Early Language Development Project

Intervention on 2 Fronts to Improve Academic Achievement
Jennifer Spencer-Illams
Woodburn School District and the University of Oregon

Improvement Goal

"Students will improve scores on Oregon Assessment of Knowledge and Skills in both mathematics and English language arts by 10% overall.

Introduction

Early Language Development

Early oral language development is a key to future academic success. Yet many students enter kindergarten without the oral language proficiency to build skills in literacy and mathematics.

Woodburn School District’s demographics reflect 75% Hispanic students, 72% of students entering kindergarten are English language learners, and 60% are from the district qualify for the federal free lunch program because of pervasive poverty.

Research & Theory

Recent developments in brain research confirmed that success in school begins in infancy (Kuhl, 2011). Proficiency in oral language concepts and vocabulary development are key to achievement in all areas of academic success and are clearly related to the development of literacy. Risky and Hart (2011) conducted an intensive, longitudinal study that looked at the differences in parent-child interactions and found that the amount of words that parents spoke to their children from birth to 3 years old was radically different according to socioeconomic class, regardless of racial or cultural differences. The resulting differences in words heard puts a staggering 30 million word difference between children from professional families and welfare families by the time children are 4 years old.

The second phase of the action research project focused on intervention. Consultation was provided to half of the kindergarten teachers on ways to embed instruction on basic language concepts into their daily routines.

Family Status

<table>
<thead>
<tr>
<th>Family Status</th>
<th>Words heard per hour</th>
<th>Words heard at 3,120 hours</th>
<th>Words heard at 5,200 hours</th>
<th>Words heard at 6 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welfare</td>
<td>616</td>
<td>52,900</td>
<td>3 million</td>
<td>13 million</td>
</tr>
<tr>
<td>Working Class</td>
<td>1,251</td>
<td>125,000</td>
<td>6 million</td>
<td>26 million</td>
</tr>
<tr>
<td>Professional</td>
<td>2,152</td>
<td>215,000</td>
<td>11 million</td>
<td>40 million</td>
</tr>
</tbody>
</table>

Action Research in Woodburn

Knowing the importance of early language development and the fact that more than 80% of students live in poverty, the Speech Pathologist team engaged in an action research project to determine if low language was an issue for kindergarten students in Woodburn. Eight kindergarten classrooms were selected for the research, with approximately 86% of students being English language learners.

The results showed that on average, students in Woodburn are significantly behind their same age peers on language concepts, regardless of whether the language is English or Spanish.

Range of Options

In light of the research on the importance of early language development for success and what we learned from our action research project, we had considered a number of different options. First, we applied for a grant for an Even Start grant or other funding to start our own early intervention program. However, this was rejected because of the precarious nature of current federal grant funding, the concern of being spread too thinly, and the knowledge that this could only support a very limited number of families.

Second, we considered running a summer preschool program focused on early language development. However, in light of the Hart & Risley research, it would be more effective to involve students with the teachers at three years of age and the most effective way to reach children this young is through their parents.

Finally, longitudinal studies conducted by Thomas and Collier (2002) and Kuhl (2011) found that home language differences result in language acquisition of key vocabulary for early academic success (Boehm, 2001). The results showed that on average, students in Woodburn are significantly behind their same age peers on language concepts, regardless of whether the language is English or Spanish.

Research & Theory

Recent developments in brain research confirmed that success in school begins in infancy (Kuhl, 2011). Proficiency in oral language concepts and vocabulary development are key to achievement in all areas of academic success and are clearly related to the development of literacy. Risky and Hart (2011) conducted an intensive, longitudinal study that looked at the differences in parent-child interactions and found that the amount of words that parents spoke to their children from birth to 3 years old was radically different according to socioeconomic class, regardless of racial or cultural differences. The resulting differences in words heard puts a staggering 30 million word difference between children from professional families and welfare families by the time children are 4 years old.

The second phase of the action research project focused on intervention. Consultation was provided to half of the kindergarten teachers on ways to embed instruction on basic language concepts into their daily routines. Curriculum materials were also shared with these teachers, and the support continued on a weekly basis throughout the year. At the end of the year, the BOEHM was again administered to the students in all 8 classrooms. Though growth was seen across both the group that had the additional focus on basic language concepts and the non-intervention group, the group with the intervention scored higher.

Plan Specifics & Resources

Prong 1: Baby Talk!

Based on the parent empowerment model of Baby College in mathematics of Hart and Risley’s Zone (2002).

- Bring together key community members
- Parks & Rec, Health Providers, Library, Headstart, Local newspaper
- Focus on empowering parents
- Create a 3 x 3 x 3 plan
- Messaging: 3 short, meaningful understandable statements
- High Profile Events
- Use events to connect messages into the community
- Creative & Meaningful Outreach
- 3 new ways to educate & empower parents
- Implement the plan
- Plan for sustainability
- Engage community groups for funding and publicity
- Rotary, Kiwanis, PCUN, Chemeketa Community College

Prong 2: Into Kindergarten

- Indentify key vocabulary that crosses content
- Using BOEHM concepts that are most closely related to achievement in mathematics and literacy
- Engage kindergarten teachers
- Present action research data to staff at each elementary school, ask for input on ways to increase vocabulary development within current routines and content
- Create materials in English, Spanish, & Russian
- Posters for teachers, brief lesson plan ideas, homework packets of activities
- Distribute materials to kindergarten teachers
- Develop agreements for timelines, so the same language concepts are being emphasized across the 3 languages
- Implement instruction
- Instruction within embedded routines (lining up, morning calendar, lunch)
- Same concepts reinforced each week by specialists

Contact Information

For further information, please contact Jennifer Spencer-Illams, jennifer@uoregon.edu

Budget Implications

The Early Language Development Project is ambitious in scope, especially in light of what is already happening in schools. The pressure to have students meet standards in language arts and mathematics continues to grow for teachers and administrators. This pressure could lead to a lack of follow through on the Early Language Development Project. What is critical is developing a clear understanding of the connection between oral language development in young children and their future academic outcomes.

The Into Kindergarten component will be led by the Speech Pathology team without district funding. As they already have a deep professional commitment to early language development, it is likely to have strong sustainability. The key aspects of the project that may impact effectiveness are likely to be the buy-in that is built with other teachers and the extent to which job-embedded professional development is implemented.

The Baby Talk! prong of the project has the potential to lead the greatest results. The work of Hart and Risley (2011) shows that simple changes in how parents interact with their babies and toddlers can lead to profound improvements in school success. However, this project also has the potential to fall by the wayside in these difficult budget times. A strong committed steering committee must create a reliable infrastructure for sustainability or this project may just be one of these “neat ideas” that in the end, impact students in any meaningful way.