The Efficacy Of Conjoint Behavioral Consultation-Student Involvement (CBC-S) On Spelling Homework In The Middle School Setting

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Literature Review

Language Arts Skills
- Essential for school success (Graham & Harris, 2005).
- Means by which students demonstrate academic knowledge acquisition.
- Developed by effective instructional abilities.
- Requires strong spelling skills, key component of language arts (Graham et al., 1997).

Spelling skills
- Poor spelling skills effects children's writing development (Graham & Harris, 2005).
- Spelling instruction increases elementary students' mastery of sentence construction and volume of writing production (Graham et al., 2000; Graham et al., 2002; Graham & Harris, 2005).
- Self-monitoring effective at increasing practicing of spelling words of elementary students with ADHD/LD (Harris, 1986; Harris et al., 2005).
- Parent involvement through parent tutoring improved elementary students' spelling performance (Jason et al., 1993; Thurston & Dasta, 1990).
- Contingent reinforcement for meeting spelling goals effective for older elementary students (Goldberg & Shapiro, 1995; Shapiro & Goldberg, 1986, 1990).
- Completing spelling homework and completing assignments accurately strengthens skills practiced in classroom (Power, Karustis, & Balschuck, 2001).

Interventions To Address Poor Academic Progress
- Multicomponent interventions more effective.
- Graham & Harris, 2005; Harris et al., 2005; Weiner et al., 1998).
- Include parent and teacher involvement.
- Active student involvement.
- Homework intervention.
- Conjoint behavioral consultation (Galloway & Sheridan, 1994; Weiner et al., 1998).

Homework Interventions
- Homework intervention should focus on increasing homework completion. Completing homework and completing accurately indicates a higher level of interest in school (Berends, 1995; Manlove, 1998).
- Homework intervention program implemented with middle school students.
- Components included: student training, positive reinforcement, parent homework notebook, and student homework folder.
- Average homework completion rates increased from 2% to 92%, homework accuracy increased from 2% to 89% (Cancio et al., 2004).

Other Studies
- Reinforcement systems have increased student homework completion and accuracy (Harris & Sherman, 1974; Madaus et al., 2003; Schellenberg et al., 1981).
- Home-school notes or daily report cards were effective at increasing homework completion and accuracy (Kelly, 1990; Kelly & Kahle, 1995; Strukoff et al., 1988; Trice et al., 1983; Wager, 2001).

Conjoint Behavioral Consultation
- Conjoint behavioral consultation (CBC; Sheridan, Krattchow, & Bergan, 1996) is an indirect, structured model of service delivery whereby parents, teachers, and support staff are joined to work together to address the academic, social, or behavioral needs of an individual child for whom all parties share some responsibility. CBC is comprised of four stages: needs identification, needs analysis, plan implementation, and plan evaluation.
- CBC encompasses many of the components that have been shown to prevent school dropout. These components include: (a) encouraging parent involvement in the child’s academic progress; (b) encouraging social and emotional progress in the school setting; (c) providing opportunities for the child to participate in both the development and evaluation of the intervention; and (d) providing positive experiences for the consultants and the child to build partnerships together in an effort to support both the intervention and the child (Christenson & Sheridan, 2001).
- CBC with student involvement, or CBC-S, addresses the student’s academic needs through the consultation process itself and offers the student the opportunity to increase his or her sense of autonomy through decision-making and participation in academic planning. Involving the students in both problem-solving meetings and intervention planning may increase their sense of engagement in both the school process and in the culture of the school itself.
- In CBC-S, students were involved and included as equal participants in the interviews, including the CNI or needs identification, the CNAI or needs analysis, and the CPEI or plan evaluation interviews.
- CBC has been found to be successful in developing interventions to increase appropriate behaviors in students both at home and at school (Sheridan, 1997), and high acceptance has been reported (Freer & Watson, 1999, and Sheridan & Steck, 1995).
- CBC seems to be particularly effective with academically under-achieving students (Galloway & Sheridan, 1994 and Weiner, Sheridan, & Jenson, 1998).
- Further research seems warranted to further determine the effectiveness of CBC-S on homework completion. Further research may also demonstrate that CBC-S may increase overall student engagement in school.

Methods

Research Questions
1) What is the effect of a CBC-S homework intervention on students' class attendance and homework completion?
2) What is the effect of a CBC-S homework intervention on significant measures of academic progress (i.e., students' overall class grade)?
3) How socially acceptable, effective, and helpful is the CBC-S homework intervention model for parents?
4) How socially acceptable, effective, and helpful is the CBC-S homework intervention model for teachers?
5) How socially acceptable, effective, and helpful is the CBC-S homework intervention model for students?

Participants
- 3 male student participants and 1 female student participant in the 6th grade, ages 11-12.
- The male students were European-American and the female student was identified as Native American.
- All students attended a middle school in a medium-sized, Midwestern city.

Inclusionary criteria:
- In-class grade of 70% or below in spelling classes.
- Overall homework completion rate of 25% or below.

Exclusionary criteria:
- Not proficient in English.
- Students with behavior disorders, learning disabilities, attention hyperactivity disorder, mental retardation, visual and auditory impairments, a diagnosis of major mental illness, and speech language disorders.

Design
- Multiple-baseline across participants design.
- Baseline was initiated for all students simultaneously. The students' intervention phases were staggered by weeks.

Procedures
- Independent Variables
  - Conjoint behavioral consultation (CBC).
  - A homework intervention component including a monitoring/home-note sheet and a positive reinforcement schedule.
- Dependent Variables
  - Homework completion defined as the number of items completed per spelling homework assignment.
  - Homework accuracy defined as the number of items completed accurately on the daily homework.
  - Homework assignments were assigned and collected 4 times a week and graded by the teacher.
  - The consultant made copies of the assignment and also graded them for accuracy and number of problems completed.

Social validity of the intervention was assessed via several means:
- Students' class grades prior to and at the end of the consultation session.
- Consultants' perceptions of consultant effectiveness.
- Consultants' perceptions of the acceptability of the CBC model.
- Students' perceived effectiveness and acceptability of the intervention.

Results

Table 1

<p>| Homework Completion Mean Rates of Homework Completion across Baseline, Treatment, and Follow-up Phases |
|----------------------------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Student</th>
<th>Baseline</th>
<th>Treatment</th>
<th>Follow-up</th>
<th>PND</th>
</tr>
</thead>
<tbody>
<tr>
<td>JN</td>
<td>70 (46)</td>
<td>100 (5)</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>17 (41)</td>
<td>18 (41)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CM</td>
<td>45 (52)</td>
<td>85 (38)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: All values for baseline, treatment and follow-up are mean percentages across observations within phases. Standard deviations are in parentheses. **PND = Percentage of non-overlapping data between baseline and treatment phases (Fenney & Goss, 1999).

Table 2

<p>| Homework Completion Mean Rates of Homework Accuracy across Baseline, Treatment, and Follow-up Phases |
|--------------------------------------------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Student</th>
<th>Baseline</th>
<th>Treatment</th>
<th>Follow-up</th>
<th>PND</th>
</tr>
</thead>
<tbody>
<tr>
<td>JN</td>
<td>94 (7)</td>
<td>95 (4)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CM</td>
<td>98 (4)</td>
<td>90 (130)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: All values for baseline, treatment and follow-up are mean percentages across observations within phases. Standard deviations are in parentheses. **PND = Percentage of non-overlapping data between baseline and treatment phases (Fenney & Goss, 1994).

Discussion
- This study demonstrated that CBC can be used as an effective tool in increasing student engagement as measured by homework completion and homework accuracy.
- The CBC-mediated intervention produced a positive effect on homework completion, and a negative treatment effect on homework accuracy for students 1 and 2. If homework is not completed, data on accuracy of spelling knowledge is not available to score.
- Teachers, parents and students rated the CBC model favorably and indicated that it was helpful in addressing the target behaviors. They also reported that the consultant was helpful and effective at addressing the targeted behaviors. Students' class grades prior to and at the end of the consultation session improved from C's and F's to C's and B's.
- Student 2 displayed several behaviors such as staying away from home and not returning to his home after school, and significant oppositional behaviors. This has an effect on the time allotted for homework completion and on the delivery of reinforcers in the home setting.
- Improvement of spelling grades is not sole indicator of increased academic performance.
- Total language arts grade increased but was based on tests, writing projects and spelling homework and accuracy.
- Spelling homework and homework accuracy only one of three grade components brings into question validity of using homework as sole measure of academic performance.

Limitations of Research
- The sample of students was quite small. The researcher began the research in the second semester of the school year. Time constraints were such that only three students fit the criteria.
- CBC future research should ensure that students involved in future studies do have persistent issues with class attendance to assess if the intervention does have an actual effect on increasing attendance.
- The effect of CBC-S on student’s homework completion and accuracy is difficult to measure. The improvements may be due to the student’s awareness that reinforcement for work completion and accuracy would be delivered during the treatment session.
- Baseline phases should have been extended until there were at least 3 consecutive data points within and between multiple baseline phases, prior to the implementation of the treatment.

Implications of Future Research
- Future research should initiate baseline phases at the beginning of the school year to ensure there is time to assess for baseline stability prior to the implementation of the intervention phase.
- Assessing the effect of the CBC-S and the homework intervention package could be assessed across several academic topics, including mathematics. This would provide essential information on the generalizability on the increased level of student engagement as measured by homework completion and accuracy.