

Running Head: Teacher Acceptance of Interventions

Teacher Acceptance of Interventions Implemented for Students
with Learning Disabilities

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Abstract

Ninety teachers of students with learning disabilities were asked their opinions on one of three research-based interventions for learning disabilities: Cooperative Learning, Story Retelling and School-Home Notes (Rathvon, 1999). The purpose of the study was to measure teacher acceptance ratings of these interventions and whether teacher demographic information affected acceptance. Results indicated that teachers were more accepting of Story Retelling and Cooperative Learning interventions than School-Home Notes intervention. Analysis of the demographic variables revealed a moderate, statistically significant negative correlation between years working and acceptance of School-Home Notes. Limitations of the study and future directions for research are discussed.

Teacher Acceptance of Interventions Implemented for Students with Learning Disabilities

One of the major roles of a school psychologist is to help design quality interventions for teachers to use in a classroom (Upah & Tilly, 2002). A major factor that affects an intervention's success is teacher acceptance. Rathvon (1999) described acceptability as an important factor in whether a teacher will use an intervention. It is critical for school psychologists, who develop interventions, to understand how much a teacher believes in an intervention. The degree of the teacher's belief in an intervention's success is formed when it is consistent with the consultee's theoretical and educational beliefs, if the intervention is efficient, and if the teacher believes it is worth his or her time and effort to implement. Rathvon has argued that if the teacher is not convinced the time to implement an intervention is worthwhile, he or she may not accept the intervention. If the school psychologist can understand the teacher's theoretical beliefs and find interventions that match these beliefs, the intervention has a better chance of being successful.

Factors that Impact Teacher Acceptance

Teachers determine an intervention's effectiveness based on personal experience, advice given by other teachers, or having observed the intervention in a classroom. These experiences support teachers' choices of which interventions will be effective for them. Without these experiences, a teacher may be less inclined to use an intervention. As a school psychologist, it is important to ask which interventions the teacher has tried with other students in previous situations.

There are many reasons why a teacher may believe in an intervention and find it acceptable. Interventions are more likely to be accepted when described in a pragmatic and logical way. Background knowledge on behaviors, experience with the interventions, and understanding the amount of involvement required all impact acceptability of interventions (Elliot, 1988). Clearly communicating the reasons why an intervention would be effective also improves the acceptance of an intervention to teachers.

Positive intervention treatments are more acceptable to teachers than negative ones. Fairbanks and Stinnett (1997) examined teachers', school psychologists', and school social workers' ratings of treatment acceptability. All three groups are involved in referring, implementing and evaluating behavioral interventions for students in school settings. The Fairbanks and Stinnett study included a vignette describing a third grade boy who was labeled one of three different ways: Learning Disability (LD), Behavioral Disordered (BD), and Attention Deficit Disorder (ADD). After reading the vignette, one of two different behavioral intervention techniques was described. The positive intervention consisted of verbal praise and a token economy given to increase the frequency of appropriate behaviors. The negative intervention included a time out from the reinforcement program and verbal praise (Fairbanks and Stinnett, 1997).

The results of the Fairbanks and Stinnett study suggest that positive interventions rated more acceptable than negative based interventions. There were no significant variances in acceptance rates among teachers, school psychologists and school social workers. There was, however, significant variance on the views of the negative interventions. Teachers' acceptability ratings were significantly higher than ratings of both school psychologists and school social workers on both positive and negative

interventions. School psychologists' acceptability ratings were higher than ratings of school social workers (Fairbanks and Stinnett, 1997). The study showed people in the education field responsible for choosing interventions were sensitive to using intervention techniques that would not adversely affect the child. It was also found that educators strive to help a child get the most out of education services without using stressful or invasive techniques. Besides these assumptions, the authors found the labels given to the student did not affect or bias the choice of intervention.

It has also been suggested that there will be more acceptance of an intervention when it is viewed as fair, reasonable, non-intrusive and within an acceptable range for use (Stinnett, Crawford, Gillespie, Cruce & Langford, 2001). These authors found that treatment acceptability was affected by high school location. Participants from rural high schools judged treatments more acceptable than participants from urban high schools. The authors concluded this may have occurred because participants who graduated from urban high schools had more opportunities and experiences with diverse people and behavior functioning range.

Selection of Interventions

The interventions chosen for this current study were selected because they have been deemed effective in helping children who need assistance in the classroom (Rathvon, 1999). The purpose of the study was to determine which of the three interventions is most accepted by teachers. The first intervention chosen, School-Home Notes, aims to keep the communication open with notes between school and home on how the student is doing in school. This intervention requires a small allotment of time to implement, but it can improve school-home collaboration in monitoring students'

homework (Rathvon). The next intervention selected was Story Retelling. This intervention which requires students to read a story, pick out the important ideas, complete an outline of the story and then retell the story to a peer. Research has found story retelling results in greater ability to recall information from text at a later date for both literal and inferential questions. Story Retelling improves comprehension while exercising the student's verbal rehearsal ability (Rathvon). In a study by Gambrell, Pfeiffer and Wilson (2001), story recall was found to be favorable and significant in the ability of the retelling treatment group to answer both immediate and delayed information. The third intervention selected was Cooperative Learning. Cooperative Learning consists of group members playing an active role in working together for the same shared goal. Each member is relied upon to be responsible, positively interdependent, accountable, and a communicative and reflective member of the group. Research on Cooperative Learning has shown it to be effective in improving learning for students with learning disabilities (Johnson & Johnson, 1999).

Research Questions

Teacher acceptance is needed for an intervention to work. It is important to continue to investigate teachers' opinions of interventions and understand why a teacher would choose to accept an intervention. Reasons for teacher acceptance were explored in this study in order to further understand which interventions were most accepted by teachers for use with students with learning disabilities.

This study addressed the following research questions:

- a) Which of the following intervention approaches will teachers of students with disabilities view as most acceptable: Story Retelling, Cooperative Learning and School-Home Notes?
- b) Do the number of years of educational experience, gender or other demographic characteristics affect acceptance rates of intervention?

It was hypothesized that the study would help educators understand what makes an intervention acceptable. Investigating teacher acceptance of interventions also helps researchers and school psychologists understand which interventions should continue to be recommended to teachers in the future.

Method

Participants

For the study, 300 questionnaires were sent to randomly selected teachers of students with disabilities throughout the state of Wisconsin. One hundred questionnaires were returned which resulted in a 33% return rate. Of the returned questionnaires, eighty-four percent of the questionnaires were completed by females, 9 % males and 7% unknown (declined to comment). The respondent's ethnicity consisted of 90% Caucasian, 1% African-American, 1% Asian-American and 8% unknown (declined to comment). Location of employment for the participants included: rural area (49%), suburban area (25%), urban area (17%) and 9% unknown (declined to comment). The participants years of teaching experience included: '0 to 3' (3%), '4 to 7' (15%), '8 to 11' (17%), '12 to 15' (8%), '16 to 19' (9%), '20 or more' years (42%) and 6% unknown (declined to comment).

Materials

Each participant received an envelope containing the following items:

- a) A cover letter (see appendix A)
- b) A vignette which described a boy with a learning disability who had been found eligible for special education services, plus one of three interventions. (see appendixes D, E, F and G)
- c) Teacher acceptance questionnaire (See appendix B and C)

Procedures

A vignette, description of one of three interventions (Story Retelling, Cooperative Learning and School-Home Notes), and questionnaires were sent to 300 randomly selected teachers. There were 100 of each intervention description used in the study to total 300. The intervention selected for the participants was randomly selected. There were 100 questionnaires returned. The percentage return rate, for each intervention, was: 42% Story Retelling, 27% School Home Notes and 31% Cooperative Learning with an overall return rate of 33%. Items used for the questionnaire were based on Rathvon's (1999) factors of treatment acceptance. The contributing factors are: theoretical belief, time, motivation, and effectiveness of intervention.

The negatively phrased items (e.g. 'this type of intervention would disrupt classroom life') were reverse-scored. Regarding internal reliability, the Cronbach's Alpha statistic for teacher acceptance on all three intervention scales together was .89. This showed good to excellent levels of internal reliability. The coefficient alpha statistics for teacher acceptance for each intervention (Story Retelling, School-Home Notes, and Cooperative Learning) were .89, .92 and .83, respectively, which demonstrated good to excellent levels of internal reliability within the three individual interventions.

Results

Analyses were done to identify any demographic variable differences between the three different groups. Chi-square tests were conducted on the following variables: school location, ethnicity, gender, and years working. No statistically significant differences in demographic information between groups were found for location [$X(6), N = 100 = .107, p > .05$], ethnicity [$X(6), N = 100 = .201, p > .05$], gender [$X(4), N = 100 = .232, p > .05$], or years working [$X(12), N = 100 = .055, p > .05$]. The three groups can be considered equivalent in regards to the demographic information of the study participants based on these variables. Any differences found for acceptability ratings are not due to differences in demographic information between the three groups. The results of the specific research questions follow:

Research Question #1: Which of the following intervention approaches will teachers of students with disabilities view as most acceptable: Story Retelling, Cooperative Learning and School-Home Notes?

A one-way analysis of variance was performed to determine the intervention approach teachers of students with disabilities view as most acceptable. There was a statistically significant overall variation in acceptance of the intervention ($F = 4.870, p < .01$). (See Table 1 for Descriptives). Post-Hoc Bonferroni analyses revealed no significant difference in acceptance between Cooperative Learning and Story Retelling ($p = 1.000$). There was a significant difference in acceptance levels between Story Retelling and School-Home Notes ($p = .050$), and Cooperative Learning and School-Home Notes ($p = .011$). Given these results, it appears teachers were more accepting of the intervention

Table 1

Teacher Acceptability: Descriptives

	N	Mean	Standard Deviation
1. Story Retelling	42	22.21	3.745
2. School-Home Notes	27	19.67	5.218
3. Cooperative Learning	31	23.00	3.899

Note: Higher mean scores = greater teacher acceptability

Cooperative Learning and Story Retelling and less accepting of School-Home Notes. (See Table 2 for ANOVA analysis).

Analysis of Variance was also performed to determine which items, if any, were more influential in affecting a teacher's acceptance of the intervention. The following items were found to significantly affect a teacher's acceptance of the intervention. (See Table 3 for ANOVA results). For the item, 'regular education teachers would accept this idea,' study participants considered Story Retelling as more acceptable than School-Home Notes $F(7.205, 100), p = .001$. For the item, 'would not be too intrusive for regular education teachers,' Cooperative Learning was rated more acceptable by participants than School-Home Notes, $F(7.391, 100), p = .001$. On the item, the 'intervention would not disrupt classroom life,' respondents rated Story Retelling to be more disrupting to classroom life than Cooperative Learning, $F(4.185, 100), p < .05$. These statements were not only significant in determining acceptance of the interventions, but also indicated the following: teachers of students with

Table 2

ANOVA Acceptability and Intervention (Bonferroni)

Intervention	Intervention	Mean Difference	Standard Error	Sig.
Story Retelling	School-Home Notes	2.548	1.0444	.050*
Story Retelling	Cooperative Learning	-.786	1.003	1.000
School-Home Notes	Cooperative Learning	-3.333	1.115	.011*

* The mean difference is significant at the .05 level.

disabilities strongly believe School-Home Notes would be less accepted and too intrusive for regular education teachers to use. It was also found Story Retelling would be more disrupting to classroom life than Cooperative Learning yet still more accepted than School-Home Notes.

Research Question #2: Do the number of years of educational experience, gender or other demographic characteristics affect acceptance of intervention?

To understand if acceptability levels vary significantly by geographic location, a one-way analysis of variance was performed for each intervention: Story Retelling, School-Home Notes, and Cooperative Learning. No differences in means were found between rural, suburban, and urban school locations using a significance level of .05. An independent samples t-test was completed to better understand acceptance of intervention (mean total points) between males and females for all three interventions. Results indicated no significant difference ($p > .05$) between males and females on acceptance of intervention for either School-Home Notes [Female ($N = 21$), Male ($N=3$)] or Cooperative Learning [Female ($N = 25$), Male ($N = 5$)]. The test could not be completed

on Story Retelling because only one male completed and returned the questionnaire for that intervention.

To determine whether years of work experience were related to acceptance, bivariate correlations were calculated for each intervention. No statistically significant correlation was found between years of work experience and acceptance for either Story Retelling ($r = .135, p > .05$) or Cooperative Learning ($r = -.193, p > .05$). A moderate, negative correlation was found between acceptability and years working for the intervention School-Home Notes ($r = -.495, p < .05$). As years of experience increased, acceptance levels of this intervention decreased. The teachers with more years of experience in this sample may often view School-Home Notes as a less effective intervention to help students with learning disabilities.

Discussion

Of the three interventions, School-Home Notes was least accepted by teachers of students with disabilities. Teachers did not believe their regular education colleagues would accept the intervention School-Home Notes as much as the other two interventions. Factors found to be important in determining acceptance of an intervention were: acceptance by regular education teachers, intrusiveness of intervention for regular education teachers and disruption of classroom life. This supports Rathvon's (1999) components of intervention acceptance and how acceptance is partly based on how it will affect other teachers. Teachers are also more likely to accept interventions that will not disrupt or change classroom life. The findings from this study create a better understanding of what teachers look for in interventions. Research on intervention

acceptance not only helps teachers in the classroom but it also increases the helpfulness of a school psychologist's services in a school.

Although teachers accepted Story Retelling and Cooperative Learning more than School-Home Notes, certain factors may have affected the results. The teachers were given a summary of only one intervention. If they had been given descriptions of all three interventions, their acceptance of the intervention may have been affected. Teachers might disagree with all three interventions but may have picked one they disagreed with the least. A summary for the intervention included was provided, but some teachers may have preferred a more detailed description of the requirements to implement the intervention.

This study looked at only three interventions, but it further links research on interventions used for students with disabilities to the present use and acceptance of these interventions by teachers. It is recommended that future research continue to explore how teachers come to accept and implement interventions in their classrooms. Surveying more teachers from other states on their opinions of interventions will further contribute to understanding intervention acceptance and effectiveness. Understanding teachers' reasons for why they accept an intervention creates better communication between school psychologists and teachers which will more effectively help students with learning disabilities in the future.

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Appendix A:

University of Wisconsin-River Falls

August 27, 2005

Dear Education Professional,

I am a graduate student in the School Psychology Program at the University of Wisconsin-River Falls. The research area I am working on involves looking at learning disability teachers' views on the acceptability of interventions for students with learning disabilities. I would greatly appreciate your input and opinion on this subject.

Attached to this letter is a brief vignette and questionnaire. The vignette describes a boy with a learning disability. The case study may not include all the information you would want to know about the student when determining an intervention plan. If you choose to participate, the study takes about 5-10 minutes to complete. I ask that you please do not put your name on the survey. The questionnaire/demographic information should be returned in the postage paid return envelope provided.

Your participation in this survey will remain anonymous and is completely voluntary. There is not expected to be any risk to you in completing this survey. The expected benefit of the research is to gain information about teacher acceptance of intervention strategies for students with learning disabilities.

This research project has been approved by the UW-River Falls Institutional Review Board for the Protection of Human Subjects, protocol # H04-113. If you have any questions, please contact Bill Campbell, Director of Grants and Research at 715/425-3195.

Thank you for your time and cooperation. Would you please return this survey within 4 days.

Sincerely,

Jackie Reichert
Enc. 3

Appendix B:

Please return in stamped envelope.

Please answer the following questions by circling your answer.

1. I would be motivated to help implement this intervention with this student.

Strongly disagree___ disagree___ agree___ strongly agree___

2. I think the regular education classroom teacher would accept this idea.

Strongly disagree___ disagree___ agree___ strongly agree___

3. This intervention is too intrusive for most regular education classrooms/teachers.

Strongly disagree___ disagree___ agree___ strongly agree___

4. The procedures involved with this intervention are reasonable.

Strongly disagree___ disagree___ agree___ strongly agree___

5. I would expect resistance to this approach in regular education classrooms.

Strongly disagree___ disagree___ agree___ strongly agree___

6. This type of intervention would disrupt classroom life.

Strongly disagree___ disagree___ agree___ strongly agree___

7. I would use this intervention in my class because it fits with my beliefs/philosophies in how to help students with learning disabilities.

Strongly disagree___ disagree___ agree___ strongly agree___

8. I find the amount of time to implement this intervention to be acceptable.

Strongly disagree___ disagree___ agree___ strongly agree___

Thank you for taking the time to help me with my study.

Appendix C:

Please return in stamped envelope.

Demographics

Please mark the most appropriate answer

What is your profession?

School Psychologists _____

Special Education Teacher _____

Learning Disability Teacher _____

Other _____

How many years have you been working in your profession?

0-3_____ 4-7_____ 8-11_____ 12-15_____ 16-19_____ 20 or more_____

Where is your school located?

Rural_____ Suburban_____ Urban_____

What is your gender?

Female_____ Male_____

What is your ethnicity?

African American_____ Asian American_____ Caucasian _____

Hispanic_____ Native American_____ Other (Please Specify)_____

Appendix D:

Michael is a ten year old fifth grade student at Wellside Elementary School who was having difficulty with reading assignments and keeping up with his peers. Michael was forgetting his assignments at home or not finishing them. His teacher felt Michael may have a learning disability but attempted to help Michael by giving him extra time to finish reading assignments. Because he was still struggling, Michael's teacher advised his parents to get Michael tested by the School Psychologist, who then observed and tested Michael. Michael's test score was average on his full scale intelligence test but his score on the standardized test indicated a severe discrepancy in reading. Michael also was found to have difficulty with fluency and reading comprehension. Michael was found eligible for Special Education Services to help with his learning disability. Michael will be spending time in a resource room with other students with learning disabilities but the majority of school time will be in his regular education class. His teacher feels support from others will be minimal in his regular education. In consulting with the school psychologist, an intervention was suggested which may be used in any of Michael's classrooms to improve his academic performance.

AppendixE:

The intervention called School-Home Notes is designed to improve homework completion. The teacher will inform the class they will be given notes about their homework which should be given to their parents to be signed. The following information will be on the notes:

- The notes will have the rate of homework completed from the last 20 assignments.
- The notes will also have an evaluative statement such as: 90% submission rate and over = excellent; 80%= good; 70%=unsatisfactory.
- The importance of homework for skill development will be described.
- Parents will be asked to sign and have their child return the note to school.

It was recommended that this procedure be tried daily for 8 weeks.

Appendix F:

The intervention called Story Retelling is designed to improve reading comprehension and recall of stories. The intervention consists of the following steps:

- Students will be informed they will read a story and pick out the important ideas.
- After reading the story in silence, students will complete an outline either individually or together with the class. Eventually the students should be able to create outlines on their own.
- After the outline is completed, the students will work in pairs to retell the story to each other.

It was recommended that this procedure be tried daily for 8 weeks.

Appendix G:

The intervention is called Cooperative Learning. The goal is to get students to work together and play equal, supportive roles in learning and working on projects. Teachers can implement this intervention method into any subject area and the time it takes to implement it depends on the assignment. Cooperative learning consists of the following steps:

- All students will be randomly assigned in groups of 3 to 4. Each group creates a name for themselves. Groups will work together for up to 8 weeks.
- All students work together on reading assignments or projects with each member having a role to play. One student may be the recorder, who records the answers while another is the monitor, who makes sure each member is contributing to the group. The others will have their own roles to be determined by the teacher.
- While working on assignments, the teacher walks around the room praising groups who are on task and their ideas and helps with conflicts.
- After the project is completed, the students reflect and grade themselves on their performance and look at positive and negative things they did and how they can improve on future group work.

It was recommended that this procedure be tried daily for 8 weeks.