%, and 27% to 90% in general education.

Students with Attention Deficit Hyperactivity Disorder (ADHD) often exhibit a variety of behaviors that are characterized by inattention, hyperactivity, and impulsivity which occur across home, school, work and many other social settings (Silver, 1995). According to Faraone and Beiderman (2005), ADHD affects some 10% of children and adolescents. The disorder of ADHD "is thought be representative of an extreme on a population continuum of variability with a strong genetic influence" (Smalley, 2008, p. 75). Teachers of students with ADHD often struggle with the behaviors exhibited by children with the disorder. A prevalent behavioral characteristic of ADHD that affects classroom performance is the lack of student mindfulness, or attention to tasks.

Self-monitoring helps students to increase the management of skills that are critical to achieving academic successes, such as attention to task. The results of numerous research studies (e.g., Hughes & Boyle, 1992; O'Reilly, et al., 2002) indicate that the self-management procedure of self-monitoring of attention is effective in increasing time on task for students with ADHD. Self-management of one's behavior is defined as "the personal application of behavior change tactics that produces a desired change in behavior" (Cooper, Heron, & Heward, 2007, p. 578). In a single-subject research design study of students with AHDH, Harris et al. (2005) reported that on task behavior and spelling performance was positively affected under the self-monitoring of attention, with significant improvements in all 4 participants. According to Ganz and Sigafoos (2005), self-monitoring is a relatively rewarding and easy strategy for both teachers and students to implement.

A unique study by Amato-Zech, Hoff, and Doepke (2006) investigated the effects of self-monitoring in the form a tactile prompt. A multiple baseline design across

academic areas was used to isolate the effects of an electronic device called the MotivAider, to examine its effect as a tactile, self-monitoring prompt in order to increase the on-task behaviors of 3 elementary age students with varying disabilities. Students in this study were taught to self-monitor their attention by using the MotivAider. Results indicated that all participants in this study increased their on-task behavior from a mean of 55% to a mean of 90% during observed intervals. Flaute, Peterson, Norman, Riffle and Eakins (2005) noted that the MotivAider could be used with a wide range of target behaviors that include reducing nail biting to decreasing aggressive behaviors.

The purpose of this study was to investigate the use of a MotivAider as a tactile, self-monitoring cue to increase the on-task behaviors of Monty, a second grade student with ADHD. Observations and a partial interval recording system were used to identify the amount of Monty's off-task behaviors, as well as the amount of time spent engaged in academic work, or time on task. A self-monitoring intervention package using a tactile prompt (the MotivAider) and positive reinforcement was implemented to increase time spent on academic tasks in both the regular education and general education classroom. An A-B case study design was implemented in two academic settings to evaluate the effects of the self-monitoring intervention.

Method

Participant and Setting

Monty was a 7-year old Caucasian male diagnosed with ADHD in the second grade. Monty received 60 min of language instruction weekly in the resource room, 300 min daily of reading and math services, and 225 min of written expression, provided in the resource and general education classroom. Monty was referred for possible participation in this current study by his teacher for excessive levels of off-task behavior (i.e., rocking and fidgeting in his seat, staring at the window, talking to peers) that often lead to incomplete, inaccurate work or disruptive behavior (i.e., talking back to the teacher, blurting out irrelevant phrases, or arguing with adults). According to Monty's Individualized Education Plan (IEP), his current skill level was below average of his same age peers in the academic areas of reading, writing, and math.

The school was in an urban setting in a large, metropolitan city in central Kentucky, and served approximately 400 students. The special education classroom served students with disabilities ranging from mild to moderately severe. During the time Monty attended his resource class to receive language and reading instruction, the room contained 10 students and 2 teachers with 3 to 4 teaching assistants (the number of assistants varied daily based on need). Monty's regular education classroom consisted of 28 students with one teacher and one teacher's assistant.

Materials

The materials used for measurement of behavior during baseline and intervention included partial interval recording sheets for two observers (set up for 30, 20-sec intervals), a timer, and a pen. In order to implement the intervention, the student was provided a MotivAider set to 3-min intervals, a sheet with reminders of what constitutes

paying attention, a self-monitoring sheet with reward choices, and a writing utensil. A treatment integrity checklist was used to ensure that procedures were carried out completely and with accuracy.

Dependent Variable and Measure

The dependent variable for this study was the amount of time on-task, defined as academic engagement during seatwork and during small and whole group instruction. Examples of on-task behavior for Monty included having his eyes upon the teacher during instruction, reading aloud independently or along with peers during reading instruction, writing on worksheet or open response item when directed to do so, and raising his hand to ask an appropriate question or make a comment related to the academic topic. Monty was considered to be off task if he was rocking in his chair, looking out the window or at peers, talking to peers at an inappropriate time (i.e., during instruction or independent work time), or manipulating non-instructional items/materials at his desk. Disruptive behaviors, which included talking/blurting out irrelevant words or phrases during instruction, arguing with an adult or peer, leaving assigned work area, and/or refusing to do assigned work, were considered off-task behaviors. Baseline and intervention data were recorded for Monty during language arts in both his regular education and special education classroom. Monty received instruction in the second grade, general education classroom from 8:20 to 8:50 each morning. During this time, he was writing to respond to an open response item, completing a spelling worksheet, or following along during a reading activity. From 8:50-9:30, Monty went to the special education resource room where he began with small group reading and language instruction, and then completed independent seatwork relevant to the lesson taught during small group.

Academic engagement, or the amount of time Monty was on task, was measured using a partial interval recording system. On-task behavior was recorded if it occurred anytime within each 20-s interval. Intervals were measured with a timer or MotivAider. Data were collected for two sessions daily, one session in the general and the other in the special education classroom. On a data recording sheet that contained 30 intervals, a "+" was recorded if on-task behavior occurred anytime within each 20-s interval, or a "-"was recorded if on-task behavior did not occur during that 20-s interval. A total of 10 min elapsed from the start of the session to the end. Data collection began after the first 2 to 3 min of the 30-min language arts instruction period for both classrooms. Two trained observers, who maintained a 2-m distance from Monty while observing the behavior, collected the data.

Prior to the intervention, a brief, stimulus preference assessment (Cooper et al., 2007) was conducted to identify highly preferred items or activities for Monty. The assessment began with an interview with his teachers to identify preferred items. Pictures of preferred items were then presented to Monty and he was directed to rank them in order of preference. The top three items were computer time, time with toys, and candy (preferably sour suckers), respectively. Each of the three preferred items was listed in picture and word form at the bottom of Monty's self-monitoring sheet for choice selection contingent upon meeting on-task criteria on 4 out of 6 sessions.

Interobserver agreement (IOA) was measured by having two data collectors independently record Monty's amount of academic engagement. The second observer, a teacher's assistant, had previous experience in data collection, and was also trained to conduct the measurements for this study prior to the first day of baseline data collection. IOA was assessed for 40% of baseline sessions in both settings. Average IOA for both baseline sessions was 90%, with a range of 81% -99% for on-task behaviors. IOA for the intervention phase was assessed for 30% of the sessions in both settings. Average IOA for the special education classroom and regular education setting was at 89%, and 97%, respectively. The total IOA for the intervention phase was 93%, with a range of 93% to 100% for the special education classroom, and 77% to 100% for the regular education classroom. IOA was calculated by dividing the total number of agreements by the sum of agreements and disagreements, and then multiplying by 100 to get the percentage.

Baseline

During baseline, no changes were made to the student's daily routine, reinforcement schedule, or expectations for classroom performance in either setting. Reinforcement throughout the study remained the token economy system in the special education classroom, and the CHAMPS system in the regular education classroom. Baseline data were collected concurrently for two daily 10-min sessions, one session collected in the general education classroom and the other in the special education classroom. Five days of baseline data were collected for each setting. Data were collected using a 20-s partial interval recording system, with any occurrence of on-task behavior at anytime during each interval recorded. During session three of the baseline phase, Monty's level of on-task behavior increased to 60%. Observers agreed that this might have been due to increased amounts of verbal praise and reprimands of both the classroom teacher and assistant. The teacher's assistant sat next to Monty during this session, unlike previous sessions. In order to correct this error, a brief meeting was conducted with the teacher and teacher's assistant to remind them to keep the student's reinforcement and consequence schedule as normal as possible. Once the issue was corrected, Monty's baseline data resumed to previous levels.

Intervention

The intervention used in this study was self-monitoring, utilizing a tactile prompt (provided by the MotivAider) to increase the level of on-task behavior. The MotivAider, set to 3-min intervals, prompted Monty to record whether or not he was academically engaged or "on-task," during language arts time in both his special and regular education classroom. Prior to the implementation of the intervention in both settings, Monty and his teachers were trained to operate the MotivAider, recognize on-task behaviors, record his behavior in the appropriate column, and Monty was informed he could choose a reward if he was on-task 4 out of 6 sessions. Monty's teachers were instructed on how to fill out the final column on the self-monitoring sheet that indicated their agreement or disagreement with Monty's self-recordings in order to ensure treatment integrity. The checking of the final column was used as a part of treatment integrity as it ensured that the teacher(s) were making sure Monty completed the self-monitoring form, along with

providing him with appropriate feedback on his levels of on-task behavior for that academic period.

The implementation of the intervention began by giving Monty a self-monitoring sheet that contained three columns with six rows. The first and second columns respectively were labeled, "Yes, I was paying attention, or "No, I was not paying attention," with an icon of a happy face or frown face. The third column was labeled, "My teacher said…," and was for the teacher to check whether or not she agreed with Monty's responses. The teachers did not record data on Monty's on-task behavior, however, the third column ensured that the teacher provided feedback, and that Monty completed the chart. The third column also increased Monty's responsibility, as he knew that his teacher would be checking to see if he was completing the chart and following the steps. Along with a self-monitoring sheet to record his on-task behavior, Monty was given a sheet describing what constituted on-task behavior for him in each class (e.g., I am looking at the teacher or I am reading along in my book). Once instruction began, Monty was handed the MotivAider set to 3-min intervals, and attached it to his waistband. Every 3 min, the MotivAider would vibrate, prompting Monty to check in the appropriate column documenting whether or not he was paying attention. At the end of each class period, Monty handed the self-monitoring sheet to the teacher, who responded whether or not she agree with Monty's recordings with a "yes," or "no" response. When responding with a disagreement, the teacher would reiterate to Monty what he was doing that indicated he was not paying attention, reminding him what he needed to do in order to pay attention, as well as remind him of the goal. The student needed only to get at least 4 out of 6 "yes, I was paying attention," responses completed on his monitoring form in order to get rewarded. If the teacher disagreed, then the student's response was not counted towards the total number of "yes" responses. The teacher checked to see if Monty completed the self-monitoring sheet appropriately, and provided feedback at the end of each language arts period. Positive reinforcement was implemented in that computer time, time with toys, or candy (Monty's Choice) was provided contingent upon meeting the goals for the checklist. Data for the intervention phase were collected using the same, 20-s partial interval recording system that was used during the collection of baseline data. Data for the intervention phase were collected for 10 days.

Treatment Integrity

Two trained observers, the primary investigator and a teacher's assistant from the resource room, recorded on a checklist the degree to which steps involved with the self-monitoring intervention were completed. Data were recorded on the following five procedures: (1) the teacher responding (agreeing or disagreeing with student) to all items on the third column of the student self-monitoring checklist, (2) the teacher collecting student responses on a daily basis at the end of the language arts period, (3) the teacher providing one of three rewards to student if he was on task for 67% of the intervals on his self-monitoring checklist or redirecting him if he did not meet the goal, (4) the teacher collecting the MotivAider at the end of subject period, and (5) the teacher ensuring that the MotivAider was properly set to 3-min intervals before each session. Treatment integrity for both settings of the study was 100% for all data collections.

Design

The design used for this study was an A-B, single-subject case study. The design was implemented beginning with 5 days of recording baseline data in order to measure Monty's levels of on-task behavior in the general and special education classroom settings. The intervention began after collection of baseline data for both settings, and lasted for 10 days. Once a trend was established in the first setting with the implementation of the intervention, it was then implemented in the general education classroom

Results

Monty's observed levels of on task behavior for both the special and general education classroom settings are presented in Figure 1. Self-monitoring using the MotivAider yielded positive effects for increasing the amount of Monty's on-task behavior in both the special and general education classroom settings. Observed levels of Monty's on-task behavior during baseline averaged 39% for a period of five sessions in the general education classroom, and 27% in the general education classroom for five sessions. When the intervention of the MotivAider was implemented on day 6 of the observations, Monty's levels of on task behavior increased to a mean of 85% of intervals in the special education classroom and to 90% of intervals in the general education classroom. In both of the settings, the increase of on-task behavior was gradual, and on the last 2 days of observation, averaged 100%. Monty's level of on-task behavior was lower in the general education classroom, and this may have been attributed to the increased levels of distractions in the room as well as more opportunities to be near peers in small group settings. There were two days during data collection sessions that are worth noting. During baseline, on day 3 in the special education setting, Monty's level of on-task behavior increased to 60%. This could have been due to more teachers' assistants in the room that day, as well as one sitting beside him who was frequently prompting him to "pay attention." On day 12 during intervention phase in the special education classroom, Monty put his head down on the desk, and fell asleep during interval 21 of the 30 observation intervals. The teacher attributed this behavior as Monty often "not getting enough sleep," the night before.

Monty's self-monitoring of his on-task behavior on the recording sheets also yielded positive results. There was only 1 day in the general education classroom, and 1 day in the special education classroom that he did not receive his reward. Monty expressed enthusiasm about using the MotivAider, with comments such as, "I want to use this in every class!" Monty's teachers, both in regular and special education anecdotally not that Monty had improved in reading and other academic tasks.

Discussion

The findings of this investigation indicate that self-monitoring of on-task behaviors through the use of a self-monitoring prompt such as the MotivAider may result in increased levels of academic engagement. Levels of academic engagement for Monty increased in both the special and general education classroom setting. Upon

implementation of the intervention, Monty's on-task behavior increased from baseline mean of 39% of intervals in the special education setting to 85% and 27% of intervals to 90% in the general education setting. These results extend past research on the use of self-monitoring interventions that include tactile prompts in order to improve on-task behavior. The results and implications of using the Motivator were similar to those in the study by Amato-Zech et al. (2006) in that the intervention not only increased on-task behaviors, but also presented several practical applications for use in various classroom settings such as being less time consuming, easy to implement, and fits into most curriculums and activities.

This study produced effective results; however, there are limitations and further implications to be noted. A major limitation to be addressed is that even though observations were made in two settings, the data were only collected during language arts instruction, and therefore it is unknown if the effects generalized into additional settings. Also, this study was also conducted with only one student with ADHD, and could have had different results if conducted with a student(s) with other disabilities. Implications for further research would include the study of the use of the MotivAider in a variety of academic settings, such as mathematics, science and other content areas. There is also a need for replicating this study with more students with a wide range of disabilities who exhibit similar off-task behaviors.

Implications for Rural Educators

There are many positive implications for the use of the MotivAider for teachers in rural areas. Educators in both general and special education settings would be able to easily implement the MotivAider, as it does not require a lot of training time. The MotivAider could be a technique that could save both time, and money, due to the reduced need for costly equipment and training. As teachers in rural areas often have to travel great distances to receive training in various interventions, the use of the MotivAider could be taught via distance learning training, or through literature provided by the website (MotivAider, 2000).

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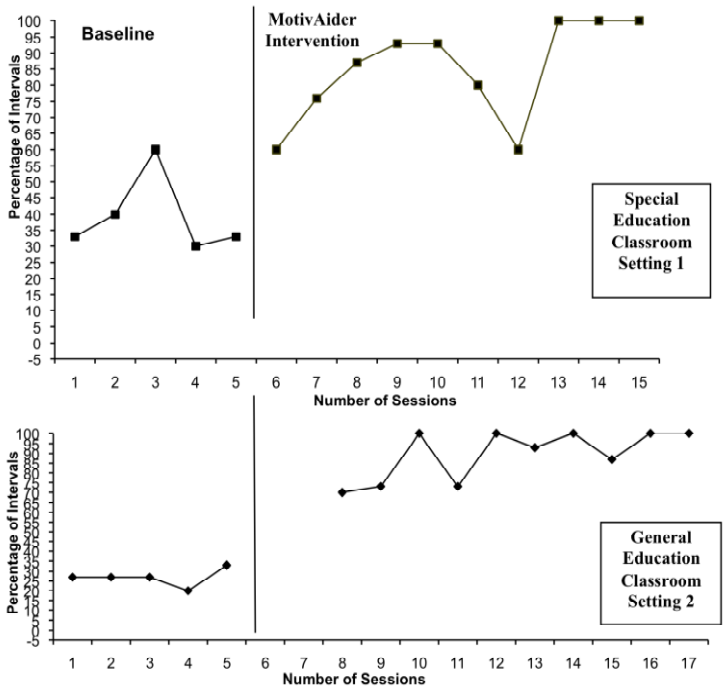
Monty's On-Task Behavior with the MotivAider



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Simultaneous Prompting-Promising Practice for the Inclusive General Education Classroom

Abstract

The effectiveness and efficiency of the simultaneous prompting procedure has been evidenced in research literature which employed a variety of settings and use both discrete and chained tasks. The high rates of acquisition, maintenance, and generalization of targeted stimuli are examined. This review also analyzes the efficiency of the simultaneous prompting procedure with regard to incidental and observational learning. Presentation of all currently published research literature of the simultaneous prompting procedure in which effectiveness of the procedure, are reported. The significance of this research proven procedure is presented, as well as its potential effectiveness with extension to the inclusive general education setting. In addition, the potential of professional development for rural special educators, in the use of the simultaneous procedure via distance education technology, is discussed.

Public Law 94-192 required inclusion of students with and without disabilities in the general education classroom. However, this law failed to address the procedural implications, which are inherent in shifting students and special education teachers to a larger classroom setting. Parker and Schuster (2002) explain the law lacks a prescription for a means to make this transition successful. Teachers must understand the steps necessary for learning to occur, as it is the responsibility of the classroom teacher to produce students who are knowledgeable in core subject areas. Teachers must select intervention strategies which research has demonstrated to be both effective and efficient in terms of maximizing instructional learning time (Keel & Slaton, 2001). Pairing content knowledge requirements with the specific learning characteristics of students as well as the instructional setting and availability of resources are challenges faced by teachers and staff charged with instructional decisions. Wolery and Gast (1984) outlined,

Any educational endeavor from early intervention to personnel preparation implicitly or explicitly addresses issues such as (1) specifying the content of the curriculum, or determining what should be taught; (2) determining that match between learners' behavior in relation to the content of the curriculum; (3) manipulating environmental variables to provide effective and efficient acquisition of curricular content; and (4) ensuring the maintenance and generalization of acquired behaviors to situations other than the instructional environment (p.52).

Success of the simultaneous prompting procedure has been evidenced in the small group as well one-on-one settings to teach both discrete and chained tasks. The simultaneous prompting procedure is a form of antecedent prompt and test procedure, which began to be investigated after time delay research showed that stimulus control, was transferred during the initial 0-s delay trials (Schuster, Griffen, & Wolery, 1992). Methods used in the simultaneous prompting procedure demonstrate effectiveness in establishing stimulus control due to the immediate delivery of a controlling prompt with the presentation of the discriminative stimulus. This transfer is assessed during the probe sessions, which immediately proceeds each training session (Fickel 1998). Teaching several students together using simultaneous prompting procedure has proven to be beneficial for students' acquisition, maintenance, and generalization of individually targeted stimuli as well as acquisition of non-targeted stimuli. This type of embedded instructional approach teaches skills within the routine of the inclusive instructional setting. The simultaneous prompting procedure allows teachers to integrate specific instructional procedures into the classroom without disrupting the flow of the class, and provides natural opportunities to respond (Reisen, McDonnell, Johnson, Polychronis, & Jameson 2003).

Research has shown the efficiency of the simultaneous prompting procedure to be further enhanced by incorporating stimuli, which is not specifically targeted for instruction, but paired with the target stimuli. High rates of acquisition, maintenance and generalization of the non-target stimuli are reported in some of the studies reviewed. As reported by Wolery, Holcombe, Werts, and Cipolloni (1993), studies have reported high rates of acquisition of new information, presented during instructional sessions, as verbal feedback. The results indicate that verbal feedback can be learned and retained by students without direct instruction. The simultaneous prompting procedure is relatively simple, involving presentation of a task direction followed immediately by the presentation of a controlling prompt, which guarantees a correct response. The student then repeats or imitates correctly. The student is never given an opportunity to independently respond during the instructional sessions. After an initial instructional session is conducted, daily probes or test trials are conducted prior to each instructional session in order to assess transfer of stimulus control (acquisition of target skill). Target skill selection can be based on individual student needs or those of the whole class.

Rural special educators are placed at a particular disadvantage at times when access to resources and research proven methods are limited. Given the ease of use and flexibility with regards to content used, the simultaneous prompting procedure is a practical tool that can be relatively easy to incorporate into the rural inclusive general education classroom.

Therefore, considering (a) student need to access and acquisition of content, (b) teacher necessity of efficient and effective means of inclusive instruction, (c) the promising potential of the simultaneous prompting procedure, and (d) ease of use and applicability, the promise of the simultaneous prompting procedures are presented. A discussion of the potential for professional development, to train in the use of the

simultaneous prompting procedure, for rural educators via distance education technology, is also included.

Considerations

Due to recent mandates from NCLB (2001) and IDEA (2004), all students, including those with disabilities, are required to be exposed to grade-level and appropriate curriculum (Rao & Kane, 2009). Teachers of both special and general education students need to be more equipped with strategies that can be used to effectively teach both simple, discrete tasks and multi-stepped chained tasks to students in inclusionary settings. According to Browder, Wakeman, and Flowers (2006), content standards within each state are used in large-scale assessments, including alternate assessments for students with disabilities. A procedure such as simultaneous prompting, carries with it the ability to not only produce effectiveness in delivering content, but delivering it in a way that is easy to manage and implement for most educators in a variety of settings. According to Singleton, Schuster, Morse, and Collins (1999), the simultaneous prompting procedure may be a preferable procedure as compared to others, as it requires fewer prerequisite skills and employees a controlling prompt that reduces instructional time and quantity of student error.

Implications for Rural Educators

Special education services in some rural areas have been impacted to a great degree by issues concerning federal mandates. The provisions of which have directly impacted special education teacher preparation and instructional practices as a whole. In addition, the location of teacher preparation programs has been a barrier for both the institutions and those seeking to gain, or add to, their knowledge base in special education. These issues have exacerbated problems plaguing the teaching profession, such as teacher shortages, personnel preparation in terms of skill development and professional development, as well as increasing rates of attrition (Ludlow, Collins, & Menlove, 2006). Special education teachers and related personnel are especially worried about their current ability to comply with the mandates and meet the demands in special education programs in the unique context of rural schools. Childress (2008) reported that the state has high rates of childhood poverty, and the adult educational attainment level lags, in comparison to the rest of the nation. Duncan (1997) added that many young children often lack the appropriate amount of exposure to certain determinants of achievement at an early age, thus contributing to higher levels of developmental delays and/or speech disabilities, especially of those in the age range of 3-9 years. A procedure such as simultaneous prompting, which is both effective and efficient to manage and implement, is a useful tool for special education teachers in the delivery of core content to students with disabilities in a variety of settings. In addition, acquisition of the knowledge and skills to use the simultaneous prompting procedure are readily obtained and put into effective practice relatively quickly after they are learned.

Geographical barriers, which inhibit access to resources, such as evidence-based teaching practices, have left rural special educators with inadequate opportunities for professional development. A study conducted by Westling and Whitten (as cited in Ludlow et al., 2002) found that being geographically isolated not only impedes access to

classes and trainings, but it also limits teachers in rural areas in opportunities to interact with peers and experts in their field. Special educators have cited inadequate in-service opportunities as a factor increasing the likelihood they will leave their teaching position. The simultaneous prompting procedure, which requires limited training, can potentially be delivered via distance learning services to both educators and education paraprofessionals who are located in rural areas. Materials necessary to effectively implement the simultaneous prompting procedure are relatively accessible in any classroom or school building. Little time is necessary to select content, prepare materials, determine prompts, and train students, making simultaneous prompting ideal for use in a busy classroom.

As outlined, the need for improvements in increasing rates of classroom application of research-based teaching practices to education all students in inclusive settings, has prompted the search for methods which accommodate educators in rural areas who are in need of alternative ways to access the knowledge necessary to ensure progress of their students. An effective method, which has experienced tremendous growth in the area of preparation for special educators, is distance learning. Although, distance learning has many forms, of particular interest to universities and school districts, is the use of online technology to reach special educators in rural locations. The procedure of simultaneous prompting readily lends itself to being delivered through this process. The delivery of professional development online has been implemented and proven successful by the Council for Exceptional Children (Ludlow 2006). Successful use of online resources and methods has positive implications for the simultaneous prompting procedure. Utilization of professional development in the form of online distance education has the potential to bring this evidence-based procedure to rural classrooms with relatively few challenges.

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Including Senior Citizen Volunteers with Disabilities in Schools within Rural Settings to Enhance the RTI Assessment and Learning Processes:

Mutual Relationships Between Generations

The past five years has seen a series of major cutbacks in a variety of resources that have affected state education systems generally and specifically. Programs for general education students have been cut back as well as resources for those with exceptional needs. The impact of these cutbacks have resulted in less time for teachers in the schools to implement a variety of strategies in addition creating pressure of successfully implementing new programs to meet the standards of the *No Child Left Behind Act.* Additional assistance, especially in rural schools, has become limited and additional or different types of resources are needed.

One untapped resource to accommodate the needs of students with exceptionalities is the availability of an older generation, namely senior citizens. Each small town in a rural area has senior citizens who may still be living independently, with their relatives, and or in retirement centers. It would be rare if a town exists without the older generation. Senior citizens are often neglected by living in isolation or in retirement homes in which no events actually take place. Consequently, they have no need to use and therefore may lose interpersonal communication skills as well as decreasing the capacity to recall life events involving time and sequence that need to be maintained and disseminated by the next generation. Of benefit to them would be the ability to maintain a feeling of being useful to the community and the younger generation, thus helping to close the "generation gap." In turn, the younger generation will benefit by having more positive attitudes toward senior citizens, improve in school behaviors (Cummings, Williams, & Ellis, 2003) academics, and student attendance (Kaplan, 2002) while senior citizens maintain more physical activity as well as helping to prevent negative late-life experiences (McCallum, Simons, Simons, & Friedlander, 2007).

Lesser strength skills of senior citizens are also manifested in students who have intellectual disabilities, learning disabilities and autism. Individuals who have Attention-deficit Disorder with-or-without hyperactivity are often unaware of details resulting in effects during reading and their concentration capacity within social skills resulting from poor self-regulatory behavior and impulsivity. These are caused by e.g., deficiencies in frontal lobe neuron maturation, smaller corpus callosums due to shorter spleniums and

genuses where organization and logical thinking skills are developed over time through interconnectivity.

Since many of these characteristics are similar (Mayo Clinic 2006, 2005) inter-generational interventions that utilize major characteristics that both populations need to maintain can be utilized These interventions can address major deficient and/or declining characteristics such as visual and auditory memory skills, communication descriptive skills involving vocabulary, word recognition, auditory discrimination, comprehension and sequencing skills, and functional reading and mathematics skills. By using interventions such as these, new brain connections are developed and existing ones are maintained through reinforcement. This type of reinforcement becomes embedded in a teaching-learning process since brain plasticity occurs throughout the life-span (Purves, et al, 1997) compensation for losses improve over time (Bloom, 2007).

In implementing an intergenerational project such as this, one must appropriately match the senior citizens with students. Teachers can initially supervise the senior citizen-student teams as they work one-to-one with struggling students and encourage the senior citizens to not only relate their own experiences but also be active listeners to the student's expressions of varied emotions. This can also be implemented as senior citizens supervise in the cafeteria, assist with bus loading and unloading, or recesses (Lumpkin, 2010).

Maintaining cognitive functions can be done individually as well as with others. Reading stories to oneself as well as to each other using the reciprocal reading and choral reading intervention helps to maintain expressiveness of the characters, discrimination of letters and words on both a visual as well as an auditory levels and maintenance of sentence structure while reinforcing memory for events. During this reading time, events can be related to each other as life-experiences are connected within the story context. Socializing in this manner can also create problem-solving situations that can be introduced by e.g., if, why, how come, what would you do if…, type questions. While this activity is occurring, individuals who need more attention and/or have AD/HD, LD, ID, will have a higher probability of being able to focus on the activity and possibly increase their attention span over time. In addition, the characteristic need of using manipulatives, e.g., drawing pictures about events, etc. can also be introduced. For senior citizens, research findings indicate that the use of reasoning training increases the probability of maintaining instrumental activities of daily living (IADL) (Shumaker, Legault & Coker, 2006) and, in the opinion of the authors, could lead to more success if involved in similar activities in schools.

Most models of Response to Intervention involve three tiers. The first tier is one in which general education teachers attempt the least intense interventions. It is both at the Tier I and Tier II stages that intergenerational teaching-learning processes can take place easily. Initial Curriculum-based Measurements can be completed by the teacher. The senior citizen can implement an intervention using their life stories around which reading (Doiron & Lees, 2009) with word recognition skills (also for new spelling words) and comprehension questions can be completed as well as mathematical problem-solving

activities. Progress can be charted by the student raising their self-esteem as they improve auditory and visual skills. The life-experience stories can be taped for further use and students who also have learning disabilities may type them over. The stories can also be recorded into computer programs that automatically write it on the monitor, to be saved for the teacher, who in turn can develop universal questions and spelling word lists. Mathematical problems can be developed from the stories, pertinent to life functions and survival especially in rural areas where the cultures may vary. In this way both the predominantly left cerebral hemisphere is utilized during language and mathematical processes and the right cerebral hemisphere is used for whole word recognition and the global-contextual bases of the stories. Logical connections and organization occurs in the frontal lobes. Self-esteem is enhanced through the use of the left hemisphere rather than using the right hemispheric that initiates depressive characteristics. Memory can then also be improved (Searleman, A. & Herrmann, 1994).

Intergenerational activities can also be used for broader-based community activities. Assisting in community events such as 4-H clubs may build practical and social partnerships inside and outside of rural schools (Hildebrand, 1973). Being involved in teaching and modeling dance activities can assist children who have strengths in this area. (Borstel, 2006) in addition to common intergenerational strengths of music (Frego, 1995) regardless of risks that may occur (Hermann, Sipsas-Hermann, Stafford, & Hermann, 2005). Finally, art is a subject in which students with reading difficulties may excel. Having an intergenerational art program can be very beneficial for them as well as those of other generations. Senior citizens may have increasing visual impairments. Art projects involving large shapes, textured surfaces that require kinesthetic-tactile senses in partnership with children who need the same type of stimulation e.g., children with autism, can be beneficial for both generations. These art projects can be integrated with literacy and socio-cultural factors to enhance diversity in varied ways (Heydon, 2007).

Although research for intergenerational projects involving individuals with exceptionalities and their successes over short and long term studies is sparse, it is increasing. Further suggestions for intergenerational projects and their physical and intellectual motivational qualities need to be considered as imperative for the future. These projects could involve functional and academic skills.

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Use of Data Based Decision Making to Improve Special Education Programs

Abstract

This paper will discuss challenges associated with the implementation of data based decision-making to improve special education programs; specifically, the implications associated with Response to Intervention (RTI). The paper will present challenges, suggest solutions, and discuss implications as schools attempt of document program effectiveness. The interactions between characteristics of small rural schools and challenges to effective use of data to improve programs will be presented. This article focuses on data based decision-making at the building level and provides guidelines for principals to improve special education. Necessary prior conditions, methods for developing a data oriented culture, and expected outcomes are discussed. By using data, administrators can analyze the programmatic decisions and promote empowerment of staff.

Introduction

Public education is under significant pressures to improve at all levels; however, the forces attempting to promote change within special education are currently driven by Response to Intervention (RTI) and No Child Left Behind (NCLB). Intense pressure to improve schools has forced many educational leaders to move away from continuous improvement models to what feels like a *continuous implementation* model. Many special education administrators have been forced into defensive postures. However, leaders within small rural communities can built a culture that is supportive of data-based decision-making. If the culture of the school changes, the school will change.

RTI has been introduced across the nation and is generally accepted as an improved model when compared to the old "wait-to-fail" model. However, many educators are very skeptical, because in part, they have seen a continuous chain of new reforms, new programs, and magic quick fix approaches. "Teacher cynicism occurs primarily because new programs are implemented, modified, and then replaced or continued without appropriate, data-based, evaluation and decision making" (Thornton & Perreault, 2002, p. 86).

As schools have been required to implement No Child Left Behind (NCLB), many have moved toward a culture of data based decision making. Public schools and especially, special educators are required to collect a wide variety of data. However, educators typically underutilize the data currently available (Noyce, Perda, & Traver, 2000), and too many special educators just collect the required data to meet state and federal requirements. Researchers have suggested that a data-based approach to school improvement is appropriate (Berhnardt, 1998; Canada, 2001 Creighton, 2001; Holcomb, 1999; McClean, 1995; Sparks, 2000); indeed, effective use of data provides a significant opportunity to improve the quality of special education services.

Thornton and Perreault (2002) outlined the following advantages of effective use of data:

- Providing students with accurate and timely feedback,
- Documenting improvement in instruction,
- Measuring the success or failure of specific programs,
- Guiding curriculum development, and
- Promoting accountability (p. 87).

However, effective leaders who are skilled in use of data is a critical component to such school reform.

Effective leaders take steps to provide proactive development of a data based decision-making culture. At the same time, educators tend to resist use of data to actually plan instruction and to document improvements. The common reasons include lack of skills, knowledge, and understanding. Many education leaders simply lack the basics to promote effective data based decision-making within their building. This paper will focus on the necessary conditions required to implement data based decision-making from a principal's prospective. Clearly, the can be generalized to any education leaders, e.g. vice principal, special education director. We posit that the development of a data-based decision-making culture must encompass all staff, not just the special education teachers.

Essential Conditions

The necessary conditions are common across many effective school reform efforts. They include a common vision, culture of trust, highly effective leadership, and a leader (principal) who is in data based decision-making.

Common Vision

For years, special education has been on the outside of the mainstream of public education. Within the current structure, special education is not isolated in a remote building and secluded classroom; however, in many cases, special education students are not expected to meet the requirements of NCLB. A common vision provides guidance, helps establish bench marks, and goals to monitor progress. Data collection, analysis, and feedback provides a bases for evaluation of the effectiveness of ALL students served

Most schools and districts have a defined vision, mission, and school improvement plan. However, the key is a common vision that is understood by all stakeholders. If the school cannot unite behind a shared vision, school improvement plans will not succeed. "Without a shared vision, attempts to implement data-based leadership become little more than a personal preference of the principal" (Thornton & Perreault, 2002, p. 88). In contrast, a common vision provides a basis to conceptualize and implement the school improvement plan. Although, a common vision is necessary for improvement of reading and math, it is even more critical for effective improvement of special education.

Culture of Trust

Deming (1990) noted that effective change required that leadership "drive out fear." Teachers and principals will develop a fear of failure if the lack the skills and knowledge necessary to implement data based decision-making. The creation of culture of trust is a primary responsibility of the principal. Without such a culture, the various forms of resistance to change persist. Under the mandates of NCLB, the pressures on special education teachers can be significantly increased—a majority of schools that fail to make adequate progress have under achieving students designated as special education. The principal must be trustworthy. "Staff members consider two important questions in determining trust – Has the principal been truthful in the past? Does the principal follow through on commitments" (Thornton & Perreault, 2002)?

With reference to data based decision-making, the development of culture of trust is highly dependent on the applications and uses of data. Can the staff trust that the data will be used to promote improvement and not to punish educators who fail to achieve targets? The principal must develop, empower, and support staff to promote trust (Sergiovanni (2001), Blase & Blasé,1994, and Lloyd & Berthelot,1992; Sergiovonni, 2001; Short & Rinehart,1992). "In essence, trust evolves as a result of supportive systemic norms within the building and emerges as result of historically appropriate leadership behaviors" (Thornton & Perreault, 2002, p. 88). If teachers, and especially special education teachers, fail to trust the principal's motivates, then many forms of resistance to change will develop.

Principals need data based decision-making skills

Within the current cultures of public school, the lack of data based decision-making skills among principals is common (Creighton, 2001; Holcomb, 1999; Thornton & Perreault, 2002). However, the lack of skills and knowledge cannot be used as justification of development of the skills necessary to collect, interpret, analyze, and utilize data. Principal certification programs often include a basic course in statistics, but traditional classes do not provide the skills and background necessary to enable principals to analyze and interpret data (Creighton, 2001). With or without the support of the district, principals must develop the necessary skills—this is a principal responsibility.

Develop Data Based Decision-Making School Culture

The principal must insure the basics: common vision, a culture of trust, and principal who understands effective use of data. Then the artful principal can establish a data based decision-making culture. NCLB have provided an extremely powerful tool to

move a school in the correction direction. The mandates for improvements in language arts and mathematics provide the opportunities for smaller pilot studies. Establish proactive groups to study the results of planned changes in these areas. A major advantages of small groups is that errors and successes can be quickly identified. The over reaching goal is to move from small successes in these areas to all curriculum areas.

For most schools, language arts and math provide meaningful hands on projects of most educators. All teachers can become engaged in these areas either directly or indirectly. However, the data that is collected and studied must have relevance for the teachers. At this level the teachers are the primary consumers of the data; as such, the data must address key issues. How will the data improve teaching and learning?

The principal must plan early successes, promote those events, and enable teachers. A key issue is the use of the data to plan and implement improvements in instruction. As with principals, teachers need data skills; therefore, appropriate professional develop must be a integral component of the process. Applications of data, teacher skills and knowledge, and teacher confidence are critical.

Teachers need time

All public educators know that teachers are pressed by the ever-increasing demands and requirements. Principals must provide teachers time, resources, and support. In the beginning, it will be easier to develop time for a small pilot group than for the whole staff. So, start small, develop time for the pilot group, and expand as appropriate. When data based decision-making is expanded to the whole staff, reallocation of teacher time will be necessary. What requirements can be removed? What is not necessary? For example, late starts could be used for professional development.

Professional Development

Drive-by professional development will not be effective. A clear plan that aligns professional development with the skills necessary to collect, interpret, analyze, and utilize data will be necessary. A multi-year plan for staff development will be required. Without skills and knowledge, the culture of the school will not change. Locally developed professional development can be highly effective (Fontana & Perreault, 2001). The “just-in-time” principle can be highly effective for staff training. For example, when the teacher need to use data presentation skills, a workshop to charts and graphs could be helpful.

Data based decision-making cultures cannot be developed in isolation; all stakeholders need to work collaboratively. A goal of data based decision-making is to establish a new normal; in this school decisions are based on data. Effective use of data and continuous improvement are necessary components of the new normal. If these are components, then the process of data based decision-making can be motivational.

Develop a plan

For sometime educators have known the value of systems thinking (Deming, 1990; Bonstingl, 1996; Senge, 1990); a simple systems approach will be helpful. The total quality management approach to problem solving provides an illustration; it is a repeating cycle of four basic steps: Plan-Do-Study-Act. These basic steps provide shared expectations of system improvement.

1. *Develop a plan*. The plan should include data collection procedures, assessments, types of changed and related information.
2. *Implement the plan*. The fidelity of implementation is key in this step. All variance from the plan must be noted
3. *Analyze the results.* As discussed earlier, skills and knowledge are critical. In the beginning, it may be necessary to develop outside support at this step. However, collaborative staff efforts are critical as soon as possible. Key functions include: data collection, statistical summaries, disaggregation of data, performance based summaries, feedback, and open discussions.
4. *Take Action*. This step is to promote continuous improvement. What do the results indicate? What system improvements are needed? Avoid any level of blame; the key issue is continuous improvement of systems.

Remember that a key responsibility of principals is to drive out fear. Fear of failure can create a significant source of resistance to change; however, the effective use of data for improvement can drive out fear. For example, the use of achievement data for teacher evaluation could promote avoidance of struggling students.

Effective Feedback

In the new normal, feedback is a corner stone for success. Open communication of results, shared data, and candid discussions of improvement plans can create an environment of trust among staff (Senge, 1990). Data can be used to punish or to improve; the later is appropriate and the former will be destructive. Open, reliable, and validity feedback will facilitate the concept that data will be used to improve the system.

Communication should be both formal and informal. For example, appropriate data summaries should be readily available to all. Principals can use individual measures of success to reinforce individual teachers. Within the school organization there are both formal and informal channels of communication. The effective use of the building website and weekly communications can be effective. Data feedback should become a key component of the new normal.

Implication for Special Education

The creation of data based decision-making culture cannot be established in one department or one classroom. This is a building level culture; if effective, all teachers will be engaged. A significant advantage of RTI is that is requires total school involvement; tier I involves improvement of instruction in all classrooms. All tiers require reliable and valid data. RTI is not an isolated responsibility a small group of special education teachers; it requires a system level of conscientiousness. The journey toward data based

decision-making culture requires a skilled leader and engages all stakeholders. A data based decision-making culture can move a school from "we-them" to a collective "us," a principal should see progress in terms of shifts in attitudes of teachers towards data, changes in behaviors, and documentation of results. The principal needs to develop and maintain positive momentum, promote a collaborative climate, and expand beyond pilot projects. Several activities will be helpful in open communication of results – newsletters, district level reports, and celebrations of successes. The tone of these activities should always be toward continuous improvement of the system. One of the most powerful outcomes from data-based-leadership will be enhanced teacher empowerment.

Empower Teachers

Kirkpatrick and Lewis (1995) explained that empowerment is associated with teachers' power to shape and conduct their professional lives. For teachers, Short and Rinehart (1992) identified the following dimensions of empowerment:

- involvement in decision making,
- opportunities for professional growth,
- teacher status,
- teacher self-efficacy,
- autonomy, and
- teacher impact.

As teachers develop the skills and knowledge related to data based decision-making, the above dimensions are promoted. These dimensions of empowerment are interrelated; increases in one dimension will enhance others. Data based decision-making promotes intrinsic motivation and involvement of all staff in common goals related to effective implementation of RTI.

In summary, RTI, data based decision-making, and related professional development will enable special education teacher to more easily integrate into the mainstream of the educational process within our school. Data based decision-making culture must start with mainstream educators, and then integrate special education. The reverse order will serve to isolate the very youth we most need to serve.

Data based decision-making culture is a proactive procedure to empower all teachers and change schools. Even though RTI has a strong data component, data based decision-making should not be initiated only within special education. Data based decision-making is a systemic organization change that requires hands-on leadership. This is a powerful procedure to transform a school and promote effective reform. It should not be viewed as a new program for special education; it is a process to change the school culture.

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Challenges for Administration of RTI in Small Rural Schools

Abstract

While requirements of special education law requires a free appropriate education, and the intent of the No Child Left Behind Act (NCLB) is to ensure the success of every child, these ever-increasing demands on resources challenge educators in small rural schools. Response to Intervention (RTI) is a permissive statute that is a part of the 2004 Individuals with Disabilities Education Improvement Act (IDEIA). Under the act, early intervention services were granted significant credence allowing for a focus on preventing academic failure as opposed to maintaining the traditional "wait to fail" model. This paper provides a review of the Response to Intervention (RTI) model and provides a discussion of some challenges for education leaders in small rural school districts.

Introduction

The 2004 Individuals with Disabilities Education Improvement Act (IDEIA) provided significant revisions to the earlier Individuals with Disabilities Education Act (IDEA). For this discussion, the key focus will be Response to Intervention (RTI), which permits districts to utilize funds and resources for early intervention programs. Under the current act, students receive services much earlier than before. A primary intent of RTI is to avoid the need for a special education placement—early intervention to prevent later problems. By now, most agree that the old standard "wait to fail" model is inappropriate, which typically established student eligibility for services during the third and fourth grades.

Within the literature the focus continues on appropriate practices, which arise from the use of standard intellectual assessments and academic assessment models to establish eligibility. More than 50 percent of all students served through special education carry the identification label of Learning Disability (LD) (Lewit & Baker, 1996). In addition, Roush (1995) estimated that 80 percent of those students identified in the category of LD qualify within the area of reading. In addition, the cost to provide services for LD students is more than twice the cost for their non-special education counter parts.

Challenges

As budgets get tighter and revenues decrease, the importance of RTI has increased. Districts are working to implement RTI at all levels (P-12). While most educators support the concepts associated with RTI, education leaders are faced with significant challenges. Typical problems are associated with identification, assessment, data management, and programs. Within and across districts, discussions focus on appropriate interventions and accurate diagnosis of learning disabilities. Minarik, Thornton, and Perreault (2003) identified challenges that districts face, which are magnified within small rural districts. The following sections will provide a comparison and contracts between large districts and small district across some of the key issues. However, leaders within small rural communities can built highly successful teams to address these pressures. The following discussions will characterize the differences between large and small districts.

Talent Pool

The pool of talent available in small districts is a significant factor. Many small rural districts have talented staff; however, most people have multiple responsibilities. Large districts can employ individuals for specific high skill positions, while small districts must hire individuals with multiple talents or train them for the additional skills on site.

Rural Life Style

The small district has the "classic rural life style;" however, this is not without negative factors. In today's economic, most families must have two incomes to meet basic needs. A teacher's significant other may not be able to find employment or may need to accept an under-employment position within small rural communities. Housing in small rural communities often presents difficulties. In many cases teacher cannot find standard housing; in others, it is difficult to sell a purchased house. Shopping, personal entertainment, and access to expected convinces are limited. Such limitation associated with the classic rural life style may prevent skill teacher from accepting jobs with small districts.

Professional Development

Large districts have a team of trainers and for key initiatives like RTI; they have a RTI trainer and coordinator to facilitate new programs. Larger districts can spread the cost of national experts across a large pool of teacher to reduce the cost per teacher. In a small district, the RTI expert is also the special education director, the grant writer, and maybe the assessment coordinator. The cost per teacher for specialized training can be significant. Often, small districts sent teacher away for training and use a train-the-trainer model. Out of district travel is expensive. As budgets become tighter, regional trainers are under pressure. In many cases, the regional trainer, who supported small rural districts, are not funded.

Time

Time is an issue for all teachers in all districts. In small districts, some teachers have multiple assignments and/or multiple building level responsibilities. For such teachers, the task finding of a substitute presents a significant challenge; the substitute would need to meet all of the requirements or multiple substitutes would be required. In larger districts, hiring substitute teacher can be difficult, but in small rural districts the substitute may, by necessity, be the principal or other teachers on staff. The straight forward option to make time for teachers by just "taking something else off their plate" is very difficult in small rural schools.

Resources

Most states have a funding formula that provides equal funding for equal types of students. For example, such procedures are designed to ensure that all LD students receive equal funding. The economies of scale that larger districts enjoy are not available for small rural districts; it is more difficult to provide quality services within a rural district.

Systems Thinking

The above issues are not news to education leaders in small rural districts; they face these and many others on a daily basis. These challenges illustrate the significance of implementation of an initiative like RTI that has the potential to improve services and reduce costs. Thus rural educators must become proactive to implement RTI.

School leaders need to adopt a systems thinking approach. Systems thinking provides educational leaders a framework and a prospective to consider RTI holistically. Numerous issues can be associated with systems thinking, e.g. data based decision-making, school reform, and RTI. Peter Senge (1990, p. 1) defines systems thinking as "a framework for seeing patterns and interrelationships." He further explains that: *From an early age, we are taught to break apart problems, to fragment the world. This apparently makes complex tasks and subjects more manageable, but we pay a hidden, enormous price. We can no longer see the consequences of our actions; we lose our intrinsic sense of connection to a larger whole. (p. 1)*

Systems thinking is most appropriate when leaders face complex problems. The above would suggest that implementation of RTI in a small rural school is a very complex undertaking.

Develop Support for Implementation of RTI

Effective principals accept that it is impossible to implement a change strategy as complex as RTI without support of the teaching staff. For the above reasons and others, it is most critical that principals in small rural districts have the support of the teaching staff. Teachers are complex people with very complex jobs. Principals in small rural districts need to develop and keep a highly skill staff. To this end, we propose that principals implement the following interrelated strategies.

Effective Leadership

The effective principal in small rural school "must simultaneously be a visionary, servant-leader, child advocate, community activist, politically astute bureaucrat, and instructional leader who promotes teacher development, raises students' standardized test scores, and it able to acquire and equitably allocate resources" (Pierce & Fenwick, 2002, p. 31). Although Pierce and Fenwick were discussing contemporary principals their characterization applies to rural schools.

Become an Employer of Choice

Rural schools are in direct competition with urban schools for the brightest and the best teachers. The best teachers have many options, they can leave education, they can work for other districts, or they can stay in small rural communities. The culture and climate of a school are pivotal in relationship to decisions to stay or leave. The principal must build a school that is highly intrinsically motivating for teachers. When teacher come, stay, and become productive members of the educational community, continuous improvement is more likely.

Choose Wisely

First, the concept is to hire and keep quality people. Teacher hiring is one of the most important decision that principals make. In larger districts, a well-defined procedure exists for employment. However, in many small rural districts, the principal has primary hiring responsibilities. Hire teacher that will not only meet the requirements in content areas, but hire for attitude, for compatibility with the community, and for congruence with needed changes.

Strong Bond between Teachers and the Community

Principals can facilitate the development of strong bonds between the staff and the community and among staff members. Wheatley and Keller-Rogers (1996) illustrate the importance of sturdy relationships: *Organizations can keep searching for new ties that bind [people] to them—new incentives, rewards, and punishments…. But organizations could accomplish much more if they relied on the passion evoked when we connect to others, purpose to purpose. So many of us want to be more. So many of us hunger to discover who we might be together. (p. 63)*

When a school loses a highly effective teacher, the training, the time, and related resources leave with the teacher. In addition, the teacher must be replaced.

Effective Professional Development

A comprehensive multiple year professional a development plan is critical. This will require out of the box thinking for small rural schools. Consider the following:

- Train-the-trainer model
- Pay teacher to attend workshops after school and summers
- Conduct joint workshops with other small schools
- Work with regional universities
- Use distance education

Effective professional development is not optional.

Data Based Decision-Making

Schools with a data based decision-making culture have significant advantages when they attempt to implement a reform such as RTI. No Child Left Behind (NCLB) and the national focus on effective use of data are proactive reasons to develop a data based culture. Effective implementation of RTI requires explicit and systematic instruction, ample practice opportunities, aligned data, and immediate feedback. A data based culture is critical.

Conclusion

The reauthorization of IDEIA permits the implementation of RTI, which in turn will greatly benefit students. For small rural school, key issues are select good teachers, develop them, and support their professions work; empower them to become highly qualified. In addition, help all teachers become strong advocates to for the school, new program, and continuous improvement. The schools that successfully implement the RTI model will provide the above. They can expect to see increased collaboration between regular and special education teachers, continuous improvement of services, and ongoing use of data. Finally, such school can serve as a model for other rural districts, which will promote increased self-efficacy to the entire staff.

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What Do They Know? The Results of a Study to Determine the Level of Understanding by Rural Building Administrators of Key Points of the Special Education Law.

Abstract

An administrator who fully understands the legal rights of special education students will work with the student, family, and faculty to ensure that laws and the rights of students are met. Administrators who do not fully understand the laws and rights pertaining to SPED students may set an environment that can result in students being denied rights and services. The data presented in this report examines the level of knowledge of pertinent Special Education Laws held by rural building administrators.

Purpose of Presentation at ACRES

Two landmark laws have had a major impact on the building administrator's role over the past 35 years. The landmark PL 94-192 that required students with handicapping conditions be provided a Free and Appropriate Public Education. The second is the landmark No Child Left Behind law which requires minimal levels of achievement for all students.

It is assumed, after almost 35 years since the enactment of PL 94-192, that almost all practicing building administrators will have appropriate knowledge of the laws pertaining to the legal rights of student eligible for special education services. That assumption is frequently shattered when reviewing case law and discovering that a student's right to a Free and Appropriate Public Education is denied. All too often this violation is the result of administrator failure to comply with laws pertaining to the rights of students with an IEP.

This issue has led the authors (all are members of a university principal preparation academic department) to examine the levels of knowledge and perceptions of knowledge pertinent Special Education Laws held by in-service rural principals.

In Nevada, administrator licensure requirements do not include coursework in Special Education Law. While the home department of the authors requires a course in special education law for the masters degree it is possible to become a building or central office administrator without any formal training in the subject matter. This leads to the obvious question: What do they really know about Special Education Law?

Rural Focus

The findings presented in this report are derived from a telephone survey of rural building level administrators in Nevada.

Limitations

A key limitation of this study/report is that the participants in this study do not a represent a scientific sample of the total population of rural Nevada high school building administrators and therefore the results cannot be generalized to the total group

Research Inquiry

The following research questions guided the process:

- What level of understanding of current Special Education Laws to the administrators hold?
- Do they believe they are "up-to-date" on Special Education Laws?
- Where do these administrators seek information to maintain professional currency on Special Education laws?
- Perceptions (if any) of needed training/updating on Special education Laws?
- Are there differences in understanding based on years of experience as an administrator?
- Are there differences based on the administrators teaching experience?

Methods

The respondents were selected from small rural school districts in Nevada. Nevada has several larger (more than 3,500 students) where there are, due to scale, significantly greater resources such as an independent Special Education Director and testing and assessment specialists or other resources for special education services within the district. This study focused on the smaller district (fewer than 1,500 students)

The research design was a telephone survey of building level administrators high school administrators in several rural school districts in Nevada. The inquiry protocol included a minimum of three questions to seek the answer to each research question.

Findings

The findings are presented by Research Question. (note: respondents actual word are used throughout this section and are no quote marks. If the language seems awkward at times it is generally because the respondent used that terminology and the attempt here is to convey the respondent's intent).

Research Question 1. What level of understanding of current Special Education Laws to the administrators hold? The responses to this question proved difficult to ascertain specific themes regarding current levels of understanding held by

administrators. All administrators queried displayed an adequate level of knowledge of laws and regulations related to the rights of students with and IEP (and those students believed to be eligible for special education services). Virtually every administrator indicated a degree of empathy for students with an IEP and the issue(s) in providing adequate and appropriate services in districts and school with limited resources. A number of those administrators queried indicated that they "felt" comfortable with their understanding of common issues of special education laws but were not comfortable in specifics.

The best summary of the information/data received in this area in that all administrators surveyed have a foundation of understanding of laws and rules pertaining to the rights of students with an IEP but they do not believe that their understanding is adequate for all potential issues they might be called upon to react to and manage.

Research Question 2. Do they believe they are "up-to-date" on Special Education Laws? Almost all respondents indicated that they do not believe that they are up-to-date on special education laws and rules. Several issues causing this were cited: Time since completing the academic requirements to be an administrator; The diverse demands of being a rural building administrator; and, Lack of regular in-service opportunities and/or the expense of attending in-service opportunities due to distance.

Several indicated that being up-to-date is not possible since court rulings and changes in the laws and requirements cause the field to be fluid. The best summary of the information/data received in this area is that all administrators believe, from a practical standpoint, that it is virtually impossible to be fully up-to-date on special education laws and rules. Almost all indicated to desire and need to be more current but the reality is that they mostly believed this is not possible.

Research Question 3. Where do these administrators seek information to maintain professional currency on Special Education laws? The respondents were "all over the board" (authors emphasis) in responding to this query. A few indicated that reading professional publications was their best source. Several indicated that they tried to attend at least one training session a year. Several specifically identified the legal training conference offered each year by the Nevada School Administrators Association as their best source of current information. Virtually all respondents believed that their own effort in maintaining professional currency was not adequate. The need for inexpensive on-line updates was a repeated theme. One administrator reported that the best system… was an informal network of rural administrators who communicated regularly about special education and other pertinent topics related to their professional role.

The best summary of the information/data received in this area is that all administrators make an effort to keep themselves updated and current through reading and training but believe from a practical standpoint it is pretty much impossible to be fully up-to-date on special education laws and rules. And again, all indicated to desire and need to have access to current information but the reality is that they mostly believed this is not possible to be trained at a level they would like to be particularly as school

budgets are being significantly impacted by state budget woes which are limiting travel and training programs.

Research Question 4. Perceptions (if any) of needed training/updating on Special Education Laws? Again, respondents were all over the board with their responses. This question represented the most diverse groups of responses to the research questions. All offered that they needed training but the kind/areas of training was unique to the respondent. One indicated needing training in Response to Intervention. Another respondent needed training in ensuring that students with specific physical handicapping conditions were being served in compliance current Special Education Law. A third respondent indicated the need for and updated topical kind of training as often as possible.

The best summary of the information/data received to this question is that all administrators surveyed strongly believe there is need for training. The issue, and one that is impossible to answer, is what that training should be. It will require an in-depth survey of the full population of small school district administrators to begin the process of narrowing the topics to a manageable level and even then it may not be possible. If the diversity of responses found in this group holds with the large group, there may not be any common ground or theme.

Research Question 5. Are there differences in understanding based on years of experience as an administrator? This question drew the most clearly distinct responses of the study. Those building administrators, who had recently completed their academic requirements for licensure, most often had completed a graduate level course in Special Education Law. They tended to be more specific about their training needs and tended to be use language in responding that indicated a better grasp of the area of special education law. Those administrators who had completed their academic training over a decade ago or had been building administrators for more than 10 years tended to respond to questions in a more general nature unless they were describing first-hand experiences.

The best summary of the information/data received to this question is that there was a clear distinction among administrators surveyed based less on actual experience and rather on the academic training timeframe. Those who had matriculated in licensure programs more recently responded using more precise language and being more specific about training needs. Most had had at least one graduate course in Special Education Law strongly believe there is need for training while most of the greater than ten year group had not had a graduate level course on the topic.

Research Question 6. Are there differences based on the administrators teaching experience? The responses to this question somewhat mirrored the responses to Research Question 5. Only one of the respondents has had experience as a Special Education teacher and considered himself well informed. If the administrator had been out of the classroom and in the administrative offices for over seven years they tended to be more general in responses to the questions raised during the interview. Those who have been in the classroom more recently tended to respond more specific. The notable exception to

this statement is all respondents were very specific when describing specific experiences they have had. When they related those experiences the respondents tended to be very specific as to the issues and points of law.

The best summary of the information/data received to this question is that there was a clear distinction among administrators surveyed based on the timeframe since they were a classroom teacher. Those who had more recent classroom teaching experiences were more specific in their responses that those whose classroom teaching experiences are further in the past. The break or difference point appears to be about seven years.

Summary and Implications

Building administrators set the tone and agenda of what happens in a school. An administrator who fully understands the legal rights of special education students will work with the student, family, and faculty to ensure that laws and the rights of students are met. Conversely, administrators who do not fully understand the laws and rights pertaining to SPED students may set an environment that can result in students being denied rights and services.

Several issues emerged when analyzing the data collected in this study. The first is that there is a strong perception among those surveyed of the need for on-going in-service training for small rural high school building administrators in the area of Special Education Law. The second issue is that there is no singular theme or consensus on what that training should be and on the delivery method (except it must be accessible and inexpensive). It also appears that time span since administrator training and classroom experience impact understanding and perceptions of Special Education Law and regulations.

This information can/should provide direction to the State Department of Education and other training organizations about training needs for in-service administrators. The need and demand appear to be present. The what and how of delivery is the conundrum to be addressed.

If we are to ensure that all students receive a Free and Appropriate Public Education then building level administrators need continuing and appropriate in-service training in the area of Special Education Law. The focus of any training must be to increase the level of understanding that rural building administrators have of the key, critic issues of laws and regulations relating to the legal rights of specials education students. Students eligible for special education services must receive those services for which they are eligible to reach their full potential. A critical dynamic in this is that the building administrators in the school(s) they attend are fully aware of those services.

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Are Rural High Schools Accountable for SPED Programs Under No Child Left Behind: Four Years Later?

Abstract

The data presented in this report will show that a number of rural high school students with an IEP, in Nevada, are not being impacted by NCLB requirements due to the low numbers. The study will provide information regarding the extent to which this exists in rural Nevada High schools. The study will contribute to the ongoing discussion of how educators plan and implement school improvement and academic achievement of SPED students.

Purpose of the Presentation

In a paper presented at ACRES (Hill, Thornton, & Usinger (2006)) found that none of the school districts in Nevada with an Average Daily Attendance of less than 1,500 students were reporting accountability data for Special Education Students (SPED). These small rural school districts avoided the requirements of No Child Left Behind for SPED students because of small enrollments of students with an IEP. A follow-up report in 2008 at ACRES (Hill, Thornton, & Usinger (2008)) showed that most rural elementary schools in Nevada were being held accountable for students with an IEP but almost no high schools in the same rural areas were. This presentation is an extension of the two previous studies and provides a follow-up to determine if the situation as reported in 2008 is still accurate. The presentation will discuss the implications of the findings.

Many rural schools fail to make Adequate Yearly Progress (AYP) for a variety of reasons. Most of these rural schools, however, avoided failure in the SPED education category because of low/limited enrollment of SPED students. No really rural high school in Nevada reported data for students with an IEP on the annual AYP progress report which was published in August, 2009. A school's intent to provide services to the Special Education population is found in the School Improvement Plan (SIP).

The intent of NCLB legislation was that all students would make progress. However, in all states the accountability process sets a minimal population size before a classification of students is considered. For example, if the state threshold is 25 students per group, then a school that had fewer than 25 students in a specific group would not be required to report on the progress of students in that group. Of specific concern is students receiving special education services and what happens to these students when

their N is insufficient to warrant AYP compliance. Most educators acknowledge that IEP students face significant challenges to meet high state proficiency standards.

The purpose of this study is to investigate the extent to which rural schools with small populations of IEP students avoid state accountability for AYP of these students and to what extent do SPED students in rural high schools fall through the designed "cracks" in the accountability systems and to determine how pervasive the problem is.

Objectives of the Presentation

The findings to be presented were derived from the Nevada State Report Card, a publically accessible document on the Internet (http://www.nevadareportcard.com) and the SIPs of rural high schools not reporting IEP students' achievement. The investigators reviewed all rural high school report data to determine if IEP students are included in AYP designations.

All records of AYP status for the School Year 2008-2009 in each high school in the rural districts in Nevada were reviewed to determine if students with an IEP were included in the AYP report. In addition, the SIP of each school was reviewed to determine if the IEP students were targeted for attention. This paper will present a discussion of the results, suggestions for improvement of the situation, and implications for SPED students.

Rural Focus

The data presented is from rural high schools and the respective districts in Nevada. All data are from districts classified as either rural or frontier. Essentially Nevada, with only 17 school districts, has two urban school districts which account for over 85% of the student population and 15 districts that vary from under 100 students to the four largest "small" districts which enroll approximately 4400 to 9600 students. Seven Districts serve fewer than 1500 students.

Practical Applications

The intent of NCLB was that "no child be left behind." However, our findings in 2006 and 2008 suggest that many rural special education students are not considered as a component of NCLB accountability due to their low N. It will, hopefully, add to the important conversation of whether the NCLB is meeting the needs of all students, especially those with great need the rural SPED high school student. The study will provide valuable information regarding how schools address these important issues through the SIP. The study will contribute to the ongoing discussion of how educators plan and implement school improvement and academic achievement of SPED students.

Relationship to the Conference Theme

This paper documents an unintended consequence of recent federal legislation which (perhaps) allows the educational needs of special education students in small, rural schools to be neglected. In addition, the impact of the findings of this study are indicative of the efforts of rural high schools in Nevada with ensuring that students with an IEP are being fully included in the educational process.

Information (Data or Theoretical Base) to Support what is Advocated

The findings to be presented were derived from the Nevada State Report Card, a publically accessible document on the Internet (http://www.nevadareportcard.com) and the SIP of each high school not reporting SPED students' achievement. The investigators reviewed high schools and districts included in the 2006 and 2008 ACRES report data base to determine if SPED students are included in AYP designations.

Methods

The first step was to review the Annual Yearly progress report of all rural high schools which is publically available in the Nevada Report Card (previously referenced). The second step was to review data present in the 2008 report and then to expand the scope of the study to include all rural high schools meaning that if the high school was in any district other than the two largest one the school was included in this study.

Findings

Table 1 contains the information on all school districts except the two largest.

Table 1
Rural High Schools, Enrollment, and SPED Accountability

District	High School	IEP-AYP <25	School Enrollment 2008-09
Churchill	Churchill Co. HS	*No*	1,314
Douglas	Douglas Alt. ASPIRE	Yes	23
Douglas	Douglas HS	*No*	1,470
Douglas	Jacobsen HS	Yes	57
Douglas	Sierra Crest Academy	Yes	63
Douglas	Whittell HS	Yes	263
Esmeralda	no HS	n/a	n/a
Eureka	Eureka Co. HS	Yes	128
Humboldt	Lowry HS	Yes	911
Humboldt	McDermitt HS	Yes	54
Lander	Austin School	Yes	32
Lander	Battle Mountain HS	Yes	411
Lincoln	C O Bastian	Yes	132
Lincoln	Lincoln County HS	Yes	187
Lincoln	Pahranagat Valley HS	Yes	80
Lyon	Dayton HS	Yes	767
Lyon	Fernley HS	Yes	923
Lyon	Silver Stage HS	Yes	398
Lyon	Smith Valley School	Yes	221
Lyon	Yerington HS	Yes	442
Mineral	Mineral Co. Alt. School	Yes	13
Mineral	Mineral Co. HS	Yes	165
Nye	Amargosa Schools	Yes	194
Nye	Beatty Schools	Yes	242
Nye	Gabbs School	Yes	45
Nye	Pahrump HS	*No*	1,509
Nye	Pathways HS	Yes	42
Nye	Round Mt. School	Yes	194
Nye	Tonopah HS	Yes	not listed
Pershing	Pershing Co. HS	Yes	226
Storey	Virginia City HS	Yes	155
White Pine	Lund HS	Yes	46
White Pine	Steptoe Valley HS	Yes	17

As displayed in Table 1 only three schools reported a population of more than 25 SPED students and therefore being accountable for those students making/showing Annual Yearly Progress. The total students in all schools was just over 11,000 and those from schools where the N was greater than 25 totaled just under 4,300 students or only 38.5% of the total students attend a high school where the school is accountable for the academic performance of Students with at IEP.

Table 2
Rural High Schools, Enrollment, and SPED Accountability

District	School	IEP-AYP <25	School Enrollment 2008-09
Churchill	Churchill Co. HS	*No*	1,314
Douglas	Douglas HS	*No*	1,470
Nye	Pahrump HS	*No*	1,509

Table 2 shows the three high schools that did report a SPED population of more than 25. It is likely beyond coincidence that these three schools were the three largest outside the two urban school districts. It should be noted that each of these schools are located relatively close to a major urban area (within 75 miles).

Table 3
Rural High Schools, Enrollment, and SPED Accountability

District	School	IEP-AYP <25	School Enrollment 2008-09
Churchill	Churchill Co. HS	No	1,314
Douglas	Douglas Alt. ASPIRE	Yes	23
Douglas	Douglas HS	No	1,470
Douglas	Jacobsen HS	Yes	57
Douglas	Sierra Crest Academy	Yes	63
Douglas	Whittell HS	Yes	263
Esmeralda	no HS	n/a	n/a
Eureka	Eureka Co. HS	Yes	128
Humboldt	Lowry HS	Yes	911
Humboldt	McDermitt HS	Yes	54
Lander	Austin School	Yes	32
Lander	Battle Mountain HS	Yes	411
Lincoln	C O Bastian	Yes	132
Lincoln	Lincoln County HS	Yes	187
Lincoln	Pahranagat Valley HS	Yes	80
Lyon	Dayton HS	Yes	767
Lyon	Fernley HS	Yes	923
Lyon	Silver Stage HS	Yes	398
Lyon	Smith Valley School	Yes	221
Lyon	Yerington HS	Yes	442
Mineral	Mineral Co. Alt. School	Yes	13
Mineral	Mineral Co. HS	Yes	165

Table 3 (Cont.)
Rural High Schools, Enrollment, and SPED Accountability

District	School	IEP-AYP <25	School Enrollment 2008-09
Nye	Amargosa Schools	Yes	194
Nye	Beatty Schools	Yes	242
Nye	Gabbs School	Yes	45
Nye	Pahrump HS	No	1,509
Nye	Pathways HS	Yes	42
Nye	Round Mt. School	Yes	194
Nye	Tonopah HS	Yes	not listed
Pershing	Pershing Co. HS	Yes	226
Storey	Virginia City HS	Yes	155
White Pine	Lund HS	Yes	46
White Pine	Steptoe Valley HS	Yes	17
White Pine	White Pine HS	Yes	407
Washoe	Coral Academy of Science*	Yes	725
Washoe	Damonte Ranch HS	No	1,807
Washoe	I Can Do Anything	No	371
Washoe	Incline HS	Yes	368
Washoe	McQueen HS	No	1,941
Washoe	North Valleys HS	No	2,292
Washoe	Reed HS	No	2,387
Washoe	Reno HS	No	1,799
Washoe	Spanish Springs HS	No	2,269
Washoe	Sparks HS	Yes	1,114
Washoe	Washoe HS	Yes	715
Washoe	Wooster	Yes	1,633
State Public Schools	Nevada Connections Acad.*	Yes	922
State Public School*	Silver State Charter HS*	Yes	424

Upon finding that only the very largest of the high schools in rural schools districts in Nevada had sufficient numbers of SPED students to be accountable the research then examined the data for the comprehensive large (over 500 students) high schools in the Washoe County School District which is the second largest district in the state. As shown in Table 3 only the largest of the schools (with an enrollment above 1,800 students) reported sufficient numbers of SPED students to be accountable for their progress.

Summary of Findings and Implications

While this report is not the most significant report ever completed and certainly not the most sophisticated research ever reported it was an effort to monitor the educational opportunities for high school students with an IEP. No child left behind has

gaps despite the promise of educating all students. This report demonstrates that some students with and IEP may not be having their educational needs met.

One of the serious "gaps" comes when small groups of student achievement, regardless of the NCLB subgroup, is not reported publically. While there is rationale for not including small groups in reports of progress it would appear that this may allow some schools and districts the opportunity to focus on groups that do count rather than all students. The Nevada Report Card, for the year examined, showed that there was a statewide average on 10.8% of all students requiring an IEP. There needs to be further and more in-depth investigation into what is happening with SPED students at these schools where a very low number of SPED students attend.

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Preparing Rural Inclusive Special Educators (PRISE): Collaboration of General, Special, and ESL Educators in Culturally Responsive Special Education

Introduction

Many rural school districts are faced with the continuing problem of recruiting and retaining highly qualified special education teachers. This is especially true in rural and remote areas with large populations of English language learners. In these areas it is critical that general, special, and ESL educators work together to provide the most effective education for students from culturally and linguistically diverse backgrounds. The best solution we have found at Northern Arizona University is to prepare local paraprofessionals who already have roots in the rural communities to become certified in special education, elementary education, and English as a Second Language. In response to the need for special education teachers in rural areas with high numbers of Culturally and Linguistically Diverse Exceptional (CLDE) students, an innovative program, Preparing Rural Inclusive Special Educators (PRISE), funded by the U.S. Department of Education, Office of English Language Acquisition, and a Bilingual Multicultural Special Education Website were developed to serve rural areas of southwestern Arizona. Through technology combined with local Yuma, Arizona area resources, the PRISE program has overcome the barriers involved with pursuing university study for rural bachelors degree students. This is very important for Native American students living in reservation areas and for Latino students who live on the border of Mexico. In addition, the Bilingual Multicultural Special Education website disseminates information about Culturally Diverse Special Education lesson plans and Powerpoint Training of Trainers (TOT) presentations. Teachers in far reaching diverse rural communities all over the world can access and download these culturally relevant lessons.

Rationale for PRISE Program

National Need for Special Education Teachers

Significant personnel shortages in special education have been noted in the 27th Annual Report to Congress on the Implementation of IDEA Act (USDE, 2005). With predictions of even more serious teacher shortages, there is an especially critical need for additional special education teachers for students with disabilities from culturally and linguistically diverse backgrounds in rural areas (USDE, 2007). In addition, the current emphasis on providing nondiscriminatory assessment procedures and assessing the effectiveness of multicultural instructional programs is drawing attention to the efficacy of traditional special education and general education teacher training programs which

typically do not offer systematically integrated coursework and practicum experiences specific to the multicultural characteristics of students with disabilities (Baca & Cervantes, 2004; Gallegos & McCarty, 2000; Gollnick & Chinn, 2006; Salend, 2008; Stuart & Parette, 2002.)

Arizona Need

In Arizona, the U.S. Dept. of Education reported that 3,324 fully certified special education teachers were available to meet a total demand of 3,753 positions, representing a teacher shortage of 11.4% of the funded Special Education positions (USDE, 2007). The shortfall in Arizona is significantly higher than the national shortage of 9%. In order to meet the shortfall of 429 fully certified special education teachers in Arizona, 358 teachers were hired who were not certified in Special Education and 71 positions remained vacant. Cross-categorical specialists were in greatest demand, representing over half of the shortage. With predictions of even more serious teacher shortages in the next several years, there is an especially critical need for additional special education teachers for CLDE students in rural areas (USDE, 2007).

Yuma County Demographics

The rural agricultural area of Yuma county is located in the extreme southwestern part of Arizona on the borders of California and Mexico. The elementary school districts and secondary school districts in the countywide area enroll approximately 32,000 students of whom 71% are Hispanic, and 4% are Native American belonging primarily to the Cocopah and Quechan Tribes. Over 50% of these students have been identified as English Language Learner (ELL) students.

Response to the Teacher Shortage: The PRISE Model

"Home Grown" Model

Teachers for culturally and linguistically diverse exceptional (CLDE) students are in high demand in all areas of the United States (Baca & Cervantes, 2004). Rural areas have a particular challenge in hiring qualified teachers to meet the needs of their districts (Peterson & Showalter, 1999; USDE, 2007). Northern Arizona University (NAU) in Flagstaff, Arizona works collaboratively through its Yuma campus and the local Yuma area community college, Arizona Western College (AWC), to provide coursework for selected students who are employed as paraprofessionals in the local schools. These students come out of AWC's Associate of Arts in Education program that prepares them for a dual major B.S. degree in Elementary Education/Special Education which they will earn through NAU. These two institutions are bonded together through a "Two Plus Two" Degree Program (one of the first established in the nation) where undergraduate students take the first two years of college at the AWC and then the last two years at NAU in Yuma. The two institutions share their mutual students and facilities on the same campus. The interconnectedness of AWC and NAU makes it easy for students to accomplish a smooth transition from the first two years of degree program to the second two years.

The PRISE Program

Preparing Rural Inclusive Special Educators (PRISE) serves the needs of schools in rural areas with high populations of English Language Learners (ELL) by working with the school districts in the Yuma area of Arizona to train paraprofessionals to become elementary and special education teachers of ELL students. Yuma is a very rural, agricultural area on the border of Mexico with many newly arrived ELL students in the schools. Some districts have over 90% ELL students.

The PRISE program is a federal grant funded by the U.S. Department of Education's Office of English Language Acquisition (OELA). The PRISE grant program is directed by Dr. Patricia Peterson on NAU's Flagstaff campus. Other key personnel are Nancy Blitz, Co-Director and faculty member at NAU in Yuma and Arizona Western Community College, Gae Johnson, faculty member in Flagstaff and Elementary Education Coordinator, Steve Showalter, Website Coordinator, and Maureen Hengl, Practicum Supervisor for PRISE, who is also based at NAU in Yuma.

PRISE provides all the coursework required for certification in Elementary Education, Special Education-Cross Categorical, and Arizona's English as a Second Language (ESL) Endorsement. Through the U.S. Department of Education OELA grant, PRISE provides funding for fifteen students in each of the three cohorts to go through all the coursework required for the dual major degree. Each cohort involves six semesters. During the first five semesters, participants are required to work in Yuma county schools as paraprofessionals. The PRISE students then do their student teaching during the sixth semester. While working as paraprofessionals, PRISE students take 15 - 18 credits per semester, including summer semester. Faculty for each of the courses are carefully selected for the PRISE program in order to involve faculty who are specifically committed to working in this type of non-traditional teacher education program.

The faculty at the Yuma campus and the PRISE Director who is based in Flagstaff, work as a team and meet once a month to discuss student progress, to identify students who may need additional support, and to collaborate in the implementation of a seamless curriculum for all the coursework. Instructors who have taught the first course in a semester discuss the content of this course, the methods which were most effective, and areas which need to be reinforced in the next course with the instructors of additional courses in the semester. To enhance the writing of future teachers, the Practicum Supervisor has developed a writing camp which has proven very successful in improving the writing skills of students who need extra help in written expression. Some PRISE students started years before entering the PRISE program as English as a Second Language (ESL) students themselves. These students benefit greatly from this additional writing support provided by the program. Other students who are native English speakers also are able to improve their writing skills through individualized writing sessions. Funding is provided for PRISE students to attend and present at national conferences pertaining to Special Education, cultural diversity, and second language teaching. These national conferences help PRISE students to gain additional knowledge from experts in these fields which will enhance the PRISE students' teaching when they go into their own classrooms.

Even though PRISE students take 15 – 18 credits per semester, the classes are not delivered simultaneously. This innovative consecutive course format allows PRISE students to put their entire focus on only one course at a time. Most courses are taught from 4:30 to 9:00 p.m. Mondays through Thursdays for three to five weeks. Students take a final exam on Thursday evening to finish one class and begin a new class the following Monday. There is a strong emphasis on both independent work and group projects. Students must demonstrate proficiency not only in writing but also in oral presentations. They become experts in time management and have generally found that their semester of student teaching leaves them with free time that they did not experience during their five semesters of coursework leading up to student teaching. Students who are graduates of the PRISE program are then hired by local Yuma area school districts to serve the needs of this rural area's CLDE student population. To date, 182 rural special education teachers have been trained with this type of program model in Yuma and La Paz counties and on the Navajo and Hopi reservations. There are currently 13 students in the first semester of the PRISE teacher training program in Yuma. Additionally, 18 rural special education teacher training students are in their student teaching semester. They will become highly qualified special education, elementary education, and ESL teachers upon graduation.

Impact of Technology and the PRISE Program

CLDE Website

As a component of the PRISE program, a website with resources to teach Culturally and Linguistically Diverse Exceptional (CLDE) students has been developed to disseminate information on successful teaching strategies. The URL for the website is: www4.nau.edu/clde

One website component is a database of student developed Native American and Mexican American culturally relevant special education lesson plans. The lesson plan database URL is: http://www4.nau.edu/clde/lessonplans/

Students in the PRISE program follow a Direct Instruction Lesson Plan Rubric which emphasizes direct linking of cultural context and language background of the CLDE students to the objectives, content, and learning mode of the lesson. The Lesson Plan Rubric URL is: http://www4.nau.edu/clde/lessonplans/

Modifications for students with disabilities in the general education classroom and integration of technology are clearly linked to the goals and objectives of the lesson. Examples of culturally relevant thematic lessons developed by students include: Native American Basketry (Art, Math, History, Science), Las Hormiguitas (Ants - Ant Multiplication, Ant Families, Life Cycle, ANTonyms), Sheep and Wool (Native American Families, traditions, economics, math), and Celebrations (Pinata, Birthdays, Math, Families). Educators interested in obtaining these culturally relevant Special Education lesson plans can search the lesson plans database by Culture, Language (Spanish or Navajo), Grade (K - 12) or the Grant program with which the lesson plan is

associated. From these four categories the lessons plans are divided by content area. Once a content area is chosen, the database user can view a brief description of the Special Education lesson plan and then choose to view, print, and/or save the entire lesson plan in Adobe Acrobat PDF format.

Training of Trainers Model

Training of Trainers (TOT) utilizing Microsoft PowerPoint is taught in the PRISE program. The methods courses involve culminating assignments requiring students to prepare and participate in delivery of a TOT module. Students receive training in PowerPoint which they use to develop their training workshops. The Culturally Diverse PowerPoint training presentations developed by the students are included in the Grant Website so that educators worldwide can benefit from this Professional Development CLDE Training. PRISE grant students then utilize the TOT model to deliver this Professional Development Training in which additional peer teachers from the consortium districts receive training in best practice strategies for working with ELL and CLDE students. PRISE students not only receive training, but they also become the future district trainers in the area of best practices for teaching ELL and CLDE students. This training is also available on the Bilingual Multicultural Special Education Website.

Use of Distance Education Technology

In the PRISE program, distance education technology (Grant Website, Web-based courses, Hybrid courses, Email feedback to and from instructors, and Video Conference Polycom) maximizes the utilization of the resources of the university's main campus in Flagstaff while allowing the students in this rural area to remain in their local communities to complete their coursework.

There has been considerable interest in the potential advantages of the use of computer-based technology in education. Charp (2000) maintains that a number of observations can be safely made:

- Students are becoming freed from the physical boundaries of classrooms and the time restrictions of schedules.
- Students are working at their own pace using network-based materials and diagnostic tools.
- Dynamic databases are emerging that permit students, faculty and administrators to have 24-hour access to financial records, student transcripts, class lectures, assignments, etc. over the Internet.

Web-based and Hybrid Courses

Through interaction in Web-based courses, university students learn teamwork, group decision-making, and problem identification and problem-solving (Synder, 2000). The goal according to Snyder (2000) with Interactive Group Software is to get students involved in old-fashioned interactivity - human interaction - instead of just clicking buttons on a computer screen. This research influenced the design of the Web courses in PRISE. The Web-based Hybrid courses have been designed to include a high degree of

group interaction, reflection, and feedback from one student to another as well as between instructor and students.

World Wide Web

A major focus of another study (Hill & Hannafin, 1997) was the World Wide Web (WWW). This study reported that some prior knowledge and experience in open learning applications, helping learners to construct a functional mental model of the system, and providing searching tips, should increase their chances of success in web-based courses. According to Hill and Hannafin (1997), preliminary interpretations indicate that teaching the strategies for finding information in open information systems like the WWW is prerequisite for success. In light of these findings, all of the PRISE students receive intensive training in the use of technology systems including word processing, email, Web Searches, and specific Web course access, utilization, and pedagogy.

Email

Additionally, Email provides communication between faculty and students in the PRISE program. For example, the PRISE program requires practicum supervision for the PRISE students who are completing certification in Special Education and Elementary Education via this program. Through utilization of technology, the PRISE student is in e-mail contact with the university Practicum Supervisor each week during the semester. The email serves as a medium for the PRISE student to ask questions, receive feedback on ideas for lessons (including management and problem solving), and generally maintain a high level of rapport between the university Practicum Supervisor and the PRISE practicum student. The email also serves as a way to help the PRISE program participants incorporate what they are learning in their content classes with the daily routine in their own practicum classrooms where they are employed as paraprofessionals. The university Practicum Supervisor is aware of what content classes the PRISE participant is taking and what the requirements of the content classes include. This knowledge of the content classes coupled with knowledge of the participant's own practicum classroom is invaluable and strengthens the quality of the individual feedback communicated via email.

Utilizing Web-based Courses and Video Conference

Another technology approach used in the PRISE program is teaching the courses via the NAU Video Conference (Polycom). Instructors deliver the course from one of the Flagstaff Video Conference classroom sites, and the students receive the class at their local NAU Yuma rural site. Students in electronic classrooms in Yuma see the instructor at the home site electronic classroom and vice versa. Students and faculty converse and interact in discussion activities just as if they were in the same classroom. PRISE faculty who are based on the Flagstaff campus generally teach most of the class sessions of PRISE program courses via Video Conference since driving to Yuma from Flagstaff would entail a five to six hour journey each way. In addition to the Video Conference delivery, Flagstaff based faculty travel the 325 mile trip to Yuma to have five or more 'in person' classes within each course which are taught face to face onsite at the Yuma

campus. Other courses are taught as Hybrid courses involving components of web-based instruction through Blackboard VISTA, Video Conference, and onsite instruction.

Inter-institutional Collaboration: A Critical Ingredient to Success

A key ingredient in the success of the PRISE program is the focus on inter-institutional collaboration among NAU, Arizona Western College (AWC) , and the local Yuma area school districts to 'home grow' teachers through the PRISE grant program. On the NAU side of the partnership, NAU in Yuma administrators have been very supportive of Northern Arizona University's efforts to secure grants for their campus. The NAU administration in Yuma as well as the AWC administration have made available access to recruiting, classrooms, advising, technology, and overall support for the PRISE Grant.

The final piece of collaboration in the success of the PRISE program is the school districts in Yuma County who employ the grant recipients as paraprofessionals. The PRISE students have practicum experiences in general education, special education at both the elementary and secondary levels, and English as a Second Language settings. The mentor teachers model techniques of collaboration among these three disciplines for the future teachers. These rural school districts recognize the future long-term benefit to their school districts of the "Home-Grown" teachers in training. The Yuma county school districts turn around at the end of the PRISE Program and offer teaching positions to PRISE graduates. The PRISE graduates, in turn, put into practice in their new classrooms the skills, knowledge, collaboration techniques, and effective teaching strategies learned through their experience in the PRISE grant program.

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International Mentoring: A Model for U.S. Rural Schools

Introduction

Bolivia, one of the poorest countries in Latin America, has compulsory education for students ages 7 to 14. Despite this, there is disproportion between urban and rural schools, both in attendance and quality of services provided. Some teachers in the rural areas of the Cochabama department asked Food for the Hungry Bolivia (FHB) in 2002 for help in learning pedagogy to assist them in meeting the diverse learning needs of their students. Food for the Hungry staff inquired among some contacts they had in the United States. In the next 2 years, two teachers in Lexington, KY took annual trips to Bolivia to conduct trainings for teachers in Bolivia. After those two trips, the US teachers founded Project REACH to develop training modules for teachers in third world countries to develop skills in effective instruction to aid teachers in meeting the diverse learning needs of their students. A partnership developed between Project REACH and FHB to provide a mentoring program for teachers in rural areas of Bolivia. In 2005, 15 teachers from eight rural schools in the Cochabamba department enrolled in the inaugural mentoring program, piloting a mentoring program to be implemented in other countries.

Rationale for a Mentoring Program in Rural Bolivia

During the first two years of visits to Bolivia, the two US teachers discovered a high turnover rate between teachers who attended the first year's training and those who attended the second year's training. One reason for this is the transferring of teachers to other schools. Some of these teachers had met the government's requirement for teaching in rural schools and were able to transfer to an urban school. The majority of those who attended both years' training did not implement the concepts taught with consistency. These two problems, high turnover rates and lack of implementation of learned concepts, led to the development of a mentoring program that would allow teachers continuous feedback and assistance to implement the concepts they learned in their classrooms to provide longitudinal support with incentives for remaining in their rural schools, at least for the duration of the program. The opportunity for the US teachers to have personal contact with the Bolivian teachers over a period of time allowed the two groups to develop a relationship of mutual understanding and collegiality.

Program Design

The mentoring program design consisted of four components: (a) annual "live" seminars, (b) monthly webchats, (c) monthly classroom visits, and (d) monthly homework. The design of the program established a collaborative effort between the

teachers in Bolivia, FHB staff, and Project REACH staff that created a community of learners identified by Calvert (2005). The model created followed a consistent pattern for training and mentoring to establish the opportunity for corporate learning.

Guskey and Yoon (2009) reported that time spent with training participants has been found to have a direct impact on success. However, time spent in training must be purposeful, organized, and well structured while focusing on content or pedagogy or both (Guskey and Yoon, 2009). Other considerations for developing effective trainings reported by Guskey and Yoon (2009) included follow-up and content specific to particular subjects or pedagogy. The components of this program were carefully designed to provide participants with adequate in-person training to develop a basic understanding of important concepts while providing follow-up through webchats to more closely analyze the concepts and apply them. Monthly classroom visits provided teachers with the opportunity to obtain feedback on the implementation of concepts learned in the trainings, to see lessons modeled for them, and to address questions or concerns. The content of trainings focused on specific content identified by the trainers and the participants to be relevant to student achievement and pedagogy directly related to inclusion of students with diverse learning needs. The trainers carefully planned each "live" seminar and webchat to maximize learning among participants. The goal for each homework assignment was two-fold: (a) the teachers were held accountable for planning how to implement concepts learned in the seminars and webchats, and (b) the trainers identified areas of strength and areas for further instruction. The homework also helped trainers to identify concepts or classroom activities that did not fit with the Bolivian education system.

The mentoring program focused on literacy instruction (the five components of reading: phonemic awareness, phonics, comprehension, vocabulary, and fluency) and behavior management. The Bolivian teachers identified literacy instruction as an area of weakness for them, which resulted in poor reading skills for their students. Literacy instruction also included methods for working with students who are second language learners, as Bolivia encourages literacy in students' native languages until third grade, in which all textbooks are printed in the indigenous language of the area. Textbooks are written in Spanish from third grade through high school. The US teachers identified behavior management as an area of weakness for teachers. A large percentage of students were observed to be off-task during instruction and lessons were often interrupted to manage classroom procedures, such as sharpening pencils or using the restroom.

The use of distance technology (e.g. SKYPE) from one country to another is not a new concept. The use has been around since the early 1980's (Calvert, 2005). Distance education was once a discrete field but is now part of mainstream education. Calvert reports that in the early years of distance education, institutions relied on two models. The first model was developed from correspondence education in which students studied asynchronously from the comfort of their home. The second model was developed from the concept of taking classes to students in rural communities using audio and videoconferencing. Both models still exist but current education has merged the two models together with the advancement of technology and distance education theory. The

model used in Bolivia takes on the form of both. It has some characteristics of a correspondence course while blended with an audio and videoconferencing component.

Distance education creates an environment that allows for individuals to become a community of learners despite physical distance. Advancements in technology provide opportunities for individuals from varied locations to share common concerns and beliefs while learning from one another. According to Calvert (2005), Wenger, McDermott, and Snyder (2002) defined learning communities as those who, "share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (p. 235). Zhu, Gareis, Bazzoni, and Rolland (2005) suggested that learners have the opportunity to acquire greater skills in self-efficacy when placed in a learning environment based on building relationships with other professionals in their field. Using a model of collaboration across borders broadens the learning community to provide greater opportunities for sharing information and developing strategies to use within each participant's respective classroom.

Implementation

Each year of the mentoring program followed a similar pattern of seminars, webchats, classroom visits and homework. The US trainers prepared the seminars and traveled to Bolivia to conduct them each June or July in Cochabamba. The FHB program coordinator managed the logistics of the seminars, such as scheduling a conference room location, arranging for meals and refreshments, notifying teachers of the scheduled seminar, and preparing the conference room for the seminars. The Bolivian teachers arranged to be in Cochabamba for the duration of the 2-4 day seminars. During each visit, the US teachers also traveled to classrooms, either to observe a participant teaching a lesson or to model a lesson. The US teachers and FHB program coordinator also interviewed each teacher during the annual visits to further assess the needs of the teachers, as well as, to learn more about the Bolivian education system. For the first 3 years of the program, the US teachers prepared and conducted the monthly webchats using webcams and SKYPE to interact with the Bolivian teachers at the FHB office in Cochabamba, usually held the third Saturday of the month. The FHB program coordinator managed the logistics of the webchats, similar to the preparation for the seminars. The final year of the program focused on transferring locus of control from the US trainers to the FHB program coordinator and teacher participants. This process started the year before with the teacher participants. The teachers were required to present a series of seminars to teachers in their schools, based on the concepts they had learned in the mentoring program. During the final year of the program, the FHB program coordinator prepared and conducted the monthly webchats. She prepared the webchat material and sent it for feedback to the US teachers prior to presenting it to the Bolivian teachers. By the end of the program, the FHB program coordinator led all webchats with ease and the teachers had presented all the material to their colleagues at their schools. The US teachers trained the FHB program coordinator to conduct classroom observations using an observation tool used in the US teachers' schools which was revised to reflect the strategies taught in the mentoring program. The FHB program coordinator visited each teacher monthly, completed the classroom observation tool, collected the monthly

homework, and sent a summary of the observation and the homework to the US teachers. The US teachers provided feedback on the homework and findings of the observation to the FHB program coordinator to share with the teachers at the next webchat or classroom visit.

Results

Teachers completed surveys at the end of each seminar and at the completion of the program. The results showed 100% of teachers responding positively to the overall quality and content of the seminars. Teachers noted that the content of the seminars was helpful for improving their teaching and increasing the achievement levels of their students. One teacher commented that he believed he learned more during the mentoring program than during his teacher's training. This same teacher stated he gained skills to mentor other teachers in his school as a result of the program. A second teacher stated that the program helped to improve classroom management skills, which resulted in a better ability to instruct students. Overall, teachers reported increased skills for managing their classrooms and teaching reading. Teachers made suggestions to partner with a Bolivian university to provide certification for them to receive credit for participating in the program, to train them in other subject areas, and to expand the program to more teachers. It should be noted that the results of the surveys may be skewed as teachers scored items on a five point Likert scale with an abundance of higher scores overall. The comments sections seemed to allow teachers the freedom to state their opinions more freely.

Application to rural schools in the United States

Teachers in the rural United States can be as isolated as teachers in rural areas of Bolivia, despite the perceived difference in availability of resources and technology in the United States. Collins (1999) stated that the primary reason that US teachers leave rural schools for other areas is due to isolation, socially, culturally, and professionally. In our interviews with the teachers in Bolivia, this was their main reason for wanting to leave their rural schools for schools in the city. Several of the Bolivian teachers in the mentoring program commented that they enjoyed getting together with teachers from other rural schools and sharing experiences. They stated that the opportunity to collaborate with colleagues would not have occurred without Project REACH. In the same way, teachers in the rural US need opportunities for collegial relationship building that can occur with a program similar to that conducted in Bolivia.

Sanders and Rivers (1996) reported that the effectiveness of teachers is the most important factor for student achievement. Effectiveness can be gained through experience and training. Therefore, it is important to find methods that help schools retain their experienced faculty and provide the necessary support for their continued professional growth. Boyer and Gillespie (n.d.) suggested providing first year teachers with an induction program to provide the support these teachers need to remain in the field. A mentoring program for veteran teachers may be just as important as a means of providing opportunities for interaction with colleagues in other schools to help combat the feeling

of isolation. In addition, a mentoring program can provide on-going training to keep teachers abreast of current research and best practices in their field. The hybrid model used in Bolivia can provide a framework for developing both an induction program for first year teachers and for providing the professional interaction that veteran teachers need.

The model for Bolivia was developed based on the technology, personnel, time, and materials that were available. By using available resources, states with rural districts can provide the necessary support to their rural teachers and build a community of learners. Teachers in rural areas of the US may find benefit to gathering together in a central location for a few days once a year for training and the opportunity to collaborate with colleagues. Teachers could be involved with extensions of the trainings throughout the year with either synchronous or asynchronous web-based activities to provide on-going opportunities for collaboration and interaction. A trainer could visit the teachers periodically throughout the school year to give teachers feedback on implementation of new strategies being learned through both live trainings and web-based interactions.

A mentoring program in the rural United States could be developed to provide professional development credit for teacher participants and teacher trainers. Another option is to include a mentoring model in a master's level or alternate certification degree program.

By providing a mentoring system for US teachers in rural areas, whether new teachers or veteran teachers, both the teachers and their students will benefit as teachers sharpen their skills and develop collegiality among other teachers. This may reduce teachers' sense of isolation, making them more content to stay in their rural schools, thus allowing students to have access to veteran teachers who may be more effective, as suggested by Sanders and Rivers (1996).

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Differentiating and Improving Instruction for Online Students

Introduction

Migrating from onsite to online instruction is a challenge for many teacher educators who are unprepared for the boom in technological applications in a virtual classroom (Alavi and Leidner 2001). Transferring instructional strategies and elements of effective teaching from onsite courses to an online environment is not an easy task. It is generally accepted, in our university classrooms, candidates learn best when they are actively engaged, assignments and assessments are linked to real life situations, and instructional strategies are based upon candidates' learning preferences. In order for new learning to be retained, candidates must apply what they have learned and reflect upon the learning (Smart and Cappel 2006). For instruction to be effective, lessons must have clear outcomes and teaching, learning, and assessing must be aligned (Anderson and Krathwohl 2000). The dilemma arises when we attempt to adapt these effective practices from onsite to online instruction.

Purpose of the Research Project

The purpose of this project is twofold: first it is to determine which onsite instructional practices can be effectively adapted or modified for online courses to ensure both the content is mastered and candidate engagement is comparable in both delivery systems; second, it is to analyze candidate satisfaction with courses that have fully migrated from onsite to only online. Candidate course evaluations will be utilized for one course taught by several different instructors during a two-year period.

Review of the Literature

Much of the research on learning theory and instructional effectiveness, (Dykman and Davis 2008) states that before differentiation of instruction can occur in online courses, some basic tenets or guidelines should be followed:

1. Well-organized and carefully planned course
   Contrary to onsite courses where professors generally know their content and do not engage in detailed planning and preparation, online courses require careful organization with clarity of learning outcomes for each segment or unit of the

course. There is no opportunity for impromptu sessions or changing the assignments or assessments once candidates are working on the course.

2. Establish clear expectations
   Due dates, readings, assignments, and rubrics for judging candidate's performance must be clear and precise to avoid misunderstandings and candidate dissatisfaction.
3. Consistency in the course design
   The design of the course must be consistent so candidates are able to move through courses and programs with ease. Technical support must be readily available to support both the professors and candidates who may be novices to online instruction.
4. Effective, ongoing, and consistent communication
   It is critical professors are persistence in answering candidates' questions in a timely manner in the virtual office and they get to know their candidates by participating in the discussions. Comments to candidates should be respectful and address their concerns and issues.

An *Occasional Paper* by the Center for Research on Learning and Teaching (University of Michigan) titled *An introduction to teaching online* shares basic information on designing and evaluating online courses. The authors listed the following as areas to consider when designing an online course: course content; delivery of instruction; course design; communication and interaction; candidate time spent on learning tasks; and assessment of candidate learning. As stated by the authors: "As educators, it is our responsibility to ensure that the teaching and learning that takes place online is as empowering and comprehensive as it is accessible (Center for Research on Teaching and Learning 2003)."

According to an article in the Illinois Online Network newsletter titled: *Instructional strategies for online courses*, "Effective online instruction depends on learning experiences appropriately designed and facilitated by knowledgeable educators. Because learners have different learning styles or a combination of styles, online educators should design activities that address their modes of learning in order to provide significant experiences for each class participant. In designing online courses, this can best be accomplished by utilizing multiple instructional strategies. Teaching models exist which apply to traditional higher education learning environments, and when designing courses for the online environment, these strategies should be adapted to the new environment (Illinois Online Network)."

Surr concluded that online courses carry many advantages not found in onsite classes. "Technology enables students to manipulate variables, access multimedia, download videos, see the latest news and talk to experts and authors" and that we need to ensure "that what the students learn will adequately prepare them for their future (Surr 2004)." This was also emphasized in the article from the Illinois Online Network focusing on instructional strategies: "Much of the power of learning via the Internet lies in its capacity to support multiple modes of communication . . . Taking into account the varied learning styles of learners and providing opportunities for self-directed and

collaborative learning, educators can facilitate powerful, effective courses geared to achieve specific learning goals and outcomes using the vast resources and capacities of online learning (University of Illinois)."

Once these basic principles or tenets are in place, differentiation can occur in the online learning environment. For the purpose of this project, differentiation refers to providing a variety in depth and breadth of readings, assignments, and assessments, based upon the candidates' intelligences, learning styles, and readiness for learning. This being said, the ultimate purpose is to improve both delivery of instruction and candidate learning.

The theoretical foundation of our project is based upon the instructional models developed by Robert Sternberg, Carol Ann Tomlinson, and Carol Dweck. During the past three years we have intentionally developed assignments, activities, and assessments based upon candidates' intelligences (self-identified), their learning preferences (auditory, visual, or tactile kinesthetic) and their mindset (fixed or growth). Examples include simulations, role-playing, roundtable discussion, carousel walks, parent newsletters, interviews, observations, posters, reflective logs, case studies, videotaping, group quizzes, and alternative assessments. Not all of these lend themselves to online instruction because they require synchronous interactions, which for most online candidates, is something they chose not to do.

Triarchic Model of Successful Intelligences

Robert Sternberg's (1988) Triarchic Model of Successful Intelligences states that we all have memory but that each of us has a particular way we prefer in learning and thinking. Some of us are analytical and do well on standardized assessments. Others have creative intelligence and prefer writing poems, painting, or acting to demonstrate our knowledge. While others with practical intelligence seek to understand how new learning is linked to everyday life.

Sternberg states, "I define [intelligence] as your skill in achieving whatever it is you want to attain in your life within your sociocultural context by capitalizing on your strengths and compensating for, or correcting, your weaknesses (personal communication, July 29, 2004)." It is essential these three areas of intelligence are balanced in order to practice intelligent behavior . . . "and that these abilities function collectively to allow individuals to achieve success within particular sociocultural contexts (Sternberg 1999)." When both online and onsite instructors build on these intelligences (both strengths and weaknesses) of candidates, it enables candidates to develop higher level thinking. "Education needs to capitalize on individual strengths while working toward improvement of their weaknesses through analytical, creative, and practical instruction. Following this Triarchic Theory of Intelligence provides students with skills and abilities for higher level thinking and real life success (Chini 2001)".

Differentiation of Instruction

Carol Ann Tomlinson and others suggest we look at student learning styles, readiness, and preferences for learning. When teachers differentiate instruction in the

classroom, they are attending to the needs of all of their students rather than teaching all students as if they were all of equal ability and talent. What is important is the recognition that students have differences as well as similarities. Tomlinson (1999) states that even though students may learn in many ways, the essential skills and content they learn can remain steady. That is, students can take different roads to the same destination.

Much of the research on differentiation is directed towards the K-12 population, however, that being said, the strategies developed for the K-12 population can be easily adapted for the higher education classroom. These strategies are many and varied, from focus activities, graphic organizers, cooperative learning, to role-playing, and simulations. Teachers, both onsite and online, can differentiate the content, the instructional strategy, and/or the assessment to ensure the needs of all candidates are being met.

Fixed or Growth Mindset

According to Carol Dweck, professor at Stanford University, students with a fixed mindset believe their success is based upon their *abilities or aptitude* to do well. If they do not do well in a particular course, they "blame" it on the fact they are "just not good in mathematics." Candidates with a growth mindset believe it is their *effor*t, which determines whether or not they are successful in a course. Candidates who have never taken an online course may believe failure or success is based upon their knowledge of computers and technology rather than the effort or hours they put into learning the material and doing well on assessments and assignments.

As colleges and universities migrate courses to an online format, more and more research can be found on effective delivery systems. It is definitely a new role for instructors: from dispenser of knowledge to facilitator of knowledge. THE Journal, an online and print magazine dedicated to improving and advancing the learning process through the use of technology, conducted a small study to "integrate the experiences of professors currently teaching online into a qualitative description (THE Journal 2001)". They found that "Because of the reliance on text-based communication and a lack of visual cues, every aspect of the course has to be laid out in meticulous detail to avoid misunderstandings . . . and . . . the development of an online class, especially one that began as a face-to-face course, makes the instructor confront and analyze the material in new and different ways."

Methodology

The first step in this project was to select two courses in the department of special education, which had been migrated from an onsite to an online environment and which we had in depth knowledge as the course supervisor and by teaching the courses both online and onsite. "Reading Language Arts Instruction for Students with Disabilities" (EXC644) has been online for three years but had not been revised or differentiated in any substantive fashion until April 2009. "Children with Exceptionalities in the Classroom" (EXC625), was significantly revised during this past year to be aligned with the Council for Exceptional Children standards, the California Standards for the Teaching

Profession, and the Teacher Performance Expectations required by California Commission on Teacher Credentialing. As the course supervisor we supervise and mentor any instructor who teaches our courses either onsite or online at the 20 campuses.

Next we selected two different data gathering methods as the courses were in different stages of development so one method was not feasible for both courses. EXC644 will be significantly revised in the next two months to also be aligned with Council for Exceptional Children standards and the California Standards for Education Specialist Authorization. The course is still taught both onsite and online but online scheduling is rapidly outpacing any onsite offerings. EXC625 is in the same situation, being offered online numerous times throughout the year.

Reading Methods Course Analysis for Differentiation

The reading methods course has recently undergone significant changes to ensure it matched the onsite course, which incorporated the Triarchic Model, differentiation of instruction, and mindset strategies in the course. The reason for this analysis was candidate evaluations indicated a much higher rating for candidate learning in onsite courses (4.38-5.0 on a five point scale with 5 being the highest) than online courses (4.1). This data will be insignificant in April 2010 when the course will be revised to match the new California Standards for Education Specialist. What is important is how candidates perceive the options and choices in the assignments and readings during the last two months of the course in its present format. A comparative analysis of the onsite to online course was conducted to determine variety in delivery of the content, choice in assignments, and assessments and to assess using indirect measures, candidate satisfaction with those choices and how well it matched their learning preference.

Differentiation	Onsite	Online
Instructional strategies	Role-playing	Interactive PowerPoints
	Group case studies	Discussion topic choices
	Group newsletters	
	Cooperative learning	
	Round table discussions	
	Jeopardy	
	Simulations	
	Carousel Walks	
	Whip Arounds	
	Graffiti Walls	
Choice of Assignments	Reflective Logs	Reflective Logs
	Make It and Take It	Make It and Take Its
	Case Study Analyses	Case Study Analyses
	Graphic Organizers	Graphic Organizers
	Bloom's Taxonomy Project	Bloom's Taxonomy Project
	Reflective Logs	Reflective Logs
Choice of Assessments	Individualized Case Study	Individualized Case Study
	Assessment video tape	Assessment video tape

It is obvious from the data on the chart that more instructional strategies need to be incorporated into the online course. The choice of assignments and assessments were designed to match Sternberg's Triarchic Model and Carol Ann Tomlinson's learning preferences. Candidates in the onsite course, who exhibited a fixed mindset in terms of either technological competence or in teaching reading to students with disabilities, were given one-on-one tutorials, extra time to complete assignments, or an opportunity to revise and resubmit assignments with lower grades

Candidates were asked to comment on an informal survey about the readings, assignments, discussion topics, and assessment choices to determine which facilitated their learning and what additional components could be added. Initial results from the survey indicated candidates appreciated the choices in the readings (all current research on teaching reading) as they were at different places in their competencies in reading instruction. They indicated the choices in case study analyses and in their ability to select which assessments they would videotape themselves administering were value-added as some were much more difficult to administer and several of the online candidates did not yet have their own classrooms. They further indicated, since this course will be revised significantly again in two months, they believed that adding reading guides, key points and understandings, and graphic organizers would help them determine which content was most important. They did not mention group projects, live chats, or Adobe Connect meetings where synchronous interactions would occur. EXC644 is one of the most challenging and comprehensive courses in the Education Specialist program since it prepares candidates to pass the Reading Instruction Competency Assessment (RICA), a requirement for every teacher candidate in California.

Data Collection for Children with Exceptionalities in the Classroom (EXC625)

The data for this research was compiled from one National University course – EXC 625 – Children with Exceptionalities in the Classroom. Although housed in the Department of Special Education, the course is designed for candidates who will be working in general education programs and covers students with disabilities, students who are English language learners, students who are gifted and talented, and students who are at risk of school failure. It is offered online from three to seven times a month, based upon candidate demand. The course lasts for one month and covers the same content as a semester-long course.

At the completion of every class, candidates are asked to evaluate their experience. This evaluation covers the candidates' self-assessment of learning, assessment of teaching, assessment of course content, and assessment of web-based technology. Not all candidates complete the evaluation, so conclusions are based on data from candidates who did.

- Candidate self-assessment of learning covers seven statements with a rating scale from a low of 1 to a high of 5 or Not Applicable (NA). For example, statement number seven says: "I can apply what I learned in this course beyond the classroom." A mean is given for the responses to each statement as well as a mean for responses to all seven statements combined.

- Candidate assessment of teaching covers sixteen statements, such as: "Instructor provided timely feedback on my work." A mean is given for the responses to each statement as well as a mean for responses to all sixteen statements combined.
- Candidate assessment of course content covers three areas, including: "Class activities helped me achieve the course learning outcomes." A mean is given for the responses to each statement as well as a mean for responses to all three statements combined.
- Candidate assessment of web-based technology looks at three areas having to do with use of the course technology. This area was not covered in this research.

As part of the course assessment, candidates also have the opportunity to write comments on the course and on the technology. Additional information on the amount of time each instructor spent in the online course was also taken from the online course. Another source of information to improve the course was gained through an online asynchronous faculty discussion, populated only by the online instructors of the course. NU-Fast (an online information depository) was the vehicle for this discussion.

Data was compiled over a two year period and was divided into three separate periods. The first period (P1) covered the old format of the course and goes from January 2008 through July 2008 (38 classes). The second period (P2) goes from August of 2008 through October 2008 (15 classes), when another set of significant changes were made to the course. The third period (P3) covers these latest changes and goes from November 2008 through December of 2009 (57 classes). Additional changes were made to the course during this time span but were minor ones. The latest changes to the course will take effect in March 2010 and data will be collected for this new period in June of 2010.

Evaluation of the course content was of major interest for the purpose of this research. The researchers wanted to know if changes made to the course based on candidate and instructor feedback were reflected in the candidate evaluations. Analysis of the data found that ratings of the course based on Course Content Statement #1 – Class activities helped me achieve the course learning outcomes were positive. This content statement was rated 4.18 in P1, to 4.17 in P2, and to 4.35 in P3. This was a very positive increase in candidate satisfaction. During the same time period candidates' self-assessment of their learning also increased from 3.81 in P1, 3.89 in P2, to a 4.02 in P3.

Discussion

Initial data from EXC 644 course indicated greater candidate satisfaction with the revised course. Yet compared to onsite evaluations, candidate evaluations are lower, which is the case university-wide. What appears to be of importance is that candidates need choices, based upon how they learn and how they think. Some candidates want more interactive engagement with multi-media presentations, others want the course to be well-organized, explicit in the outcome, and expectations, and ongoing and respectful interactions with instructors and professors.

It is interesting to note that "real time" interactions were not mentioned, however with the next iteration of the course, group projects and activities will be included as will unit outlines and graphic organizers.

For EXC 625, data was next analyzed to see if improvement of the course content was reflected in the candidates' assessment of teaching. This rating also had a positive increase over the designated time period – from 4.13 in P1, to 4.15 in P2, to 4.37 in P3. During this same period, candidate comments about the course and their instructor were very positive. Candidates' grade point average also increased over the time period studied. During P1 the GPA was 3.55; it increased to 3.56 in P2, and was 3.70 in P3.

Finally, the data was analyzed to determine if the amount of time the instructors were actually "present" in their online course increased and/or did the amount of time in the course affect candidate satisfaction. In P1, instructors spent an average of 57 hours in the course and in P2 it increased to 58 hours. Then, in P3 the average jumped to 112 hours. It could not be determined if the amount of time an instructor spent in a course affected candidate satisfaction with teaching. Instructors with high ratings spent a varied amount of time in the course and the same was true of instructors who were not given high ratings.

One interesting result of analyzing the data on instructors who received an assessment of teaching that was below 4.0 found that candidates in most of those classes also gave low ratings on the rest of the assessment statements. The opposite was also true – if the candidates gave the instructor a high rating, they also rated other areas highly.

ANALYSIS OF DATA			
	P1	P2	P3
Assessment of Course Content	4.13	4.17	4.35
Self-Assessment of Learning	3.81	3.89	4.02
Assessment of Teaching	4.13	4.15	4.37
Grade Point Average	3.55	3.56	3.70
Instructor Time in Course	57 hours	58 hours	112 hours

Use of the online faculty discussion was very helpful in pointing out areas that were confusing for candidates in the course, areas that were too rigorous or not rigorous enough, and sharing of supplementary materials that would be of interest to all teaching the course. Instructors were also able to notify each other of technology problems, broken links, etc. as soon as they were discovered.

It was found that using these two sources of information – Student Course Assessments and online faculty discussions – to improve course content and instructional strategies was very beneficial for improvement of the course and did, indeed, improve candidate satisfaction.

Implications for Further Research

As National University continues to migrate more and more courses solely to the online format, it is essential that much more research be conducted to determine what elements in an online course ensure the maximum learning for all candidates; in other words what instructional strategies, activities, assignments, and assessments will ensure maximum cognitive engagement and candidate satisfaction.

Conclusion

We know as both professors and researchers, we have not touched the tip of the iceberg in terms of what we need to know about online teaching and learning. We do understand how important it is to meet the needs of our candidates to ensure their learning of course content as well as for them to be able to learn from our examples what they need to do once they are in their own classrooms. Can this be done in an online course? We believe it can and will continue to use research to improve and refine our courses. Our most valuable information comes to us from the surveys, interviews, and evaluations given to us from those who take our courses, our students.

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Dr. Cylathia Daniel
University of Science and Arts of Oklahoma

Differentiated Instruction for Students with Special Needs

Good morning my name is Dr. Cylathia Daniel and I am a teacher of deaf education and special education at the University of Science and Arts of Oklahoma. I'm very happy to be here today in Memphis, Tennessee to speak with you about how you can assist your special needs students in your regular education classroom. Many teachers received very limited experience in teaching special needs children while taking their college classes to become teachers. Many teachers were not expecting the number of special needs students that are being placed in regular education classrooms today. This has caused a great deal of stress for teachers and students alike. Today, I would like to present to you some content modifications to the regular classroom. I believe you will find the suggestions and modifications very helpful when dealing with special needs students, whether they are identified or not.

What exactly is the role of the teacher? The teacher's role is crucial in creating an environment that leads students to success. This is accomplished by modeling and by assisting students in developing attainable goals, providing consistent feedback and eliciting self-evaluation. Information concerning performance in a structured purposeful approach is vital to the process of self-regulation and remediation. Immediate success is essential for students who have a history of difficulty or failure. However, the students gradually learn to struggle with adversity and overcome their problems even if they do encounter occasional failure. Teachers can work for students the following ways:

- Students need to identify their maladaptive stress reactions and develop more strategies such as goal setting, incentives and self-monitoring to the deal with problems. Only then can they experience success.
- Students need to be shown how to apply necessary skills to complete assignments successfully. This means more than mastery of isolated skills, it means developing the necessary self-control to try and process written information for the purpose of taking tests, making oral and written reports, and contributing to class discussions.
- This includes helping them overcome their fear or anger toward a particular subject by identifying and reinforcing the purposeful activities, mastering incremental learning steps, and establishing a schedule for accomplishing work.

I'd like now to talk about the student in almost everyone's regular red classroom. The student is unidentified and does not have any label associated with a learning disability or any other handicapping condition. That student used to be called the "slow" learner. This is a child too intelligent to be classified as disabled but not able to cope adequately with the traditional academic work. It is a term used for instructional purposes rather than labeling. His IQ ranges between 76 and 89 on an individual intelligence test. Twenty percent, or 1 out of every 5 students, can be classified as a "slow" learner. The student has the potential to achieve, at least, eight grade level. Compared to other

students, by grade 3 they will be at least one year behind and by grade 7 will probably be three years behind their peers. They are most often retained in a grade, placed in ability grouping or in remedial classes.

The possible causes of the “slow” learner are heredity, a lack of environmental stimulation, physical or health reasons, rejection by parents, peers, teachers, and other persons, and low nutrition, inadequate educational experiences, or even minor neurological deficiencies and other variables.

The characteristics are that the student is slow in academic learning. Very often this student is skilled in mechanical or artistic activities, in physical activities or even social activities, but they may have a short attention span or be easily distracted by outside stimuli. They may not be able to generalize one lesson into another. They may be withdrawn and will not participate voluntarily in the classroom. They may try to compensate for a lack of school success by disruptive behavior. Too many times these children become the class clown. They will require more exposure to understand the concept but with adequate instruction they can be taught skills which are important to society and encourage feelings of self-worth. Since these pupils are not eligible for special education classes, their needs have to be met with "regular” classes. Ability grouping and low classes generally have not proven to be successful because they are given the same curriculum as the other grade levels students who are more able. Most teachers have not had training in teaching the “slow” learner and have difficulty in adjusting their expectations to meet the student's potential. Such children obtain few positive reinforcements from their teachers and parents. The result has been that these students have negative attitudes towards school and their already low self-esteem falls even lower. The student often drops out either physically or through a lack of involvement in school experiences. Thus, for those who require maximum education they actually receive some of the least; the disabled student is sometimes educated to 21 years of age, while the low average child may exit school at 16 years of age.

There are many things that the regular education teacher can do to assist the students in becoming successful in the regular education classroom. However, some teachers seem to feel that this assistance is not fair to the other students in the classroom. My question to this teacher is, “Is it fair to give first aid to an injured person if I don't give first aid to everyone in the room even if they do not need it?” Of course not! Being fair has very little to do with the entire class. It has a great deal to do however with the individual student in need. If you look up the word “fair” in the dictionary it does not state that “fair” means the same for everyone. Fair is giving each person what they need to succeed.

All of the modifications I'm about to describe to you can be used for the “slow” learner, learning disabled child or any child with a processing deficit. Most of these modifications and adaptations will not take any more time in the classroom than what you already use. Please remember that the most important gift you can give your students is the gift of time. A few extra seconds for a learning disabled child can allow them to process the question and then process the answer.

Let's begin with the activity of class discussion. Questions can be a constant source of irritation for the learning disabled child. Fortunately, there are many techniques available that can relieve this irritation. Many times learning disabled children have lost the ability to take a risk in the classroom by volunteering answers. One thing the teacher can do is to get the learning disabled child time to process the question before demanding the answer. One very brief activity is to ask a question and then turn around and arrange papers, erase the blackboard, or simply walk to another area of the room. This way the learning disabled child has time to think about the question while all of his peers are actually thinking about the answer. The teacher then can turn around stand in front of the learning disabled child's desk and asked the question again. This way the learning disabled child knows the teacher is expecting an answer. The teacher should ask the learning disabled child to answer first, this way the learning disabled child has a chance to give an answer before one of his classmates can use that answer before him. For example: “Class, give me five reasons for the Civil War.” The teacher should then turn around and erase the board or write the date on the board, then turn around and stand in front of the learning disabled child's desk and call them by name and simply say, ” Please give me one of the reasons for the Civil War." This way the student has had time to process the question, retrieve an answer, and prepare to be asked the question. The learning disabled student has had the opportunity to succeed in answering a question in the classroom. As the learning disabled child realizes they can actually survive volunteering an answer in class discussion, they will begin volunteering answers more frequently.

Written questions, of course, are another matter entirely. For the learning disabled students, allowing them to answer questions that are short answer, fill in the blank, or multiple choice questions with fewer choices is a viable option. For short answer, and fill in the blank questions provide a word bank so the student does not have to stress over spelling the word correctly.

Learning to study can be a very difficult task for learning disabled students. The teacher can assist in this by providing steady sheets, study guides, class notes, and or highlighted texts. There is a very useful item on the market called the E.Z.C. Highlighter Tape. This is a colored transparent tape that can be placed in a textbook over important information, bolded words, and important ideas and then removed later without damaging the book. Also task analysis is very important to the learning disabled students. The teacher can take large projects and break them down into manageable steps that the student can gain reinforcements for on a regular basis. Most learning disabled students are not able to listen to lecture, take notes, and pay attention to everything going on in the classroom all at the same time. An activity that can be beneficial to more than just the learning disabled student is for the teacher to allow approximately 5 to 10 minutes at the end of class for note gathering. Allow the students to get into small groups of three or four and compare notes. Even the best students can sometimes miss something in lecture if they're trying to listen and write at the same time. This way everyone in class benefits the same from the modification intended for the learning disabled students.

When students have learning difficulties, it often takes them more time to complete assignments. Shortened assignments that will provide necessary practice allows the student to complete work in a reasonable time without undue pressure and frustration. Students with physical disabilities always require more time to complete assignments. Some ways the teacher can assist with this is to help students identify terminology, concepts and skills that are most important and require that these items be completed first. She can also put a star next to essential items, and allow bonus points for any other items completed on the tests or assignment. Reducing the number of questions or problems to be done at one time can help the learning disabled student feel more successful in the classroom. Shortened assignments made more frequently provide the same amount of practice. Allow the student to tape respond responses are good answers to a classmate who can write them down for the student. Give slower readers modified or related stories that teach the same concept.

When doing worksheets the teacher can fold the worksheet into smaller sections and required the student to do one section at a time. When that section is completed the teacher can grade that section and give the student immediate feedback. If the student has mastered the skill on the worksheet then allow the student to continue on with the next assignment. When tasks are too long or complex, many students have difficulty completing them. It can also be helpful to provide a card file for the student that contains definitions of frequently used words.

Many times it is helpful to pre-teach the contents of a lesson. The teacher can list the key concepts, pick out the most crucial items, find out which words the student already knows, and then teach words that will lead to learning the additional words. It is easier for a student to learn new vocabulary in context. Teach word meanings and tie them to the concept in the lesson. Avoid using lists of words. Avoid unrelated exercises and activities just to fill time. Teach new strategies for learning new words and then use the new words repeatedly in conversation. Teach students how to use the dictionary. Help students learn how to figure out new words by use of context clues, phonemic analysis, structural analysis, or a combination of all of the above. When building a vocabulary sheet, extract all boldface, italicized or new concept words from the chapter. The words should be listed in the order they occur in the chapter. The corresponding page can be recorded to the left of the word.

Many learning disabled students are disorganized when using notebooks or assignment sheets. Have a weekly desk cleaning activity. Providing time for the student to fill out an assignment sheet daily with relevant information will help to reinforce the necessity of being organized. In order to succeed in the task of preparing assignment sheets, the student needs instructions in how to look at assignments and how to complete them in an organized way. In learning how to correctly prepare an assignment sheet, the student will be able to strengthen their ability to remember to take adequate materials and information home in order to complete homework assignments. Teach students to follow the rules for writing assignments. These rules should be displayed in the classroom. Rules for writing assignments are:

1. Write the assignment exactly as your teacher gives it.
2. Write the word “book”, “workbook” or “worksheet” as necessary.
3. Write the page number.
4. Write all important information such as Part A and numbers 1- 10.
5. Write the date the assignment is due.
6. Have parents initialed the assignment sheet daily.

Visual aids assist many students in the learning process. It is estimated that approximately 60% of all students learn best visually or with a multisensory approach. Use markers or highlighter tape to highlight important material and text for handouts. This will help make the most important information clear to the student. Highlight key words, main ideas, graphs, maps, charts, boldface type, terms, important names, dates, places and vocabulary and picture captions. Different colors can be used to emphasize important elements such as red for names and green for places. Use markers to highlight overheads or use different fonts for PowerPoint presentations. Write directions on handouts or aids and leave them there for further reference. Use charts, posters, flashcards, sentence strips and other visual aids to increase interest and meaning to the student. Utilize educational television or videos to emphasize concepts. Teach students how to highlight for themselves. Allow students to work together in highlighting important information. Have the student create some of the visual aids used. This is a multisensory level of activity and makes aids more important to the students.

Now let's take just a few specific cases and see if we can help with some ideas for assisting the students. If the student has difficulty becoming interested in a story or an activity try telling stories about people's lives. Establish a connection or relevancy in their own lives. Provide as many concrete experiences and examples as you can when presenting a concept. Read aloud stories or articles to stimulate the student interest. And sometimes it is simply better to sit near the teacher.

If the student has trouble getting started, then use a specific cue to begin work. For example: "Class, we are going to begin work now on math. Please put your spelling away. Now get out your math book." If a student does not seem to understand that he is part of the statement “class” then quietly say his name and then addressed the rest of the class. If you give a student a very large task he will take a look at it and decide in his mind “I can't do that, I'm not even going to try”. Give work to students in smaller amounts. Provide immediate feedback whenever the student completes a particular task. Provide time for suggestions and always check on their progress while they're working. Having a friend or a peer tutor gently remind the student that it's time to get busy can sometimes help as well. his keeps the student from feeling like the teacher is “picking” on him.

If the student has trouble paying attention to spoken words give explanations in small steps. Always provide written back up to oral directions and have the student repeat what was said. Use friends to take notes or use a tape recorder. Try shortening the listening time. After a few moments of lecture, stop long enough to ask if everyone understands the concepts being presented. Alternating spoken tasks with written tasks

helps keep students focused. As you're walking around the room lecturing look directly at a student who seems to be having a hard time paying attention or gently placed a hand on the student's shoulder.

If the student seems to be having a hard time following directions use fewer words. Be very direct in your instructions. Provide several examples of what you want the outcome to be. If the student states that they don't understand try repeating the directions in different words, don't just repeat what you just said. Have the student repeat what he has heard, perhaps he did not hear it correctly. If the task has several steps, provide a checklist for the student. This way they will know how far they've progressed in the task. Also it can be helpful to use auditory and visual directions.

If students have a difficult time paying attention to printed words then try using highlighter tape and underlining or numbering the sentences and paragraphs that you want the student to read. Remind the student to keep his desk clear of the extra materials. Sometimes it can be helpful if the student's desk faces a blank wall or if they use a study carrel. Texts on tape can be borrowed from an online source. This website is www.nysl.nysed.gov/tbbl/textbook.htm#tape. This is the talking book and braille library. Shorten the amount of required reading by reading aloud or in small groups. Allow extra time for slower readers. Put the main ideas and new vocabulary on 3 x 5 cards. Tests do not have to be of the pencil and paper variety. Have an occasional oral test in your classroom. Be sure to pre-teach any new vocabulary that the students might have difficulty with. Learning disabled students will be able to comprehend the story concepts more easily if they do not have to concentrate on decoding words. Many times, and even for students who are not visually impaired, it is beneficial to use a larger type or to copy and in large a passage from a book.

If your students have a hard time keeping track of materials or assignments have them use a notebook that zips or snaps closed. Use pocket dividers for each subject. Have the student place work that needs to be done in one pocket and work that is completed in the other pocket. Always keep extra supplies on hand. Many teachers use a school store where students can spend reward points on paper and pencil if they've left them at home. Provide assignment sheets to resource teachers and parents. Ask these teachers and parents to sign the assignment sheet every time the student brings it to class or brings it home. Always write the assignments on the board or if the student is unable to copy from the board hand them a 3 x 5 card with the assignment written on it and ask them to copy it on the assignment sheet. Give rewards to the students for having their supplies and assignments in a neat and orderly manner and on time.

If you have a student who has difficulty expressing themselves verbally there are several things you can do to assist the student in letting you know what they have learned from a particular assignment. You can accept an alternate format of the information. Rather than have an oral report allow the student to give a written report, art work, a photo exhibit, graphs and charts, and an interactive bulletin board. Ask the student questions requiring short answers and provide them a prompt after a 10 second time. Many times the teacher has to teach the students how to ask questions in class. Always

question them at the teaching level. Allow the students to practice speaking in front of others by breaking them into small groups first then asked them to speak in front of the entire class.

Students with behavioral issues can be very disruptive in class. Often they become frustrated more quickly and by less provocation than other students in the class. A cooling off period, where the student can be quiet and undisturbed can deescalate a tense situation. Try to be aware of a student who may be close to losing control or becoming too frustrated. If they can be trusted outside the room, send them on an "errand" to the office or library. Some schools use a pre-arranged "red envelope" sign that a student just needs to sit quietly while the office or library "reads" the message. If a student does have an outburst there are a few things the teacher needs to do to regain control of the situation.

1. Ask the student to remove themselves from the room to a pre-arranged area. Perhaps the office. Give them time to cool off before discussing the behavior.
2. Remember that the student cannot hear or think clearly while emotionally upset. Shouting at him only makes things worse.
3. If the student does not settle down within a very few minutes then evacuate the room. Have the other students go to a nearby class.
4. Never try to touch or handle an out of control student unless he is causing harm to you, others or himself. Send for help.
5. Keep a normal distance from the student and keep your voice calm and low.
6. Do not leave the student alone or unattended by an adult. Send another student for help.
7. Discuss the behavior only after he is calm again.

When attending a parent/teacher meeting, always begin and end the meeting with a positive statement about the student. Encourage parents to reassure students of their self-worth and importance to the family. Also, a regular routine at home is helpful in keeping a child on balance.

I appreciate the time you have shared with me today. I hope I have given you at least one new tool for your teaching tool box. I would now be happy to answer any questions or discuss anything you feel would benefit others in the audience at this time.

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The Traditional Institutional Teaching Method Approach Versus Innovative Online Teaching

National University is a non-traditional institution that has approached instruction from the perspective of (a) making higher education more readily accessible to students and (b) making learning more flexible to better meet the demands of 21st century life styles. Online candidates in a given course may reside anywhere in the state, and occasionally in another state or country.

Increasingly universities are moving to instruction in online environments in order to reach individuals who might not otherwise be able to attend a university. Non-traditional students, including working adults, individuals from families and groups who traditionally have not availed themselves of university offerings, and individuals in remote locations can benefit from teacher preparation delivered online, and help alleviate shortages of highly qualified special education teachers.

National University's Department of Special Education employ innovative practices that support quality and encourage ongoing enhancement of courses. These innovative practices include (a) data collection and analysis, (b) employment of a Course Supervisor, (c) the "PEPing" of courses to achieve premier status, and (d) incorporation of synchronous interaction through ClassLive Pro.

These practices help the university address several concerns frequently associated with online instruction:

1. Are candidates prepared via online instruction as skilled as those prepared via onsite instruction?
2. How do we ensure that our online courses are rigorous and accurately address intended learning outcomes?
3. When do faculty have the time to revise a course for online delivery?
4. Who are the candidates – when we teach online we may never meet the individual we teach or have first-hand opportunity to evaluate their knowledge, skills and dispositions.

Validation of rigor in online instruction of credential candidates is essential in order to determine if courses provided online are as effective as courses provided onsite. Employment of a Course Supervisor provides ongoing stewardship for each course, and support to each online instructor who teaches the course. Provision of support to faculty

to rewrite an online course so that it ensures a required level of quality required by the university helps the department to ensure that delivery is responsive to candidates' learning needs while addressing institutional learning outcomes as well as state credentialing standards. Synchronous interaction with candidates, utilizing features that allow verbal communication, or better yet verbal and visual contact, enables faculty to meet and know online candidates; develop a more first-hand sense of their knowledge, skills and dispositions; and provide individual instruction and mentoring in real time.

Validation of Rigor in Online Instruction of Credential Candidates

Universities today are offering classes online to answer the needs of students who choose not to or are unable to attend classes on campus. These online courses are extremely attractive to students since they offer the flexibility needed by those who work many hours per week or those who would have to commute long distances to attend campus classes. In some cases universities are offering degree programs in certain disciplines entirely online (Allen & Seaman, 2005).

Since distance learning has met with such acceptance, there is increasing interest in investigating the rigor of these online programs and in establishing standards by which to compare and evaluate the two methods of education. The on campus method has long been considered the accepted method of teaching. In some cases faculty members who were asked to design and teach these internet courses questioned whether students actually learned in these new online environments (Johnson, Arago, et al, 2000)

A two-year study was conducted at National University to validate the rigor in the online instruction of candidates for the special education credential by comparing it to on campus instruction. Candidates are required to take a series of courses that prepare them for conducting classroom instruction. Two of the courses were targeted and used in the study. After completing these courses, candidates are required to complete forty-five instructional days of student teaching. Their performance is then evaluated at the conclusion of their teaching with a numerical score. This performance of the candidates was considered to be an acceptable means of evaluating the rigor and quality of the method of teaching the two courses. The scores for a large group of candidates (485) were analyzed to determine the distribution of the representative population irrespective of the method of education. The distribution was non-Gaussian and had a negative skew (figure 1). From this population two groups were selected. One group of 114 students took both courses online (figure 3); the other group of 245 students took both courses on campus (figure 2). The distributions of both groups were non-Gaussian, as expected. This non-Gaussian character of the data implied that a nonparametric or distribution–free method of analysis needed to be used. The approach selected was the Mann-Whitney U test which assesses whether the medians of two samples of observations are the same. The conclusion of the analysis, using the data obtained, was that there was no significant difference between the performance of those candidates taking the course online and those candidates taking the courses on campus.

Course Supervisor

National University has instituted a system of online and on site course management that requires faculty members assume the role of a Course Supervisor. Each full time faculty has been assigned at least one course to supervise. Specific Course Supervisor responsibilities include: 1) developing course learning outcomes (CLOs) that align with program learning outcomes (PLOs), 2) developing the course syllabus and teaching outline, 3) selecting the text(s) and other course resources, 4) designing signature assignments and as well as other supporting instructional activities and, 5) working with and maintaining contact with adjunct faculty who teach the course. While faculty members have course content expertise, they often do not have the knowledge and skills to effectively create learning experiences in an online environment (Oblinger & Hawkins, 2006). In order to address this issue, National University course supervisors have access to technical support from multiple resources within the university system.

In addition to online course development, course supervisors are also responsible for supporting adjunct faculty who teach the courses they supervise, both online and on campus. Adjunct instructors teach at campuses all over the state. Online instructors may be located anywhere in the state, country or overseas. Maintaining contact with these instructors in order to update and supervise their teaching is a huge challenge for course supervisors. National University has put in place an online repository designed to store a wide variety of course and university materials. This resource, called NU-Fast web based resource, has been instrumental in helping support course supervisors and instructors. Through NU-Fast, all instructors have access to the most current course documents developed by Course Supervisors. Within NU-Fast, electronic discussion groups have been created to provide course supervisors ready access to a cadre of instructors teaching the course they supervise. Instructors can post questions, respond to other instructors and interact directly with the course supervisor. Course supervisors provide "just in time" information to keep instructors current. The electronic discussion boards are critical for the one month course format used at National University.

Providing professional development (training) for online instructors has been identified as an important factor in the success of any online program (Pagliari, Batts, MdFadden, 2009). To address this need, the Department of Special Education utilizes online coaching to help instructors who might be struggling with online teaching. The online coaches (two adjunct faculty members) work under the direction of the Online Program Lead faculty to provide targeted assistance to instructors teaching online. Course evaluations are monitored monthly by course supervisors and instructors whose evaluations fall below a specified level will be contacted by the online coach to help them address issues identified in the evaluations.

Finally, the Department of Special Education has hired an online course editor who reviews a course each month to identify problems, such as spelling errors, links that do not work, format inconsistencies, etc. A summary of issues and problems with the course is then submitted to the course supervisor for correction.

Course supervisors play a critical role in the ongoing development of a premier online special education program. With the rapid pace of the one month format that is characteristic of National University full time faculty needed a way to monitor and continually improve course offerings. The technological support provided within the university system has come a long way in addressing this need.

"PEP'ing" for Premier Courses

National University prides itself in innovative online education. Our classrooms are geared to offer a candidate with as much of the actual classroom experience as possible (National University, 2009). The goal for the virtual classroom is to present the candidate with everything shy of the physical presence of the instructor and students. This includes having live chat rooms in the classroom, and in some situations, a webcam that allows live face to face conversations between the instructor and candidates. As the number of online candidates continues to grow, so does the need for improving the online course experience (Allen & Seaman, 2006).

A Premier E-Learning Project (PEP), otherwise known as PEP'ing a course, takes the course from its one-dimensional or read only learner format to a multi-dimensional or multiple learning styles format. According to Castle, Hieu, Tyler and Vasquez (2008), the e-learning model should target all types of learners, and contain elements in the content presentation for the visual, auditory, and kinesthetic learner. After an extensive review of the literature, National University identified three primary concentrations for a course that is PEP'ed (Greene, as cited in Beyer 2009).

1. Content that allows the learner to achieve the course learning outcomes.
2. Instructional methods that effectively communicate the content of the course to the candidates.
3. Integration of media that delivers course content effectively.
4. A clear and directed focus on the promotion of new knowledge and skills (Beyer, 2009, p. 4).

Course Layout

Course content at National University is developed by the course supervisor. Content was written and developed to address the program learning outcomes. When a course is being re-written to the premier level, every aspect of the course is written to consider the many different styles of learning that may be present in the classroom (Castle, et al, 2008).

All of the online and hybrid courses taught at National University are taught through the e-college system. The general layout for all the courses is the same. When logging into a course there are main tabs that connect to various parts of the course and then along the left side of the course is the menu for the links to that specific course.

Each element of the course is reviewed against the criteria for a PEP'ed version. A mixture of presentation mediums are applied throughout the course to deliver a premier course that addresses the learning styles of all candidates. In conjunction with Spectrum Pacific Learning Center and the course developer, a PEP'ed course presents narrated lectures, streaming videos, audio-visual-kinesthetic activities, and is rich in multisensory content (Greene, as cited in Beyer, 2009).

Synchronous Interaction

By definition online courses have little or no content delivered via face-to-face meetings, in fact, less than 20% (Allen, I. E. & Seaman, J., 2007). However concerns from faculty have arisen that question the delivery of solely online. While asynchronous online instruction is convenient for the learner, it does not allow the instructor to (a) see who is completing the course, (b) observe the candidate's ability to readily demonstrate knowledge such as through extemporaneous discussion, and (c) observe evidence of the candidate's skills and dispositions, all of which are crucial components in a teacher preparation program.

While the use of the "chat" feature in most online platforms allows us to communicate through written English (a positive feature for the Deaf, by the way,) it tends to be slow (depending on the individual candidate's ability to type) and rather cumbersome.

CSU, Chico defines online teaching as "Synchronous online teaching is live, real-time facilitated instruction, that takes place through electronic means and is usually conducted in a software designed to simulate a classroom setting. It is different from other synchronous online events such as conferences and demonstrations in that it is learning centered," (CSU Chico, paragraph 1.) Online meeting platforms, such as Wimba, Skype, or ClassLive Pro, for synchronous instruction can be easily used, and lends itself well to both oral and visual interaction. Such platforms provide for the use of a microphone and speaker, or combination headset. This allows the instructor to talk to candidates, live, and for candidates to respond. Live talk can be enhanced by the use of icons (hand raises, voting, etc.,) similar to what one would use with a Personal Response Unit in an onsite course. These same platforms also allow for the use of web cams by both the instructor and candidates. Web cams along with a headset enable the instructor to see and hear the candidate. Furthermore, such platforms typically have features by which the instructor can "move" candidates into separate rooms for the purpose of discussion. Think of the possibilities! Instructors can, of course, deliver instruction…modeling some tools, presenting power point presentations, showing graphics, and so on. Candidates can ask questions while they are fresh in their mind, and hear the instructor's answers all at the same time.

Candidates can deliver presentations to the class, live, and respond to questions afterwards … just as they would in an onsite class. Candidates can work in collaborative groups of 2 or 3, to plan, discuss, and study. The instructor is able to enter each group to

participate with the group members or just to "observe." Groups can return to their main room and report out on their small group work.

Each of these practices requires that the candidate be somewhat savvy with online instruction. Candidates need to have the appropriate hardware (a headset – preferably with USB connection – and web cam, and a computer with high-speed Internet connection – wireless does not work.) Cost of such equipment is very reasonable, probably under $75.00. Candidates need to practice entering and leaving the course and using their hardware prior to class time. Instructors need to develop a protocol for interacting in the class…just as they might in their onsite class. Protocols might include procedures for asking questions, discussions, and responding to instructor's questions, entering and exiting the classroom, and using the text chat feature.

The potential increases as we combine technology features and other delivery options. The use of video recordings, live observation of candidates in field experiences via web cams and wireless headsets, and recorded lectures using multi-media (such as power point slides, document cameras along with the instructor's image.)

One instructional approach with great potential is the use of synchronous online instruction such as through one of the already mentioned platforms, with onsite instruction. Much like the old I-TV classes, part of the class would participate in person while the rest of the class joins via web cam, headset, and the online instructional platform (such as ClassLive Pro.) The smart classroom would be equipped with a computer and the capability to project onto a screen which would show the virtual classroom. Onsite candidates would be able to observe the online candidates. Both could talk. Instructors could teach, model, and demonstrate while candidates observe, either in the onsite room or via virtual classroom. Discussion would be live between not only the instructor and candidates, but among candidates as well through the use of microphones, or if the onsite candidates utilized individual lap top computers. The smart classroom would need to have a quality web cam set up to capture the instructor and instructor's movement, while the virtual classroom, including images of candidates participating via the Internet, would be projected onto a screen for everyone to see.

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Supporting Inclusive Environments in Rural Areas through the Use of Visual Supports

School systems have an obligation to offer special education services that provide learning and engagement opportunities for all children regardless of severity of disability. Schools are also required to provide scientifically-based (ESEA, 2001) interventions to enhance the opportunities for each child's success. Such interventions were mandated in part, so that an appropriate education in the least restrictive environment (IDEA, 2004) would ensure an inclusive education and improved outcomes for all children with disabilities. Schools in rural areas are often faced with the challenges of utilizing resources effectively and diversely to meet the needs of all students regardless of disability.

Educational personnel are often forced to work collaboratively to meet individual needs; personnel are responsible for identifying poor academic, behavioral, and social progress; as well as for preventing, treating, and accommodating children with all types of disabilities. School personnel must recognize when various methods and intensities of interventions have or have not been successful for a child with disabilities (Holdnack & Weiss, 2006). This implies that an educational team consisting of general education teachers, special education teachers, school psychologists, and school administrators need to be aware of what is necessary to meet the needs of all children in public education settings and be prepared to address those needs, regardless of the severity of a child's disability. Special education teachers' skills in assessment and intervention must be sufficient to provide effective strategies when working with children who have deficits in academic, communication, social, and motor skill domains that may increase the likelihood of problem behaviors in the classroom setting (Hastings, 2005).

Problem behaviors are often seen in children diagnosed with moderate to severe disabilities. These disabilities can interfere with children's functioning within the same developmental range as typically developing peers. Delays in various domains (cognitive, academic, fine/gross motor, social, and communication), can lead to problem behaviors and skill deficits that serve as impeding factors for children and, without the appropriate educational supports, can interfere when considering educational service options.

Behaviors, which develop due to lack of appropriate educational supports, have the potential to limit children's opportunities, contribute to the challenges of academic success as well as interfere with social opportunities and inclusion within natural environments. Children diagnosed with various disabilities, including autism, developmental disabilities, and severe disabilities, often exhibit behaviors requiring supports that focus on organization, academic and life skills, communication, social interaction, and behavior management (Breitfelder, 2008). These children often display behaviors consistent with the inability to understand and process verbal language (Breitfelder).

Children with severe disabilities who are educated in inclusive settings receive the benefit of engaging with same-age peers without disabilities, thereby increasing their communication and social skills (Demchak, 1997). As including students with severe disabilities becomes more of a typical practice, it becomes necessary to ensure each student's educational needs are being met in this inclusive setting (Demchak). Task completion is an essential skill for successful inclusion. When a student with disabilities cannot complete the required tasks independently, in spite of having targeted academic modifications and accommodations, an intervention to address this type of behavior is needed to aid in successful inclusion. "General education teachers are often more receptive to having students with severe disabilities in the classroom when the teachers are aware of the supports and adaptations available to facilitate success" (Demchak, p.45).

Practices that focus on teaching children routines and expectations, giving clear directions and feedback, and arranging the social and physical environment lead to higher levels of engagement within the inclusive school environments. Identifying behaviors that are expected and reinforced within the natural school environments in which students socialize can be contextual. Therefore, children need an intervention strategy with a contextual approach that is likely to provide a meaningful understanding of what is expected in the environment in which they are participating (Warnes, Sheridan, Geske, & Warnes, 2005).

There is a strong research base supporting the use of visual support systems such as picture schedules, task organizers, and environmental cues/labels in the form of picture prompts as a tool for independent task completion in general education settings (Cohen, 2009). Visual supports as an intervention method for students identified with severe disabilities who are included in general education classrooms and other school environments, have been shown to improve student outcomes in areas of behavior, communication, social skills, and academics. When students are taught through systematic instruction to use visual support systems there is an increase in student's independence across a variety of inclusive educational settings (Cohen). Visual supports serve as an intervention to increase opportunities for participation within general education settings.

When visual supports are based upon individual communication and present skill abilities and are set up to meet the specific needs of a student, such supports are shown to be an educational tool to support the behavior, academic, and communication needs of

students with severe disabilities in general education environments. Using visual supports as an intervention to assist with curriculum, behavior, social skills, or communication support requires the completion of a symbol assessment, systematic teaching of the use of the support, and monitoring of student behavioral changes. Utilizing visual supports as a foundation for support in the general education setting can facilitate greater access to peers without disabilities, general education classrooms and curriculum in inclusive school environments (Carr & Durand, 1985; Hodgdon, 1999; Griffin et al., 2006). Whether a student's least restrictive environment is a general classroom, a resource classroom, or a self-contained classroom, research continues to be conducted, evaluating the effects of visual supports, prompting systems, and cues on student task completion and independence (Bryan & Gast, 2000; Cohen, 2009).

While visual supports provide opportunities for increased ability and participation with a greater level of independence, it is necessary for students to be systematically taught to follow steps of a visual support to complete or participate in specific activities dependent on their individual needs. The goal is to create various support systems that individually increase student access, independent participation, and completion of activities similar to their peers. In the general classroom environment, it is important to consider children's comprehension of the activities in their environment. Understanding the expectations, requests, directions, peers, and language of the classroom environment are all key factors that contribute to the success of students with severe disabilities in an inclusive environment (Pistono in Hodgdon, 1999). Augmenting spoken language in the classroom with visual supports can increase children's comprehension of everyday communication that is occurring (Glennen & DeCoste). When teachers pair speech with a visual support, "it provides comprehension support, slows down the delivery of the message; and often results in favorable completion of the communication exchange" (Glennen & DeCoste, p.399).

In addition to communication within the general education classroom, it is important to consider how students with severe disabilities access the core curriculum within that setting. Research supports students with severe disabilities are successful in accessing the core curriculum; however, it is essential for collaboration between the general education teacher and the special education teacher to provide appropriate accommodations and modifications (Fisher & Frey, 2001; Demchak, 1997). When general education and special education teachers meet frequently to discuss lessons, develop, and implement processes for modifying curriculum; there will be a greater level of generalized use of the visual supports across environments and higher levels of success for both the student and the teacher in gaining access to the general education curriculum (Fisher and Frey, 2001).

Since there are a wide variety of materials that are considered to be a visual support, it is necessary to consider each child individually and establish a method for determining what type of visual support system will be the most appropriate intervention to address a student's skill development across behavior, communication, academic, and social skill domain areas. Once it has been determined that a visual support strategy is the best approach for addressing a student's educational needs, it is necessary to complete a symbol assessment to determine which symbols will be appropriate to use for the visual

support and to meet the communication needs of the student. The visual support strategies put in place are not meant to replace communication mediated by spoken language (Jaime & Knowlton, 2007), but to augment spoken language so it can be better understood by the student. Visual supports can be used to enhance auditory skills in addition to enhancing instruction. For students who are non-readers or non-verbal, pictorial icons are universally understood and easily generalized to general classroom and inclusive educational settings (Jaime & Knowlton).

In deciding upon the level of representation that will be used with the support system through the symbol assessment process (Beukelman & Miranda, 2005), the level of visual representation (object, photo, line drawing, word) should be determined by that which is best understood by the student accessing the visual support (Carson et al., 2008). The visual depiction of the activity must be clear to the student (Jaime & Knowlton, 2007; Hodgdon, 1999; Carson et al., 2008). Often it is necessary to consider behavior exhibited by the student throughout various activities, or various parts of an activity, and use a combination of symbol representations within a visual support to meet the varying comprehension levels.

Visual supports can be varied and there are many options for their presentation. They can be categorized as tools to give information, aids to give effective directions, visual strategies to organize the environment, and tools to mediate the communication between environments (Hodgdon, 1999). Visual aids such as schedules, calendars, choice boards, and menus serve the primary functions of giving information "in a logical, structured, sequential form" (Hodgdon, p.29; Carson et al., 2008). Aids for providing effective directions can include any classroom management tool that allows the teacher to communicate more effectively with the students and can include visual supports that give directions, depict rules, and provide students with task organization (Hodgdon).

Cookbooks are considered an aid, in that they provide systematic prompts to help students' complete tasks more independently. Visual supports that assist in organizing the environment can include environmental labeling with words, photographs, icons, or line drawings. These labels are used to give specific names to areas of the classroom and assist in assigning designated locations for items within the classroom. Signs, lists, and charts aid in teaching students to effectively use visual cues in their environment and allow them to recognize and act on the labels, creating an environment in which students can be more independent.

Additionally, visual supports can assist in mediating communication between environments. These supports are considered visual bridges that have three main goals:

- Mediate communication between home and school or other significant environments.
- Stimulate and expand functional language, communication, reading, and writing and academic development.

- Provide more opportunities for the student to engage in communication and conversation about experiences through practicing giving information, building vocabulary, and sharing details about their experiences (Hodgdon, 1999).

Through graphic representations, Social Stories™ , countoons, and contingency maps all support the relationship between behavior and the environment; assisting children in understanding communication occurring within these environments (Hodgdon, 1999).

There are ten essential steps necessary to create and implement successful visual supports across environments. In deciding where to begin, it is necessary to know the student:

1. Determine how the student communicates, what they understand.
    - Complete a symbol assessment (Beukelman & Mirenda, 2005)
        - Objects
        - Photographs
        - Line Drawings/ Symbols
        - Written words
2. Determine what is the visual support is being used for.
        - Curriculum
        - Environment (transitions, rules, location of items)
        - Task Completion
        - Communication
        - Social Skills
3. Determine what information the student needs.
        - Directions
        - Depiction of Rules
        - Task Steps
        - Communication
4. Determine how the student will be accessing their support
        - Stationary
        - Mobile

When student communication level and the individual need of the visual support has been established, creating and putting in the place the visual support combined with systematic teaching will increase student access and independence.

5. Complete a task analysis for activities requiring multiple steps
6. Gather the objects, photographs, symbols, or words
    - Make sure they are easily understood by the student (size, clarity, whole/partial)
7. Make the visual supports durable
    - Use sturdy backing (depending on the use of the visual support there are a variety of materials that can be used)
        - Recycled boxes
        - Plastic trays
        - Picture frames
        - Recycled frozen dinner trays

8. Decide on the location of the visual support
    - Place the visual support where it is visually accessible
    - Location of the task
    - Location of expectations
    - Always have the support accessible and ready to use
9. Teach the use of the visual support
    - Establish teaching methodology
        - most-to-least prompting
        - least-to-most prompting
10. Monitor progress in levels of independence

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The Future of Education is in Their Hands: Trends in Teacher Candidates

What are the trends in pre-service teacher candidates, the implications for K-12 education and for teacher preparation program? Are the candidates who enter teacher preparation programs sufficiently prepared with the knowledge of *what to teach* and the skills needed to learn *how to teach*? Which teachers are hired into the rural special education positions and what are the demands of those positions? Are the novice rural special education teachers sufficiently prepared to rise to the demands of these positions? If they are not, what are the implications for the teacher preparation programs?

He who can, does. He who cannot, teaches. Is this true? At least as far back as the 1950s and still today we in education have been concerned about who we are attracting into our profession and what they are able to do.

This paper will begin to consider important trend data related to (a) characteristics of individuals who are entering the teaching profession via our teacher preparation programs, raise questions about what the data tells us regarding (b) their attitudes towards individuals with disabilities, teaching in rural environments, and their readiness to become teachers. Further, it will raise some important questions regarding the implications of the trend data for teacher preparation programs across the country.

As we grapple with issues of how best to serve students with disabilities and other special needs in rural environments, it is important to ask ourselves, *who is* and *who will be* teaching them? A brief visit to ProjectTomorrow.com [http://www.tomorrow.org/index.html] provides a running record of school age children who were and are currently being surveyed to get their view on what they think should happen. It gets this co-author's attention quite quickly! It's worth the visit.

In general individuals seeking higher education appear (a) less well prepared than their predecessors of 30 or more years previous, and (b) more inclined to feel education should be effortless and accommodate their personal needs (Simanek, 1994 and 1995.) An informal conversation with a faculty colleague in the hall will confirm this perception.

Simanek, a long time university professor suggests that faculty who teach individuals seeking higher education in general are more inclined to feel pressure (a) for high student evaluations as well as (b) to keep enrollments up as the establishment of more universities and more accessible universities, provide competition (1994 and 1995.) An ongoing shortage of certified special education teachers (generally 85% as far back as 1996) exacerbates the problem as we need not only to prepare teachers but to prepare more teachers quickly due to shortages (Special Education News.) The requirement that special education teachers also meet the definition of "highly qualified" has created additional problems in locating and retaining competent special education teachers (National Comprehensive Center for Teacher Quality, 2006; Beeson & Strange, 2003.) Additionally, teacher attrition (failing to continue in the profession after the first few years) has become a problem; in part due to lack of support during their novice years by administration and others assigned supervisory roles (Bilingsley, 1993.) Not long ago, one of the co-authors of this article in conversation with a candidate learned that due to a serious shortage of full prepared special education teachers, his wife had taught special education for one year, without the requisite teacher preparation. The experience was not good and as a result she would not even consider completing a preparation program for special education. This is not an isolated case.

Given the multi-faceted demands to turn out special education teachers, are faculty more likely, therefore, to accommodate student demands related to (a) homework, (b) rigor required by students, and (c) providing support for students (e.g. power point slides, notes, test prep notes, lists instead of narratives, etc.) instead of requiring the students to take notes, to think about what they should study for a test, or to write in standard English with complete text?

Issues related to who is teaching in our profession is more than just turning out enough graduates in special education, but finding novice special education teachers who can be successful in rural environments where they may need to address the needs of students with a wide range of disabilities, sometimes at multiple sites. (Zost, 2006.) Rural sped teachers "do it all" juggling a variety of tasks and sometimes school sites each day (Cates and Smiley, 2000.) Novice special education teachers who leave university accepting positions in rural locales may not realize what is expected of them and may not receive administrative and other support in their first years.

As special education graduates are inducted into their first teaching positions employers need to know what to expect both in terms of strengths and also needs of these novice teachers. The teacher preparation standards provided at the national and state levels do offer a common language and corresponding evaluation tools to determine the pre-determined values of teacher education programs. Likewise, state Boards of Teaching, have their own internal state evaluations that align with national standards.

While parents are a child's first educators, and are likely to be the most consistent factor in their lives, teachers are an important second educator and factor in the lives of students, especially those with disabilities and other special needs. By understanding who will be teaching next year, 10 years or even 20 years from now in all educational settings,

faculties in teacher preparation programs, as well as school administrators, will be better informed on how prepare and provide support for teacher candidates to work effectively with parents and families.

As all excellent teachers know and apply in their daily teaching behaviors, planning before teaching is a significant intention that leads to excellence in learning. We in teacher preparation do well to plan before teaching as well. How can we teach to develop the knowledge and skills of candidates who come less well prepared to our institutions? How can we encourage candidates to work harder? (Simanek's first treatise notes in a side bar, "In education, nothing works if the students don't.")

Jennifer King Rice, in her book Teacher Quality: Understanding the Effectiveness of Teacher Attributes (2003) identifies that "selectivity/prestige of the institution a teacher attended has a positive effect on [later] student achievement" when that person is teaching, possibly a reflection of the cognitive ability of the teacher. In many institutions we have tried to increase higher education opportunities for more individuals by relaxing admission requirements, but do we pay a price for doing so? While candidates may not be of the same ilk as they were 30 or 40 years ago, they are confident, even about this with which they have no experience. For example, although most teacher candidates have limited experiences, they *feel* [italics added] competent and comfortable interacting with diverse populations (Burriss and Burriss, 2004.) But what about when the time comes for them to actually work with students and families from diverse populations…will they have the necessary skills and dispositions?

Biedler (1997 cited by Tomorrow's Professor) offered 10 suggestions of what makes a good teacher. When we compare our teacher candidates to this list today, 12 years later how do they compare? Are we preparing candidates who will become "good teachers" when compared to Biedler's description? Biedler's description of "good teachers" includes the following attributes:

1. Desires to be a good teacher
2. Takes risks with teaching ideas and approaches
3. Positive attitude…no cynicism!
4. Work hard and often long hours…and don't complain
5. Teaching is a form of parenting…they know their students like parents know their kids
6. Build their students' confidence
7. Keeps the students off their balance; complacency in teaching is boring
8. Know and act on their students' incentive system…what do the students like, dislike, etc.
9. Don't trust your students' evaluations of your teaching
10. Listen to your students

Again, many teachers leave the profession within the first 3-5 years, but others stay. Why do they stay? It appears that in part they stay for altruistic reasons in order to develop a student's learning potential and the desire to make a difference

for communities. At the same time teachers also stay for other reasons like having summers off and job security, as well as for the love of learning (Lambert, 2006.)

Phillips (cited in Rodgers, Cross, Tanebaum, and Tilson) a Carnegie Foundation Professor of the Year Winner, suggests 4 Cs of good teaching include:

1. Competency in changing knowledge of what needs to be taught.
2. Creativity in teaching approaches.
3. Collaborate with students…treat them as partners in the teaching/learning process.
4. Care for their students. Care results in trust which enhances motivation to learn (1997.)

Are Phillips' views too narrow? Should they be updated, scrapped, or totally revitalized…and if so, by whom? Or should we embrace these as we move forward?

In a fall 2008 Faculty Development Day workshop for all "teaching faculty" at Minnesota State University Moorhead, Dr. Karl Smith from the University of Minnesota reinforced the work of Johnson and Johnson (1993) as well as others. In Smith's presentation, he shared how successful university professors can apply the use of small group learning with students so they are able to learn not only from the professor but also from one another, even in very large auditorium size classes! Christensen, Garvin, and Sweet's statement, "to transform a university student into an active learner, the student must be actively engaged in the learning process" (p. xv, 1991) seems to fit with what Smith professes and also with the 21st century global diverse community values and beliefs. Small groups of students working and learning from each other with a well informed faculty, skillfully facilitating the learning through a distributed leadership model, can enhance the learning of individuals as well as diverse communities throughout the community. What's stopping these common sense ideas from being planted in school systems throughout the nations of the world?

It is perhaps this last question that is of most importance. If we send our novice special education teachers out into environments that are collaborative and supportive, in spirit not just on paper, then will they be more successful? More likely to be retained in their position? More willing to stay in special education? Will they have the collaborative skills needed to "do it all," as Cates and Smiley tell us, because all are working together? Or will they try to stretch themselves to do it alone or with limited or no support?

While collaborative learning seems to have reached a pinnacle of popularity in education during the 1980s and early 1990s it would behoove us to reconsider the use of collaborative learning models, with rigor and fidelity, as we prepare not only our special education teachers to teach in rural environments, but also administrators and other service providers.

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Author Index