

Idaho Department of Education



Program Evaluation Report  
Results-Based Model (RBM)  
**2002-2003**

Bureau of Special Education  
**Year 4 Implementation**

Idaho State Improvement Grant  
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## Executive Summary 2002-2003

The Program Evaluation has identified the following as central findings driven by data collected over the 2002-2003 academic year relative to the impact of RBM within pilot schools.

### RBM Best Practices Effects/Outcomes X RBM Process Variables

These findings pertain to Appendices A-G in this document which analyze effects of primary RBM process variables upon participants evaluations of Best Practice measures.

- 1) **Professional Roles & RBM Best Practices (Appendix A).** Analysis did not reveal significant effects relative to this process variable. While some variations exist relative to the roles of participants (e.g. school psychologist, special education teachers, general education teachers), they do not reveal a strong systematic association with each other. In other words, this data indicates a general similarity in perceptions of RBM Best Practices and Outcomes among the range of participants studied with no particular role demonstrating greater or lesser evaluations of these effects/outcome measures.
- 2) **Educational Level/Setting (Appendix B).** Analysis indicated a moderate to strong effect relative to this process variable (Secondary vs. Middle School/High School). Of the 11 effects/outcomes measures, 6 were significant ( $p < .05$ ), while 3 additional measures approached significance ( $p < .10$ ). Specifically, measures that were significant: Problem-Solving Team Collaboration, Functional Assessment, Outcome-Oriented Interventions, Data-Based Decision-Making, Teacher Efficacy Learner Success, Academic Results with the Elementary settings indicating greater levels of positive evaluations of these variables than secondary settings.
- 3) **Years of RBM Implementation (Appendix C).** Analysis indicated highly significant and consistent effects across all effects/outcome measures as a function of years involved with implementation of RBM ( $p < .02$ ). Some variations in responses were noted, however. In all, 3<sup>rd</sup> and 4<sup>th</sup> year RBM Pilot Site participants evaluated the following measures most favorably: Parental Involvement, Teacher Efficacy for Learner Success, Overall RBM Effects, Academic Results and Overall Satisfaction with RBM in improving delivery of assistance to special needs/at-risk students.
- 4) **Team Members Level of Implementation (Appendix D).** Analysis indicated that 9 of the 11 measures were significant as a function of implementation levels of staff. Results indicated more favorable evaluation of measures effects by participants using RBM in a "Routine" fashion or working toward "Refinement" of the RBM process with respect to: Overall RBM Effects, Parental Involvement, Problem-Solving Team Collaboration, Functional Assessment, Outcome-Oriented Interventions, Data-Based Decision-Making, Teacher Efficacy for Learner Success, Academic Results, Behavioral Results, and Overall Satisfaction with RBM in improving delivery of assistance to special needs/at-risk students.
- 5) **Team Members Level of Involvement in Implementation (Appendix E).** Analysis indicated four effects/outcome measures significantly affected by this variable, i.e. Problem-Solving Team Collaboration, Teacher Efficacy for Learner Success, RBM Overall Effect, and Behavioral Results. In all, participants who were Highly Involved with RBM Implementation perceived greater Problem-solving Team Collaboration, Teacher Efficacy in promoting success, Overall Satisfaction in getting results with RBM, and increased effects upon Behavioral concerns.
- 6) **Teacher Efficacy for Learner Success (Appendix F).** This variable examines how variations in levels of perceived "efficacy", regardless of how they are generated, are associated with evaluations of results/outcome measures addressed by the RBM approach. Analysis revealed significant effects for 8 of 10 measures included in this analysis. Teachers ratings of efficacy were categorized in to three levels, i.e. High Efficacy, Moderate Efficacy, and Low Efficacy for learner success. As TELS increased, participants perception of their degree of involvement also increased significantly. Among other measures of

results/effects, the following also became for favorable or positive: Parental Involvement, Problem-Solving Team Collaboration, Functional Assessment, Outcome-Oriented Intervention, Data-Based Decision-Making, Overall Satisfaction with RBM, and Overall Evaluation of RBM Effects.

### **Idaho Reading Indicator: Student Reading Skills**

- 7) From Idaho RBM Pilot schools in AY 2002-2003, a sample of over 1,400 K-3 students demonstrating problematic reading skills (Category 1 or 2) on the Idaho Reading Indicator (IRI) were selected. Comparisons between students on a RBM Intervention Plan for a minimum of 9 weeks in the school year for Reading as well as those with reading concerns, but who did not have an RBM Intervention Plan were analyzed using Multivariate Analysis of Covariance (MANOCOVA) and Analysis of Covariance (ANOCOVA) statistical procedures (Controlling for Repeated Measures on IRI, Years of Implementation & Resources and Needs of the Pilot's School District) revealing a significant effect ( $p < .001$ ) as a function of students RBM Intervention Plans. Specifically, those receiving I-Plan interventions increased overall scores on the IRI by 24 (RBM I-Plan Mean = 87.597 vs. Non RBM I-Plan Mean = 63.189) significant at the .0001 level. Mean comparisons using a pooled variance procedure, revealed an Effect Size of 1.13 (practical significance) placing the RBM Intervention cohort at about the 87<sup>th</sup> percentile compared to the 50<sup>th</sup> percentile of the comparison group.

### **Special Education Placement Rates in Idaho's Schools**

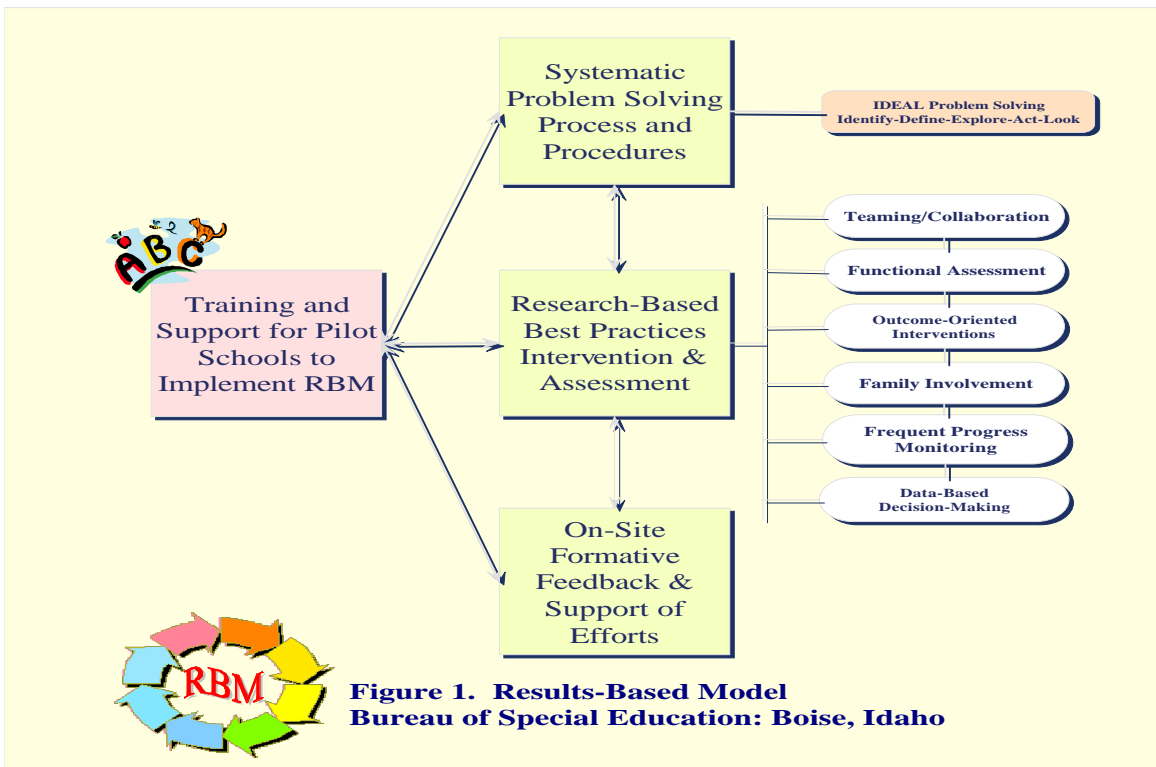
- 8) Analysis of Special Education Placement Rates failed to reveal a consistent systematic relationship within RBM Pilot Sites. Data does not indicate at present either a systematic increase or decrease in placement rates within RBM Pilot Sites.

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## Introduction

The State of Idaho, Bureau of Special Education, has been piloting the Results-Based Model (RBM) as a research-based, best-practices problem solving approach to support learning and success for students experiencing academic or behavioral concerns during the last four years. RBM attempts to integrate research-based components relating to family involvement, teaming and collaboration, functional assessment, outcome-oriented intervention, and data-based decision-making (Nunn & McMahon, 2000) to improve results for students with significant academic and behavioral concerns. As such, RBM is an approach well-grounded in theory, research, and practice. The current report summarizes the project evaluation results during the 4<sup>th</sup> year of this implementation effort. Team members from RBM Pilot Schools implementing the approach were assessed. Data from **55** teams involving **359** members, was gathered to provide analysis of RBM best practices effects to date. In addition, the analysis of the effect of RBM Intervention Plans upon Idaho Reading Indicator (IRI) scores sampled more than 1400 students from across the state with significant reading skills concerns in grades K-3. Statistical information regarding special education placement rates obtained from the local schools is also reviewed in this document. Figure 1 below illustrates the general components of RBM as studied in this document with Table 1 showing the main variables examined in the survey findings of this report.



**Table 1. Results-Based Model (RBM) Best Practices Measures**

<p>Parental Involvement (PI)</p>	<p>The degree to which parents are positively involved in planning for their children has a vital bearing upon the likelihood that interventions will prove effective (Powell-Smith &amp; Stollar, 1997). Fuller &amp; Olson (1998) have noted, "Parents must be team members in the education of their children (pg. 9)."</p>	<ul style="list-style-type: none"> <li>• Parents are active participants on problem solving teams.</li> <li>• Parents feel encouraged to say what they think.</li> <li>• Intervention ideas generated by parents are often implemented by the team.</li> </ul>
<p>Problem Solving Teams and Collaboration (PSTC)</p>	<p>Teams coordinate the ongoing process of identifying concerns, developing interventions, and determining the results of interventions. Problem solving teams, therefore, are critical elements in extending intellectual resources used to find solutions to complex learning and adjustment concerns in schools (Pugach &amp; Johnson, 1995).</p>	<ul style="list-style-type: none"> <li>• "Problems" are defined clearly and objectively in team meetings.</li> <li>• Everyone at our team meeting participates in a meaningful way.</li> <li>• Use of the IDEAL problem-solving approach.</li> </ul>
<p>Functional Assessment (FA)</p>	<p>Functional assessment is designed to develop and evaluate interventions complementary to the problem solving approach by determining discrete areas in which intervention may be usefully applied (Batsche &amp; Knoff, 1995).</p>	<ul style="list-style-type: none"> <li>• Assessments look at conditions and settings affecting the problem.</li> <li>• Intervention outcomes are assessed by measures sensitive to change.</li> </ul>
<p>Outcome Oriented Interventions (OOI)</p>	<p>A primary focus of RBM is the development of specific goals (outcomes) relative to interventions that are explored. Intervention and outcomes are complementary of each other. Educators may perform a critical role in this regard through the application of intervention skills, and assisting others in evaluating intervention adherence and integrity (Telzrow, 1995).</p>	<ul style="list-style-type: none"> <li>• Increasing the academic performance of students</li> <li>• Improving academic skills, e.g. computation, fluency, spelling, writing, etc.</li> </ul>
<p>Data-Based Decision-Making (DBDM)</p>	<p>Data provides a mechanism to allow decisions to be made regarding modifications of interventions as well as information regarding efforts at reintegration of students into less restrictive settings. Without this information, team decision makers' ability to make credible judgments regarding the continuance or termination of intervention efforts is compromised (Steege &amp; Wacker, 1995). Using data in a sensitive, dynamic way empowers parents and educators with the advantage of capturing valuable time by knowing what is "working" and what is not.</p>	<ul style="list-style-type: none"> <li>• Baseline data is always collected before interventions are started.</li> <li>• A progress monitoring graph is reviewed weekly by the case manager.</li> <li>• Showing measurable progress for students on I-Plans.</li> </ul>
<p>Teacher Efficacy for Learning and Success (TELS)</p>	<p>"Teachers' beliefs in their efficacy affect their general orientation toward the educational process as well as their specific instructional activities" (Bandura, 1997, pg. 241). Teacher Efficacy may be seen as both a result and as a mediator of implementing innovations within the educational context. As a result, efficacy is affected by the support and efficiency by which the innovation is experienced.</p>	<ul style="list-style-type: none"> <li>• If a child doesn't learn something the first time, teachers will try another way.</li> <li>• Teachers in this school are skilled in various methods of teaching.</li> <li>• Teachers in this school really believe every child can learn.</li> </ul>
<p>RBM Effectiveness Rating</p>	<p>This is a subjective rating indicating general feeling about effectiveness of RBM.</p>	<ul style="list-style-type: none"> <li>• Participants were asked to rate on a scale of 1-10 (10 = Very High &amp; 1 Very Low), "How effective has RBM been in your school?"</li> </ul>
<p>Overall Satisfaction with RBM</p>	<p>Twenty three items were added to the survey all asking about satisfaction. These were representative of effects upon behavior, academics, efficiency of time use by teachers, quality of interventions, etc.</p>	<ul style="list-style-type: none"> <li>• In <u>comparing RBM</u> with other "initiatives", "innovations", and "mandates" you have been involved with--rate the following statements on the scale of 1-10 (10 = Very High to 1 = Very Low) regarding <u>how satisfied you are with the effectiveness of RBM in your school?</u></li> <li>• Very High 10 9 8 7 6 5 4 3 2 1 à Very Low</li> </ul>
<p>Academic Results Behavioral Results</p>	<p>There were 5 items taken from Satisfaction items above.</p>	<ul style="list-style-type: none"> <li>• Improving reading performance...</li> <li>• Improving math performance...</li> <li>• Improving spelling.... Improving positive behaviors?</li> <li>• Decreasing negative behaviors?</li> <li>• Improving overall behavior...</li> </ul>



## RBM Best Practices Survey Results

The RBM Best Practices Survey was developed consistent with the research literature on problem-solving and intervention which serve to delineate important elements within effective approaches (Nunn & McMahon, 2000). The instrument itself was constructed through an initial analysis of over 200 surveys which were gathered during the 1999-2000 academic year in Idaho. Statistical analysis consisted of Principal Components Factor Analysis to distill the survey to 79 likert-type items with significant loadings within six factors. The current survey was administered during May-June of 2003 generating a total of **359** respondents from **55** RBM Pilot Site Teams who had participated from 1-4 years in RBM implementation. Respondents included Parents, General Education Teachers, Special Education Teachers, Special Education Directors, Principals, School Psychologists, Speech and Language Pathologists, School Counselors, Title I Teachers, School Nurses and other support staff. The general content of the survey is described below, with the complete survey included in Appendix H of this document. Table 1 provides an overview of the measures used in this study of Best Practices.

## Analysis of Results: Survey of RBM Best Practices

The current findings are summarized in Table 2 below. All indicators or measures found to be significant at the  $p < .05$  level are indicated with a “Yes” in their corresponding cells. Analysis of Variance (ANOVA) was used to examine this data, as well as post hoc comparisons of means for significant findings. Indicators not found to be significant are indicated with a “No” in the same fashion. Each of the primary RBM Process Variables are discussed with respect to measures found significant. Details of the analysis may be found in each respective appendix in this document.



### I. Professional/Primary Role (Appendix A)

The factor “Professional/Primary Role” formed the following five comparison groups: Special Education Teachers, General Education Teachers, Administrators, Title I Teachers, and Student Support Staff (School Psychologists, Counselors, Speech, Occupational Therapists). The findings failed to indicate significant effects upon any of the dependent measures at the  $p < .05$  level or greater. With respect to the current data, this process variable failed to impact participants evaluations of RBM Best Practices. While some variations exist relative to the roles of participants (e.g. school psychologist, special education teachers, general education teachers), they do not reveal a strong systematic association with each other. In other words, this data indicates a general similarity in perceptions of RBM Best Practices and Outcomes among the range of participants



studied with no particular role demonstrating greater or lesser evaluations of these effects/outcome measures.

## **II. Educational Level/Setting of Implementation (Appendix B)**

Analysis indicated a moderate to strong effect relative to this process variable (Secondary vs. Middle School/High School). Of the 11 effects/outcomes measures, 6 were significant ( $p < .05$ ), while 3 additional measures approached significance ( $p < .10$ ). Specifically, the measures that were significant were: Problem-Solving Team Collaboration, Functional Assessment, Outcome-Oriented Interventions, Data-Based Decision-Making, Teacher Efficacy Learner Success, Academic Results with the Elementary settings indicating greater levels of positive evaluations of these variables than secondary settings.

## **III. Years of Implementation (Appendix C)**

The factor “Years of Implementation” refers to the length of time Pilot Sites were involved in implementing RBM. Four groups were identified:

1. Training/Implementation (First year of Implementation primarily focused upon Core Training and initial learning of RBM process);
2. Second Year Implementation (Full Implementation of RBM);
3. Third Year Implementation (Full Implementation of RBM),
4. Fourth Year Implementation (Maintenance & Enhancement).

Table 2 below describes variables that were found to be impacted significantly by this variable. Analysis indicated highly significant and consistent effects across all effects/outcome measures as a function of years involved with implementation of RBM ( $p < .02$ ). Some variations in responses were noted, however. In all, 3<sup>rd</sup> and 4<sup>th</sup> year RBM Pilot Site participants evaluated the following measures most favorably: Parental Involvement, Teacher Efficacy for Learner Success, Overall RBM Effects, Academic Results and Overall Satisfaction with RBM in improving delivery of assistance to special needs/at-risk students.

## **IV. Level of Implementation (Appendix D)**

The extent to which participants were implementing or utilizing the RBM process was determined by this variable. Four levels of implementation were identified and selected by participants to best reflect their level of implementation:

1. Preparation (Committed to RBM & prepared to implement)
2. Mechanical (Working to create a consistent RBM system)
3. Routine (Fully implementing RBM as outlined in training)
4. Refinement (Working to increase impact of RBM on our students)

As shown in Appendix E, most of the RBM Best Practice Measures were significantly influenced by this variable. Analysis indicated that 9 of the 11 measures were significant as a function of implementation levels of staff. Results indicated more favorable evaluation of measures effects by participants using RBM in a “Routine” fashion or working toward “Refinement” of the RBM process with respect to: Overall RBM Effects, Parental Involvement, Problem-Solving Team Collaboration, Functional Assessment, Outcome-Oriented Interventions, Data-Based Decision-Making, Teacher Efficacy for Learner Success, Academic Results, Behavioral Results, and Overall Satisfaction with RBM in improving delivery of assistance to special needs/at-risk students.

#### **V. Level of Involvement in RBM Team (Appendix E)**

This factor pertains to how active/involved respondents were in working on their RBM Team. As can be seen in the table below, several of the RBM measures appear to be influenced by this factor. For sake of analysis, involvement was categorized into three groups, i.e. Highly Involved, Moderately Involved, and Low Involvement. Analysis indicated four effects/outcome measures significantly affected by this variable, i.e. Problem-Solving Team Collaboration, Teacher Efficacy for Learner Success, RBM Overall Effect, and Behavioral Results. In all, participants who were Highly Involved with RBM Implementation perceived greater Problem-solving Team Collaboration, Teacher Efficacy in promoting success, Overall Satisfaction in getting results with RBM, and increased effects upon Behavioral concerns.

#### **VI. Teacher Efficacy Level (Appendix F)**

The factor of Teacher Efficacy was statistically derived by grouping respondents at or below the 25<sup>th</sup>, between 25<sup>th</sup> and 75<sup>th</sup>, and above the 75<sup>th</sup> percentiles on the Teacher Efficacy measure (See Appendix F). This variable examines how variations in levels of perceived “efficacy”, regardless of how they are generated, are associated with evaluations of results/outcome measures addressed with the RBM approach. Analysis revealed significant effects for 8 of 10 measures included in this analysis. Teachers ratings of efficacy were categorized into three levels, i.e. High Efficacy, Moderate Efficacy, and Low Efficacy more learner success. As TELS increased, participants perception of their degree of involvement also increased significantly. Among other measures of results/effects, the following also became for favorable or positive: Parental Involvement, Problem-Solving Team Collaboration, Functional Assessment, Outcome-Oriented Intervention, Data-Based Decision-Making, Overall Satisfaction with RBM, and Overall Evaluation of RBM Effects.

**Table 2. Analysis of RBM Process Variables and Best Practices Measures 2002-2003**

RBM Best Practices Measures*		RBM Overall Effects (RBME)	Parental Involvement (PI)	Problem-Solving Team Collaboration (PSTC)	Functional Assessment (FA)	Outcome-Oriented Interventions (OOI)	Data-Based Decision – Making (DBDM)	Teacher Efficacy for Learning Success (TELS)	RBM Academic Results (AR)	RBM Behavioral Results (BR)	RBM Overall Satisfaction (OVSAT)
<b>RBM Process Variables</b>	Appendix A. Professional Roles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	Appendix B. Educational Level/Setting	NO	NO	YES	YES	YES	YES	YES	YES	NO	NO
	Appendix C. Years of Implementation	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	Appendix D. Level of Implementation	YES	YES	YES	YES	NO	YES	YES	NO	YES	YES
	Appendix E. Level of Involvement in Implementation	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO
	Appendix F. Teacher Efficacy	YES	YES	YES	YES	YES	YES		YES	NO	YES

**IRI Reading Skills Associated with RBM Intervention Plans**

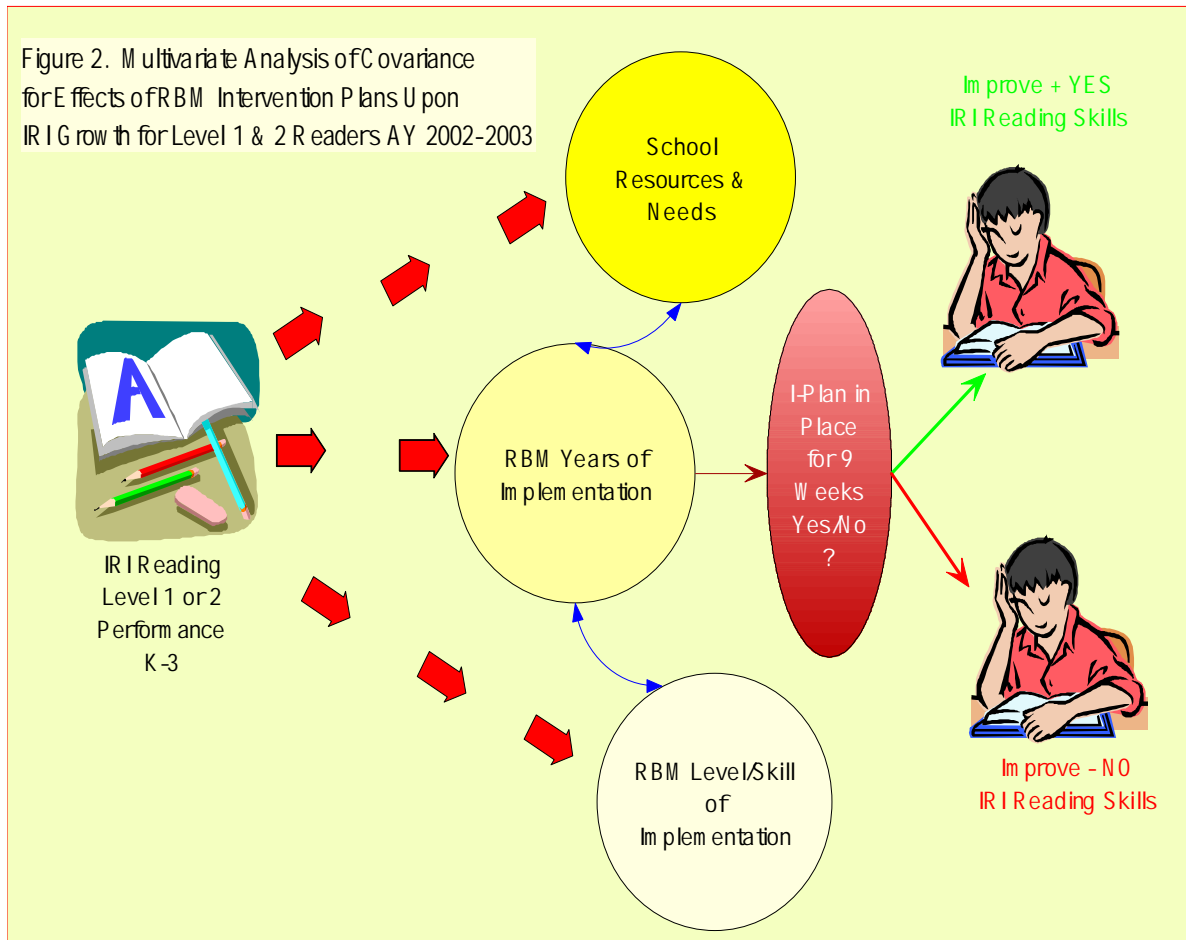
The purpose of this analysis was to determine the impact of RBM problem-solving Intervention Plan process in improving reading performance compared to students experiencing similar reading concerns, but who were not on RBM Intervention Plans. The researcher is well aware of the difficulties of making definitive statements regarding the impact of an isolated interventions or processes upon educational performance, and as such, these findings should be considered in the context of other possible mediators, differences, and hypotheses both controlled and uncontrolled by the current design. However, the study has attempted to isolate and address important variables that could be feasibly analyzed within the confines of working with the data available.



In all, the study gathered data on the performance of an initial total sample of students in grades K-3 (N = 1331) demonstrating problematic reading performance (Level 1 or 2) on the Idaho Reading Indicator (IRI). Within this sample, students were identified as having a RBM Intervention Plan (I-Plan) implemented for 9 weeks during the 2002-2003 school year (N = 238) compared to those who did not (N = 1111). The sample was further reduced in size by the removal of cases containing missing values

and by systematic randomization of both the I-Plan and the Non I-Plan groups, leaving two comparison groups of  $n = 604$  and  $n = 238$  respectively. The design of this study considered the possibility of multiple covariates (School Resources & Needs, Years of Implementation, Level of Implementation) relative to the independent variable, i.e. Intervention Plan vs. No Intervention Plan, by using Multivariate Analysis of Covariance (MANCOVA) to examine the effect upon scores on the Idaho Reading Indicator during the 2002-2003 academic year (Mertler & Vannatta, 2002). The MANCOVA design allowed the following elements to be addressed in the analysis:

1. Multiple related dependent measures of reading fluency (IRI administrations in Fall, Winter and Spring), these were addressed by using a repeated measures analysis within the MANCOVA.
2. Between subjects variables which may have an effect upon reading performance, e.g. Grade Level.
3. Covariates which may have an influence upon intervention effectiveness such as years of implementing the RBM approach and the level of needs and resources available to meet those needs. In this case, the effects of Needs and Resources, Years of Implementation, and Level of Implementation of RBM Interventions were treated as covariates.



As shown in Figure 2, a primary research question addressed, therefore, was

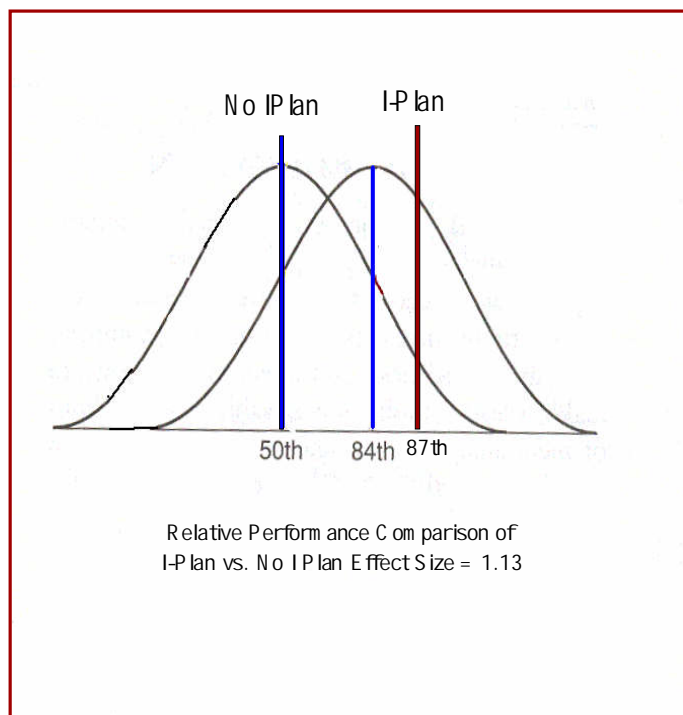
*“What was the effect of RBM Intervention Plans upon performance among students judged by the Individual Reading Indicator (IRI) as having a reading skills concerns compared to students without RBM Intervention Plans?”*

Analysis indicated a significant effect upon student performance found for students who were experiencing reading difficulties on the IRI as a function of the I-Plan intervention (Table 3).

Table 3. Adjusted sample for MANCOVA analysis & Effect Size Estimate				
Grades K-3 N = 1330	I-Plan Yes or No?	Mean IRI Scores		ES Size Estimate <b>1.13</b>
K-3	No N = 604	63.189	Mean Difference 24.41	
K-3	Yes N = 238	87.597		
ES = Effect Size M <sub>T</sub> = Mean Intervention M <sub>C</sub> = Mean Comparison SD <sub>C</sub> = Standard Deviation of Comparison		Source: Kavale, K.A. & Forness, S.R. (1999). Effectiveness of special education. In Reynolds, C.R. & Gutkin, T.B. The Handbook of School Psychology (3 <sup>rd</sup> Edition). New York: John Wiley & Sons.		

This effect (p < .001) was utilizing the variables of District Needs/Resources, Implementation Years of RBM, and Level of RBM

implementation as covariates. The response to intervention among students on Intervention Plans compared to those not on plans demonstrated this effect. In all, the computed effect size for the adjusted mean between students on RBM I-Plans and those not on them was ES = 1.13, or a comparative difference for the I-Plan students placing them at a difference at about the 87th percentile in comparison with students in the No I-Plan group at the 50<sup>th</sup> percentile (Figure 3).



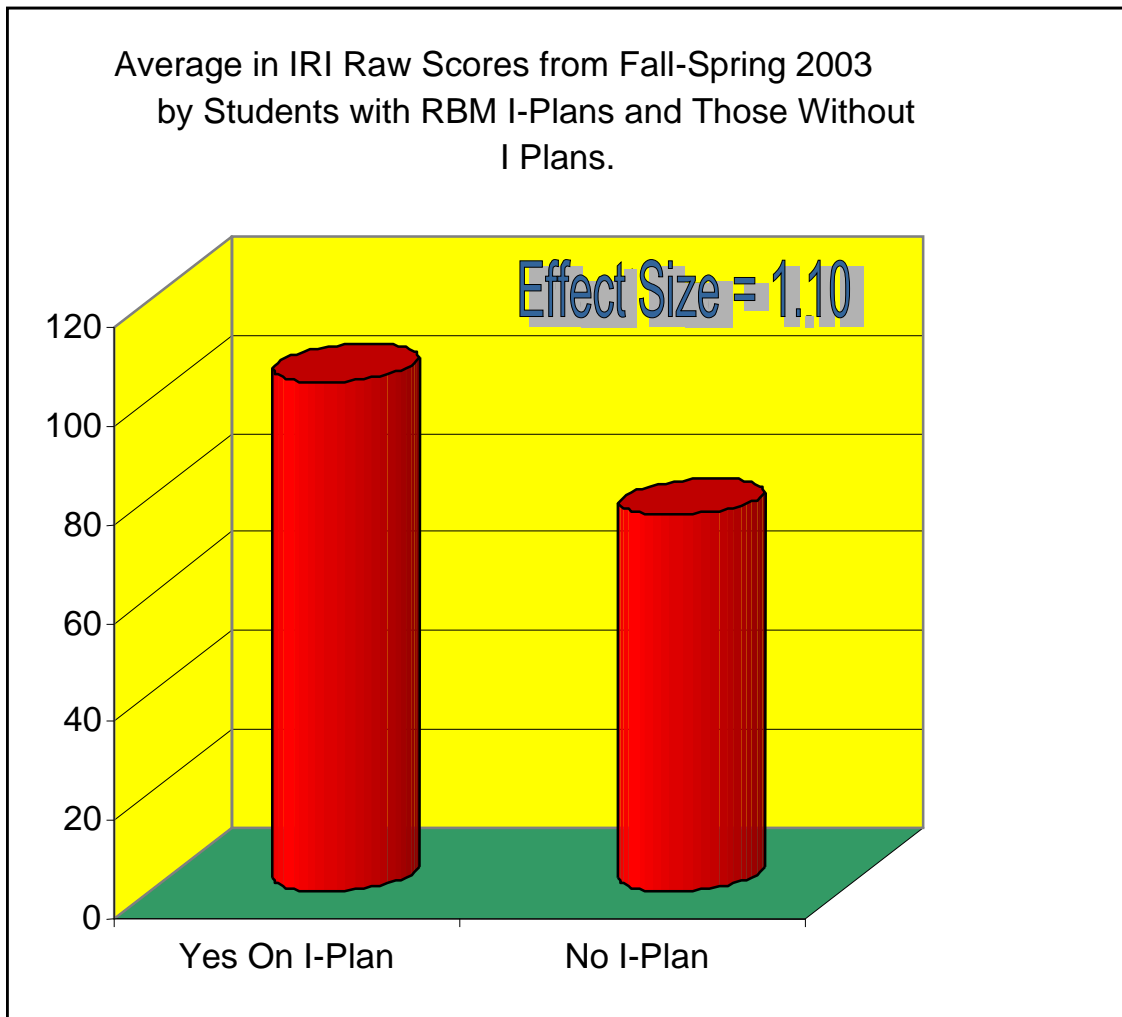
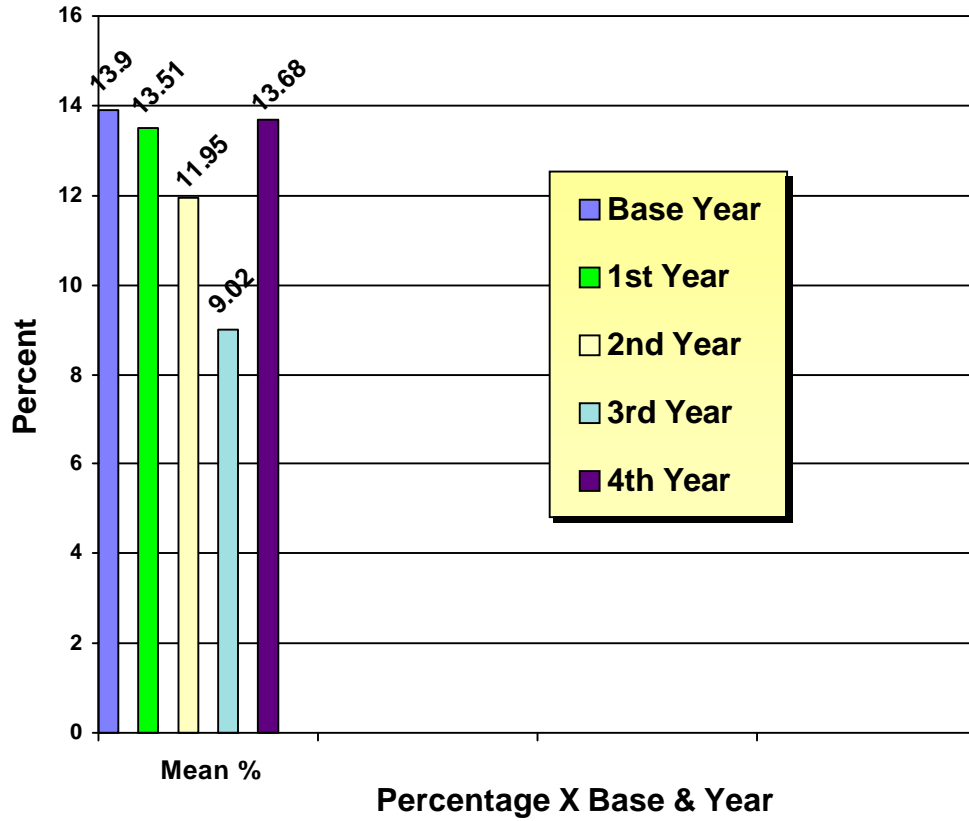


Figure 3. Results of MANCOVA/ANCOVA IRI Analysis

### Placement Rates in Pilot Schools 2001-2004

This analysis compared the ongoing placement rates into Idaho Special Education programs at building and district levels who had participated in RBM over the last 1-4 years. In all, 31 schools were represented with 14 in their 1<sup>st</sup> Year Implementation, 13 in the 2<sup>nd</sup> Year, 1 in the 3<sup>rd</sup> Year, and 3 in their 4<sup>th</sup> Year. Data was computed for the percentage of student in Special Education programs for each of these years. An initial Base Year of 2001-2002 was used for all schools. Figure 4 below presents mean percentage values for Base schools percentage and for yearly placement percentages. Since there was only 1 school in the 3<sup>rd</sup> year group, this mean is difficult to interpret. Analysis of these percentage values using both a Chi-Square and ANOVA failed to indicate significant change/differences in percentages for the mean placement rates over these four years.

**Figure 4. Percentage of Placement in Special Education Programs:  
RBM Pilot Schools**





## Appendices A-G: Statistical Analysis of RBM Best Practices Survey

## Appendices H: RBM Best Practices Survey (Example)

**Appendix H. RBM Pilot Sites Survey 2002-2003**  
 Gerald D. Nunn, Ph.D., NCSP

**Instructions:** *As you complete this survey, consider your typical daily experiences including: work in team meetings, developing interventions, team problem-solving, collaboration, teaching & instruction, gathering student data, graphing & progress monitoring, decision-making, working with parents and students, and other activities related to implementing RBM.*

Use key to indicate your level of agreement with Items 1-30. Complete all items, do not skip any items.

<b>Key:</b>	<b>SA</b> Strongly Agree	<b>A</b> Agree	<b>SLA</b> Slightly Agree	<b>SLD</b> Slightly Disagree	<b>D</b> Disagree	<b>SD</b> Strongly Disagree
-------------	-----------------------------	-------------------	------------------------------	---------------------------------	----------------------	--------------------------------

*Make and “X” to indicate your choice for each statement.*

- |                   |   |
|-------------------|---|
| SA A SLA SLD D SD | 1) Parents are active participants on problem solving teams.                            |
| SA A SLA SLD D SD | 2) Parents feel encouraged to say what they think.                                      |
| SA A SLA SLD D SD | 3) “Problems” are defined clearly and objectively in team meetings.                     |
| SA A SLA SLD D SD | 4) Baseline data is always collected before interventions are started.                  |
| SA A SLA SLD D SD | 5) Our team considers how instruction and curriculum impact learner success.            |
| SA A SLA SLD D SD | 6) Our team examines curriculum, instruction, environment, and learner characteristics. |
| SA A SLA SLD D SD | 7) Discrepancy between “expectations” and “current performance is discussed,            |
| SA A SLA SLD D SD | 8) Data is taken frequently, i.e. at least 1-3 times per week on student progress.      |
| SA A SLA SLD D SD | 9) A student’s discrepancy from peers is considered when determining his/her needs.     |
| SA A SLA SLD D SD | 10) A “baseline” of 3-5 data points is gathered before starting interventions.          |
| SA A SLA SLD D SD | 11) A Progress Monitoring graph is reviewed weekly by the case manager.                 |
| SA A SLA SLD D SD | 12) Team members are knowledgeable in data-based decision-making.                       |
| SA A SLA SLD D SD | 13) The team meets regularly to review and consider student needs.                      |
| SA A SLA SLD D SD | 14) Team members support each other and share ideas.                                    |
| SA A SLA SLD D SD | 15) Team members are skilled in using the <b>IDEAL</b> decision-making process.         |
| SA A SLA SLD D SD | 16) The intervention team creates effective strategies and interventions.               |
| SA A SLA SLD D SD | 17) Our team meetings are time well spent.  |
| SA A SLA SLD D SD | 18) The team ‘s primary focus is upon student “needs” rather than “eligibility”         |
| SA A SLA SLD D SD | 19) The general education teachers’ input is essential to our problem solving.          |
| SA A SLA SLD D SD | 20) Everyone at our team meeting participates in a meaningful way.                      |
| SA A SLA SLD D SD | 21) “Brainstorming” generates a rich variety of interventions.                          |
| SA A SLA SLD D SD | 22) Implementation of interventions proceeds smoothly.                                  |
| SA A SLA SLD D SD | 23) Intervention ideas generated by parents are often implemented by the team.          |

- SA A SLA SLD D SD 24) Parents feel that their concerns are respected by the team.
- SA A SLA SLD D SD 25) Parents are asked to share concerns and priorities for their child.
- SA A SLA SLD D SD 26) Assessments look at conditions and settings affecting the problem.
- SA A SLA SLD D SD 27) Intervention outcomes are assessed by measures sensitive to change.
- SA A SLA SLD D SD 28) Interventions reduce differences between “expectations” and “performance”.
- SA A SLA SLD D SD 29) Interventions are carefully implemented to assure their integrity.
- SA A SLA SLD D SD 30) Interventions that are not working are quickly modified or replaced by others.

**Part II. Respond to Items 31 to 58 by marking “X” indicating your “satisfaction”. Use the scale below:**

1	2	3	4	5	6
Strongly Satisfied	Moderately Satisfied	Slightly Satisfied	Slightly Dissatisfied	Moderately Dissatisfied	Strongly Dissatisfied

- 1 2 3 4 5 6 31) Collaboration between Special Education and General Education.
- 1 2 3 4 5 6 32) Spending more time on direct interventions with students.
- 1 2 3 4 5 6 33) Less time spent “labeling” and more time developing “solutions” to problems.
- 1 2 3 4 5 6 34) Using Curriculum-Based Measurement to monitor academic growth.
- 1 2 3 4 5 6 35) Applying interventions that make a real difference in student learning.
- 1 2 3 4 5 6 36) We use a greater variety of interventions to improve student achievement .
- 1 2 3 4 5 6 37) Using the “IDEAL” problem-solving approach.
- 1 2 3 4 5 6 38) Frequent graphing of ongoing data to monitor progress.
- 1 2 3 4 5 6 39) Parent participation in our team meetings.
- 1 2 3 4 5 6 40) Using graphs in team meetings to document student progress.
- 1 2 3 4 5 6 41) Conducting effective team meetings.
- 1 2 3 4 5 6 42) Conducting team meetings that are useful to General Education teachers.
- 1 2 3 4 5 6 43) Conducting team meetings that are valuable to parents.
- 1 2 3 4 5 6 44) Showing measurable progress for students on I-Plans.
- 1 2 3 4 5 6 45) Implementing interventions in a general education setting.
- 1 2 3 4 5 6 46) Reducing the number of students “referred” for a formal evaluation.
- 1 2 3 4 5 6 47) Reducing the number of children who are placed on IEP’s.
- 1 2 3 4 5 6 48) Decreasing the length of time students spend in special education.
- 1 2 3 4 5 6 49) Help & support for the classroom teacher to meet diverse learning needs.
- 1 2 3 4 5 6 50) Increasing the academic performance of students.
- 1 2 3 4 5 6 51) Reducing academic frustration experienced by students experienced.
- 1 2 3 4 5 6 52) Decreasing the number of students “falling between the cracks”.
- 1 2 3 4 5 6 53) Improving self-esteem and academic self-concept in students.
- 1 2 3 4 5 6 54) Improving academic skills, e.g. computation, fluency, spelling, writing, etc.
- 1 2 3 4 5 6 55) Decreasing the number of students “falling between the cracks”.
- 1 2 3 4 5 6 56) Improving self-esteem and academic self-concept in students.
- 1 2 3 4 5 6 57) Improving academic skills, e.g. computation, fluency, spelling, writing, etc..
- 1 2 3 4 5 6 58) Defining and analyzing “problems” to develop improved interventions.

**Part III. Indicate your level of agreement with statements 59-79 regarding your perceptions of the teaching-learning process in your school.**

SA Strongly Agree	A Agree	SLA Slightly Agree	SLD Slightly Disagree	D Disagree	SD Strongly Disagree	
SA	A	SLA	SLD	D	SD	59) If a child doesn't learn something the first time, teachers will try another way.
SA	A	SLA	SLD	D	SD	60) Teachers in this school are skilled in various methods of teaching.
SA	A	SLA	SLD	D	SD	61) Teachers here are well prepared to teach the subjects they are assigned to teach.
SA	A	SLA	SLD	D	SD	62) Teachers in this school really believe every child can learn.
SA	A	SLA	SLD	D	SD	63) If a child doesn't want to learn teachers here give up.
SA	A	SLA	SLD	D	SD	64) Teachers here fail to reach some students because of poor teaching methods.
SA	A	SLA	SLD	D	SD	65) Teachers here don't have the skills needed to produce meaningful student learning.
SA	A	SLA	SLD	D	SD	66) Teachers in this school have what it takes to get the children to learn.
SA	A	SLA	SLD	D	SD	67) Teachers in this school are able to get through to difficult students.
SA	A	SLA	SLD	D	SD	68) Teachers here are confident they will be able to motivate their students.
SA	A	SLA	SLD	D	SD	69) The lack of instructional materials and supplies makes teaching very difficult.
SA	A	SLA	SLD	D	SD	70) Teachers in this school do not have the skills to deal with student disciplinary problems.
SA	A	SLA	SLD	D	SD	71) Teachers in this school think there are some students that no one can reach.
SA	A	SLA	SLD	D	SD	72) The quality of school facilities here really facilitates the teaching and learning process.
SA	A	SLA	SLD	D	SD	73) Home life provides so many advantages they are bound to learn.
SA	A	SLA	SLD	D	SD	74) These students come to school ready to learn.
SA	A	SLA	SLD	D	SD	75) Drug and alcohol abuse in the community make learning difficult for students here.
SA	A	SLA	SLD	D	SD	76) The opportunities in this community help ensure that students will learn.
SA	A	SLA	SLD	D	SD	77) Students here just aren't motivated to learn.
SA	A	SLA	SLD	D	SD	78) Learning is difficult at this school because students are worried about their safety.
SA	A	SLA	SLD	D	SD	79) Teachers here need more training to know how to deal with these students.

**Part IV. Please answer items 1-6 to let us know something about you.**

- What is/are your **primary role(s)** in the school? ("X" Mark those that apply)  
 General Ed Teacher     Special Ed Teacher     Title I Teacher     Special Ed Director     Principal  
 School Psychologist     School Counselor     Speech/Lang     Parent of Student     Other: \_\_\_\_\_
- What **year** was your RBM Core Training?     1999-2000     2000-2001     2001-2002     2002-2003
- How "**involved/active**" are you on the RBM team?     Highly     Moderate     Low
- What **educational setting** do you work in?     Elementary     Middle School     High School
- Mark an "X" on a scale of 1-10 (10 = High to 1 = Low) **how effective has RBM been in your school?**    **Very High**  
 10     9     8     7     6     5     4     3     2     1    **Very Low**
- To what **extent is RBM being implemented** in your school? (Check **one** that best describes your school)  
 Non use  
 Preparation (We are committed to the RBM concept and prepared to implement the model)  
 Mechanical (We are working to create a consistent system of implementation)  
 Routine (We are fully implementing RBM as outlined in training)  
 Refinement (We are working to increase the impact that RBM has for our students).

7) In **comparing RBM** with other “initiatives”, “innovations”, and “mandates” you have been involved with--rate the following statements on the scale of 1-10 (10 = Very High to 1 = Very Low) regarding **how satisfied you are with the effectiveness of RBM in your school?**

Very High 10 9 8 7 6 5 4 3 2 1 Very Low


- \_\_\_ A. Improving reading performance of students on Intervention Plans (I-Plans)?
- \_\_\_ B. Improving math performance of students on Intervention Plans (I-Plans)?
- \_\_\_ C. Improving spelling performance of students on Intervention Plans (I-Plans)?
- \_\_\_ D. Improving written language performance of students on Intervention Plans (I-Plans)?
- \_\_\_ E. Improving positive behaviors?
- \_\_\_ F. Decreasing negative behaviors?
- \_\_\_ G. Improving the “pre-referral intervention” quality for students?
- \_\_\_ H. Improving the quality of “teaming and collaboration” among staff?
- \_\_\_ I. Improving the quality of working relationships between “special & general education”?
- \_\_\_ J. Reducing the number of special education “referrals”?
- \_\_\_ K. Reducing the number of special education “placements”?
- \_\_\_ L. Increasing the number of special education students “exited back into general education”?
- \_\_\_ M. Decreasing the amount of time required to begin interventions to help struggling students”?
- \_\_\_ N. Improving the quality of “parent participation/involvement” in addressing student problems?
- \_\_\_ O. Improving the quality of “parent participation/involvement” in addressing student behavior?
- \_\_\_ P. Reducing the amount of “paperwork” required to develop interventions?
- \_\_\_ Q. Reducing “turf” or “territorial” concerns between professionals?
- \_\_\_ R. Improving the working relationships among all staff who help students?
- \_\_\_ S. Making the “pre-referral” process simple and easy to understand.
- \_\_\_ T. Improving the amount of “resources” in your school needed to help students?
- \_\_\_ U. Improving the efficient use of “resources” in your school to help students?
- \_\_\_ V. Improving the overall academic achievement of students on Intervention Plans?
- \_\_\_ W. Improving the overall behavior and adjustment of students on Intervention Plans?

## Tables 1, 2, & 3



Table 1. Results-Based Model (RBM) Best Practices Measures		
Parental Involvement (PI)	The degree to which parents are positively involved in planning for their children has a vital bearing upon the likelihood that interventions will prove effective (Powell-Smith & Stollar, 1997). Fuller & Olson (1998) have noted, "Parents must be team members in the education of their children (pg. 9)."	<ul style="list-style-type: none"> <li>• Parents are active participants on problem solving teams.</li> <li>• Parents feel encouraged to say what they think.</li> <li>• Intervention ideas generated by parents are often implemented by the team.</li> </ul>
Problem Solving Teams and Collaboration (PSTC)	Teams coordinate the ongoing process of identifying concerns, developing interventions, and determining the results of interventions. Problem solving teams, therefore, are critical elements in extending intellectual resources used to find solutions to complex learning and adjustment concerns in schools (Pugach & Johnson, 1995).	<ul style="list-style-type: none"> <li>• "Problems" are defined clearly and objectively in team meetings.</li> <li>• Everyone at our team meeting participates in a meaningful way.</li> <li>• Use of the IDEAL problem-solving approach.</li> </ul>
Functional Assessment (FA)	Functional assessment is designed to develop and evaluate interventions complementary to the problem solving approach by determining discrete areas in which intervention may be usefully applied (Batsche & Knoff, 1995).	<ul style="list-style-type: none"> <li>• Assessments look at conditions and settings affecting the problem.</li> <li>• Intervention outcomes are assessed by measures sensitive to change.</li> </ul>
Outcome Oriented Interventions (OOI)	A primary focus of RBM is the development of specific goals (outcomes) relative to interventions that are explored. Intervention and outcomes are complementary of each other. Educators may perform a critical role in this regard through the application of intervention skills, and assisting others in evaluating intervention adherence and integrity (Telzrow, 1995).	<ul style="list-style-type: none"> <li>• Increasing the academic performance of students</li> <li>• Improving academic skills, e.g. computation, fluency, spelling, writing, etc.</li> </ul>
Data-Based Decision-Making (DBDM)	Data provides a mechanism to allow decisions to be made regarding modifications of interventions as well as information regarding efforts at reintegration of students into less restrictive settings. Without this information, team decision makers' ability to make credible judgments regarding the continuance or termination of intervention efforts is compromised (Steege & Wacker, 1995). Using data in a sensitive, dynamic way empowers parents and educators with the advantage of capturing valuable time by knowing what is "working" and what is not.	<ul style="list-style-type: none"> <li>• Baseline data is always collected before interventions are started.</li> <li>• A progress monitoring graph is reviewed weekly by the case manager.</li> <li>• Showing measurable progress for students on I-Plans.</li> </ul>
Teacher Efficacy for Learning and Success (TELS)	"Teachers' beliefs in their efficacy affect their general orientation toward the educational process as well as their specific instructional activities" (Bandura, 1997, pg. 241). Teacher Efficacy may be seen as both a result and as a mediator of implementing innovations within the educational context. As a result, efficacy is affected by the support and efficiency by which the innovation is experienced.	<ul style="list-style-type: none"> <li>• If a child doesn't learn something the first time, teachers will try another way.</li> <li>• Teachers in this school are skilled in various methods of teaching.</li> <li>• Teachers in this school really believe every child can learn.</li> </ul>
RBM Effectiveness Rating	This is a subjective rating indicating general feeling about effectiveness of RBM.	<ul style="list-style-type: none"> <li>• Participants were asked to rate on a scale of 1-10 (10 = Very High &amp; 1 Very Low), "How effective has RBM been in your school?"</li> </ul>
Overall Satisfaction with RBM	Twenty three items were added to the survey all asking about satisfaction. These were representative of effects upon behavior, academics, efficiency of time use by teachers, quality of interventions, etc.	<ul style="list-style-type: none"> <li>• In <u>comparing RBM</u> with other "initiatives", "innovations", and "mandates" you have been involved with--rate the following statements on the scale of 1-10 (10 = Very High to 1 = Very Low) regarding <u>how satisfied you are with the effectiveness of RBM in your school?</u></li> <li>• Very High 10 9 8 7 6 5 4 3 2 1 Very Low</li> </ul>
Academic Results Behavioral Results	There were 5 items taken from Satisfaction items above.	<ul style="list-style-type: none"> <li>• Improving reading performance...</li> <li>• Improving math performance...</li> <li>• Decreasing negative behaviors?</li> <li>• Improving overall behavior...</li> </ul>

**Table 2. Analysis of RBM Process Variables and Best Practices Measures 2002-2003**

<b>RBM Best Practices Measures*</b> 		RBM Overall Effects (RBME)	Parental Involvement (PI)	Problem-Solving Team Collaboration (PSTC)	Functional Assessment (FA)	Outcome-Oriented Interventions (OOI)	Data-Based Decision – Making (DBDM)	Teacher Efficacy for Learning Success (TELS)	RBM Academic Results (AR)	RBM Behavioral Results (BR)	RBM Overall Satisfaction (OVSAT)
<b>RBM Process Variables</b>	Appendix A. Professional Roles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	Appendix B. Educational Level/Setting	NO	NO	YES	YES	YES	YES	YES	NO	NO	
	Appendix C. Years of Implementation	YES	YES	YES	YES	YES	YES	YES	YES	YES	
	Appendix D. Level of Implementation	YES	YES	YES	YES	NO	YES	YES	NO	YES	YES
	Appendix E. Level of Involvement in Implementation	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO
	Appendix F. Teacher Efficacy	YES	YES	YES	YES	YES	YES		YES	NO	YES

\*Survey developed by Gerald D. Nunn, Ph.D., NCSP, Idaho State University, School Psychology Program, [nunngera@isu.edu](mailto:nunngera@isu.edu)

Table 3. Adjusted sample for MANCOVA analysis & Effect Size Estimate				
Grades K-3 N = 1330	I-Plan Yes or No?	Mean IRI Scores		ES Size Estimate <b>1.13</b>
K-3	No N = 604	63.189	Mean Difference 24.41	
K-3	Yes N = 238	87.597		*ES Formula $ES = \frac{M_T - M_C}{SD_C}$
ES = Effect Size M <sub>T</sub> = Mean Intervention M <sub>C</sub> = Mean Comparison SD <sub>C</sub> = Standard Deviation of Comparison		Source: Kavale, K.A. & Forness, S.R. (1999). Effectiveness of special education. In Reynolds, C.R. & Gutkin, T.B. The Handbook of School Psychology (3 <sup>rd</sup> Edition). New York: John Wiley & Sons.		

Figures 1, 2, 3, & 4

**Figure 1**

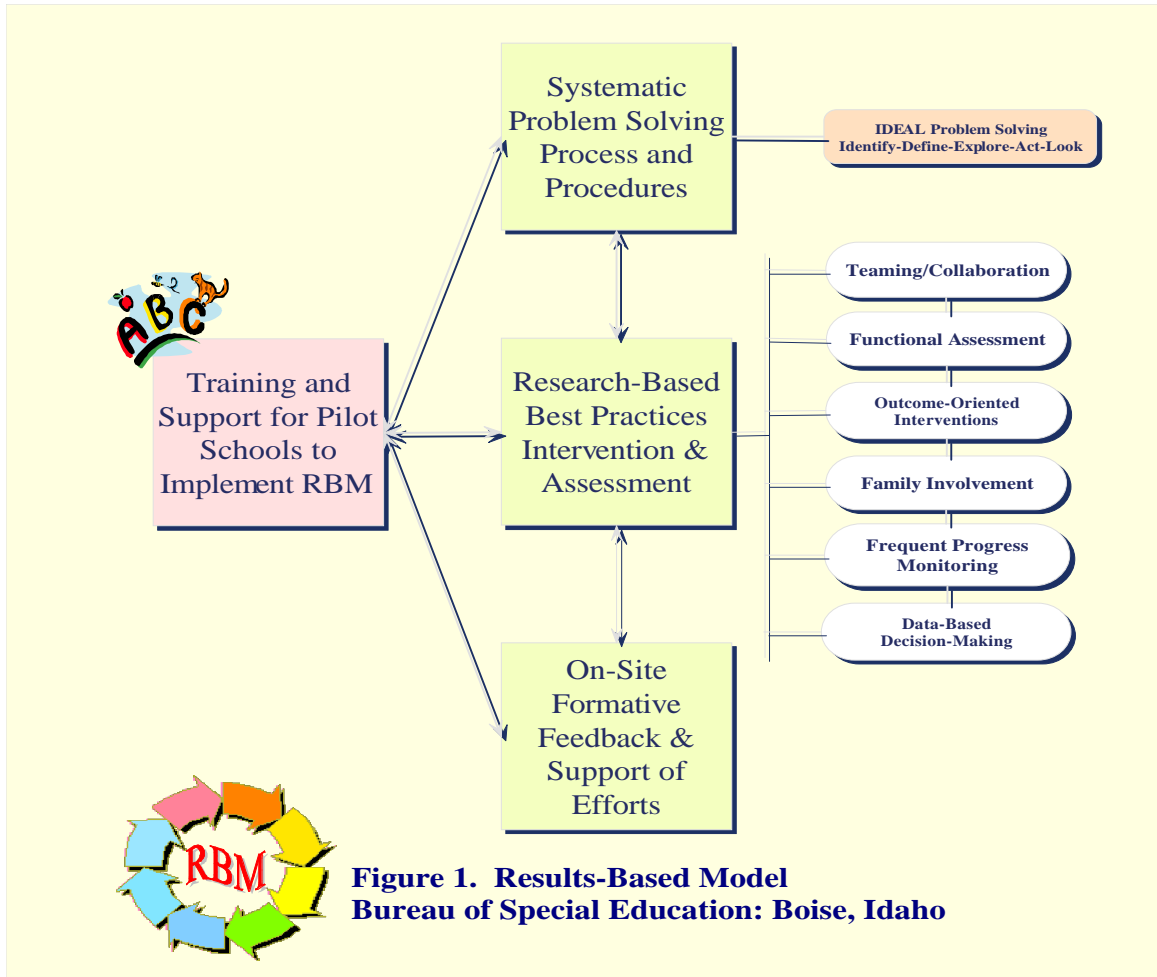
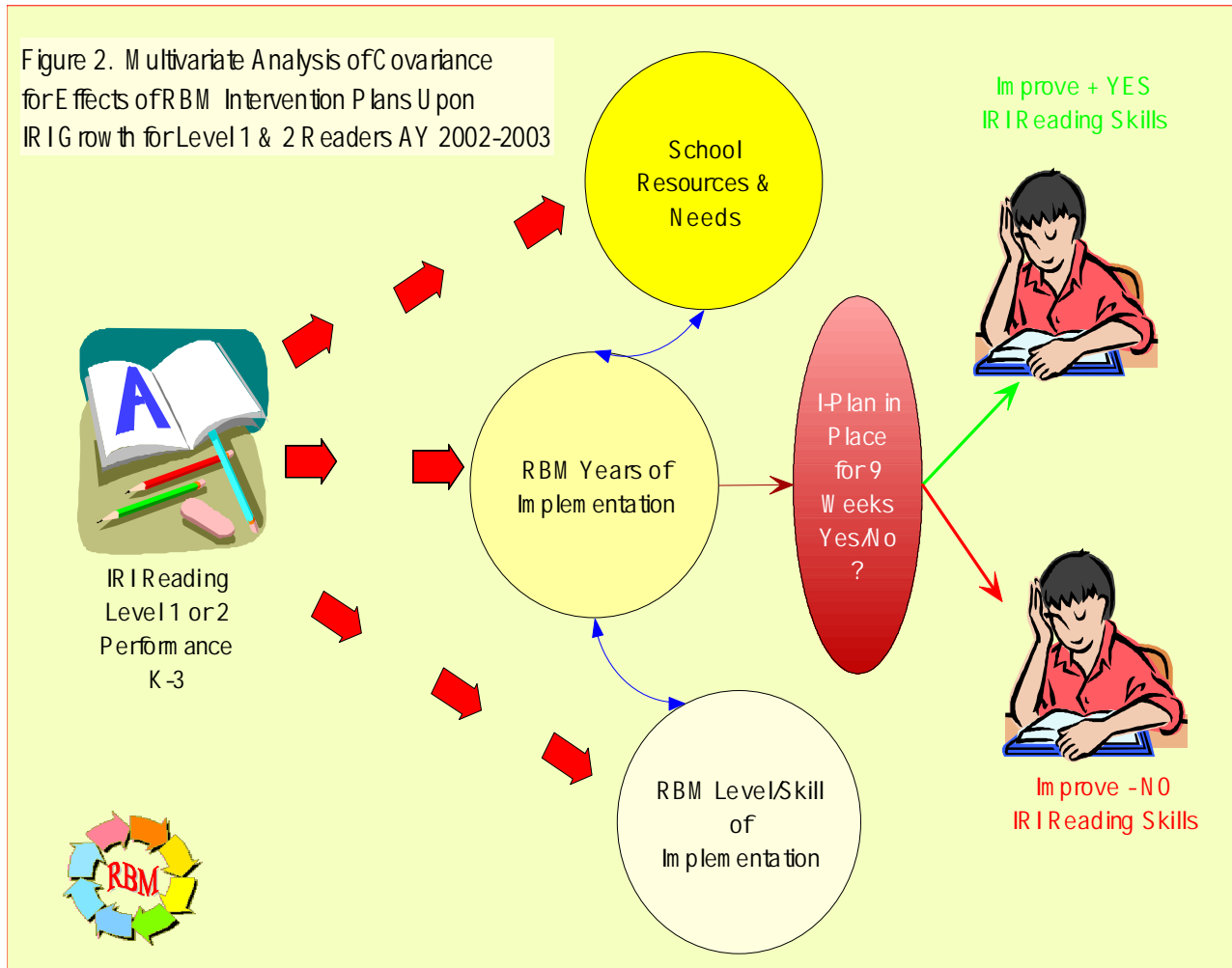


Figure 2



**Figure 3**

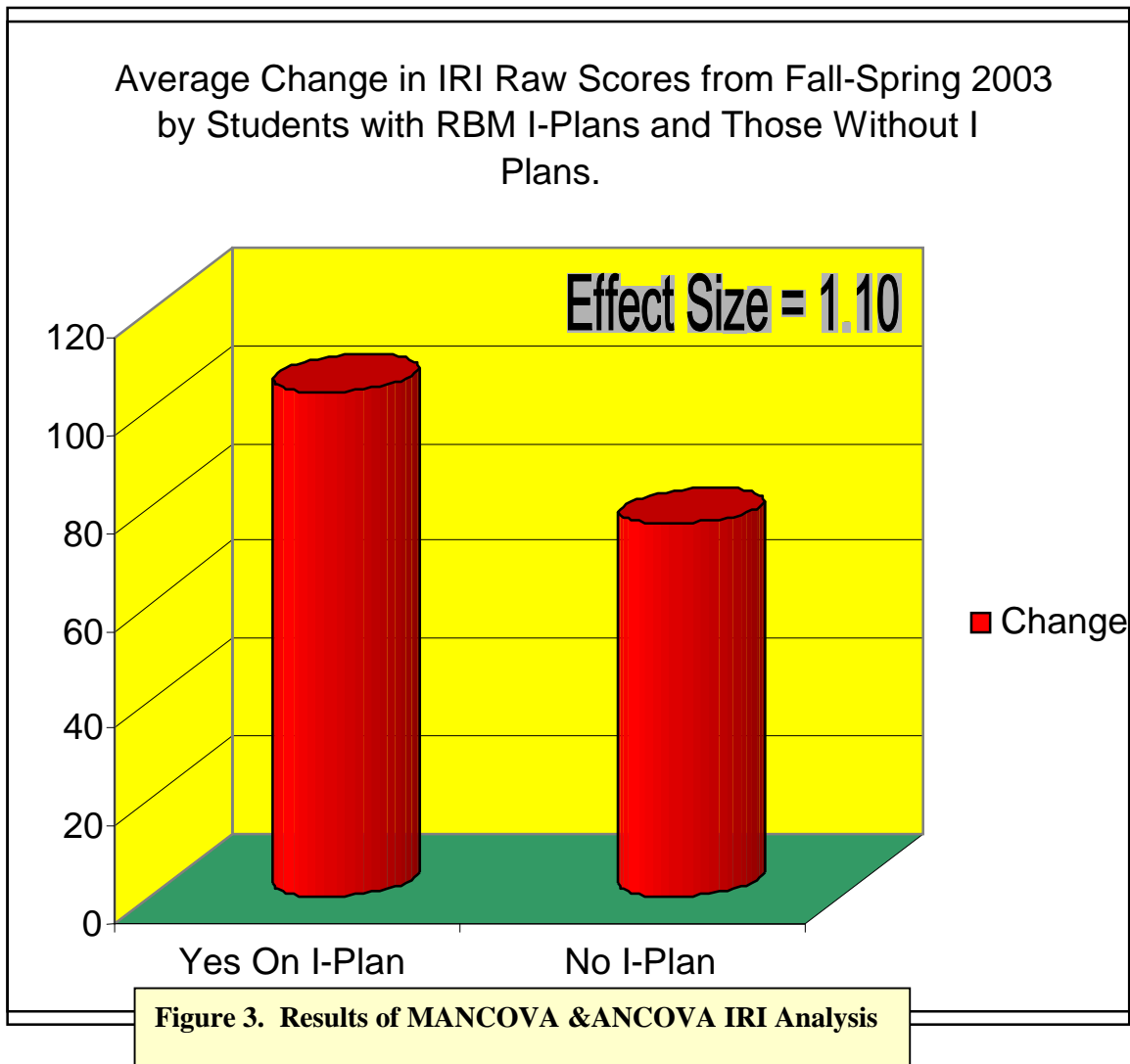
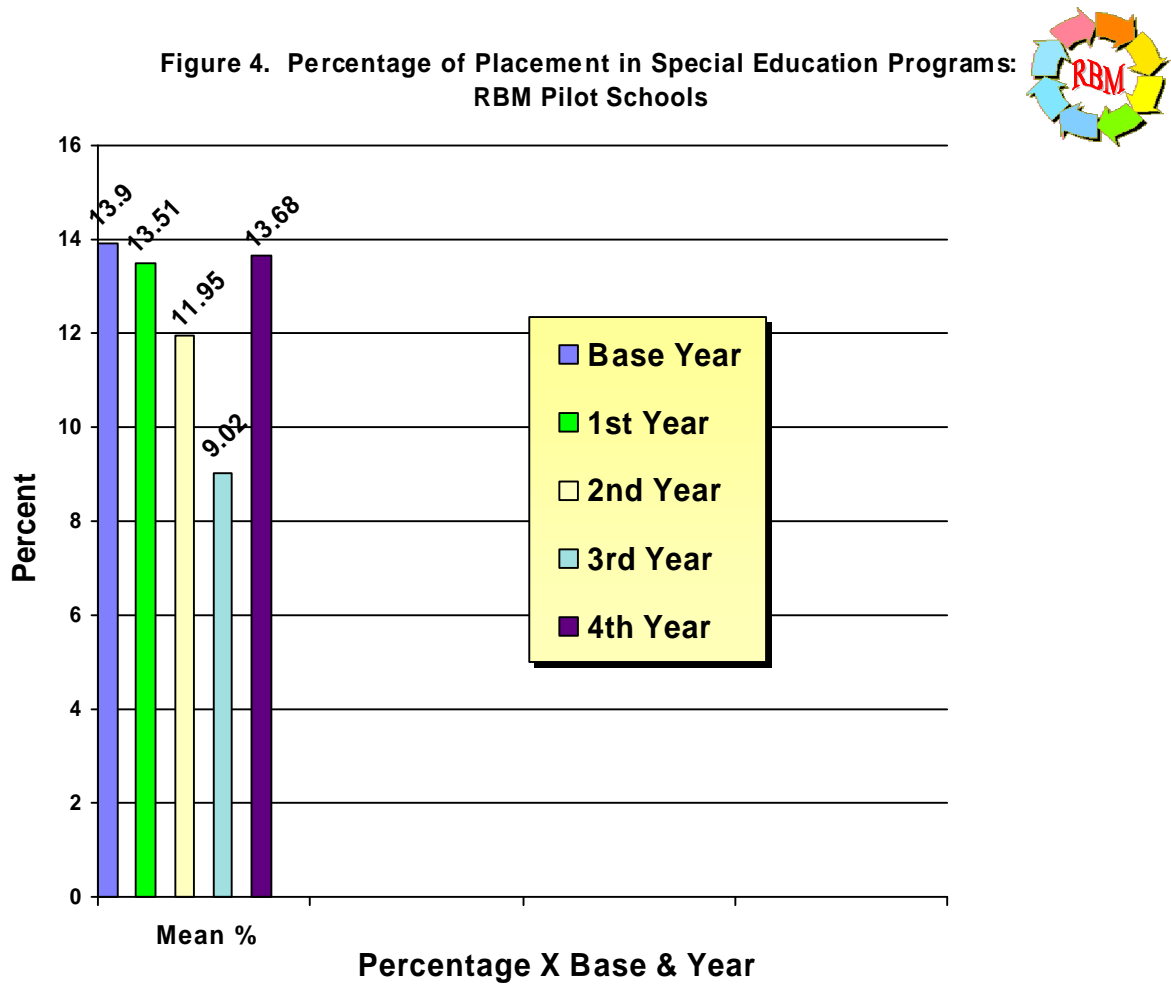




Figure 4



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