Reimagining Practice: Researching Change

VOLUME TWO

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Nature and Extent of Preschoolers' Language Delays in a Disadvantaged Community

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Education Queensland

The nature and prevalence of preschool children's language delays in an economically disadvantaged Brisbane community was investigated using three standardised language measures. The instruments assessed children's expressive vocabulary knowledge, receptive vocabulary knowledge, and provided measures of language form and grammar. These aspects of language were investigated in a sample of 157 children exiting preschool (mean age 5 years 3 months). Nineteen percent of the children performed at, or below, the 4-year-old level on the expressive vocabulary test and thirty-eight percent of the children had receptive vocabulary scores below the 4-year-old level. Grammar and language form were also significantly delayed. The educational implications of these delays are discussed along with suggestions for interventions. The research is part of a joint project conducted by Griffith University, Mission to Australia and Education Queensland and funded by the Australian Research Council.

Language problems and transition into schooling
Disadvantaged communities are identified using a range of social and economic measures, such as level of poverty and family income, crime rates, school achievement and completion data, health data, employment status, and family functioning (Hawkins & Catalono, 1992; Homel, Elias, & Hay, 2001). For more than 20 years intervention programs in disadvantaged communities have aimed at reducing risk factors and at enhancing protective factors and have had a strong early intervention orientation (Cashmore, 2001). Of particular importance in the present investigation of a disadvantaged community is the interrelationship between children's language development and transition to schooling, because a positive transition into school and early achievement in school are considered significant protective factors for children living in disadvantaged communities (Rutter, 1990). Increasingly, research findings reveal that a child's language proficiency is a critical factor in the positive transition into schooling (Beitchman, Cohen, Konstantareas, & Tannock, 1996; Bishop, 1997).

There is a growing consensus that appropriate early learning experiences can act as protective factors, with positive effects upon the cognitive and social development of preschool children to allay serious educational and behaviour problems (Cashmore, 2001,
Sylva & Colman, 1998). Further to this, is the belief that appropriate early learning experiences have a positive impact on a child’s development through the enhancement of the child’s language (Cole & Cole, 2001; Vaughn, Bos, & Schumm, 2000), since language is vital to the development of social skills, cognitive abilities, and academic outcomes. Delays in language development and/or language difficulties have a significant negative impact on children’s education (Bishop, 1997; Rutter & Mawhood, 1991; Seidenberg, 2002; Silver & Hagin, 2002).

Research has revealed a strong relationship between preschoolers’ language levels and their phonological processing and later reading and spelling acquisition. In addition, the negative effects of early language difficulties extend into students’ secondary school years and beyond (Joshi & Hulme, 1998; Snowling, Adams, Bishop, & Stothard, 2001). Even when studies control for intelligence and socio-economic status factors, students with early language delays have more difficulties with reading fluency, spelling, and reading comprehension, than their age-matched peers, and are more likely to select educational pathways that are considered less academic, and exit school earlier than their peers (Snowling et al., 2001). Importantly, Goodyer (2000) reported that language and behaviour problems are highly correlated, such that around 50% of children with language difficulties also have a range of associated emotional and behavioural problems. In a fourteen-year follow-up of children with early language delays with a control group of children, a strong association was demonstrated between language disorders and later young adult psychiatric disorders, anxiety, and antisocial behaviours (Beitchman et al., 2001). Sylva and Colman (1998) maintained that the strong association between children’s language development, their behaviour, and success in school underscored the importance of effective early intervention in the area of children’s language.

Lack of relevant prevalence data

It is estimated that about 14% of students in Queensland schools have special needs related to language and communication difficulties (Education Queensland, 2000). The estimated 14% would include children with specific language disorders and physical and intellectual impairments, as well as children with deficits in articulation, fluency, language pragmatics, and development. Data on prevalence rates of students whose difficulties are limited to language delays only are difficult to obtain, as are prevalence data for specific age groups in a particular district. This lack of available data could be due to a number of reasons. First, speech therapists and communication teachers are in short supply and often work on referrals at the individual case level, or as consultants to programs. Second, they may not have the time or the resources to undertake a broad screening of a large population of children using a range of language tests. Third, they may work across a range of communities and not have data for a specific district defined as disadvantaged. Fourth, lack of parental consent may prevent the public disclosure of prevalence data, even if it could be obtained.

Another issue associated with obtaining prevalence data involves determining what aspects of language development should be assessed and how these aspects should be measured. Hand (1998) has argued that a language assessment could consider at least three aspects of a child’s language: receptive vocabulary, expressive vocabulary, and
language syntax and form. A review of the literature, however, indicates that too often only receptive vocabulary, as measured by the Peabody Picture Vocabulary Test, has been the main assessment instrument of children’s language performance (Pierangelo & Giuliani, 2002).

**Research question**
Knowing the extent and nature of children's language difficulties in disadvantaged communities has implications for staffing and resource allocation, programming, curriculum design, instructional techniques, and teacher training and in-service education. The present investigation focuses on determining the prevalence and nature of language delays in children exiting preschools in a disadvantaged community.

**Method**

**Description of the disadvantaged community**
The study community is one of the poorest urban areas in Queensland with about half of all dwellings being Housing Commission stock. Sole parent families comprise approximately one third of the total, nearly a quarter of the workforce is unemployed based on 2000 figures, and the median household weekly income in 1996 was $416, one of the lowest levels in Queensland. In 2000, nearly one person in 5 was a child under the age of 10. The community is multicultural, with substantial Vietnamese, Pacific Islander, and Indigenous populations. Significantly, the juvenile crime rate has been three times higher than any other community renewal area, and child abuse notification rates have been one of the higher rates in Brisbane. The district is serviced by seven preschools, four of which were involved in this study.

**Instruments and procedure**
At the end of the preschool year (November), 157 preschoolers, mean age 5 years 3 months, located in four preschools in a disadvantaged community were assessed using three instruments: the Peabody Picture Vocabulary Test PPVT-3 (Dunn & Dunn, 1997) to identify receptive vocabulary level; the Hundred Picture Naming Test (Fisher & Glenister, 1992) to identify expressive vocabulary level; and the Renfrew Test of Narrative Speech (Renfrew, 1997) to identify a level of language complexity and development. All instruments are designed for use with young children and contain tables of age norms that convert children’s raw scores to corresponding language ages. Parental consent was obtained and the instruments administered in the local preschools by experienced teachers with experience in the education of young children with language difficulties.

**Results**
The results identified that a significant number of preschoolers are achieving below their appropriate chronological age level on the language measures (see Table 1). Nineteen percent of the preschoolers performed at or below the 4-year-old level on the expressive vocabulary measure and thirty-eight percent of them had receptive vocabulary scores below the 4-year-old level.
Table 1
Percentage of preschoolers below appropriate chronological language age
(mean 5 years 3 months) at end of preschool within a disadvantaged community

<table>
<thead>
<tr>
<th>INSTRUMENTS</th>
<th>LESS THAN 5 YEARS</th>
<th>LESS THAN 4 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressive vocabulary</td>
<td>43%</td>
<td>19%</td>
</tr>
<tr>
<td>Receptive vocabulary</td>
<td>61%</td>
<td>38%</td>
</tr>
<tr>
<td>Renfrew language test</td>
<td>70%</td>
<td>44%</td>
</tr>
<tr>
<td>Renfrew grammar test</td>
<td>87%</td>
<td>77%</td>
</tr>
</tbody>
</table>

Discussion and implications
The results of these standardised language tests challenge the notion that all children enter primary schools with the expressive and receptive language skills required to comprehend and manage the regular Year 1 curriculum. The claim that about 14% of students in Queensland schools have special needs in communication (Education Queensland, 2000) appears to be an under-estimation in economically disadvantaged early educational settings. Using a one year below chronological age as the cut-off point for age-equivalent scores, the percentage of children with receptive vocabulary difficulties (38%) is more than twice the 14% suggested by Education Queensland’s state average and this has implications for the allocation of resources.

The preschoolers’ results on the Renfrew language test are concerning with 44% of the preschoolers performing below the suggested age equivalent levels for language form and 77% for grammar. The Renfrew test was developed in the UK and was based on only a small sample with little information on the sample selected. Even so, the Renfrew results demonstrate that the children’s level of language complexity is an issue and interventions that enhance the children’s language complexity need to be encouraged. Future research should, however, aim at developing Australian norms for the Renfrew language test.

The results of the present investigation did not indicate significant gender differences in the incidence of language difficulties, and this finding contrasts with the traditional view that communication disorders occur three to four times more often in boys than girls (Vaughn et al., 2000). The present findings are more in keeping with the claim by Silver and Hagin (2002) that although there are as many girls as boys showing characteristics associated with learning difficulties, boys are three to four times more likely to be identified as being learning disabled. This prevalence research indicates that girls with language delays may be under-identified within the educational system.

The finding that 38% of the children starting school in a disadvantaged community demonstrated a delay in receptive vocabulary, that 19% of the children had expressive vocabulary delays, and that 44% of the children have language development delays, is concerning. Such a finding suggests that, in the early years of schooling, regular classroom teachers should concentrate on strategies that enhanced children’s vocabulary development and facilitate their use of more advanced and complex syntax.

Another approach being developed and evaluated by the authors is based on Blank’s level of language complexity (Blank, 2002; Blank, Rose, & Berlin, 1978), and preliminary
results are encouraging (Elias et al., 2002; Hay, Elias, & Homel, 2003). Blank et al. (1978) proposed four levels of language complexity that progress from the concrete through to the abstract (see Table 2). These levels of language complexity can be used to develop language materials and teacher-child dialogue suited to the language needs and abilities of individual children.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>LANGUAGE COMPLEXITY</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Directly Supplied Information</td>
<td>“What do you see?”</td>
</tr>
<tr>
<td>2</td>
<td>Classification</td>
<td>“What colour is that?”</td>
</tr>
<tr>
<td>3</td>
<td>Reorganisation</td>
<td>“Re-tell me the story.”</td>
</tr>
<tr>
<td>4</td>
<td>Abstraction and Inference</td>
<td>“What made it happen?”</td>
</tr>
</tbody>
</table>

Blank (2002) maintained children need exposure to and practice with all four levels of abstraction. In addition, teachers can use Blank’s levels of abstraction to design oral language and book-reading interventions based on the child’s current level of language complexity. For example, the greater proportion of the teacher’s talk during lessons might be pitched at the child’s present level of language complexity and the remainder at the next level. That is, the teacher’s language is neither too easy nor too difficult for the child. Rather, the teacher-child dialogue is at an appropriate, instructional level. Such a balance in teacher talk facilitates the child’s participation in dynamic language-enhancing dialogues that may occur in small-group daily activities or planned individual lessons. Children’s successful participation in these social interactions is likely to motivate their further involvement in language-enhancing dialogues with adults and peers.

Children with language delays also need to understand the social practices of the classroom and how these relate to the exchange of information (Vaughn et al., 2000). This aspect of language use involves teaching children to (a) attend to the teacher; (b) ask for help; (c) practice and understand group process skills; (d) use turn taking; and (e) develop positive peer interactions, for example.

Summary

This research identified the nature and extent of language difficulties in children from a disadvantaged community. Thirty-eight percent of the preschoolers in this study had receptive vocabulary difficulties, nineteen percent had expressive vocabulary difficulties, and forty-four percent had delays in language complexity. These rates are higher than the estimated prevalence of language and communication difficulties (average of 14% across the state). The research findings have wide-ranging implications, given that early language problems progress onto secondary school and are highly correlated with behaviour difficulties and poor academic achievement (Bishop, 1997; Goodyer, 2000). It must be recognised, however, that the present investigation focused on a limited number of language abilities and further research is required to gain a more complete picture. Sustained language and literacy interventions are a necessity for children with early
language delays and such interventions require ongoing resources along with teacher and parent support.

References


Lawrence.
Nature and Extent of Preschoolers' Language Delays in a Disadvantaged Community


