Intervention Structures and Strategies

Discover the factors that threaten to zap program effectiveness and those that lead to maximized results.

What factors contribute to intervention effectiveness?

1. Identify a need and the barriers
2. Evaluate resources and determine the structure
3. Apply the strategies

Learning through one school’s intervention trial...

It was the end of school year 2012/2013. As the principal of a PK – 2nd grade campus reviewed end of year data, her attention was drawn to the lowest performing first grade students who would soon enter second grade. Although the students had received interventions in first grade, it had not been enough to close the gap – a year in some cases. Were the students reaching their full potential? Were there any program alterations that would result in more substantial gains?

The principal decided to try something new. She devised a plan to develop a second grade classroom that was limited to ten of the highest academic needs students. The intent was to provide teachers an increased opportunity to focus on individual student needs by narrowing the range of academic needs and decreasing the teacher to student ratio. As the intervention specialist assigned to launch the class, the trial coincided perfectly with my need for a capstone project. The literature review focused on the effects of ability grouping and also sought clarity in best practice intervention strategies. The mixed methods study capitalized on weekly reading and math assessment data along with observational data to determine the effects of the trial on student performance improvement.

Intervention Considerations

The following three themes were derived from the literature review and conceptual framework. They were used as a guiding menu of considerations in the campus intervention plan development and evaluation.

1. Barriers to responsiveness

Student barriers to intervention responsiveness

<table>
<thead>
<tr>
<th>Individual Abilities</th>
<th>Individual and/or Environmental Influences</th>
<th>Individual, School, and/or Environmental Influences</th>
<th>Environmental Influences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language/Articulation; Learning disabilities; Cognitive limitations; Focus issues.</td>
<td>ESL; Excessive absences/tardies; Behavioral issues.</td>
<td>Low self-expectations/Poor academic self-esteem; Negative peer influences; Lacking motivation; Cultural discrepancies.</td>
<td>Socio-economic background; non-supportive home environment.</td>
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</table>
School barriers to intervention responsiveness

<table>
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<tr>
<th>Individual Abilities</th>
<th>Individual and/or Organizational Influences</th>
<th>Organizational Influences</th>
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<tbody>
<tr>
<td>Teacher perceives low performing students to have low potential; Inefficient use of academic time; Lack of urgency in necessity/implementation of interventions; Interventions not/not fully implemented in the classroom.</td>
<td>Progress monitoring data is not used to guide instruction; Poor instructional techniques; Lack of knowledge in current evidence-based best practices; Instruction does not meet the changing needs of students; Lack of coordination between departments, staff, and faculty.</td>
<td>Ineffective curriculum; School structure limits exposure to diverse populations.</td>
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2. Intervention Structures

What resources are available? Consider funding, teachers, tutors, space, time, curriculum, etc.

Ability Grouping – How will the program be structured?

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<thead>
<tr>
<th>Types of Ability Grouping</th>
<th>Joplin Plan</th>
<th>Between Class</th>
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</thead>
<tbody>
<tr>
<td>Within Class</td>
<td>During common reading and math lesson times, students shift to different classrooms according to their needs.</td>
<td>Students are grouped into different classrooms according to needs.</td>
</tr>
<tr>
<td>Joplin Plan</td>
<td></td>
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<tr>
<td>Between Class</td>
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Ability Grouping Literature Review

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<tr>
<th>Positive Associations</th>
<th>Negative Associations</th>
<th>Another View</th>
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| Within class ability grouping (small group instruction) allows customized lesson focus and pacing according to student needs. (Gamoran, 1986; Kim, 2012; National Education Association, n.d.; Rowan & Miracle, 1983) | Ability grouping can reinforce inequalities (Tracking; Pipeline to Prison). (Rowan & Miracle, 1983; Lleras & Rangel, 2009) | |

3. Intervention strategies

Four Recurring Recommendations

1. Provide explicit instruction through modeling, detailed explanations, and feedback. (Fuchs, Fuchs, Powell, Seethaler, Citino, & Fletcher, 2008; Harn, Linan-Thompson, & Roberts, 2008; Murray, Coleman, Vaughn, Wanzek, & Roberts, 2012)

2. Adjust lesson pacing in a manner that sustains maximized progress. (Gamoran, 1986; Rowan & Miracle, 1993; Fairbanks, Sugai, Guardino, & Lathrop, 2007)

3. Use ongoing progress monitoring to guide instruction. (Gersten & Dimino, 2006; Fuchs et al., 2008; Vaughn et al., 2012)

4. Behavioral Factors: Support motivation and facilitate student self-monitoring behaviors. (Clarence Ng, Barlett, Chester, & Kersland, 2013; Edwards, 2008; Fuchs et al., 2008; Vaughn et al, 2012; Weiss, 2013)

The Intervention Trial Analysis: What were the results?

Quantitatively, pre and post assessment data were collected for the experimental group and the control group in reading and math. The experimental group was selected for participation in the trial intervention class by identifying the ten lowest performing second grade students while the control group was selected by identifying the next ten lowest performers. Due to the non-randomized selection process in group selection, the experimental group and the control group started out statistically different in reading, although in math, they proved to be statistically similar. This signaled a cautious approach in the interpretation of the results of the reading comparisons. The tests used to determine the difference between the gains of each group indicated greater gains in reading and similar gains in math.

Qualitatively, the observational analysis focused on three themes:

1) Class structure – Ability grouping at the class level

Results: Even though the academic range was smaller as was the teacher to student ratio, instructional differentiation was still required. Due to the smaller range, the absent higher leveled peer modeling appeared to detract from motivation to achieve higher. Additionally, grouping the students into their own class resulted in lowered student self-esteem.
2) **Instructional integrity – Utilization of best practice intervention strategies**

Results: The instructional techniques sustained the rigor and focus that was needed for all of the students to experience growth.

3) **Instructional continuity – Continuation of strategies after dismissal**

Results: The trial intervention class design placed all students in a mixed ability homeroom class, with all academic time spent in the intervention classroom. Once student performance reached grade level standards, the students were dismissed from the intervention class and integrated full time into their mixed ability homeroom class. For the two students who caught up to grade level expectations, the instructional strategies that were critical to their achievement were not continued within their mixed ability classrooms threatening the sustainability of growth and opportunity for continued growth. By removing students to receive intervention by another instruction, the teachers lost valuable learning into the students’ strengths, weaknesses, and individuality. The daily trial and error of guiding students to achieve their goals provides vital background knowledge to the teacher. When this is taken away, teachers lose context into why strategies are needed and how they fit within their class setting.

**The Conclusion**

Conclusions from this study imply the benefit of mixed ability classroom placement, but also highlight the critical necessity of best practice intervention instructional techniques. Ultimately, the ideal design of an intervention program will depend upon individual campus variables. Although best practice factors emerged as critical to intervention effectiveness, they alone do not satisfy all considerations that must be taken into account. Programs will benefit from a thorough audit taking into consideration student barriers, school barriers, school resources, intervention structures, intervention strategies, and performance dataobservational data. The evaluation will offer deep insight into opportunities for improvement toward the goal of maximized results.

**References & Resources**


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