Dual Language Learners in the Early Years:
Getting Ready to Succeed in School

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Keira Gebbie Ballantyne
Alicia R. Sanderman
Nicole McLaughlin

Keira Gebbie Ballantyne, Ph.D., is the Assistant Director of the National Clearinghouse for English Language Acquisition

Alicia R. Sanderman, M.A., is a Research Associate at the National Clearinghouse for English Language Acquisition

Nicole McLaughlin, M.A., is a Research Associate at the National Clearinghouse for English Language Acquisition

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Summary

Children who begin school ready to learn are taking the first steps toward realizing their fullest potential in later life. A variety of factors in the very early years work together to create conditions that optimally prepare children ready for school. Ready children have the support of their communities and their families, have access to early education and health care services, and enter schools which are ready to meet their unique needs.

A major challenge facing the prekindergarten–12 education system in the United States is the fact that as the population changes, the particular needs of children change with it. One of the largest demographic shifts over the last ten years is the sharp increase in the number of students in public schools who speak English as their second language (NCELA, 2007a). The majority of these children are born in the United States and thus from a very young age are acquiring both the language of their family as well as the language of the larger community. These very young children are dual language learners (DLLs).

There is an achievement gap between DLLs and monolingual English speaking children, even after these children have spent five or six years in U.S. schools. These children are also more likely than other learners to come from low-income communities. This means that these learners come from communities where:

- Their parents are less likely to have graduated high school.
- They are less likely to have access to the full gamut of health care services in the critical earliest years of life.
- They are less likely than other children living in poverty to attend preschool, despite the fact that preschool attendance has more of a beneficial effect for Spanish-speaking dual language learners than for any other comparable demographic group.

These learners, therefore, may not have had access to the early experiences which optimally prepare children for learning in school. They thus require that teachers provide support and instruction in the early school years which is responsive to their particular needs. Research on instruction indicates that young DLLs:

- Benefit from instructional techniques that work to include them in classroom social interactions and recognize the value of their home language;
- Require sufficient time (4–6 years) to become proficient in their second language;
- Benefit from explicit vocabulary instruction;

- Can transfer literacy skills from their first language, and retain the benefits of first language literacy through eighth grade measures of reading proficiency.

Dual language learners also require assessment tools that are appropriate and sensitive to their needs. Attaining accurate assessments of young children who are learning two languages is enormously complex, and assessment measures must be sensitive to both maturational processes as well as the trajectory of second language acquisition. We recommend multiple ongoing assessment measures which can be used to target instruction to the particular needs of individual children.

In order to ensure that linguistic minority children are afforded the best possible start in life, policymakers and education decision makers need to inform themselves about the particular circumstances and requirements of this group of children. They furthermore need access to accurate data so that they can work to create optimal conditions which result in children who are ready to learn in school.

Introduction

A commitment to educating children in the earliest years of life has long been a hallmark of education policy in the United States. In 1994, Congress passed, and President Clinton signed into law, *Goals 2000: Educate America Act*. The first of the eight educational goals envisioned by the act states that **all children in America should start school ready to learn**. The educational issues raised in *Goals 2000* have their roots in a 1989 summit convened in Charlottesville by then President George H.W. Bush and 50 state governors.

The challenges faced in getting children ready for school and in getting schools ready for children have changed since 1989, in no small part due to the demographic shifts in the population of America's youngest children. In the ten year period from school year 1995–96 until school year 2005–06, the percentage of children enrolled in prekindergarten through twelfth grade increased by 3.66%. In the same period, the percentage of children classified as Limited English Proficient (LEP) increased by 57.17% (NCELA, 2007a). This report examines the challenges faced in ensuring that these children are ready to succeed in the earliest years of their schooling.

Although measures of the readiness of children upon kindergarten entry are desirable for a variety of policy making reasons, measures which assess the proficiencies of individual children can have unwanted consequences. Since the National Educational Goals Panel's report *Getting Ready for School*, researchers and policy makers have recognized this problem.

> Unfortunately, we cannot test young children and compute a "readiness quotient" for each child. Such testing would not provide an accurate and fair picture of children's actual prospects for succeeding in school. . . . Despite our eagerness to ensure that children get a good beginning, we need to be wary of classifying four- or five-year olds as "ready" and "unready" because such judgments (and they are not more than that) can become self-fulfilling prophecies.
> (NEGP 1997, p. 3.)

A similar caution against labeling young children is articulated by professional associations of early childhood educators:

> The major risk of any standards movement is that the responsibility for meeting the standards will be placed on children's shoulders rather than on the shoulders of those who should provide opportunities and supports for learning. This risk carries especially great weight in the early years of schooling, which can open or close the door to future opportunities. . . . Culturally and linguistically diverse children . . . may be at heightened risk.
> (National Association for the Education of Young Children (NAEYC) and National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE), 2002, p. 5)[1]

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[1] Note that the NAEYC & NAECS/SDE position is not ultimately that standards-based learning is inappropriate in early childhood, but rather that standards should be well-implemented to avoid possible pitfalls.

In this report, our focus is on ways in which communities and educators can create conditions from which young children emerge ready to learn. Our focus is primarily on prekindergarteners and kindergarteners—that is, 3–6 year old children.

Who Are Dual Language Learners?

Children who are 3, 4, 5 and 6 years old are still in the process of acquiring their first language, even as they are also acquiring their second. For monolingual children acquiring their native language, full adult competency is not acquired until adolescence (Nippold, 1998). In the early school years, children are in the process of refining the nuances of their first language. In the first years of elementary school, children acquire complex syntactic structures, a fully elaborated semantic system, high-level inferential comprehension and the skills to understand nonliteral uses of language (Crutchley, 2007). We thus refer to young children who are learning a second language while still acquiring their first as **dual language learners**.

DLLs are diverse in their linguistic backgrounds. They may differ in terms of the amount of English that their parents speak (from very little English at all to fluent English). Their parents may also differ in terms of the extent that they speak one or more languages in the home. In some families, parents may speak one language at home and another at work. In other families, parents may speak two languages interchangeably at home. Family members may come from different language backgrounds, so a child may speak English to a parent but Spanish to a grandparent living in the home. Dual language learners arrive at school with language backgrounds and skills which are substantially different from monolingual English speakers.

A Note on Terminology
Several terms are used in the literature to describe children from backgrounds where English is not the first language.

Limited English Proficient (LEP), as defined in Title III of the *ESEA*, refers to those students who have not yet achieved English language proficiency (ELP), and are hence eligible for Language Instruction Educational Programs supported by the U.S. Department of Education, Office of English Language Acquisition.

English Language Learners (ELLs) is a broader term used to describe any K–12 student for whom English is not a first language and who requires language support in the classroom in order to access instructional content.

Other researchers may also use terms such as linguistic minority students (LMS), or describe these children as culturally and linguistically diverse (CLD).

The Structure of this Report

Data Sources and Gaps surveys current publicly available data concerning the population and backgrounds of DLLs, as well as their achievement levels compared to other students. Accurate data on DLLs is difficult to access, and this report often relies on proxy sources of data,

including data on Hispanic children and on immigrant children. This section recommends that states collect and report more nuanced data on K–2 DLLs.

Getting Ready for Kindergarten, considers a number of indicators which predict later learning difficulties in the prekindergarten years. Our focus here is on group-level risk factors, and we adopt the framework of the National Schools Readiness Indicators Initiative (Rhode Island KIDS COUNT, 2006) in examining how families, communities, services and schools work together to get children ready for school.

Getting Ready for First Grade discusses factors in the kindergarten year which predict later learning difficulties, with an eye to preparing children who will enter first grade ready to succeed.

Assessing Language Factors that Predict Academic Success for DLLs addresses the question of how best to measure the factors which prepare ready children. The section briefly introduces various purposes of assessment, then examines some of the challenges inherent in the educational assessment of young children. It concludes with a set of research-based recommendations for accurate assessment.

Data Sources and Gaps

In this report, we examine the conditions of early childhood for dual language learners from a variety of angles. Our goal is to sketch out the degree to which the nation is succeeding in preparing DLLs for kindergarten and first grade. A key stumbling block toward this goal is the fact that data which specifically describe DLLs are difficult to come by.

Population

A simple estimate of the numbers or proportions of dual language learners in the early childhood population is not currently available given existing readily available data. From the data available however we can safely assume that the number of DLLs as well as their proportion of the population are both rising.

For 3–4 year olds, the best population estimate comes from Head Start data. In 2006, nearly one in three Head Start or Early Head Start children came from families where a language other than English is spoken.[2] Research on participation rates of DLL children in preschool services indicates however that they are less likely to participate than other children (Iruka & Carver, 2006; Magnuson & Waldfogel, 2005), hence, Head Start rates may not accurately reflect the proportion of DLLs in the population as a whole.

Data on Limited English Proficient (LEP) children provided by states to the U.S. Department of Education shed some light on changes to the kindergarten population of DLLs, but these data do not allow for a simple count of kindergarten DLLs.

The number of children who are classified as Limited English Proficient (LEP) in K–12 education has risen by almost sixty percent over the past ten years; by comparison, total K–12 enrollment has risen by less than five percent (NCELA, 2007a). Although some of these children are immigrants who arrived as school-aged children, the majority of them (64%) were born in and spent their early childhood years in the United States (Batalova, 2006). These data indicate a substantial overall rise in the number of children aged 0–6 who are dual language learners.

Given state's current data collection and reporting requirements, collecting data on the number of DLLs in each of the early years of elementary school would not be unduly burdensome and would significantly benefit these young children in that it would allow for sound policy regarding their educational needs. States currently report enrollment figures for the entire band of K–2 students in total. Reporting these figures separately for kindergarten, first and second grade would allow for more accurate demographic data on the numbers of DLLs entering kindergarten. Given the current states of assessment research, we do not recommend extending assessment data collection on this age group of children at this point.

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[2] Figures from the 2006–07 Head Start Program Information Report (PIR) data collection. We are grateful to Sharon Yandian for providing us with these data.

Background: Current Data Collection Efforts by States

Two sources of information regarding existing data collection efforts by states were available to the authors of this report. The first is the Consolidated State Performance Report (CSPR) data which states submit to the U.S. Department of Education. The second is data collected by the Early Childhood Education Assessment Consortium (ECEA) State Collaborative on Assessment and Student Standards (SCASS) of the Council of Chief State School Officers, the *2008 ECEA SCASS Survey of the States.*

Federal reporting requirements call for states to submit demographic and assessment data on K–12 students with limited English proficiency via the Consolidated State Performance Report in order to claim Title III funding for these students. Under these requirements, kindergarten through second grade is treated for reporting purposes as a single band, and states must provide only enrollment data on K–2 students in total, but are not required to break these numbers down by grade level. In school year 2006–07, 45 states submitted complete enrollment and proficiency data on Title III K–12 students as a whole.[3] The majority of states are thus collecting the required data, but because K–2 data is consolidated in a single block, the data are not reported in ways that can inform sound policy regarding the kindergarten year in particular.

The *2008 ECEA SCASS Survey of the States*, conducted by the Council of Chief State School Officers, surveyed 49 states and the District of Columbia regarding existing and emerging policies and practices related to early learning standards, early childhood assessments, and early education program monitoring and evaluations.[4] Survey data were collected in March and April of 2008, and cover pre-K, K and grades 1–2.

The survey found that:
- 13 states disaggregate their early childhood assessment results by ELL status.

Of these:
- 5 states disaggregate for ELLs enrolled in state-sponsored prekindergarten.
- 7 states disaggregate results for kindergarten.
- 5 states report early childhood assessment results for ELLs in grades 1 and 2.

Other Demographic Data

In addition to population measures, a thorough assessment of the conditions leading to educational success requires measures of other societal variables which impact education. The next section of this report examines factors such as socio-economic status, parental education, access to early learning opportunities, and early childhood health. Data supporting our

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[3] The proportion of ELLs enrolled in Title III-sponsored programs, compared to all ELLs in K-12 public schools, is approximately 90% (U.S. Department of Education, 2008).
[4] OELA is indebted to Jana Martella and the National Association of Early Childhood Specialists in State Departments of Education for inviting OELA to include questions in its 2008 state survey, and for sharing the raw data from that survey with the authors of this report. Figures from the Consolidated State Performance Reports (CSPR) are courtesy of OELA staff Fengjiu Zhang and Elizabeth Judd. We were unable to obtain proficiency data for K–2 LEP students for the current report. A separate forthcoming report from OELA will present these data.

assessment are drawn from a number of sources, but many of the most useful sources of social and population trends do not allow for the extraction of data on DLLs.

The Census Bureau collects data on the (self-assessed) English proficiency of respondents, however these data are typically not cross-referenced with data on poverty, educational level, birth rates, or other relevant Census categories. Other sources of extensive demographic data on young children, including *America's Kindergarteners* (U.S. Department of Education, 2000) and *America's Children: Key National Indicators of Well-Being* (Federal Interagency Forum on Child and Family Statistics, 2007) also lack cross-referenced data on language background and other indicators.

One source of useful data is the Head Start Family and Child Experiences Survey (FACES). This survey tracks a nationally representative sample of approximately 2,500 children enrolled in Head Start programs. Cohorts are sampled every three years. Data are disaggregated by linguistic background, allowing for a sketch of the preschooling experiences of DLLs to emerge (U.S. Department of Health and Human Services, 2007). These data however only sample children in Head Start, and may not provide a representative picture of the overall population of linguistic minority children.

Linguistic minority status can also be estimated using data on ethnicity and immigration status. Spanish speakers make up an estimated 76.9% of LEP students in K–12 public schooling (NCELA, 2007b), and so data on Hispanic or Latino families are of relevance. Again, a caution is in order; children from Hispanic or Latino families are not necessarily children from homes where Spanish is the primary language spoken. Data on children with immigrant parents are also a potential proxy, but again, these include children who come from homes where English is the primary language. Finally, both of these data sources may omit DLL children who are neither Hispanic nor have immigrant parents, including children who come from backgrounds where Native American or Pacific languages are the primary home language.

Although none of the available sources of data directly describe the situation of young dual language learners, when data from several sources paint a similar picture, it is reasonable to draw cautious conclusions. The data presented below thus approximate our best estimates on the social and economic conditions which support getting young DLLs ready for school, given the sources available. This lack of data is of course problematic, and sound policy on this issue would be much enhanced with future collection of accurate figures.

School Performance

There are a number of reasons why assessment data on the performance of prekindergarten and kindergarten DLLs is difficult to obtain and problematic. Comprehensive research on the subject has found that no single assessment measure provides a reliable picture of school performance in the early years (Saunders & O'Brien, 2007), and we take up issues and practices regarding assessment in greater detail below.

Two sources of data clearly indicate that children for whom English is not the primary language are falling behind their peers before they reach the end of elementary school. At later stages of

elementary school children are expected to have mastered the simple word-reading skills of early literacy and to have moved toward extracting meaning from more complex texts (Chall & Jacobs, 2003; Best, Floyd & McNamara, 2004). Late elementary school assessments allow educators to observe whether children have successfully acquired the ability to take on integrated language and literacy tasks.

Data from the Nation's Report Card (U.S. Department of Education, National Center for Education Statistics, 2007a & 2007b) show that LEP students lag behind their English proficient peers on standardized tests of reading and mathematics. Reading data are presented below.

Percentages of Students At or Above Basic, Proficient, and Advanced on Fourth-grade Reading
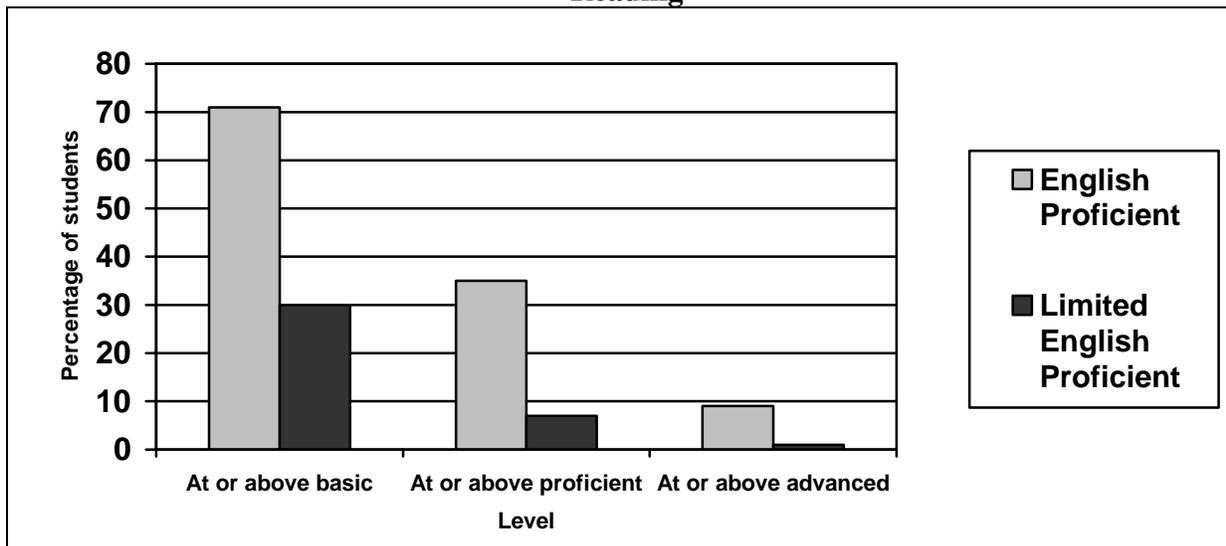
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (2007a) .

Limited English proficient students reach the "basic" level less than half as often as their English proficient peers. They are also vastly underrepresented in the "advanced" tier.

Supporting data come from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K). This longitudinal study follows a national sample of children who enrolled in kindergarten for the first time in 1998, and tracks progress through the fifth grade. ECLS-K data reported by Miller and Garcia (2008) provides a picture of the progress of Hispanic children, with data disaggregated for the group of Hispanic children for whom the initial kindergarten assessment in English was not appropriate. Miller and Garcia present a nuanced picture of achievement data for those DLLs who entered kindergarten without English language skills, and find that at the fifth grade, these children are in the lowest performing group, and that very small proportions of these children are achieving at advanced levels (Miller & Garcia, 2008, see especially pp. 13-14).

Getting Ready for Kindergarten: Four Conditions which Result in Ready Children

Strong community and family support in the prekindergarten years helps children to be ready when they arrive in kindergarten. This section of the report examines a range of group indicators which describe communities that provide children with the early supports that they require to be ready to learn. We are guided in this effort by the framework of the *National School Readiness Indicators Initiative* (NSRII), a partnership of 17 states dedicated to reviewing research on early childhood risk factors and improving school readiness.[5]

In our examination of community-wide factors which contribute to school readiness, the available evidence strongly points to the conclusion that dual language learners are more likely than other learners to come from low-income communities. Families in low-income communities are likely to be over-represented in measures which correlate with gaps in later achievement, including lower levels of parental education, and lower availability of health care and high-quality preschool education. A key aspect of our approach to community-wide factors is that these measures apply to groups of children, not to individuals. This more accurately captures the insight that children who do not have access to the full range of early childhood supports tend to cluster in lower-income communities.

Many of the NSRII indicators correlate tightly with poverty. Taking group measures of risk factors approaches this fact in a realistic and meaningful way. Poverty is not an individual risk factor—rather, it tends be characteristic of entire communities and neighborhoods. This perspective is echoed by Snow, Burns & Griffin (1998) in their approach to early reading difficulties. They identify three *group* risk factors which are associated with difficulties in acquiring literacy. The first of these is that children live in low income families and in poor neighborhoods; the second is that in the K–12 schools which are available to children, achievement is "chronically low."[6] In a similar fashion to the NSRII, they thus recommend measures of group risk factors rather than measuring individual factors at kindergarten entry:

> Individual testing of all kindergarteners, which can be costly, probably has less utility in a school in which a large number of entering students are at risk due to economic disadvantage or other group risk factors, . . . In that circumstance, the highest priority in allocating resources should address the goal of raising the group's overall level of achievement.
> (Snow, Burns, & Griffin, 1998, pp. 118-9).

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[5] For a brief overview of various conceptions of the notion of school readiness and its adherence within the child or within the community, see Scott-Little, Kagan & Frelow (2006).

[6] Linguistic difference is the third factor identified, however "linguistic differences are not solely responsible for the high degree of risk faced by these children and . . . the role of co-occurring group risk factors, particularly school quality, home literacy background, and SES, must be considered" (Snow, Burns, & Griffin, 1998, p. 123). Although children from middle class and wealthy backgrounds who are learning English may have obstacles which are not faced by their native English speaking peers, for poorer families, linguistic and cultural differences are likely to exacerbate the difficulties faced by families in poverty.

The NSRII provides an innovative and holistic approach to measuring school readiness. The "ready child" emerges from his or her family and community with support from community services and access to a school which is ready to meet the needs of the child.

The Ready Child Equation

Ready Communities	+	Ready Families	+	Ready Services	+	Ready Schools	=	Children Ready for School

(Rhode Island KIDS COUNT, 2006, pp. 12-13)

Each component of the ready child equation is accompanied by a set of measurable indicators. Core indicators highlighted by the national initiative are based on indicators selected by multiple states in the partnership. Because the NSRII is a state level initiative, the indicators were also chosen with an eye to factors which could be influenced by policy at the state level.

A full list of the core indicators is provided below. A key characteristic of this initiative is that the indicators measure readiness at the level of the entire community, rather than computing a measure for an individual child. This approach allows for accountability in school readiness while avoiding the "self-fulfilling prophecy" caution of the National Educational Goals Panel.

Summary of Core Indicators of Conditions for Ready Children

(adapted from Rhode Island KIDS COUNT, 2006, pp. 12-13)

Ready Communities

Indicator	Measure
Young Children in Poverty	*Percentage of children under age 6 living in families with income below the federal poverty threshold.*
Support for Families with Infants and Toddlers	*Percentage of infants and toddlers in poverty who are enrolled in Early Head Start.*
Lead-free Environments	*Percentage of children under age 6 with blood lead levels at or above 10 micrograms per deciliter.*

Ready Families

Indicator	Measure
Mother's Educational Level	*Percentage of births to mothers with a high school diploma*
Births to Teens	*Number of births to teens ages 15–17 per 1,000 girls.*
Child Abuse and Neglect	*Rate of substantiated child abuse and neglect among children birth to age 6.*

Ready Services: Early Care and Education

Indicator	Measure
Children Enrolled in an Early Education Program	*Percentage of 3- and 4-year olds enrolled in a center-based early childhood care and education program (including child care centers, nursery schools, preschool programs, Early Head Start or Head Start programs, and pre-kindergarten programs).*
Access to Child Care Subsidies	*Percentage of eligible children under age 6 receiving child care subsidies.*
Early Education Teacher Credentials	*Percentage of early childhood teachers with specialized training in early childhood.*
Accredited Child Care Centers	*Percentage of child care centers accredited by the National Association for the Education of Young Children (NAEYC).*
Accredited Family Child Care Homes	*Percentage of family child care homes accredited by the National Association for Family Child Care (NAFCC).*

Ready Services: Health Care

Indicator	Measure
Health Insurance	*Percentage of children under age 6 without health insurance.*
Low Birthweight Infants	*Percentage of infants born weighing under 2,500 grams (5.5 pounds).*
Access to Prenatal Care	*Percentage of women who receive late or no prenatal care.*
Immunizations	*Percentage of children aged 19-35 months who have been fully immunized.*

Ready Schools

Indicator	Measure
Class Size	*Average teacher/child ratio in K–1 classrooms.*
Fourth Grade Reading Scores	*Percentage of children with reading proficiency in fourth grade as measured by the state's proficiency tests.*

In the *Getting Ready* framework adopted by the NSRII, children emerge from the confluence of conditions described by the indicators, and enter school more or less ready to learn.

Ready Communities

The three indicators for ready communities—number of children in poverty, number of those children enrolled in Head Start, and rates of elevated lead in young children—are both direct and indirect indicators of communities in poverty. Although the data described below strongly point to the conclusion that dual language learners are more likely to live in poor communities than are other learners, educators and policymakers should be careful not to equate poverty with a complete lack of home resources. There is an extensive literature on working with educators to develop a sensitive appreciation of the background strengths that children living in poverty bring to the classroom (see especially the work of González and Moll (Moll, Amanti, Neff & González, 2005; González et al., 2005, inter alia).

The available data strongly suggest that children from homes where English is not spoken well are more likely to be of lower socio-economic status than children in the general population. Nationally, in 2006, 39% of children lived in low-income families, defined as families where the family income is less than twice the federal poverty level. This figure spikes for Latino children, 61% of whom lived in low-income families, and also for children of immigrant parents, 57% of whom lived in low-income families (National Center for Children in Poverty, 2007). Unemployment is typically not a causative factor for low income levels in Hispanic families; rather, these numbers are more typically due to low wages (National Task Force on Early Childhood Education for Hispanics, 2007). FACES data for 2003 also show an income discrepancy between the families of DLLs and other families. The average annual family income for Head Start DLLs in the FACES sample is $15,593; for other families, the average is $17,090 (Ziv, 2008).

Elevated blood lead levels also correlate tightly with poverty. Forty-four percent of children living below the poverty line had lead levels of greater than 2 micrograms per deciliter[7]; furthermore at every increment of measure, children living in poverty are more likely than other children to have lead in their bloodstream (Federal Interagency Forum on Child and Family Statistics, 2008).

There are a number of studies which report that the deleterious effects of low socio-economic status on academic achievement hold true for ELL populations (Fernandez & Nielsen, 1986; Lindholm-Leary, 2001; Hampton et al., 1995; Nielson & Learner, 1986; all are identified in Lindholm-Leary & Borsato's (2007) meta-analysis; see also Reese et al., 2000). The research base is however extremely small compared to research into the effect of SES on native English speaking students (Lindholm-Leary & Borsato, 2007), and because a great deal of the literature on ELLs in general looks at students from low-income families, it is difficult to assess the cumulative effects of low SES and linguistic barriers to access faced by low-income non-English speaking communities.

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[7] There is no "safe" level of lead in the bloodstream; levels of 10 micrograms per deciliter are considered "elevated" and correlate with an average six point decline in IQ score (Federal Interagency Forum on Child and Family Statistics, 2008).

Ready Families
Families which provide an environment for ready children are safe and provide stable and long-term caregivers for children. The NSRII indicators for ready families include

> *The research clearly shows that children who come to school with experience in reading are less likely to encounter reading difficulties, regardless of the language in which they read or are read to at home.*

measures of safety and of nurturing family environments. Research on emotional well-being has shown that Mexican American immigrant children in particular exhibit high levels of mental health (National Task Force on Early Education for Hispanics, 2007).

As well as looking at factors related to safety and absence of neglect, the initiative uses rates of teenage motherhood and maternal high school completion as indicators of family readiness. High quality education for young women, as well as having obvious benefits in and of itself, has benefits which extend into the next generation. Childbearing during the teen years, furthermore, is strongly correlated with a reduced chance of high school graduation (Hofferth, Reid, & Mott, 2001).

FACES data show that parents of DLLs are less likely than parents of other children to have completed high school. In the 2003 cohort, 43% of parents of DLLs had not completed high school, compared to 16% of parents whose children were not DLLs (Ziv, 2008). Census data paint a similar picture for elementary school children. Using 2000 Census data, Capps et al. (2005) find that almost half of parents of children from non-English speaking backgrounds had not completed high school, compared to 11% of parents of English proficient children. For immigrant Hispanic families, however, there has typically been a strong commitment to the education of children accompanied by a rapid change in educational achievement levels across generations, with U.S. born children having much higher levels of educational achievement than their immigrant parents (National Task Force on Early Education for Hispanics, 2007; Miller & Garcia, 2008).

A number of additional family factors have been identified by the relevant literature as predictors of reading success or difficulty. Snow, Burns and Griffin (1998, pp. 119-21) point out that a family history of reading difficulty is a predicting factor. Whether this is due to inherited or environmental traits is currently not clear.

The research clearly shows that children who come to school with experience in reading are less likely to encounter reading difficulties, regardless of the language in which they read or are read to at home (Riches & Genesee, 2007; Genesee & Riches, 2007; Reese et al., 2000; Snow, Burns & Griffin, 1998; Jackson & Wen-Hui, 1992). It is critical that families are made aware of this, as it is a concern to many families raising bilingual children that using the first language in the home might impede the acquisition of the second. Riches and Genesee (2007), in their research overview, find that the link between first language reading ability and second language reading ability is "the most direct crosslinguistic relationship" and is a stronger predictor than second

language oral proficiency. The effects of first language literacy are long ranging, and extend to performance on eighth-grade assessments (Reese et al, 2000).

In families where one or both parents do not speak English, parents are less likely to read to their children regularly than in families where both parents speak English (O'Donnell, 2008). Anecdotal evidence suggests this may be because parents are concerned that reading to a child in the home language

> **The effects of first language literacy are long ranging, and extend to performance on eighth-grade assessments.**

will impede the acquisition of English (see for example the account of Tucson Principal Jesús Celaya who initiated home visits after finding Spanish speaking parents who believed that speaking to their children in the home language was detrimental to their education. "Drachman teachers," 2008).

Because family literacy practices are linked to success in reading, parents should be encouraged to read to their children, and also to engage their young children as readers by encouraging early attempts at reading and by helping young children recognize letters and spell words. Experts also recommend encouraging parents to practice rhyming, tongue twisters and other forms of word play with their children in the home language (Yopp & Stapleton, 2008). It is important that schools and preschools reassure parents who do not speak English that early reading activities in other languages are helpful and not harmful, and that early literacy skills learned in one language can transfer to another (for more detail on the concept of transfer, see the section on Communicative Skills, below).

For families from non-English speaking backgrounds, the difficulties which go hand in hand with poverty and poor communities are compounded by difficulties in accessing social services due to linguistic or cultural barriers.

Ready Services
Ready services are split into two areas; early care and education, and health care services.

Early Care and Education
Dual language learners are less likely to be enrolled in prekindergarten[8] than children from English only backgrounds. Data gleaned from a number of sources, including the National Center for Education Statistics, National Institute for Early Education Research, and the Census Bureau, converge very clearly on this point. The available research indicates that this discrepancy is due to lack of opportunity rather than lack of interest, and research also shows that preschool attendance has very clear benefits for DLLs (Pérez & Zarate, 2006; Barnett & Yarosz, 2007).

Survey data of interviews from 1,000 Hispanic families indicates that families valued prekindergarten programs, and that 97% of families would use free and voluntary preschool

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[8] Prekindergarten programs here encompasses a variety of center-based programs, including Head Start, Early Head Start, state-sponsored prekindergarten, and other preschool and center-based care.

programs if they were available (Pérez & Zarate, 2006). Lower levels of preschool attendance are likely to be motivated not by lack of interest, but by lack of access.

> Statistical analyses indicate that parental education, income, employment, family structure, and region explain much of the difference in pre-K participation rates between Hispanics and other ethnic groups.
> (Barnett & Yarosz, 2007)

Attendance in high quality prekindergarten programs, furthermore, not only reduces achievement gaps, but also decreases the achievement gap for Hispanic children more than for any other ethnic group (Gormley & Gayer, 2004; Laosa & Ainsworth, 2007). Despite the clear benefits of preschool and the fact that it is strongly supported by parents, rates of preschool attendance are lower for dual language learners than for other categories of children (Iruka & Carver, 2006; Magnuson & Waldfogel, 2005).

The National Household Education Surveys (NHES) Program (Iruka & Carver, 2006), administered by the U.S. Department of Education's National Center for Education Statistics, measures the

" Attendance in high quality prekindergarten programs decreases the achievement gap for Hispanic children more than for any other ethnic group. "

caregiving arrangements and preschool attendance of children from birth through age six via a representative sample of families. The NHES survey also collects data on whether or not parents speak English.[9] Survey results show that DLLs are more likely to be cared for at home by a parent. In households where both parents speak English, 37% of children are cared for exclusively in the home by a parent. The proportion is much higher in households where English is not the only language. If one of two parents speak English, the proportion is 63%, and if no parent speaks English, the proportion is 58%. Among children cared for outside the home, the proportion of children in center-based care (including day care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs) is relatively even across language groups, but because fewer DLLs are cared for outside the home, the overall proportion of prekindergarten attendance is lower.

Data on Hispanic children's participation in prekindergarten point to similarly low rates of attendance. Data presented by the National Institute for Early Education Research show that rates of prekindergarten attendance for 3 and 4 year olds are lower for Hispanic children than for any other ethnic group. Using data from the Survey of Income and Program Participation (SIPP), administered by the Census Bureau, Magnuson and Waldfogel find lower rates of preschool attendance for Hispanic children than for other children. Of children under six years old, almost 30% are enrolled in a center-based preschool; for Hispanic children, the figure drops to 22% (Magnuson & Waldfogel, 2005).

Just as critical as the number of children who receive early preschool services is the quality of the services that are received. Crucial to early education for children from households where

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[9] English speaking ability is based on self-report.

English is not spoken well is linguistic and cultural access to education, both for children as well as parents. High-quality preschool for dual language learners includes access to providers who have the cultural and linguistic competence to communicate effectively with these children and their families.

For fiscal year 2005, 75% of Head Start programs provided services to children from more than one language group. During the same time period, only 29% of child development staff spoke a language other than English (U.S. Department of Health & Human Services, 2005).[10]

The above data suggest that dual language learners are less likely to have attended high-quality preschools, or indeed have any preschool experience, than are other children. It is thus critical that schools are prepared to offer appropriate learning experiences for those children who come to school with no previous preparation. For those children who are already attending prekindergarten, factors predicting later difficulties, with a special focus on literacy, are discussed in more detail below.

Health Care Services
Poor health care in early childhood has a direct effect on academic performance. Snow, Burns & Griffin (1998, pp. 103-08) present four specific health care outcomes associated with reading difficulty in young children:

- Cognitive deficiencies. These in turn are associated with factors such as nutritional deficiency, very low birthweight, fetal alcohol syndrome, and lead poisoning.
- Hearing impairment. Both deafness and chronic ear infections can contribute to difficulty in later reading.
- Early language impairment or developmental differences in language development.
- Attention deficit disorders.

Data on access to health care services for families where English is not spoken well are difficult to come by—as above, data on Hispanic families, which are routinely collected, can serve as a best estimate. Again, the available data strongly suggest that DLLs are less likely to have access to the health care services which result in children ready for school.

Healthcare disparities begin before birth. Hispanic women are less likely to have access to prenatal care in the first trimester of pregnancy. Recent measures indicate that 77.5% of Hispanic women accessed prenatal care in the first trimester, compared to 83.9% across the population as a whole (Martin et al., 2006, p. 16).

Hispanic children are slightly less likely to have received the recommended combined five-vaccine series by 35 months (79% of Hispanic children, but 83% of the general population) (Federal Interagency Forum on Child and Family Statistics, 2007; numbers are for 2005). Available numbers suggest that DLLs are less likely to be covered by health insurance (79% of Hispanic children are covered, compared to 89% of the population at large) (Federal Interagency Forum on Child and Family Statistics, 2007). FACES data reflect this discrepancy, finding that

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[10] Head Start's 2005 biennial report (U.S. Department of Health and Human Services, 2005) lists the number of Head Start staff who spoke a language other than English at 33,108 (p. 187). The total number of child development staff (summed from the first four categories listed at p. 186, as specified on p. 187) is 115,102.

77% of DLLs are covered by health insurance, while 93% of other children are covered (Ziv, 2008).

Preschool attendance mitigates these disparities; when DLLs are enrolled in center-based prekindergarten programs, they are in fact more likely to receive health services from the care provider than are other children[11] (Iruka & Carver, 2006).

Ready Schools

Snow, Burns, and Griffin (1998) note that one of the key group factors predicting difficulty in reading achievement is the school; students who attend low achieving schools are more likely to face difficulty in learning to read. Ineffective schools are typified by inefficiencies at multiple levels, including lack of qualified teachers, minimal long term planning, an absence of strong leadership, and wasteful allocations of resources. (See Snow, Burns and Griffin, 1998, pp. 128-30 for discussion of the research supporting their analysis.)

On the other hand, Lindholm-Leary and Borsato (2007) review a number of studies which indicate that for all students, including English learners, high-quality instruction is associated with higher academic achievement. Such instruction is marked by a co-ordination between language instruction and content area instruction, as well as the inclusion of explicit language instruction within the content areas. Also key is the promotion of positive social interactions between English learners and their native English speaking peers.[12]

High quality instruction for DLLs requires an expansion of teacher capacity to meet the needs of these children. The National Task Force on Early Childhood Education for Hispanics (2007) recommends "substantial growth" in the number of teachers who are specialists in second language acquisition as well as teachers who are proficient in Spanish and have familiarity with the cultural background of their Hispanic students.

Schools which are ready for DLLs are prepared to offer instruction which meets the unique and diverse needs of this group of children. Some of these children will come from communities where families, communities and service organizations have the resources to work together to ensure that all children meet the indicators described above. Some children, unfortunately, will not. Children who come from low-income families in poor neighborhoods are less likely to have had access to the full array of community services which result in children who enter kindergarten ready to succeed to their full potential. Children who come from homes where English is not the only language spoken are much more likely than other children also to come from families who are poorer. These children need and deserve schools which are ready to provide high quality instruction so that all children can achieve to high standards.

The next section of this report will focus on early kindergarten predictors of later academic achievement, with a focus on factors which can be influenced by instruction.

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[11] For all categories and subgroups surveyed, with the exception of hearing, speech and vision testing for those children who came from families where one of two parents spoke English.

[12] Note that unlike the other meta-analyses in the same volume, not all of the studies reviewed by Lindholm-Leary & Borsato are coded for the grade level of the students in the study, so no clear picture of particular instructional techniques best suited to early childhood ELLs emerges from their review.

Getting Ready for First Grade: Ready Children

In the NSRII framework, children emerge ready for school from the confluence of the four conditions described above. The NSRII group-level indicators of ready children are aligned with the five domains of school readiness established by the National Educational Goals Panel (1997).

Children Ready for School

Indicator	Measure[13]
Physical Well-Being and Motor Development	*Percentage of children with age-appropriate fine motor skills.*
Social and Emotional Development	*Percentage of children who often or very often exhibit positive social behaviors when interacting with their peers.*
Approaches to Learning	*Percentage of kindergarteners with moderate to serious difficulty following directions.*
Cognition and General Knowledge	*Percentage of children recognizing basic shapes at kindergarten entry.*
Language Development	*Percentage of children almost always recognizing the relationships between letters and sounds at kindergarten entry.*

(Rhode Island KIDS COUNT, 2006, p. 13)

Unfortunately, accurate data on these indicators for children from linguistic minority backgrounds are difficult to come by.[14] The previous section of this report found that, on the whole, children who speak a primary language other than English are less likely to have had access to the types of conditions from which children emerge optimally ready to learn, in a very large part because they are more likely to live in low-income families than are native English speakers. They are more likely than native English speakers to have parents who are not educated beyond high school, not to be covered by health insurance or receive childhood vaccinations, and they are less likely to have attended preschool. This group of children, then is more likely than native English speakers to require careful and high quality educational interventions in their first year of schooling in order not to fall behind their peers.

The health services which contribute to physical well-being and motor development have been touched on above, and further examination of these factors lies outside of the scope of the current report.

The remainder of this section will consider the four other components listed above in greater detail, with particular emphasis on the unique ways in which individual children who are learning their second language can achieve success in these four components of early learning

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[13] Measures for each indicator are chosen via NSRII's state consensus approach (see p. 13–14 of this report for more background).

[14] This is in part because states participating in the NSRII typically do not disaggregate their data by language subgroup. A plausible proximate cause is that there are not tests available which can measure these indicators in the primary language of the children in question.

during their kindergarten year. Our focus on individual instruction in no way means that we abandon the utility of measuring readiness at the community or group level. Rather, we seek to combine notions of ready communities with the benefits of instruction tailored to the individual child.

Because communicative skills (or language development, in the NSRII framework, above) are perhaps the most challenging aspect for educators inexperienced in working with second language learners, they will be considered separately. The next section will consider the social, emotional, and cognitive factors covered by the remaining three indicators.

Social, Emotional and Cognitive Factors
The social and emotional development of young learners of a second language, and their consequent approaches to learning, may play out in very different ways depending upon their proficiency in the dominant language in the classroom. Children with greater fluency in spoken English are more likely to engage with and socialize with monolingual English speaking children in the same classroom (Strong, 1983; 1984). A certain degree of second language proficiency furthermore is required before children have the linguistic skills they need for successful peer interaction in the second language. Research also indicates that children who display more talkative personalities (in their first language) tend to be more rapid learners of their second, at least for language associated with social talk. In order that less talkative children gain opportunities to practice speaking English, teachers are recommended to provide structured interaction between native English speakers and English learners, rather than relying on children always to create their own opportunities for interaction (Strong, 1983).

Language background may also play a role in teachers' perceptions of students' social readiness. Teachers who speak the first language of English language learners tend to have a greater number of interactions with their DLL students than do teachers who do not, and they are also more likely to rate their relationships with such students as closer and less prone to conflict. Students in classrooms where their teachers use greater amounts of the child's home language are also less likely to be victims of bullying (Chang et al., 2007). Note furthermore that home language use by these teachers does not impede students' gains in English language proficiency; the study compares the amounts of Spanish that teachers use in their classrooms and finds no relationship between increased Spanish use and reduced English proficiency.

Very little research exists on the question of "general knowledge" as it relates to students from culturally and linguistically diverse backgrounds (Lindholm-Leary & Borsato, 2007). There are some findings which consider the relationship between prior knowledge and achievement of conceptual understanding in science, (e.g. experience with riding in a boat and understanding buoyancy), however these studies do not specifically consider learners in kindergarten or first grade (Lee & Fradd, 1996; Lee, Fradd & Sutman, 1995). Tests used in prekindergarten or kindergarten often incorporate a general knowledge component in which

> " **Students in classrooms where their teachers use greater amounts of the child's home language are less likely to be victims of bullying.** "

children are required to identify shapes or colors. Such assessment rests on the assumption that teaching children to perform such tasks is a cultural universal. Further research which examines this assumption is sorely needed.

Communicative Skills

The majority of research on the communicative skills of young English language learners is focused on the ultimate aim of gaining literacy skills. Even that research which considers oral language proficiency tends to view such proficiency in terms of a means to an end rather than an end in itself (see e.g. Saunders & O'Brien (2007) on the paucity of research on the structural features of oral language). The discussion below thus reflects this emphasis in the research, and the absence of discussion of other aspects of communicative competence should not be taken as an indicator that such skills are not important.

Research which focuses on the development of early literacy skills has consistently found that although there are many precursor skills which have more or less tight correlations with later reading ability, these skills are best viewed as predictors and not as skills from which literacy emerges in a direct causal fashion. There is no one single precursor skill or predictor which can forecast exactly who will have difficulty in learning to read and who will not. According to Snow, Burns and Griffin, the best research indicates that reading is built from a suite of interconnected skills, and in terms of prediction, "the highest average correlation has been found when a broad composite index of language abilities has been used" (1998, p. 111; see Scarborough, 2005 for similar insights). In spite of the complexity involved, for practical reasons, most research examines discrete features of these interconnected skills.

In terms of instructional recommendations, the research suggests that frequent formative assessments which pinpoint skills as they are emerging provide the best information as to which readers require additional support in specific reading skills. These learners are likely to respond to targeted small group interventions which include English learners at differing levels of proficiency (Gersten et al., 2007).

Oral Language Proficiency
Oral language proficiency—both productive (speaking) and receptive (listening)—is a key social skill. There is also a rich vein of literature which suggests that it is an important precursor to literacy (see Scarborough (2005) for a summary of this literature). Snow, Burns and Griffin (1998) identify three oral components of first language ability which have been shown to correlate with later reading difficulties in young children. Sentence or story recall—the ability to retain verbal information in memory to repeat sentences or retell a story—predicts future reading ability more accurately than does simple measures of recall of unrelated words or numerals. Measures of spoken language lexical skills (i.e. vocabulary), and particularly productive lexical skills are also among the more accurate predictors. Finally, studies which examine the productive and receptive syntactic skills of kindergarteners also show correlations with success in reading.

For English language learners, the developmental trajectory of oral English language proficiency is relatively unexamined in the literature, particularly in comparison with written language. One of the clearest findings to date is that oral language proficiency takes time. In their meta-analysis

of eight samples from six separate studies, Saunders and O'Brien (2007) find that "level 4" proficiency, sufficient for full participation in mainstream classrooms, does not consistently emerge until the third grade; "level 5", or native-like fluency, is not consistently seen until the fifth grade.

An outstanding question in the research is whether second language literacy requires oral language skills in the second language. Snow, Burns and Griffin take the position that early literacy requires access to the phonemic structure of English words:

> Hurrying young non-English-speaking children into reading in English without ensuring adequate preparation is counterproductive. Learning to speak English first contributes to children's eventual fluency in English reading, because it provides a foundation to support subsequent learning about the alphabetical principle through an understanding of the sublexical structure of spoken English words and of the language and content of the material they are reading.
> (Snow, Burns & Griffin, 1998, p. 324)

Other researchers cautiously suggest that oral fluency may not be necessary under certain restricted circumstances. Riches and Genesee (2007) find that that students who do not have second language oral proficiency can gain literacy skills, but only if they have developed a suite of skills in their first language which will allow them to support second language literacy development. Reese et al. (2007), in a longitudinal study of 121 Latino children who were followed from kindergarten entry until the seventh grade, found that at kindergarten entry, early oral proficiency in English as well as emergent Spanish literacy were independently predictive of higher reading scores in the seventh grade, but that students with both of these traits had higher success levels than students with only one.

Gersten et al. (2007) caution practitioners that they need not wait until children have well developed oral fluency in the second language before screening for reading disabilities. They take the perspective that early screening is crucial for assessing predictors of later reading difficulty and bemoan the common practice of "wait[ing] until English learners reached a reasonable level of oral English proficiency before assessing them on measures of beginning reading" (2007, p. 5). Their recommendation is to screen in English, although they do not comment on whether screening in English is more beneficial than screening in the primary language, or whether it is merely more beneficial than not screening at all.

Although the degree to which beginning second language readers need oral fluency in English is still being tested, the National Literacy Panel on Language-Minority Children and Youth finds that oral language proficiency is a key component of more advanced reading skills. Students may be capable of applying decoding skills with minimal knowledge about the phonological structures of English, but the ability to comprehend more difficult texts and to apply not only word-level but text-level skills correlates with oral English proficiency (August & Shanahan, 2006).

These findings help explain why many language-minority students can keep pace with their native English-speaking peers when the instructional focus is on word-level skills, but lag behind when the instructional focus turns to reading comprehension and writing.

Vocabulary

As noted above, measures of spoken language lexical skills correlate with future reading ability for monolingual speakers (Snow, Burns & Griffin, 1998, p. 109). In receptive vocabulary tests, children's vocabulary is measured by requiring them to indicate which of a series of pictures corresponds to the word spoken by the examiner. The degree of correlation increases when children's expressive vocabulary is measured in so-called "confrontational naming" tests, in which a child is provided with a picture and must name the object.

Instructional recommendations for vocabulary development in second language learners often advocate exploiting cognates—those words which sound similar across languages due to common origins, such as English *triangle* and Spanish *triángulo*. Research examining the use of cognate strategies to acquire vocabulary is sparse for kindergarteners and first graders (there are no studies on cognate vocabulary for this age group listed in the overview provided by Riches and Genesee (2007)). For older children, instruction in cognate vocabulary is a powerful tool to increase vocabulary by exploiting background knowledge, at least for those children who speak first languages where the lexicon is in part cognate with English (see Riches & Genesee, 2007, p. 75-6). We see no reason that this strategy cannot be extrapolated for use with younger learners, despite the research gap for children in the early years—provided that the children know the cognate word in their first language.

Recommendations on vocabulary instruction emerge from the 2006 guidelines for instruction for English learners published by the U.S. Department of Education's Center on Instruction. The report proposes that "K-12 classrooms across the nation must increase opportunities for ELLs to develop sophisticated vocabulary knowledge" (Francis, Rivera, Lesaux, Kieffer & Rivera, 2006, p. 20). Of the five instructional strategies for young English language learners recommended by Gersten et al. (2007), two are directly connected to vocabulary. Their practice guide recommends high-quality vocabulary instruction as well as the development of formal or academic English. In their recommendations for vocabulary instruction, they stress that vocabulary instruction should be part of the daily classroom routine and that vocabulary should be developed across the modalities of listening, speaking, reading and writing. They recommends development of core vocabulary lists keyed to the curriculum at the district level. They also point out that teachers should be aware that English learners need to learn the "everyday words" that are not necessarily part of the curriculum but are known to all native English speakers.

The complex task of learning to write in formal English can be jumpstarted with high quality vocabulary instruction in the earliest grades. As vocabulary increases, students are also more likely to produce associated language output which incorporates the formal stylistic features of academic language. In a study of Spanish speaking children in grades 1–3, Carlisle et al. (1999) found that when children were asked to define words, the children with higher levels of English vocabulary were more likely to offer formal definitions—for example defining a *cat* as "a domesticated mammal related to the lion" rather than "my aunt has one and it's all furry and has a long tail" (Saunders & O'Brien, 2007).

Preliteracy Skills

Preliteracy skills refer to the suite of skills and understandings that all students must develop before reading can emerge. For a child to become literate, he or she must first understand that print on a page represents communicative language, and that print is made up of items which represent words, which are in turn made up of units called letters. He or she must also be able to break spoken utterances into individual words and to understand that words themselves are made up of sounds, and that these sounds furthermore correspond to letters—although this correspondence is not a one-to-one correspondence—and finally the child must learn the shapes, sounds and names of the letters.

The literacy practices of parents—that is, the extent to which children observe their parents reading and writing—is correlated with later success in English for children from Spanish-speaking backgrounds (Reese et al., 2000). Engaging children in literacy practices in the home, including not only reading to children but also developing precursor literacy skills such as identifying letters and spelling words, also has a positive effect on later reading ability. The effect is furthermore crosslinguistic, so that early literacy skills developed in Spanish have an impact on later reading skills in English (Jackson & Wen-Hui 1992; Reese et al., 2000). It seems then that these preliteracy skills can transfer from one language to the next. Crosslinguistic transfer of the alphabetic principle is of course only possible with alphabetic languages (Birch, 2002).

Also important is the development of phonological awareness—the recognition that language is made up of sounds which are distinct from meaning. Phonological awareness is "about as strong a predictor of future reading as memory for sentences and stories, confrontation naming, and general language measures" (Snow, Burns & Griffin, p. 112). Phonological awareness includes phonemic awareness—the more specific ability to recognize the unit sounds within words (phonemes)—an important precursor skill for developing the understanding that these sounds have relationships with the letters of written language.

Language processing difficulties among DLLs can often be overlooked by educators who attribute early reading difficulties to language difference. Struggling readers with language processing difficulties are as likely to be found in the DLL population as in the native English speaking population. Early intervention in phonological and phonemic awareness and in phonics is crucial for these learners (Francis, Rivera, Lesaux, Kieffer & Rivera, 2006, p. 17).

Despite the fact that phonological awareness correlates with early reading ability, the causal relationship between these two skills is not yet clear. Some researchers have argued that while some phonological awareness is required for the first stages of early reading, once young children begin interacting with print regularly, their ability to segment words into sounds improves (Snow, Burns & Griffin, 1998, p. 56). In other words, the ability to recognize words in print and the ability to clearly articulate spoken words may exist in a feedback loop, with enhanced ability in the one skill leading to enhanced ability in the other, and vice versa.

As is the case with many metalinguistic skills of bilinguals, phonological awareness can transfer from one language to another—that is, if a child is able to divide words into segments in one

language, the ability to split up words will be present in the second language. Phonological awareness in the home language can therefore be used as a predictor for later English literacy (Durgunoglu, Nagy & Hancin-Bhatt, 1993). Phonological awareness abilities can be enhanced via direct instruction, and for bilingual children, instruction in either of their languages will result in increased phonological awareness in both languages (Roberts & Corbett, 1997; Terrasi, 2000).

For children who come from homes where English is not the primary language, high-quality instruction requires educators to be attuned to the particular linguistic needs of DLLs with regard to social, emotional, cognitive, and communicative skills. Particularly for children from communities with high levels of poverty, teachers and educators need to be aware that many of the social supports which result in children who are ready to learn may have been absent in the early years. These children may need extra support to develop strong social skills while they are learning a second language. Teachers should attend particularly to oral language skills, vocabulary development, and to precursor literacy skills.

In order that teachers can best deliver individuated instruction for DLLs, formative assessments which pinpoint the areas in which particular students exhibit strengths and weaknesses are needed. The next section of this report considers in greater detail some of the challenges inherent to assessing the population of dual language learners.

Assessing Language Factors that Predict Academic Success for DLLs

Assessment is a critical component of ensuring that children are provided with the instruction and services that they need to succeed in school and learn to their fullest potential. This section addresses the issues and challenges related to assessment as a tool to individuate instruction for DLLs in kindergarten and in first grade. Assessment issues in the prekindergarten years are not addressed here, for two primary reasons. First, the research base for K–1 assessment far outweighs that of assessment in the prekindergarten years. Second, many researchers have serious reservations regarding the reliability of current prekindergarten assessment measures (Espinosa & López, 2007; Wagner, S.L., 2003).

After looking broadly at the goals of assessment, this section will examine three main types of assessment for DLLs in K–1: classification of English language proficiency, formative assessments, and screening for language disabilities. There are a number of challenges inherent in measuring the language proficiencies of young children; these are briefly reviewed. The section concludes with recommendations that are based on a research review of significant factors affecting assessment of dual language learners.

Goals of Assessment

"[Assessment] is implicated in virtually every aspect of [a DLL's] education – from screening or admission, to identification of special and individual needs that figure in instructional planning, to promotion or retention" (Genesee & Riches, 2006, p. 109). The goals of testing young DLLs are varied and range from administering second language interventions, adapting instruction, demonstrating student progress, and administering learning disability services, along with federal accountability requirements (Espinosa & López, 2007). Within these goals, which are often interconnected and related, most assessments can be categorized as primarily classifying, formative, or screening assessments.

English Language Proficiency Classification

Primary Goals:
1. *Determine if the child qualifies for English language support services.*
2. *Demonstrate progress in English.*

When students of any age enter (K–12) school, their parents must complete a home language survey. Home language surveys are simple questionnaires that assess what languages are being spoken in the child's home to determine whether the child should be assessed for English language proficiency. Espinosa and López (2007) recommend

> **Formative assessment is an ongoing process rather than a single test, and may consist of informal observations by the teacher or specific instruction designed to evaluate student learning outcomes.**

that the home language survey be used to determine as best as possible the ratio of first language to second language input. Home language surveys can be supplemented with more detailed parent/guardian interviews which probe the child's language background and possible language difficulties in more depth. For such surveys to be effective, parents must have the opportunity to fully comprehend the survey questions, with the assistance of an interpreter if necessary.[15]

If the home language survey suggests that the student may not be fully proficient in English, the student is referred for testing of English language proficiency (ELP). The purpose of the ELP test is to determine whether the child falls into the category of English language learner (called Limited English Proficient under Title III of the *ESEA*) and therefore qualifies for English language support services, funded by the U.S. Department of Education's Office of English Language Acquisition (NCELA, 2006). Although English development services are varied in implementation and include an array of program types, they are intended to help increase the child's English language ability over time. A further purpose of ELP assessments is to demonstrate students' progress in English development.

Formative Assessments

Primary Goals:
1. *Teachers adapt instruction to better serve the child.*
2. *Children invest in their learning, participate in the assessment process, and consequently they progress.*

The purpose of formative assessment is very different than that of a test used for classification or a summative assessment; the assessment is completed "*for* learning, rather than *of* learning" (Stiggins & Chappuis, 2006, p. 10). Formative assessments provide detailed pictures of students' linguistic abilities so that instruction may be adapted to their needs. The primary goals of formative assessment are to guide curriculum and teaching strategies, such that the teacher can use data to differentiate classroom instruction while monitoring academic progress. Formative assessment is an ongoing process rather than a single test, and may consist of informal observations by the teacher or specific instruction designed to evaluate student learning outcomes (McManus, 2008). Furthermore, the student should be involved in the process with the teacher, enabling them both to work together toward measuring learning goals, and providing the child with agency in his/her own progress (McManus, 2008). "Students and their teachers become partners in the classroom assessment process, relying on student-involved assessment, record keeping, and communication to help students understand what success looks like, see where they are now, and learn to close the gap between the two" (Stiggins & Chappuis, 2006, p. 11). Through this systematic and collaborative process of self-reflection and feedback, both teacher and student engage in meta-cognitive processing that informs learning and increases student achievement (Stiggins & Chappuis, 2006). This type of assessment is most useful when it is conducted often to gather a more complete picture of a very young student, whose ability to perform an academic task varies constantly (Gersten et al., 2007).

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[15] For an example of a home language survey which has been translated into 40 languages and is available online, see the Illinois State Board of Education (2008). For sample parent/guardian interview questions, see Restrepo & Silverman (2001, p. 393).

Screening for Language Learning Disabilities

Primary Goal:
    Determine if the child qualifies for language learning disability services.

Screening measures are administered to determine a child's general level of linguistic ability in production and comprehension, potentially to determine whether the child has a language learning disorder such as specific language impairment or dyslexia. When the results of screening measures depict that the DLL exhibits problems in both languages rather than just one, the child is often categorized as having a language learning disability. It is essential that parents of DLLs be actively involved in the screening of children for language and learning disabilities. Valid and reliable screening measures—excluding ELP classification assessments—will discriminate on the basis of performance, but will not discriminate on the basis of being a linguistically and culturally diverse learner (Jacobs & Coufal, 2001). Screening is most helpful when it is within the context of a responsive intervention model that provides individualized assistance to students quickly, and when the intervention is customized as time goes on (Jenkins, 2003).

Potential Challenges in Assessing DLLs

This section will go into further depth regarding how the unique nature of DLLs affects the assessment tools and the evaluation of the test data, with consideration paid to cultural bias, linguistic bias, and language environment.

In assessing DLLs, there are often several biases to contend with. Roseberry-McKibbin and O'Hanlon (2005) reviewed surveys completed by public school speech-language pathologists on service delivery for DLLs from 1990 and 2001 and found that there was a dearth of assessments that proved to be both nonbiased and appropriate. Cultural bias is often an issue when the test items involve inherent cultural knowledge unfamiliar to DLLs, who may be unable to demonstrate the skill being tested. Even simple observations from a teacher of a student from a different cultural background may exhibit these same cultural biases.

Another common problem with assessments for DLLs is that they often exhibit linguistic bias because they are simply translated from one language to another. Translated tests, without due attention paid to the complexity of the test items to maintain the integrity of the test, are simply unadvisable. "If one construct is that certain language behaviors increase in frequency of use or complexity with age, a test that is translated directly from English will have poor content validity and may not provide an age progression of item difficulty" (Restrepo & Silverman, 2001, p. 383). For example, while native-English speakers are often asked to segment compound words because of their frequency in English, segmenting a Spanish word is a substantially harder task simply because there are far fewer compound words in Spanish (Naughton, 2005). Even a test translated into

> **If the children are tested on their productive language during their nonverbal period, the results will be invalid because they have more receptive knowledge than they are able to produce.**

Spanish will present some difficulties because varieties of Spanish differ from one region to another (Saunders & O'Brien, 2006).

In addition, the nature of learning two languages is such that typically the languages are used in different environments. For example, while certain students might be exposed only to Tagalog at home, they might be exposed to English only at school. Thus, the vocabulary DLLs learn in each language is centered around the contexts in which they encounter the language. In this case, it would be unrealistic to expect that even a culturally-relevant test in Tagalog would be able to test the children's academic knowledge if they only know the words for the academic concepts in English. A possible solution might be to offer the test in two languages, allowing for children to respond in either language. Researchers Fernandez et al. (1992) estimate that while about 75% of a bilingual child's vocabulary consists of pairs or the same concept in both languages, 25% consists of concepts which the child knows only in one language or the other. However, even that option does not provide the complete picture of the child's language development.

Research-Based Recommendations for Assessment

Because of the difficulties inherent to accurate assessment of young DLLs, a mix of assessment techniques is often a useful way to triangulate measures of a student's language ability (Pianta et al., 2007; Crawford & Krashen, 2007). Ongoing and multiple assessments can avoid over-generalizing the results from a single measure (Espinosa & López, 2007), and can be used to follow development over time. The following suite of research-recommended practices can be combined to find a multi-faceted picture of a student's language ability.

Assessment should be preceded by an array of informal pre-assessment evaluations, including instruments such as language histories of the student, parent interviews, and teacher interviews (Roseberry-McKibbin & O'Hanlon, 2005).

Language sampling, where the child's natural use of the primary language outside a formal assessment situation is observed or recorded, **can provide a more accurate picture of the child's communicative abilities than formal testing** (Gentile, 2004). In evaluating the language data, the question Roseberry-McKibbin and O'Hanlon (2005, p. 182) recommend is: "Does the student communicate successfully with linguistically and culturally similar peers?"

Dynamic assessment measures learning capacity rather than background knowledge, by testing the child's ability to learn new material, rather than measuring their current language ability. Such assessment **can reduce cultural bias or bias against children without previous education** (Jacobs & Coufal, 2001).

Carefully constructed language processing tests should be used to distinguish between DLLs with or without learning disabilities (Roseberry-McKibbin & O'Hanlon, 2005; Restrepo & Kruth, 2000). Compared to their native-English speaking peers, DLLs typically perform poorly on sentence completion and story retell, while they are able to act out commands, name pictures, and repeat sentences (Saunders & O'Brien, 2006). This is a feature of developing language, however, and does not point to a language disorder (Kohnert, 2007).

Interpreting Diverse Results from Multiple Measures

To further interpret the results of a test for DLLs, one must consider the characteristics of first and second language acquisition. Young children may be learning two languages simultaneously or sequentially. If children are sequentially learning two languages, they often experience a nonverbal period; they are collecting more information before they are able to make sense of the languages. If the children are tested on their productive language during their nonverbal period, the results will be invalid because they have more receptive knowledge than they are able to produce. This is a normal developmental process, but varies from child to child. Children with a language disorder, however, often experience first language attrition as they are exposed to the second language (Kohnert, 2007).

The population of DLLs furthermore is extremely variable in terms of socioeconomic status and first language, which makes it difficult even to compare DLLs with each other. It is especially difficult to make meaningful comparisons between monolinguals and DLLs. For example, monolingual students are often identified as having reading disabilities if they have average non-verbal scores and low verbal language test scores. However, DLLs will exhibit that trait simply because they are still acquiring the second language. As a result, there has been an over-identification and/or under-identification of DLLs in special education that occurs as assessors attempt to correct for the disjoint (Espinosa & López, 2007). Often DLLs' ability to speak and understand English is overestimated while their general cognitive and social abilities are underestimated.

In order to be effective, well-designed assessments must evaluate students' performance in meeting state academic standards and predictors. Given the research available for this report and the unique nature of factors that affect the assessment of DLLs, we advocate an approach to assessment that involves multiple measures, is formative and ongoing, and informs instruction rather than one that is high-stakes and potentially unconstructive for the child who is still developing and learning two languages.

Conclusion

The number of children who arrive in school with a language other than English is rising rapidly. These children, on the average, are achieving at rates below their native English speaking peers, particularly in the crucial fourth-grade year, where students are expected to read and extract meaning from ever more complex texts. Educators and policymakers have a responsibility to educate themselves about the specific and individual needs and backgrounds of these children.

The first step toward implementing policy which will narrow and then eliminate this achievement gap is effective collection of data. Federal data reporting regulations currently require states to report K–2 data on DLLs in sum; we recommend states report these figures separately for kindergarten, first grade and second grade. Policymakers would also benefit from disaggregated data on DLLs in early childhood from other agencies which collect pertinent data.

In exploring further the early childhood conditions of DLLs, we adopt the holistic framework of the National School Readiness Indicators Initiative (Rhode Island KIDS COUNT, 2005). Within this framework, ready communities, ready families, ready services—including early education services—and ready schools work together to ensure that children enter school ready to learn. When each of these components provide the necessary support, children begin school optimally ready to succeed. For dual language learners, however, this support is not always fully manifest.

Despite the data gap, samples and proxy sources of data allow for a reasonably clear portrait of the early childhood conditions of DLLs to emerge. Dual language learners are more likely than children in the general population to come from communities in poverty, and many of the disadvantages that adhere to poor communities are experienced by these learners. Educators and policymakers should be aware that young DLLs are less likely to have received the health care supports which result in children who are ready to learn in school. They are more likely to come from households where their parents have not graduated high school. They are also less likely to have had access to the early learning experiences which come from attendance in high-quality preschools—this despite that fact that preschool attendance has a greater effect in closing the achievement gap for Hispanic DLLs than for any other comparable group. In short, DLLs are less likely than other children to have had access to the full range of optimal conditions which result in children who are ready to learn in school to the best of their ability.

This means that schools must prepare themselves to meet the particular linguistic, cultural and learning needs of these children. The research base shows that attending to the social, emotional and cognitive skills of DLLs in early childhood enhances their schooling experiences. Children from linguistic minority households also require language instruction which is sensitive to their unique backgrounds. Instruction in oral language proficiency, vocabulary, and preliteracy skills provides a strong foundation for later success. In particular, it is crucial that educators understand how best to effectively support the home language so that early literacy can be fostered in the home as well as at school.

In order to adequately meet the needs of these learners, assessment should be applied judiciously. Assessments are useful to classify children's language proficiency, to screen for linguistic disabilities, and to provide ongoing information as to the educational progress of individuals.

Formative assessment, in particular, should be viewed as an ongoing process in which the teacher continually collects informal feedback, incorporates student input, and tailors instruction accordingly. Teachers should finally be sensitive to the developmental trajectory of second language in young children, particularly to the preverbal period where children may be acquiring language but not yet speaking.

Educators and educational policymakers are as committed as they ever were to ensuring that all of America's children begin school ready to learn to their fullest potential. As the population changes, the nature of the structures which support ready children must also change. Dual language learners are increasing in number, and in order to fulfill the promise of an excellent and equitable education system, educators must also be ready to ensure that all children have a chance to make the most of their early potential.

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Appendix: Examples of English Language Development Standards in the PreKindergarten Year

This appendix presents concrete examples of the research findings in practice as instantiated by California's prekindergarten English Language Development strand of standards. California is unique in having standards which, rather than folding prekindergarten into a broader band of standards, has standards tailored solely to the prekindergarten level for DLLs (California Department of Education, 2008

1. Social and Emotional Communication

Recommendation: Teachers should create socially communicative environments for children to speak in English (Strong, 1983; 1984).

Listening		
1.0 Children listen with understanding. Focus: *Beginning words*		
Beginning	Middle	Later
1.1 Attend to English oral language in both real and pretend activity, relying on intonation, facial expressions, or the gestures of the speaker.	**1.1** Demonstrate understanding of words in English for objects and actions as well as phrases encountered frequently in both real and pretend activity.	**1.1** Begin to demonstrate an understanding of a larger set of words in English (for objects and actions, personal pronouns, and possessives) in both real and pretend activity.
Examples	Examples	Examples
• Looks at a cup and nods or smiles when another child says, "More milk?" during snack time.	• Reaches for a small carton of milk when asked by another child, "Pass the milk, please."	• While playing with a dollhouse and props with an English-speaking peer, puts the pants on the doll when the peer says, "Put the pants on the doll."

Speaking		
1.0 Standard: Children use nonverbal and verbal strategies to communicate with others. Focus: *Vocabulary production*		
Beginning	Middle	Later
1.2 Use vocabulary in the home language that is age-appropriate (as reported by parents, teachers, assistants, or others and with the assistance of an interpreter if necessary).	1.2 Begin to use English vocabulary, mainly consisting of concrete nouns and with some verbs and pronouns (telegraphic speech).	1.2 Use new English vocabulary to share knowledge of concepts.
Examples	Examples	Examples
• Spontaneously uses her home language during unstructured school activities.	• Says, "Me paint" and smiles in response to another child's statement, "I like your painting."	• Communicates, "My mommy had a baby. He cries, cries" when talking to a peer about a new baby brother.

Recommendation: The use of the first language in the classroom contributes to a welcoming and safe environment for DLLs (Chang et al., 2007).

Speaking		
Standard	**Level**	**Example**
1.3 Communication Focus: Conversation	Middle	Says in English and Vietnamese "My dì [maternal aunt] gave me," when a peer asks who has given the child a new backpack.
1.5 Communication Focus: Grammar	Beginning	Says in Spanish, "Yo fui a la tienda con mi mamá y mi papá. Y compramos pan y leche." (I went to the store with my mom and my dad. And we bought bread and milk.)
2.1. Social conventions	Beginning	Uses the formal form of his home language (e.g., Spanish, Korean, Japanese*) with unfamiliar adults and familiar form with relatives and friends. (In Spanish the familiar form uses "Tú" and the formal form uses "Usted" and the corresponding verb form. A child would say, "Buenos días, ¿Cómo estás?" [Good morning, how are you?] [informal] to a peer, but to a teacher, "Buenos días, ¿Cómo está usted, maestra?" [Good morning, how are you, teacher?] [formal]. In Japanese, the formal uses "desu," and the informal does not use it. A child says to a classmate, "Ohayoo" [good morning] [informal] but to a teacher, "Ohayoo gozaimasu" [good morning] [formal].)

* In this example, Japanese is phonologically represented in written form using the English alphabet.

Oral Language

Recommendation: Oral language proficiency enhances phonological awareness (Riches & Genesee, 2007; Reese et al., 2007).

Reading		
6.0 Children demonstrate phonological awareness. Focus: *Onset (initial sound)*		
Beginning	Middle	Later
6.2 Listen attentively and begin to participate in simple songs, poems, and finger plays in the home language or in English	6.2 Begin to recognize words that have a similar onset (initial sound) in the home language or in English, with support.	6.2 Recognize and produce words that have a similar onset (initial sound) in English.
Examples	Examples	Examples
• Listens to the "days of the week" song in English, clapping along with peers when the current day of the week is named	• During a read-aloud of a big book about bugs, indicates or points to a butterfly or a beetle on a page and says "butterfly" or "beetle" in response to the teacher asking, while pointing to the corresponding images, "Which bugs start with the "b" letter sound? Butterfly, caterpillar, or beetle?"	• Generates words that start with the same initial sound during a word game while being pushed on a swing by the teacher; for example, "m" (letter sound) "mom, man, me, mine," in response to teacher saying, "I'm thinking of a word that begins with "m" (letter sound); mouse begins with "m" (letter sound); what else begins with "m" (letter sound)?

Vocabulary

Recommendation: Provide explicit instruction in vocabulary (Riches & Genesee, 2007; Francis, Rivera, Lesaux, Kieffer & Rivera, 2006; Gersten et al., 2007, Carlisle et al., 1999).

Speaking		
1.0 Children use nonverbal and verbal strategies to communicate with others. Focus: *Vocabulary production*		
Beginning	Middle	Later
1.2 Use vocabulary in the home language that is age-appropriate (as reported by parents, teachers, assistants, or others and with the assistance of an interpreter if necessary).	1.2 Begin to use English vocabulary, mainly consisting of concrete nouns and with some verbs and pronouns (telegraphic speech).	1.2 Use new English vocabulary to share knowledge of concepts.
Examples	Examples	Examples
• Uses his home language appropriately with other children in the dramatic play area (as heard by the bilingual assistant).	• Says, "Me paint" and smiles in response to another child's statement, "I like your painting."	• Communicates, "I'm sticky," to a peer during an art activity that requires the use of glue.

Preliteracy Skills

Recommendation: Encourage preliteracy skills in whichever language is available, as these skills transfer from one language to another (Jackson & Wen-Hui, 1992; Reese et al., 2000;

Reading		
6.0 Standard: Children demonstrate phonological awareness. Focus: *Sound differences in the home language and English*		
Beginning	Middle	Later
6.3 Attend to and manipulate different sounds or tones in words in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary.)	6.3 Begin to use words in English with phonemes (individual units of meaningful sound in a word or syllable) that are different from the home language.	6.3 Begin to orally manipulate sounds (onsets, rimes, and phonemes) in words in English, with support
Examples	Examples	Examples
• Repeats parts of tongue twisters in the home language, such as "Mi mamá me mima mucho" (My mom really pampers me), as reported by the grandmother, with the assistance of an interpreter. (Using tongue twisters is a common practice in Spanish-speaking families).	• Utters new words with English sounds that do not exist in Mandarin Chinese or Korean, such as "uh oh" when seeing a classmate spill juice or "yum yum" when eating a favorite snack.	• While pointing at her untied shoelaces, says, "Teacher, tie my shoes [saying "chüz"], please," to which the teacher responds, "You want me to tie your shoes?" emphasizing the "sh" in the word "shoes," after which the child nods and responds, "Yes, my shoes [saying "shüz"]."