Counselling Blind-Impaired Adolescents in Their Self-Perception of Social Relationship

Comfort W. Agi, Ph.D.
Department of Educational Foundations, Rivers State University of Science and Technology
Port Harcourt Nigeria

Abstract
A social activity scale was administered to 220 mainstreamed blind-impaired adolescents. In general, students reported participating in school activities more frequently with blind-impaired than with blind peers, but this was qualified by the extent that the students were mainstreamed. Ratings of participation with blind-impaired peers, decreased for the students who were mainstreamed for more classes, Students indicated that they were more emotionally secure with blind-impaired peers, and there was no increase in emotional security with blind peers with more mainstreaming. Responses of students who were mainstreamed for more classes suggested that they realized they had less interaction with blind-impaired peers even though this was the group with whom they were most comfortable. Although these students were surrounded with blind peers, this contact did not appear to promote identification and relational bonds with them. When there is opportunity for participation, the quality of the relationships is not necessarily positive.

Keywords: Counselling, Self perception, Social Relationship.

INTRODUCTION
Recent counselling theories recognize the significant contributions of peer relationships to the cognitive and social development of children and adolescents listed eight ways that peer relationships contribute to development they are:
(a) Acquisition of attitudes, values, and information for mature functioning in society.
(b) Promotion of future psychological health, and
(c) Development of social skills that reduce likelihood of social isolation. Positive peer relationships are as critical for the development of disabled children as for the nondisabled.

The research focuses on self-perceptions of social relationships of partially sighted (i.e., and blind adolescents in Nigeria schools. Previous research with blind children indicates that these self-perceptions are related to the extent of actual peer rejection and also to the students’ personal and social adjustment (Branch, 1984). If students have a low opinion of their social competence and view themselves as being without friends, they are likely to experience loneliness and social anxiety (Boy & Pine, 1979). Study of these self-perceptions may help identify particular educational settings in which partially sighted students are less likely, or more likely, to enjoy peer acceptance. Such study may also identify individual differences among students associated with peer acceptance.

Mainstreaming and Social Adjustment
Limited research on effects of mainstreaming on partially sighted adolescents suggests that they often experience difficulty in social relationships (Campbell, & Fiske, 1984). For example, (Caldwell, 1987). Independently reported that these students’ descriptions of their social experiences included much loneliness, rejection, and social isolation. Several descriptive studies of blind and partially sighted child interactions in integrated settings with either oral or total communication indicate that partially sighted children have difficulty relating to blind peers because they interacted more frequently with their teachers and other partially sighted children than with blind ones Connell, (1990).

A few studies, however, have reported these students having positive or, at least, not negative experiences (Cohn, Combs, Gibian & Sniffen 1989). For example, (Davis, & Mickelson, 1993) found that when special efforts were made to establish a climate that supported positive interaction between partially sighted and normally blind peers, such positive interaction and friendship occurred. Given the social difficulties of many students, the few positive results suggest that it is possible, and indeed important, to specify the variations in educational settings and in student characteristics that are associated with differences in social experience. In this study three sets of perceptions, or dimensions, regarding social relationships were investigated.

Participation
As used here, participation refers to self-reports of frequency of activity in two areas; (a) in-school activities in and out of the classroom (e.g., helping other students in class; eating lunch with friends) and (b) out-of-school activities (e.g., visiting a friend’s home), Dinkmeyer, (1998).

Perceived participation may reflect views regarding extent of contact with peers, effectiveness of
communication with them, and perceived support from them. In making placement decisions regarding partially sighted students, educators may view frequent placement with blind students as valuable because being surrounded with blind peers may increase opportunities for participation in activities and friendship with them and promote the social integration of partially sighted students into society. On the other hand, mainstreamed students who are often separated from partially sighted peers may be well aware that they have few opportunities to interact with similar peers. For many mainstreamed partially sighted students, a major difficulty is inability to adequately understand the teacher and classroom discussion, (Eckerson & Smith, 1988). Ratings of participation may be higher or lower, depending on these communication difficulties. Perceptions of participation may also reflect the extent to which students think that peers and adults are supportive and cooperative.

**Emotional Security**

Emotional security was measured in this study as a perception of positive stability in relationships, such as reporting that one feels “happy” and “relaxed” in relationships with peers. This measure was taken from Connell’s (1990) motivational model in which emotional security is a major dimension of relatedness. Relatedness is regarded as a fundamental psychological need to “feel securely connected to the social surround” (Connell, 1990, P. 4). Perception of emotional security may be associated with the extent that an individual feels strong relational bonds with others; (Gerler 1986) has characterized such bonds as reflecting relationships that are close, enduring, and affectionate. Feelings about the meaningfulness of the relationship are assumed to be more important for personal satisfaction with relationships than are the measures of participation that may reflect perceptions of amount of contact, (Hayes & Hopson, 1992).

**Perceived social competence**

Perceived social competence pertains to appraisals of the extent to which (a) one has the skills and personal characteristics to establish good peer relationships, such as “being willing to talk (or sign) in groups”, and (b) one has successful established peer relationships, such as “having a lot of friends”. Individuals who assign positive evaluations on items tapping these domains are assumed to evaluate their social selves favorably. Content of items used to tap perceived social competence in this study is in some respects similar to that of items in the loneliness questionnaire for children developed by, (Hepped, 1989).

**Blind and partially sighted reference groups**

Partially sighted students may have more positive perceptions about their relationships with other partially sighted peers than about those with blind ones. The obvious barrier to partially sighted relationships is communication, especially if the partially sighted student relies primarily on Visual Aid, (Hughes, 2000). Also found that relationships across peer groups may be impeded by negative attitudes that are sometimes held by blind adolescents toward partially sighted peers. Consequently, this study includes separate questions about participation and emotional security with partially sighted peers and with blind ones. Questions regarding social competence, however, were written to refer to confidence in relationships with peers in general, regardless of their status. This approach is consistent with previous research on social competence in disabled students that used measures that did not distinguish between disabled and nondisabled groups (Dokubo, 2006).

Problems with social isolation are faced by mainstreamed students with all kinds of disabilities. Relational bonds with similarly disabled peers may be strongest among partially sighted individuals because of their unique communication needs and because of the large blind community that most individuals with severe or profound blindness join by adulthood, (Ipaye, 2001). Nonetheless, the extent to which any disabled students wish to associate with other individuals with shared experiences is relevant to educational programming.

**Objectives**

Little previous research has systematically surveyed partially sighted or other disabled individuals regarding their perceptions of various aspects of their social relationships with disabled and with nondisabled peers, (Ipaye, 2003). This study addressed the following questions.

1) What are the interrelations of the level of participation, emotional security, and perceived social competence? One issue here is whether sets of items pertaining to partially sighted peers correlate with those pertaining to blind ones. For example, positive correlations between sets of items referring to blind and partially sighted peers would suggest that variation among individuals can be described in terms of persons having similar social orientations to both blind and partially sighted peers. On the other hand, lack of correlation between the two sets of items would suggest that the two social orientations are independent.

2) What differences exist for participation and emotional security in regard to relationships with blind
peers, in comparison with those with partially sighted peers? Assignment of more favorable ratings of emotional security to items referring to partially sighted peers rather than to blind peers would suggest that relational bonds with partially sighted individuals are stronger. Even if such is the case, students might not necessarily indicate that they participate in activities with partially sighted peers more frequently.

3) How are self-perceptions concerning participation, emotional security, and perceived social competence related to extent of mainstreaming? The educational placement of students may have different relationships with each of these three dimensions. With increased mainstreaming, self-reported participation of partially sighted students in activities with fellow partially sighted peers might decrease because they spend less time in special classes with others like themselves, and participation in activities with blind peers might increase. With respect to emotional security, partially sighted students may report no increase with blind peers with greater mainstreaming. Even if frequently mainstreamed students have much contact with blind peers, they may not feel they have established close, secure relationships with them.

Method

Participants were 220 partially sighted adolescents enrolled in 15 Rivers State public school programs, each with between 70 and 540 partially sighted students, throughout Nigeria. Participants were in the senior secondary school part of the program, and these varied considerably and were categorized into five types: affluent, suburban programs with scattered sites (one program); suburban programs at a central site (three programs) centralized urban programs (three programs); centrally sited, Local Government Area programs (five programs); and anomalous programs, those that did not fit the four above categories. These programs were attached to Senior Secondary School intended primarily for blind students, and the partially sighted students had numerous potential opportunities to interact with both blind and other normal peers. Students belonged to one of three cohort groups that can be considered roughly equivalent to grade levels of 10 (mean age 16.5 years), 11 (m=17.9 years) and 12 (M = 18.6 years). The mean puretone average in the visual range for the better eye was 87.6 dB (range = 30 13-dB), and the mean grade level for the reading section of the Achievement Test, form for partially sighted students, was 5.0 (range = 1 — 13). Slightly more students were male (51.8%) than were female (48.2%). Students represented a diversity of ethnic and social backgrounds.

Extent of Mainstreaming

Students were classified regarding the extent of placement in classes with normal students on the basis of self-reported frequency of enrollment in such classes. First, students were asked whether they had been mainstreamed into any classes with normal students in the past 2 years. This procedure identified 19 students without mainstreaming experience who were not included in the study. The remaining 220 students were asked to indicate the number of mainstreamed classes they had taken at each grade level during Senior secondary School. This number was summed for the current and previous year. An index of extent of mainstreaming was created by collapsing these scores into four categories: (a) mainstreamed for 1-2 classes in the past 2 years (N=52); (b) mainstreamed for 3 - 4 classes (N=80); (c) mainstream for 5-9 classes (N= 55); and (d) mainstreamed for 10-23 classes (N=33). Students who were mainstreamed for more of their classes had significantly higher mean scores on the reading section of the standard Achievement Test than did those who were mainstreamed for fewer of their classes. Means for the least to most frequently mainstreamed groups were, respectively, 3.94, 3.61, 5.25, and 9.89, F(3.165) = 46.60, P< .0001, MSE= 5.48. The mean puretone average sight losses of students in the four groups, 84.41, 88.61, 88.81, and 87.24, respectively, were not significantly different from each other. The rank order correlation between the grade leveled n mainstreaming categories was not statistically significant (r = -.05).

Social Activity Scale

To assess participation, emotional security, and perceived social competence, the questionnaire included a Social Activity Scale (SAS), which consisted of 47 items the SAS had previously been pilot-tested with over 100 partially sighted students from four programs in Imo and Akwa Ibom. Items for the three dimensions of the SAS are summarized as follows;

Participation: Participation was tapped with four scales; (a) one-six-item subscale included items referring to participation in the classroom and to participation in school with partially sighted peers (e.g., class-related: “In my mainstream classes, I talk with partially sighted students”; school related; “I have lunch with partially sighted friends”). Students responded on a 5-point scale indicating frequency of participation: “never”, “two or three times a year”, “about once a month”, “about once a week,” and “every-day”. This subscale had a maximum score
of 24 and an alpha index of internal consistency reliability of .84 (b) A second six-item scale was identical to the first, except that the word blind was substituted for partially sighted (e.g. “In my mainstream classes, I talk with blind student”, α = .83). (c) An additional seven item scale dealt with participation in out-of-school social activities with partially sighted peers (e.g., “Go to visit at partially sighted friends’ homes”). For this subscale, students responded on a 5-point scale; “never”, “once or twice a year”, “about once a month”, “about once a week”, and “everyday” (maximum score = 28; α = .88). (d) A second seven-item scale was identical to the preceding one (e), except blind was substituted for partially sighted (e.g. “Go to visit at blind friends’ home”, (α = .86).

**Emotional Security:** Emotional security was tapped with two subscales: (a) A seven-item subscale included items referring to partially sighted students (e.g., “I am with partially sighted students of my age, I feel nervous”). Students answered on a 4-point scale: “almost never”, “not very often”, “most of the time”, and “always”. (Maximum score 28; α = .67). (b) A second seven-item scale was identical to the preceding one, except for the substitution of blind for partially sighted (e.g., “When I am with blind students of my age, I feel nervous”; α = .84).

**Perceived Social Competence:** A nine-item subscale asked about ability and success in establishing good peer relationships (e.g. “I feel nervious in groups of people”). These items did not distinguish between relationships with blind and partially sighted peers. Students responded on a 5-point scale: “not at all true of me”, “a little true of me”, “mostly true of me”, and “very true of me”, (maximum score = 35; α = .74). The seven subscales had satisfactory to good reliability with respect to internal consistency for research purposes. For each of these seven subscales there were between 5 and 21 cases with missing data. The missing data occurred primarily because students did not complete one or more items for a scale. These missing data were replaced with the mean value for the scale, rounded off to the nearest whole number.

**Instrument Administration**

The SAS was administered to groups of 4 or fewer students by a person familiar to them, such as their homeroom teacher or a sound and Braille instructor. Each student received a copy of the questionnaire to complete with a pencil. In addition, the examiner read aloud or read aloud and signed as many of the items in the scale as was desirable to ensure maximum comprehension. The extent to which questions were read aloud or signed to students was distributed as follows: (a) all were read aloud or signed, 36.5% (b) about half, 13.8%; (c) a few questions, 29.2%; and (d) no help, 25.4%. The optimum way of presenting the question was based on the familiarity of the test administrator with the child’s preferred method for understanding instructions and on requests of the child that items be read aloud or signed. Students were asked before the test administration how they wanted the items presented. This approach of varying the extent to which students read the questionnaire or relied on the test administrator’s signing and mouthing of the words for comprehension is consistent with previous procedures with young blind children, 7 or 8 years of age, when the language of the items is fairly simple (as was also true for the present study’s items.

At the beginning, students were told that the questionnaire was not part of their school work and would not be graded. Furthermore, students received training in using the response alternatives (e.g., never... everyday) just before answering the associated questions. This training consisted of practice in responding to statements regarding frequency (e.g., ‘How often do you make your bed’?) or agreement (e.g., “I am good at math”), as well as discussion and feedback from the examiner. Administration time was approximately 45 mm.

**Results**

To obtain information regarding the dimensions of social relationships and variation among individuals in orientation toward partially sighted and blind peers, we correlated the subscales with each other. Table 1 displays means, standard deviations, and correlations among subscales. The two participation subscales correlated at a statistically significant level with each other within social orientation toward blind or partially sighted peers. Students who assigned ratings that indicated a relatively high level of school participation with blind students also tended to assign high ratings for social activities with partially sighted students. The same pattern of significant correlations occurred for the measures of participation with blind students. Students who rated themselves as more emotionally secure with partially sighted peers also tended to report a relatively high degree of participation in school and social activities with blind peers, as is indicated by the significant correlations among these measures. The same pattern of significant correlations occurred among the corresponding measures for blind peers. It should also be noted that for eight out of nine possible correlations, visual versions of subscales did not correlate significantly with any of the partially sighted versions of the substances, suggesting relative independence of responses toward partially sighted and blind peers.

The perceived social competence subscale, in which items did not refer to blind or partially sighted
groups, correlated significantly with subscale pertaining to both groups. High ratings of perceived social competence were associated with greater participation in school and in social activities with blind students and with higher emotional security with blind peers. Perceived social competence was also associated with greater participation in social activities with partially sighted students and with higher emotional security with that group.

The public school program study is a longitudinal study involving the schools and students of all physical challenged Public School Programs for the partially sighted, which is supported by the Rivers State Government.

Table 1: Mean, standard deviations, and inter-correlations for subscales of the social activity scale

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M</th>
<th>SM</th>
<th>School B</th>
<th>Social PS</th>
<th>Security PS</th>
<th>Competence</th>
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</thead>
<tbody>
<tr>
<td>School participation</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>With partially sighted students (school, PS)</td>
<td>19.5</td>
<td>5.1</td>
<td>-.09</td>
<td>.42**</td>
<td>-.06</td>
<td>.23**</td>
</tr>
<tr>
<td>With sighted students (School, B)</td>
<td>17.4</td>
<td>5.1</td>
<td>-.06</td>
<td>.40**</td>
<td>.03</td>
<td>.23**</td>
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<td>Social Activities partially sighted</td>
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<td></td>
</tr>
<tr>
<td>With partially sighted students (school, PS)</td>
<td>18.5</td>
<td>5.6</td>
<td>-.02</td>
<td>.33**</td>
<td>-.07</td>
<td>.34**</td>
</tr>
<tr>
<td>With sighted students (School, B)</td>
<td>19.0</td>
<td>5.5</td>
<td>-.11</td>
<td>.27**</td>
<td>.25**</td>
<td></td>
</tr>
<tr>
<td>Emotional Security</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With partially sighted students (school, PS)</td>
<td>22.2</td>
<td>3.7</td>
<td></td>
<td></td>
<td></td>
<td>.30**</td>
</tr>
<tr>
<td>With sighted students (School, B)</td>
<td>21.6</td>
<td>3.8</td>
<td></td>
<td></td>
<td></td>
<td>.38**</td>
</tr>
<tr>
<td>Perceived Social Competence</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Competence)</td>
<td>25.9</td>
<td>4.4</td>
<td></td>
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</tr>
</tbody>
</table>

Note: N for all subscales was 220.
*p<.05, **p<.01.

Multivariate Analysis of Variance

The next set of analysis focused on the extent to which self-ratings were associated with (a) grade level (three levels: 10th, 11th and 12th), (b) extent of mainstreaming (four levels: 1-2, 3-4, 5-9, and 10-23 classes), and (c) reference group (two blind: partially sighted, and a within subject factor). A multivariate analysis of variance (MANOVA) with a least-squares solution was performed on the dependent variables of participation in school, participation in social activities, and emotional security. This analysis yielded significant multivariate main effects for extent of mainstreaming, F(9, 502) = 3.27, p<.001, and for reference group, F(3, 206) = 13.19, p<.0001. The main effect of grade level was not significant. The analysis also revealed significant interaction effects for mainstreaming x Reference Group, F(9, 502) 5.54, p<.0001, and for Grade Level x Mainstreaming x Reference Group, F(18, 583) = 1.99, p<.01. The Grade Level x mainstreaming and the Grade Level x reference Group interaction effects were not significant.

Participation

The following - up univariate analysis of variance (ANOVA) with participation in school as the dependent variable used a mixed design with reference group as the within-subjects factor. The top half of table 2 presents the pertinent mean ratings. Results for participation in school indicated that students rated themselves as interacting more frequently with partially sighted peers (M = 19.6) than with blind peers (M = 17.4) F (1, 208) = 24.10 p<.0001, MSE = 22.09.

This main effect, however, was qualified by a significant mainstreaming x Reference Group interaction effect, F (3, 208) = 8.16, p<.0001, MSE = 22.09. Figure 1 presents a plot of the relevant means for this interaction. Pairwise Newman-Keuls tests were performed to compare these 8 means with each other, with alpha set at .01 for each comparison, and harmonic means used to deal with unequal cell sizes in all analyses. We established alpha at .01 because we performed three series of pairwise comparisons for each of three follow-up ANOVAs (for participation in school, for participation in social activities, and for emotional security). Assuming that alpha is added across the series of paired comparisons in an experiment, then the experiment wise alpha for each individual comparison would be .03.

These analyses indicated that the interaction was due to a change in ratings of school participation with partially sighted peers as a function of mainstreaming. School participation with partially sighted students dropped significantly from the second level (3-4 classes and third level 5-9 classes) to the fourth level (10-23 classes). In contrast, there was no significant change in school participation with blind peers, although means
showed a progressive increase as a function of amount of mainstreaming. These results must be considered in light of a significant Grade Level X mainstreaming X Reference Group interaction, F(6,208) = 288, p<.01. MSE = 22.09. One series of Newman-Keuls tests was performed on the 12 means for school participation with partially sighted peers, and another series was performed on the 12 means for participation with blind peers. These comparisons revealed that this interaction was due to different mean ratings as a function of grade of students that was most frequently mainstreamed (10 - 23 classes). For this group, the mean rating of participation with partially sighted peers was significantly higher for 12th - grade students than for 10th - grade ones; in contrast, the mean ratings of participation with blind peers for the 10th and 12th grade students were not significantly different from each other.

Mean ratings of extent of participation in social activities with blind and partially sighted students as a function of grade and extent of mainstreaming are presented in the bottom half of Table 2. The ANOVA yielded a significant main effect for extent of mainstreaming (Ms = 19.5, 18.9, 18.8 and 17.3, respectively), F(3, 208) = 3.09, p < .05. MSE = 22.97. This effect was qualified by the mainstreaming x Reference Group interaction, F (3, 208) 3.87, p< .025, MSE = 29.94, as is shown in figure 2. Newman-Keuls tests revealed that participation in social activities with partially sighted peers dropped significantly from the third level of mainstreaming to the fourth. There was, however, no significant change in participation with blind peers with level of mainstreaming.

SOCIAL RELATIONSHIPS

Table 2: Mean rating of participation in school and in social activities as a function of grade and extent of mainstreaming

<table>
<thead>
<tr>
<th>Subscale</th>
<th>1-2</th>
<th>3-4</th>
<th>5-9</th>
<th>10-23</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
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<tr>
<td><strong>Participation in School</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>With partially sighted students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 10</td>
<td>19.5</td>
<td>4.4</td>
<td>20.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Grade 11</td>
<td>17.8</td>
<td>4.4</td>
<td>20.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Grade 12</td>
<td>18.7</td>
<td>4.4</td>
<td>21.0</td>
<td>2.6</td>
</tr>
<tr>
<td>With blind students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 10</td>
<td>14.8</td>
<td>5.5</td>
<td>16.8</td>
<td>5.4</td>
</tr>
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<td>Grade 11</td>
<td>16.8</td>
<td>4.7</td>
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<tr>
<td>Grade 12</td>
<td>17.8</td>
<td>5.3</td>
<td>17.4</td>
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<td><strong>Participation in Social Activities</strong></td>
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</tr>
<tr>
<td>Grade 12</td>
<td>22.2</td>
<td>5.3</td>
<td>21.0</td>
<td>4.9</td>
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</tbody>
</table>

Note: Sample Ns for participation in school and participation in social activities were 220. N in cells ranged from 7 to 29, with a median of 18.

These results, however, must be interpreted with consideration of the Grade Level x Mainstreaming x Reference Group interaction, F(6, 208) = 3.24, p< .005, MSE 29.94. Newman-Keuls tests indicated that the interaction was due to different patterns of means for participation with partially sighted peers as a function of mainstreaming and grade level. For participation with blind peers, the mean ratings of 12th -grades dropped significantly from the first level of mainstreaming to the fourth, but this did not occur for 10th - 11th graders. For participation with partially sighted peers, none of the comparisons between means were statistically significant.

In summary of the results for participation, extent of mainstreaming was associated with participation both in school and in social activities. When time in mainstreamed classes changed from the second and third levels of the fourth, most frequent level, reported participation in school activities with partially sighted peers decreased. For participation in outside-of-school activities, 12th - grade students who were most frequently mainstreamed reported less participation in social activities with blind peers in comparison with 12th -grade students who were less frequently mainstreamed.
Emotional security

Mean ratings of emotional security with blind and partially sighted peers as a function of grade level and mainstreaming are displayed in Table 3. The ANOVA yield a main effect for extent of mainstreaming (Ms = 21.6, 21, 22.8, and 22.3, respectively), F(3, 208) = 3.36, p< .025, MSE = 17.03. In addition, students assigned higher ratings for partially sighted peers (M =22.3) than for blind peers (M = 21.7), F(1, 208) 4.28, p< .05, MSE = 9.26. This preference for partially sighted peers had also occurred for school participation.

There was also an interaction between mainstreaming and reference group, F(3, 208) = 3.69, p< .025, MSE = 9.26, as is shown in figure 3. None of the follow-up Newman-Keuls tests met the .01 alpha criterion. One comparison showed that emotional security with partially sighted peers was marginally greater for the third level of mainstreaming than for the first (p <.05).

The main effect and two-way interaction results must be considered taking into account a significant interaction between grade level, mainstreaming, and reference group, F(6, 208) = 2.81, p< .025, MSE = 9.26. This interaction appeared to be in part, a result of significant increases in rated emotional security with partially sighted peer with greater mainstreaming for 11th —graders but not for 10th and 12th-grades; the interaction was also, in part, due to a significant decrease in emotional security with blind peers as a function of mainstreaming for 12th - graders but not for 10th or 11th graders. Mean ratings of emotional security with partially sighted peers were significantly. Higher for 11th-grade students mainstreamed for 5 - 9 classes than for those mainstreamed for 1 - 2 classes. None of the comparisons between levels of mainstreaming were significant for 10th or 12th grade students. For emotional security with blind peers, the mean ratings of 12th-grade students who were most frequently mainstreamed were significantly lower than those of students who were least frequently mainstreamed. None of the comparisons of the mean ratings of the 10th- and 11th-grade students between levels of mainstreaming were statistically significant. In addition, the mean rating of the 12th-grade students who were most frequently mainstreamed was significantly lower than that of the 10th-grade students who were most frequently mainstreamed.

Perceived Social Competence

The final analysis dealt with perceived social competence. The 3 (grade level) x 4 (extent of mainstreaming) ANOVA yielded a significant interaction between grade level and mainstreaming, F(6, 208) = 2.87, p< .025, MSE = 18.62. (This analysis was not a follow-up to the MANOVA because it involved a different experimental design). Figure 4 displays the means involved in this interaction. None of the follow-up tests met the .01 alpha criterion. Twelfth- graders mainstreamed for 10-23 classes and marginally lower ratings of perceived social competence than did 12th-graders mainstreamed for 1 — 2 classes (p< 0.5). In addition, mean ratings of perceived social competence at the most frequent level of mainstreaming were marginally higher for students in the 10th grade than for students in the 12th grade (p < .05). Neither the main effects of grade level nor mainstreaming was statistically significant.

Findings

The results of this study suggest that partially sighted students had independent sets of perceptions regarding blind peers and their relationships with each group and that they distinguished between more superficial aspects of relationships, such as participation in classroom activities, and deeper aspects of relationships such as feeling emotionally secure. Responses of frequently mainstreamed students suggest that although they were surrounded with partially sighted, most of these students probably. Would have preferred to have had more time in relationships with blind peers, which students perceived as deeper and more satisfying.

Independence of Social Orientations

Social orientation toward partially sighted peers and t hat toward blind peers appeared to be independent of each other. High ratings of emotional security with partially sighted peers were associated with high participation in school and in social activities with that reference group, and a similar pattern of correlations was obtained for scales referring to blind peers. In contrast, correlations of these subscales across reference groups, with one exception, were not significant. This set of results is consistent with those in a study that used similar scales of partially sighted students who were mainstreamed in Senior Secondary Schools in Owerri (Imo State). Appling a multimethod-multitrait conceptualization, these results provide evidence for the discriminant validity of trait (orientation to partially sighted-independent from orientation to blind). This independence in orientation is also consistent with current thinking about how individuals with connections to two social reference groups relate to each one. People vary in how much they participate and feel connected to each reference group, and they regard involvement in each one as an independent social role with different demands and required behaviours.
In this study the measurements were exclusively self-ratings, and additional research is needed to investigate the relationship between these measures and observational measures, peer ratings, and teacher ratings. Such data would provide a more complete picture of the student’s social adjustment as a function of extent of mainstreaming and would provide information on the extent that the self-perceptions reflected actual interactions and acceptance as perceived by teachers and peers.

**Participation**

Although other factors probably contributed, opportunities for contact with blind and partially sighted peers in

<p>| Table 3: Mean ratings of emotional security as a function of grade and extent of mainstreaming |
|-----------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Grade</th>
<th>1-2 M</th>
<th>SD</th>
<th>3-4 M</th>
<th>SD</th>
<th>5-9 M</th>
<th>SD</th>
<th>10-23 M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>With partially sighted students</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Grade 10</td>
<td>21.2</td>
<td>4.6</td>
<td>21.5</td>
<td>3.5</td>
<td>23.1</td>
<td>3.4</td>
<td>23.0</td>
<td>2.1</td>
</tr>
<tr>
<td>Grade 11</td>
<td>19.4</td>
<td>4.3</td>
<td>22.2</td>
<td>3.6</td>
<td>23.7</td>
<td>3.7</td>
<td>24.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Grade 12</td>
<td>22.3</td>
<td>3.8</td>
<td>20.8</td>
<td>3.5</td>
<td>24.1</td>
<td>3.4</td>
<td>23.9</td>
<td>3.7</td>
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<tr>
<td>With blind students</td>
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<td>Grade 10</td>
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<td>21.2</td>
<td>21.2</td>
<td>4.6</td>
<td>18.0</td>
<td>4.9</td>
</tr>
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</table>

Note: Sample N for emotional security was 220. N in cells ranged from 7 to 29, with a median of 18.

Academic and social situations appeared to be a factor in the ratings of participation. For school participation, in general, with specific levels of mainstreaming not taken into account, students rated themselves as interacting more frequently with partially sighted peers than with blind peers in mainstream classes and at school. This difference may have partly reflected the many opportunities for contact with other partially sighted students, such as being together in separate classes.

Overall difference in reported participation: Rating changed with extent of mainstreaming. Ratings of participation with partially sighted peers decreased from the second and third levels of mainstreaming to the fourth, most frequent level. There was also a steady, but nonsignificant, increase in ratings of participation with blind peers with greater mainstreaming. A similar pattern of results was found in the study of with partially sighted adolescents in Owerri (Imo State), with both the increase in participation with blind peers and the decrease in participation with partially sighted peers being statistically significant in the post hoc analyses (Stinson & Whitmire, 1991). These changes in participation may have also reflected differences in opportunity for interaction, since those who experienced more mainstreaming spent less time with partially sighted classmates and more time with blind ones. In addition, there was at least one difference in the characteristics of the students: the more frequently mainstreamed ones had better academic skills. Although the more and the less frequently mainstreamed students did not differ in severity loss of sight, it is still possible that those who were frequently mainstreamed had better oral skills.

**Emotional Security and Perceived Social Competence**

The results suggest that for the partially sighted students, being frequently mainstreamed meant having less interaction with the group they most wanted to be with and being less satisfied with their own social skills in the last year of high school. Although the students who were most frequently mainstreamed reported less interaction with their partially sighted peers, their ratings of emotional security with these peers remained high. There was also a tendency for some students who were more frequently mainstreamed to have high ratings of emotional security with partially sighted peers than those who were less frequently mainstreamed. There may have been limited opportunities for these most frequently mainstreamed students to interact with their partially sighted peers, those with whom they were most comfortable. In contrast, ratings of emotional security with blind peers did not increase with mainstreaming, and overall, emotional security with blind peers was less than that with partially sighted peers. There was no evidence that increased contact with blind peers through mainstreaming promoted relational bonds with blind classmates. Results from the study of partially sighted adolescents in Owerri (Imo State) also supported this conclusion. Many of these mainstreamed students may have unmet needs for close friendships, a sense of belonging in a peer group, and having real”, in-depth, extended conversations.

The low ratings of emotional security with blind peers among the most frequently mainstreamed students in the last year of high school in comparison to those in the lower grade levels, along with the tendency
of these students to have low ratings of perceived social competence, also suggest that these students were having negative social experiences. It is possible that these students had been repeatedly frustrated and discouraged socially during Senior Secondary School because while they were most comfortable in relationship with partially sighted classmates, they were often placed in an environment in which the only social relationships available were with blind peers, and they were subjected to rejection and neglect. These unsatisfactory experiences may have taken their toll in the form of decreased satisfaction with social skills.

The findings regarding emotional security and social competence are in accord with results of a study. They found that students who were fully integrated or who were in itinerant programs had significantly more personal and social difficulties than did those who were in special classes for all or part of their educational program. The results of that study should be considered together with those of the current one and the one by regarding limited opportunities to interact with the peers with whom they were most comfortable. Taken together, they suggest that for many partially sighted students, being placed in classes with blind peers for a considerable portion of one’s educational program may be associated with less positive social adjustment than is being mainstreamed for only some classes, but to a lesser degree.

This study treated social competence as a general dimension that does not refer separately to partially sighted and blind groups. It is possible, however, that there are also separate sets of perceptions about competence in relationships with individuals with and without disabilities, and this possibility should be explored in future research.

REFERENCES

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