Impact of Occupational Therapist and Teacher Collaboration on Handwriting Outcomes in the Classroom
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**Rationale**
Using a Response to Intervention framework including co-teaching, occupational therapists (OTs) can assist teachers in developing collaborative handwriting instruction individualized to the needs of children in their classrooms. This proactive, collaborative approach in designing, implementing, and adapting handwriting instruction leads to improved outcomes including legibility amongst children in primary grades and avoids unnecessary referrals for evaluations.

**Study Objective**
The study was completed in order to further understand how an RIt model of collaboration between an OT and teacher can positively impact handwriting outcomes in primary grades. This study also examined the ways an OT can embed strategies and activities into the general education curriculum that facilitate skill acquisition and provide measurable positive outcomes.

**Methods & Demographics**
Convenience sampling of 3 classrooms (39 total students) in one elementary school with teachers who were interested in additional support with handwriting.

1. Kindergarten (whole classroom instruction)
2. First grade A (whole classroom instruction)
3. First grade B (small group instruction)

Instruction occurred 1 x week for 30 minutes for 12 weeks (unless interrupted due to teacher request/school activities). It utilized concepts/categories from Size Matters Handwriting Program® (fall, small, and falling) to determine order of letter instruction. Legibility was measured utilizing criteria from the ETCH (Evaluation Tool of Children’s Handwriting).

**Results**

<table>
<thead>
<tr>
<th>Classroom</th>
<th># Students</th>
<th>UC Legibility Change</th>
<th>LC Legibility Change</th>
<th># Referrals Pre Intervention</th>
<th># Referrals Post Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten Class A</td>
<td>16</td>
<td>35%</td>
<td>30%</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>First Grade A</td>
<td>17</td>
<td>10%</td>
<td>12%</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>First Grade B</td>
<td>10</td>
<td>10%</td>
<td>11%</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

**Outcome Measurements**

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alphabet</td>
<td>Alphabet</td>
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<tr>
<td>uc</td>
<td>lc</td>
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**Conclusions**

- Post-collaboration legibility improvements were demonstrated and most pronounced amongst the kindergarten students. All but two first grade students demonstrated improvements.

- Collaboration with teachers to address handwriting concerns at the whole classroom and small group level reduced referrals for occupational therapy evaluations.

**Action Plan**
1. Comparison of classrooms with and without co-teaching
2. Comparison of results between classes that use a handwriting program and classes that do not use a program
3. Collaboration with district to streamline the co-teaching/RtI process
4. Institute a screening procedure for all kindergarten students within the district
5. Incorporation of routine meetings to further evaluate the efficacy of the intervention and adjust as needed

**Selected References**