Peer Support for Students with Disabilities: Implications, Likelihood, and Advantages for the Rural High School Campus

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Abstract

Barriers to effective interaction occur between typical peers and students with disabilities. Our study highlights the advantages to participation in peer support programs for the typical student, for those students with disabilities, and for the rural East Texas communities in general. The study determined, within a geographic location, how many rural high schools had peer support programs, the types of peer support offered, and the characteristics of high schools that offered peer support for students with disabilities. The analysis focused on both the nature and the likelihood of a high school in East Texas having peer support groups for students with disabilities. There was a statistically significant difference in the strength of the correlations between high school campuses with special education support groups and without on campus budget, enrollment, special education count, and the number of special educators. Conclusions support an action plan for peer support group formation based on statistical analysis of local campuses.

The purpose of peer support programs is to utilize the skills of the typical student to assist the educator in the implementation of curriculum for individuals with disabilities and to increase socialization (Kennedy, Shukla & Cushing, 1998). Examples of peer support for students with disabilities includes activities and organizations such as: PALS (Maheady, Mallette, & Harper, 2006), peer tutoring in resource rooms, (Heron, Villereal, Yao; Christianson; & Heron ,2006), Classroom Aide (Odom & Conroy, 2001), Equestrian Activities (Edison, 2004), Circle of Friends (Whitaker, Barratt, Potter, & Thomas, 1998), Best Buddies (Copeland, McCall, Williams, Guth, Carter, Presley, Fowler, & Hughes, 2002), and volunteer work for Special Olympics (Storey, Stern, & Parker, 1990).

The very concept of peer assisted learning was pioneered in the rural setting (National Education Association, on line www.nea.org/rural/indexd.html?mode-print). In rural communities, schools are often the center of community with strong connections between parents, teachers, and students. Positive attitudes towards the inclusion of students with disabilities both during and after school fosters a sense of community and deters the potential for geographic isolation and community disconnectedness inherent to rural settings (National Education Association, on line
www.nea.org/rural/indexd.html?mode-print). Formation of positive attitudes, adequate information, extended contact, valuing diversity, and development of natural friendships is a direct result of peer assisted learning and social interaction between individuals with and without disabilities (Fisher, Pumpian, & Cox, 1998).

Research has suggested that barriers to interaction occurs between special education and general education students unless a formal program promoting this interaction is developed (Copeland, Hughes, Carter, Guth, Presley, Williams & Fowler, 2004). Common barriers to effective interaction between typical peers and the student with a disability include negative adult attitudes (Fisher, 1999; Smoot, 2004), little knowledge of disabilities, the perception of different treatment, and the tendency of the students with disabilities to exhibit difficult behaviors (York & Tundidor, 1995).

In rural America, regular access for individuals with severe disabilities to peer communication partners is an area of concern (Rude, 2005). Even in inclusive settings, interaction between the typical peer and the student with a disability is infrequent (Hughes, Carter, Bradford, & Copeland, 2002). For students with mild intellectual disabilities (MID) inclusion placement has both academic and social goals. In a study, Smoot (2004) used sociometric assessment to measure the social acceptance level of students with MID in the general education setting. The participants were 61 students with MID and their 286 general education peers. Smoot found that in the rural schoolrooms assessed, 43% of the students with MID were named at least once on the assessment by a nondisabled peer compared to an 85% naming of general education students. With the incorporation of adult supervision, social interactions between typical peers and students with severe disabilities becomes more frequent and longer (Shukla, Kennedy, Cushing, 1998).

Our study involved rural East Texas where poverty is a critical educational factor (Beeson & Strange, 2000). Since there is no state income tax in Texas, school revenue is dependent upon the low community property values. Using peers as instructional assistants in reading and mathematics, has been shown to be an effective method of delivering services in a time of diminishing resources to students with disabilities (Fuchs, Fuchs, & Burish, 2000; Fuchs, Fuchs, Yazdian, & Powell, 2002; Marchand-Martella, Martella, Oriob & Ebey, 2000). However, peer support programs are not just a cost effective method of supplementing teacher instruction. Benefits for students with disabilities involved in peer support programs include increased social participation (Dugan, Kamps, Leonard, Watkens, Rheinberger, & Slackhaus, 1995; Kennedy, Shukla, & Fryxwell, 1997; Hughes, Copeland, Wehmeyer, Agran, Cai & Hwang, 2002; Kennedy, Cushing, & Iktonen, 1997; Short & Martin, 2005), enhanced involvement in the general education curricula (Heron, Villareal, Yao, Christianson, & Heron, 2006; Werts, Caldwell, & Worley, 1996), and improvements in classroom behavior (Mitchem & Wells, 2002). Research confirmed that long-term support groups for students with severe disabilities increased positive attitudes of the typical peer towards all individuals with disabilities (Burns, Certo, & Storey, 1999; Carter, Copeland, & Breen, 2001; Fisher, Pumpian, & Cox, 1998).

There are benefits associated with peer support programs that extend beyond the benefits that accrue to students with disabilities (National Clearinghouse for the Promotion of Careers in Special Education Report, 1996). There exists a critical shortage of rural special education teachers of low incidence population (Rude, 2005). Pre-existing government findings establish that meaningful contact such as that found within interactive peer support groups result in more students choosing a career in special education (NASDE, 1991; NCPIC, 1991; NCPSE, 1996; NCPSE, 2003). The ability to recruit special educators is a critical problem in rural America and represents a threat to the
reality of free and appropriate education (Rude, 2005). The U.S. Department of Education (1998) suggests that exposing middle and high school students to peer tutoring is a viable recruitment strategy. Collins (1999) stated that most teachers employed in rural areas grew up in the community in which they now teach. Since revitalizing special education is a local challenge with local solutions (U.S. Department of Education Office of Special Education and Rehabilitative Services, 2002), the formation, promotion, and funding of special education peer support groups seems like a cost effective way to highlight the benefits of a special education career pathway in a rural community.

There are potential benefits that may exist for peer support programs to rural East Texas; advantages to participation in peer support programs for the typical student, for those students with disabilities, and for the community in general. The goals of this study were to determine, within a geographic location, how many rural high schools have peer support programs, the types of peer support offered, and the characteristics of high schools that offer peer support for students with disabilities in order to focus a community action plan. This study involved a comparison of peer support group data obtained from 198 high schools to demographic and operational variables taken from the Texas Education Agency Academic Excellence Indicator System (2002-2003). The analysis focused on both the nature and the likelihood of a high school in East Texas having peer support groups for students with disabilities. All variables collected related to the presence or absence of a peer support group for students with disabilities within East Texas high schools.

**Method**

**Data Collection**

Following a scripted format to maintain consistency in questioning, we contacted 198 high schools in rural East Texas to determine the presence or absence of peer support groups for students with disabilities. First, we identified ourselves as university researchers seeking information on the presence or absence of peer support groups on their campus. School principals, assistant principals, guidance counselors, or special educators answered our questions. We asked the campus contact to describe the nature of the peer support group by activity type. Each member of the research team recorded the results of our telephone survey by region, high school, number, and type of support group.

Using the school-data website of the Texas Education Agency Academic Excellence Indicator System, we determined demographic and operational characteristics of the 198 high schools contacted. The independent variables were campus budget, campus enrollment, number of students using special education services, full time special educators on campus, and the socioeconomic status of all students on campus, the regional location of the school, and the campus special education budget. The regional location of the schools indicated either Region 8, 9, or 10 of East Texas. Campus budget represented the total operating expense of each individual school. The campus special education budget was indicative of the total operating expense for special education. The socioeconomic status of the student body depended upon the number of students coded as eligible for free or reduced-price lunch or other forms of public assistance (Glossary for the Academic Excellence Indicator System, 2004-2005).

**Design and Data Analysis**

High school campuses divided into two groups: those with (any type) and those without organized peer support. An independent samples t-test compared these two groups on the seven independent variables. The effect size for the independent sample tests was determined using eta
squared (Cohen, 1988; Pallant, 2001). Using Cohen (1988), the following effect sizes guided our research: .01 = small, .06 = moderate and .14 = large.

We determined to compare the strength of the correlation coefficients for the presence or the absence of campus peer support using the four variables indicated by the t-test with significant mean differences: campus enrollment, special education campus count, special education teacher count, and campus budget. In order to verify a statistical significance between the pairs of correlation coefficients for our four independent variables, we converted the r-values into z scores according to Cohen (1988) and calculated the observed value of z. If z obs ≤-1.96 or z obs ≥ 1.96 then coefficients were considered significantly different (Pallant, 2001). Analyses ensured that the assumptions of normality, linearity, and homoscedascity were not violated.

**Results**

**Presence of Support**

In rural East Texas, 198 high schools participated in the telephone survey conducted by university research assistants. Survey information indicated that 110 high schools, (55.6%) had peer support groups. Of the 110 high schools, 23 (11.6%) had episodic support groups, 42 (21.2%) had inclusion support groups, 24 (12.1%) had long-term service support, and 21 (10.6%) had a combination of these types of support. Refer to Table 1 for categorical characteristics. Eighty-eight of the 198 high schools (44.4%) surveyed had no peer support for students with disabilities.

**A Comparison of Schools with and without Peer Support Groups**

For campus enrollment there was significant difference between the two groups: campuses with support groups (M = 960.24, SD = 811.78), and campuses without support groups (M = 639.52, SD = 731.46); t (196) = 2.885, p = .004. The magnitude of the difference in the means was very small (eta squared = .01). For the number of special education students per campus there was a significant difference between the two groups: campuses with support groups (M = 127.68, SD = 98.54), and campuses without support groups (M = 82.14, SD = 68.25); t (196) = 3.684, p <= .001. The magnitude of the difference in the means was moderate (eta squared = .07). For the number of special education teachers per campus there was a significant difference between the two groups: campuses with support groups (M = 7.08, SD = 7.14) and campuses without support groups (M = 4.16, SD = 4.04); t (196) = 3.423, p = .001. The magnitude of the difference the means was moderate (eta squared = .06). For the campus budget, there was significance difference between the two groups: campuses with support groups (M = $5,021,983.90, SD = $3,905,694.32); and campuses without support groups (M = $3,443,709.00, SD = $357,348.00); t (196) = 3.007, p = .003. The magnitude of difference was small (eta squared=.04).

There were no significant differences between the two types of campuses in terms of number of students per campus considered to be of a lower socio economic status (t (196) = .561, p = .575),or the amount of money in the campus special education budget (t (196) = 1.882, p = .061).

**The Variance in Demographics**

There were four areas of strong correlations combined with statistically significant differences: (1) special education count and enrollment; (2) enrollment and campus budget; (3) special education count and campus budget; and (4) special education count and the number of special education teachers per high schools. These results appear in Table 2. Furthermore, the mean
campus enrollment for high schools in East Texas with peer support groups was 33% higher than the mean campus enrollment for high schools without peer support groups. High schools with special education support groups had, on the average, 35% more students in special education programs on their campus and 42% more special education teachers. The mean campus budget for schools with support groups was 31% higher.

Fifty-five percent of the high schools surveyed had some form of organized peer support on their campus. The 45% of high schools who did not have peer support of any kind for students with disabilities strongly correlated with size of the campus budget and the number of special education students on their campus. Campus budget as a whole explained significantly more of the presence or absence of support groups than any other variable. The smaller rural schools were less likely to have organized peer support activities for students with special needs. However, there was a significant relationship between the number of special education teachers and the number of students in special education on the campus, the interaction of which influenced the absence of peer support in both the larger and smaller rural campuses.

Discussion

Our study presented an overview of 198 rural high schools in East Texas in order to differentiate campuses with and without peer support programs for students with disabilities. Research has established that peer support programs offer benefits for both the students with disabilities and the typical peer involved in the peer support experience (Burns, Storey & Certo, 1999; Hughes, Copeland, Wehmeyer, Agran, Cai, & Hwang, 2002). Yet, 45% of our surveyed schools had no support groups. Most standard college textbooks on special education discuss the benefits and types of peer support available for children with disabilities. However, the procedures for the formation of these groups are not specifically detailed (Garguillo, 2006; McDonnell, Hardman, & McDonnell, 2003; Smith, 2006).

As a point of interest, not all universities have peer support groups and few professors are advisors for such groups on campus (http://bestbuddies.org). At this time, there are no universities in East Texas that incorporate peer group formation into teacher education. Nevertheless, considering the mutual benefit to both typical peers and students with disabilities (Dopp, & Block, 2004; Dugan, Kamps, Leonard, Watkins, Rheinberger, & Stackhaus, 1995), we advocate the training of pre-service general and special education teachers in the development of peer support program be included as part of the university curriculum.

Understanding the demographics characteristic of high schools without peer support groups allows for the construction of an action plan. This action plan starts with the education of pre-service teachers in East Texas universities in the details of support group formation on a high school campus. It then focuses attention on the campuses with smaller campus budgets and fewer special students enrolled. In East Texas, these rural high school campuses are less likely to establish support groups and will need to be convinced of the benefits of support group formation for both the typical peer and the student with disabilities. The task of convincing and modeling peer group formation would be natural extension of special education curriculum at the university level and a reasonable service learning experience for potential special educators.

The survey data in this report are specific to three rural regions of East Texas, an area that encompasses 38 counties. The use of demographic and organizational variables to assess the impact of peer support groups on an area in order to focus an action plan is unique to this study, but the concepts may be applicable to most rural regions. Carter, Hughes, Copeland, and Breen (2001)
determined that awareness programs alone would not strongly influence students in their decisions to interact with peers with disabilities. However, expanded opportunity for contact as brief as one full semester has increased social willingness to interact and accept individuals with disabilities. Additionally, benefits can also accrue for the community, such as a more positive view of students with disabilities and increased student involvement in peer service-learning projects. In summation, the promoting of peer support activities has the potential to foster a sense of connectedness to the school and the community for both the typical student and the student with a disability (Smoot, 2004), meet the social and communication needs of students with disabilities (Rude, 2005), and highlight the profession of rural special educator (NCPSE, 2003).

Future research into the dynamics of peer support in rural communities in East Texas might follow three directions. First, dialogues with student volunteers on their motivations to become peer support helpers; second, interviews with special educators as to why they form or do not form peer support groups; and third, conduct discussions with rural high school students to determine their experiences in peer support activities.
References


### Table 1

**Support Group Activities (Dependent Variables)**

<table>
<thead>
<tr>
<th>Type of Support Group</th>
<th>Type of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1- Episodic- one time occurrence</td>
<td>Special Olympics, Field Trip Days, Rodeo</td>
</tr>
<tr>
<td>Type 2- Inclusion- tutorials</td>
<td>PALS, peer tutoring in resource room</td>
</tr>
<tr>
<td>Type 3- Long Term- extended service learning</td>
<td>Class Aide, Equestrian, Circle of Friends, Best Buddies</td>
</tr>
</tbody>
</table>

### Table 2

**Pearson Product Moment Correlations and z obs Value between Measures of Campus Demographics for Campuses with Support Groups and Campuses without Support Groups**

<table>
<thead>
<tr>
<th>Measures</th>
<th>Campus Enrollment</th>
<th>Special Education Students per Campus</th>
<th>Special Education Teachers per Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Education Students per Campus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With Support</td>
<td>.917**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without support</td>
<td>.845**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z obs</td>
<td>2.196*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Education Teachers per Campus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With Support</td>
<td>.855**</td>
<td>.849**</td>
<td></td>
</tr>
<tr>
<td>Without Support</td>
<td>.846**</td>
<td>.936**</td>
<td>3.035*</td>
</tr>
<tr>
<td>z obs</td>
<td>-.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus Budget</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With Support</td>
<td>.934**</td>
<td>.877**</td>
<td>.793**</td>
</tr>
<tr>
<td>Without Support</td>
<td>.982**</td>
<td>.815**</td>
<td>.817**</td>
</tr>
<tr>
<td>z obs</td>
<td>-4.102*</td>
<td>-2.36*</td>
<td>.488</td>
</tr>
</tbody>
</table>

- Statistically significant difference *
- **p<.01