A study was conducted to determine the academic and behavioral growth of 50 learning disabled students (in grades 2-5) who participated in a teacher-consultant program for 1 year. As part of the program, the consultant provided remedial instruction, visited the regular teachers to monitor and evaluate the work of special students, shared materials, and offered instructional techniques. Predictive levels of achievement for the 50 Ss were obtained through historical regression procedures, and the predicted achievement scores were compared to actual achievement scores. Ss' achievement gains were well beyond the predicted grade equivalents for each of the academic skill areas as measured by the Scientific Research Associates Achievement Test. Results for the affective area, although significant, were not as positive as results from the achievement area. (SB)
In recent years, educators have considered on a variety of instructional arrangements for children experiencing learning difficulties. A program which has received considerable recognition and increasing popularity is the Teacher Consultant Model (McKenzie, 1971). According to McKenzie, a consulting teacher is a specially trained individual who generally spends a major portion of the day working with classroom teachers, demonstrating instructional materials and techniques. While the procedure for conducting these demonstrations or training sessions may vary from school to school, the basic objective is to acquaint the regular staff members with educational alternatives for instruction. According to Newcomer (1976), the primary objective of the specialist functioning in this capacity is to "...provide the regular educator with the additional skills and competencies required to undertake such remedial activities independently, and to prevent certain problems from developing."

Emphasis is given to such areas as individualization of instruction, analysis of behavior and effective evaluative procedures.

The consultant is available to teachers for specific instructional problems which may be unique to a particular teacher/student. Assistance of this nature has been extremely difficult to obtain in most schools and has partially contributed toward teachers becoming frustrated and negative toward certain children.
In general, the teacher consultant serves as a "in house" resource, whose effectiveness may be determined by the extent of materials made available, the validity and appropriateness of remedial suggestions offered to teachers, and specific academic progress made by students for whom prescriptions have been written.

Unlike the resource teacher, the consulting teacher spends only a portion of the day involved in remediation activities, and educational assessments; usually focusing upon a small number of students either in regular classrooms or in a designated remedial area, (Hammill and Wiederholt, 1972). Within this group, possibly one or two students are assigned for diagnostic purposes on a short term basis. Upon completing an educational assessment, the consultant provides the classroom teacher with a plan or prescription which may incorporate several strategies and related activities for teaching specific skills. Next, the consultant will conduct observation to ensure the appropriateness of the sequenced learning activities.

Interaction and communication with regular staff members is of paramount concern and remains an integral component to the development of educational plans for certain children. The consulting teacher assists staff in programming for these deviant learners. Moreover, support and advice concerning other facets of the instructional program including gifted and talented students are provided. This technique has fostered the acceptance of the consultant and has contributed to the enhancement of communication channels within the school. That is the regular teacher and consultant are working in an atmosphere of openness,
trust, and dependability, which ultimately may have a positive effect toward promoting cognitive and affective growth in students.

Educators are exploring alternative instructional programs for learning disabled children with great enthusiasm and diversity and remain committed to developing the most effective programs. Although the Teacher-Consultant Model is being considered as a viable approach for educating these children, there is little empirical evidence to substantiate the efficiency of the model.

The purpose of this paper is to present the academic and behavioral growth of fifty learning disabled students who participated in a Teacher-Consultant program for one year. The investigation was an initial attempt to study the effects of a Teacher-Consultant Model. Having only an experimental group creates a limitation which prohibits making any generalizations concerning student progress. Another recognized limitation is the exposure of students to two programs and two teachers, thus making it difficult to pinpoint those significant program variables contributing to student achievement. The fact that certain affective instruments of high inferentialization were employed raises serious question as to behavioral changes which were observed.

Subjects

The sample for this study comprised 50 Ss (33 males and 17 females) experiencing learning difficulties in regular classrooms. The grade distribution was as follows: 16 second grade students, 18 third grade students, 8 fourth grade students, and 8 fifth grade students. The Ss ranged in I.Q. from 80 to 116 with a mean for the group of 97, as measured
by the Slossin Intelligence Test. Achievement deficits in reading, math and spelling ranged from 1.25 to 2.75 years below the average for their respective grade levels. The students were white, from middle class backgrounds and were instructed by female teachers who had at least five years of teaching experience.

Instruments

The students were administered a pre-test in October, which included the Scientific Research Associates Achievement Test (SRA) that measured skills in reading, math and language and the Coopersmith Self-Esteem Inventory (SEI) short form. The SEI is a 25 item self-appraisal measure that requires a student to evaluate him or herself in terms of particular statements, e.g., "My parents like me." Due to the level of abstractness and conceptualization, the SEI was administered only to 4th and 5th graders. The classroom teachers were asked to complete two behavioral observation forms, the Quay Problem Check List (QPCL) and the Coopersmith Behavior Rating Scale (CBRS). The QPCL is a 44 item check list comprised of 97 behavioral descriptors that teachers use in analyzing the classroom behavior of students. The CBRS is comprised of 13 behavioral statements designed to measure a student's level of self-confidence as perceived by the teacher. The same battery of tests was administered again in May as the post-test.

Procedure

Students were selected on the basis of having serious deficiencies in at least two academic areas, referred the preceding year by the classroom teacher, and performed poorly on a screening test administered during the first month of school. From the list of referrals, 50 Ss were randomly
selected to participate in the program. These students were assigned to one of three Teacher-Consultants depending on grade level and school. Each was given a schedule which indicated the exact number of hours assigned to the consultant for remediation.

The consultant served 17 children per day usually in small groups of four or five for 45 minute sessions. Instruction was usually administered during the morning in a designated remedial area, i.e., a resource room; however, some children received instruction in their regular classrooms. The consultant visited the regular teachers, usually in the afternoon, for the purpose of monitoring and evaluating the work of the special students (core students) assigned to the consultant program. In addition, the consultant shared materials and suggested instructional techniques. Moreover, the consultant observed students not previously referred.

Statistical Analysis

Historical regression procedures were employed to obtain predicted levels of academic achievement for the 50 Ss. In this type of analysis the pre-test grade equivalent is used to generate the expected post-test achievement level. The predicted achievement scores were compared to the actual achievement scores obtained from the post-test, using a correlated t-test at the .05 level of significance to test the corresponding null hypothesis of no difference. The data was partitioned by SRA Test levels I and II. Level I consisted of grades 2 and 3; level II represented grades 4 and 5. The affective data was treated using a t-test.
RESULTS

The mean achievement scores for Reading Language and Math for Level I students (second and third grades) and corresponding t-values are shown in Table 1.

Insert Table 1 Here

Inspection of mean scores for reading reveals a 5.6 month difference between the predicted mean and the actual post test mean. This difference was found to be significant at the .01 level. The mean reading growth for the pre-post period (which was seven months in duration) was 8.7 months. In the area of language, the students surpassed the predicted level by 6 months. Again significance was reached at the .01 level. Moreover, these students realized a gain of 12 months across the pre-post of 7 months. Results in the math area indicate a mean achievement gain for the pre-post period of 8.1 months, with 3.4 months difference between the predicted post-test and actual post-test. The 3.4 month difference was significant beyond the .05 level.

Results presented in Table 2, indicated substantial achievement gains were made by level II students in each of the academic areas (Reading, Language and Math).

Insert Table 2 Here

7
The first variable, reading shows a difference between predicted-post and actual post of 1 year 3.8 months, significant at .01. The mean achievement growth in reading for the pre-post period was a remarkable, 1 year 7.0 months. Similar results were obtained in Language, with students achieving 1 year 3.8 months (.01) beyond the predicted level of achievement. In math, the difference was again significant at .01 level with level II students achieving 1 year 2.4 months beyond statistical prediction and 1 year 6 months growth during the testing period.

The figures presented in Tables 1 and 2 indicate that students achievement gains were well beyond the predicted grade equivalents for each of the academic skill areas, as measured by the SRA achievement test.

Results for the affective area although significant are not as positive as results in the achievement area. In Table 3, mean scores are presented on a pre-post test basis for three affective measures, Quay Behavior Problem Check List, Coopersmith Self-Esteem Inventory and Coopersmith Behavior Rating Scale.

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Insert Table 3 Here

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The Quay which was completed by the classroom teacher shows a mean decrease in observed problem behavior of 9.21 (P .01). The next affective variable, Coopersmith Self-Esteem Inventory which is a self-appraisal measure had mean gain of 10.77 between the pre-post period suggesting that the self-confidence level increased in a positive direction. In other words, students viewed themselves as being more confident as indicated in their responses to the individual items on the test.
On the Coopersmith Behavior Rating Scale which consists of 13 behavioral statements relating to self-esteem, a modest mean gain was obtained (3.38), significant at the .05 level.

Even though the affective results were significant in this study, caution must be exercised in drawing casual relationships or making generalizations concerning the behavioral changes obtained from the measures employed. In light of the design employed, plausible alternate hypothesis exist. These include events external to the project, natural maturation, and regression to the mean for the affective dimension of the study.

DISCUSSION AND CONCLUSION

It is the contention of these writers that the prevalence of unsuccessful remedial programs is partially attributed to the isolated nature in which instruction is presented, i.e., the remedial teacher working separately from the classroom teacher in terms of academic needs, instructional objectives and expectations. This viewpoint has provided the impetus for developing an instructional support program that focused on joint participation between teacher and consultant.

The results reported in the preceding section support the assumption that students receiving instruction from a specialist functioning both as an instructor and consultant to the classroom teacher, are provided more appropriately, sequenced learning activities, are given more feedback as to progress, and are generally perceived more positively by their classroom teachers.
Other partial explanations for the significant achievement gain may be related to the following:

1. Teachers participated in a number of training sessions conducted by the consultant, thus acquiring additional insight and competence in personalizing the learning environment.

2. Students received part of their remedial instruction in the regular class setting, utilizing average functioning peers in small group activities, a procedure which may reduce anxiety, foster a better self-image, and promote possible carry-over effects with peers (in work and play situations).

3. As a result of involving regular class teachers in the development of the Teacher-Consultant Model, teachers, for the most part, had a basic understanding of the objectives of model as well as a positive expectation. These two points are crucial to the success of any support program.

4. The consultants enthusiasm, eagerness, and productivity were kept high as a result of participating at weekly half-day training sessions.

As example of how the consultant worked within the instructional setting, interacting with the classroom teacher is magnified in the following procedure.

The consultant provided the teacher with materials that were largely self-directing and self-evaluating. Even though teachers consulted banks of behavioral objectives, learning packages, textbooks and other learning materials, the assistance of the consultant was needed to further tailor the material for individual programming. Occasionally the consultant freed a teacher by conducting a demonstration lesson, e.g., small group
solving, thus providing time for the preparation of guide sheets and
worksheets or some form of learning package which was used to direct
and stimulate pupils to do more complete and creative work. This
procedure had several advantages. First, it allowed the consultant
time for observing large group interaction that was helpful in deter-
mining the kind and level of materials needed; second, it provided the
classroom teacher with valuable time to develop curriculum; third, since
the consultant was exposed to the entire class, discussion of problems
and needs was facilitated, i.e., the consultant became more knowledge-
able of the complexities surrounding instruction or classroom management
for that particular class.

The activities discussed above are examples of how the consultant
assisted the classroom teachers in this model and perhaps why students
made significant achievement growth and modest behavior changes as
observed and measured by those instruments employer in the study. Although
this study was an initial attempt to explore a variation in suppo-tive
instruction, namely the consultant emphasis, considerable information was
obtained relating to student assessment, arranging instructional settings,
and systematic evaluation, to name a few. This information, in addition
to attitude, interaction and survey data collected will provide excellent
input toward revising and developing more effective strategies for teach-
ing children with learning difficulties.

Note: At the present time existing data is being further analyzed and
synthesized and should be available for dissemination in the fall
in monograph form.
TABLE 1
Means for Pre-Test, Predicted-Post Test, Actual-Post Test, and T-Values for Test Level 1 (grades 2,3)

<table>
<thead>
<tr>
<th>Domain</th>
<th>N</th>
<th>Pre-Test</th>
<th>Predicted-Post</th>
<th>Actual-Post-Test</th>
<th>Cor T-Val</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>34</td>
<td>1.76</td>
<td>2.07</td>
<td>2.63</td>
<td>3.9</td>
</tr>
<tr>
<td>Language</td>
<td>34</td>
<td>1.93</td>
<td>2.35</td>
<td>2.95</td>
<td>5.0</td>
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<tr>
<td>Math</td>
<td>34</td>
<td>2.03</td>
<td>2.50</td>
<td>2.84</td>
<td>2.2</td>
</tr>
</tbody>
</table>

*P  .05
**P .01
### TABLE 2

Means for Pre-Test, Predicted Post Test, Actual-Post Test, and T-Values for Test
Level II (grades 4, 5)

<table>
<thead>
<tr>
<th>Domain</th>
<th>N</th>
<th>Pre-Test g.e.</th>
<th>Predicted-Post g.e.</th>
<th>Actual-Post-Test g.e.</th>
<th>Correlated T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>16</td>
<td>2.56</td>
<td>2.88</td>
<td>4.26</td>
<td>4.52**</td>
</tr>
<tr>
<td>Language</td>
<td>15</td>
<td>2.53</td>
<td>2.84</td>
<td>4.28</td>
<td>5.20**</td>
</tr>
<tr>
<td>Math</td>
<td>13</td>
<td>2.80</td>
<td>3.16</td>
<td>4.40</td>
<td>7.33**</td>
</tr>
</tbody>
</table>

*p .05
**p .01
TABLE 3

Means for Pre-Post Tests and F-Ratio for Affective Measures

<table>
<thead>
<tr>
<th>Domain</th>
<th>N</th>
<th>Pre</th>
<th>Post</th>
<th>Difference</th>
<th>Correlated T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quay</td>
<td>47</td>
<td>24.61</td>
<td>15.40</td>
<td>9.21</td>
<td>4.47**</td>
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<tr>
<td>*Self-Esteem</td>
<td>13</td>
<td>54.46</td>
<td>65.23</td>
<td>10.77</td>
<td>2.64*</td>
</tr>
<tr>
<td>*Coopersmith BRS</td>
<td>32</td>
<td>42.46</td>
<td>45.84</td>
<td>3.38</td>
<td>2.24*</td>
</tr>
</tbody>
</table>

*P < .05
**P < .01

*SEI administered to 4th and 5th graders
*CBRS administered to 2nd and 3rd graders
BIBLIOGRAPHY


