TEACHER REFLECTION OVER TIME:
ASSOCIATIONS WITH CHANGE IN TEACHER PRACTICE AND CHILDREN’S ENGAGEMENT
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TEACHER REFLECTION

- Teacher reflection is important for teacher growth and effectiveness.
- Teacher reflection tends to involve a recurrent pattern of identifying a problem, developing an action plan, evaluating the effectiveness of the plan, and assessing the outcome (Marcus, Sanchez, & Tihema, 2000).
- Intervention components closely aligned with teacher reflection matter for effective teacher practice and children’s vocabulary development (Mashburn, Downer, Hamre, Justice, & Pantla, 2010; Pantla, Marshburn, Downer, Hamre, & Justice, 2008).
- Questions still remain regarding how teacher reflection changes within the context of an intervention and how it relates to teacher effectiveness.
- The current study employs an in-depth analysis of teacher reflection and examines associations between levels of reflection and change in practice and child engagement.

RESEARCH QUESTIONS

1. Do levels of teacher reflection change over time within the context of a coaching intervention?
2. Is teacher reflection associated with change in teacher practice?
3. Is teacher reflection associated with higher levels of child engagement?

SAMPLE AND DEMOGRAPHICS

Participants included 146 pre-kindergarten teachers participating in the year-long consultancy phase of a large professional development study and 327 children within their classrooms the following year. The large majority of teachers were female (94%) with an average age of approximately 43 years.

PROCEEDURES AND MEASURES

Three cycles were coded for each teacher. The first cycle, a cycle in the middle of the process, and the last cycle. The association between average teacher reflection and change in teacher’s CLASS scores from preto post-intervention and with children’s classroom engagement the following school year were examined using linear regression.

DESCRIPTIVES

Table 2. Descriptive Statistics of Teacher Reflection

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td>140</td>
<td>1.11</td>
<td>2.69</td>
<td>1.85</td>
<td>0.38</td>
</tr>
<tr>
<td>Time 2</td>
<td>144</td>
<td>1.03</td>
<td>2.75</td>
<td>1.87</td>
<td>0.36</td>
</tr>
<tr>
<td>Time 3</td>
<td>142</td>
<td>1.08</td>
<td>2.83</td>
<td>1.87</td>
<td>0.37</td>
</tr>
</tbody>
</table>

LEADER-CHILD INTERACTIONS

Table 3. Prediction of Change in Teacher-Child Interactions (N=137)

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Instructional Support</th>
<th>B</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Reflection</td>
<td></td>
<td>0.34</td>
<td>0.16</td>
<td>0.04</td>
</tr>
</tbody>
</table>

* Full model: $R^2=.03$, adjusted $R^2=.02$; $F=4.39$, df=1, p<.05

Table 4. Prediction of Change in Teacher-Child Interactions (N=137)

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Classroom Development</th>
<th>Quality of Feedback</th>
<th>Language Modeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Reflection</td>
<td></td>
<td>0.44</td>
<td>0.20</td>
</tr>
</tbody>
</table>

* Full model: $R^2=.04$, adjusted $R^2=.03$; $F=4.85$, df=1, p<.05
* Full model: $R^2=.01$, adjusted $R^2=.01$; $F=1.37$, df=1, p>.05
* Full model: $R^2=.03$, adjusted $R^2=.02$; $F=4.07$, df=1, p<.05

CHANGE IN TEACHER REFLECTION

A one-way repeated measures ANOVA was conducted. Results indicated on average there was no significant effect of teacher reflection across time 1, time 2, and time 3 of the intervention (F(1.18, 251.23) = 19, p=.81). These results suggest that teacher reflection is stable across time points.

CONCLUSIONS

- Teacher reflection did not change significantly across the intervention.
- Large variability in teachers’ ability to engage in reflection suggests teachers may be having very different experiences engaging in the intervention.
- Future analyses involving characteristics of teachers associated with reflectivity, as well as potential moderating effects of consultant effectiveness would prove valuable.
- Average teacher reflection was associated with improvements in teacher-child instructional interactions and child engagement the following year.
- Reflection may be important for improving teacher effectiveness.
- The specific mechanisms by which reflection leads to improved practice still need “unpacking.”

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