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Assessing English Language Learners In L1 Kannada And L2 English To Identify
Students Who Are At Risk For Language Learning Disabilities

by
Sunaina Shenoy

A dissertation submitted in partial satisfaction of the
requirements for the degree of

Joint Doctor of Philosophy
with San Francisco State University

in

Special Education

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:
Professor P. David Pearson, Co-Chair
Professor Philip M. Prinz, Co-Chair
Professor Anne E. Cunningham
Professor Stephen P. Hinshaw

Spring 2015

Abstract

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Joint Doctor of Philosophy in Special Education
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This study offers a mixed-methods analyses of formal and informal screening tools in L1 and L2 to identify English Language Learners in who are “at risk” for language learning disabilities. It was conducted in Bangalore, India and the sample consisted of 104 participants in Grades 2-5 from low, middle and high-income private schools. Teachers currently use school-based performance scores in English to classify students as persistent low-achievers. The purpose of this study was to provide teachers with a screening tool in both L1 Kannada and L2 English to be able classify two sub-populations of low-achieving students: students who are delayed in the second language acquisition process and students who are at risk for an underlying language learning disability.

Two formal bilingual screening tools were adapted and rendered culturally relevant in both British English and Kannada, namely the *Preschool Language Scale 5 Screening Test* (Zimmerman, Steiner, & Pond, 2012) and the *Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013). Both tests were efficacious in assessing general language ability, and there was a statistically significant relationship between the test scores. The *PLS 5* was used to compare language competencies across age, as the same test that was developed for 7-year olds was administered to all students in the population, whose ages ranged from 7-10 years. Quantitative analysis revealed a statistically significant difference between 7-8 year olds and 9-10 year olds in their English scores but not in their Kannada scores, suggesting that L2 English was maintained as an academic language while L1 Kannada was not. The *CELF 5 Test* was used to classify students as “bilingual” (if they passed both tests in L1 and L2), “dominant L1”(if they only passed the Kannada test), “dominant L2”(if they only passed the English test) and “at risk for a language learning disability” (if they did not pass either the L1 or L2 tests). When *CELF 5* scores were compared to school-based assessment scores, more than half of the students who were classified as being “at risk” by their teachers turned out to be dominant in their L2 according to their *CELF5* classification.

Four informal screening tools were used for the study: Narrative Assessment, Parent Questionnaire, Teacher Interview and Classroom Observation. Students' narrative skills were assessed using the Narrative Scoring Scheme (Heilmann et al, 2010). A high degree of overlap was observed between the students' NSS scores and their *CELF5* scores. Students who were identified as being "dominant L1 or L2" according to their *CELF5* scores, also got an overall "proficient" classification on the NSS and students who were considered "at risk" by the *CELF 5*, were classified as "minimal" or "emerging" in their narrative skills. Quantitative analysis revealed that the *CELF5* English and Kannada scores significantly predicted students' NSS scores.

The other informal tools, the parent questionnaire, teacher interview and classroom observation checklist were efficacious in pinpointing external factors such as parents' educational attainment, parents' income levels, pedagogical practices, and special education resources, that are important when interpreting students' performance scores across low, middle and high-income schools. Parents' educational attainment predicted income levels in the low-income school and reading frequency in the middle-high income schools respectively.

Qualitative analyses of the teacher interviews emphasized the differences in language of instruction between low-income and middle-high income schools; whereas teachers in the former school alternated between English and Kannada, teachers in the latter schools used English only. The teacher interviews were also useful in highlighting the special education support at each school site: (a) in the low-income school, teachers treated low-achieving students as one group and they received small group instruction that targeted rote-memorization of the content related to school exams; (b) in the middle-income school, teachers viewed special education as occurring outside the purview of their classrooms, as the school had a moderate-severe special education program on the school site, but no resources for students with mild-moderate disabilities; and (c) in the high-income school, teachers followed an inclusive special education model and had access to a special education department on the school site as well as a consultancy service for assessment and intervention of students with disabilities.

Finally, qualitative analyses of the classroom observation checklist stressed the pedagogical differences across the three schools, with low and middle income schools focusing more on students' content knowledge and rote memorization skills and high-income schools focusing more on students' presentation skills and conceptual knowledge. The study has implications for theoretical and applied issues concerning assessment, differentiation of language learning difference versus disability in ELLs and models and approaches for intervention.

Table of Contents

CHAPTER 1: INTRODUCTION	1
RELATIONSHIP BETWEEN ORAL LANGUAGE DEVELOPMENT AND EMERGENT LITERACY	2
EFFECT OF ORAL LANGUAGE DEVELOPMENT ON EMERGENT LITERACY	2
DEVELOPING BILINGUAL AND BI-LITERATE COMPETENCIES	3
LINK BETWEEN EARLY LANGUAGE AND LITERACY ON LATER LANGUAGE/READING DISABILITIES	4
CULTURAL DIVERSITY AND ITS IMPACT ON THE SPECIAL EDUCATION REFERRAL PROCESS	5
DISABILITY THROUGH A CULTURAL LENS	5
SOCIO-CULTURAL THEORY AND DISABILITY	6
CULTURAL CONSIDERATIONS IN CLASSIFYING STUDENTS WITH DISABILITIES	6
DISPROPORTIONATE REPRESENTATION IN SPECIAL EDUCATION CLASSROOMS	7
ASSESSMENT OF ENGLISH LANGUAGE LEARNERS AND DISTINGUISHING BETWEEN LANGUAGE DIFFERENCES AND DISORDERS	8
ENGLISH LANGUAGE LEARNERS WITH LANGUAGE LEARNING DISABILITIES	8
PROBLEMS WITH ASSESSMENT POLICIES FOR ELLS	10
ALTERNATIVE ASSESSMENTS TO DISTINGUISH LANGUAGE DIFFERENCES FROM DISORDERS	10
IMPORTANCE OF THE PRESENT STUDY IN THE INDIAN CONTEXT	11
LINGUISTIC CONTEXT	11
CULTURAL CONTEXT AND SPECIAL EDUCATION CONSIDERATIONS	12
DEVELOPING SCREENING TOOLS IN ENGLISH AND KANNADA	13
STUDY AIMS AND RESEARCH QUESTIONS	13
CHAPTER 2: REVIEW OF LITERATURE	15
DEVELOPING BILINGUAL AND BI-LITERATE COMPETENCIES	16
LITERACY THROUGH A SOCIO-CULTURAL LENS	16
LITERACY DEVELOPMENT	16
LITERACY AND THE HOME ENVIRONMENT	16
BILINGUALISM AND BI-LITERACY AS A PRODUCT OF THE ENVIRONMENT	17
CROSS-LINGUISTIC TRANSFER AS A POSITIVE EFFECT OF BILINGUALISM AND BI-LITERACY	17
BILINGUALS WHO ARE “AT RISK” FOR LANGUAGE LEARNING DISABILITIES	18
BILINGUAL LANGUAGE SUPPORT FOR ELLS	19
LANGUAGE AND LITERACY PRACTICES IN INDIAN HOMES AND SCHOOLS	20
AN INDIAN CULTURAL PERSPECTIVE: EFFECT ON SPECIAL EDUCATION SERVICES	21
CULTURAL BELIEFS ABOUT DISABILITY	21
PARENT INVOLVEMENT AT HOME AND SCHOOL	22
EDUCATION OF PEOPLE WITH DISABILITIES IN INDIA	23
SPECIAL EDUCATION MOVEMENT IN INDIA	23
TEACHER ATTITUDES AND PEDAGOGICAL PRACTICES THAT AFFECT STUDENTS WITH DISABILITIES	24
ASSESSMENT ISSUES IN IDENTIFYING ENGLISH LANGUAGE LEARNERS (ELLs) WITH LANGUAGE LEARNING DISABILITIES (LLDs)	25
PROBLEMS WITH THE IQ-DISCREPANCY MODEL	25
INTRODUCTION OF THE RTI MODEL	26
CONSIDERATIONS WHILE ASSESSING ENGLISH LANGUAGE LEARNERS (ELLs)	26

RESEARCH-BASED ASSESSMENTS FOR DIAGNOSING LANGUAGE LEARNING DISABILITIES IN ENGLISH LANGUAGE LEARNERS	28
CURRENT TRENDS IN ASSESSMENT PRACTICES	30
ASSESSMENT OF ENGLISH LANGUAGE LEARNERS IN AN INDIAN CONTEXT	32
RELEVANCE OF THE PRESENT STUDY	34
MAIN OBJECTIVES	34
BENEFITS WITHIN THE CONTEXT	35
CAVEAT TO TRANSLATING FROM ENGLISH TO KANNADA	35
SUMMARY	36
CHAPTER 3: RESEARCH METHODOLOGY	38
PARTICIPANTS	38
MEASURES: FORMAL AND INFORMAL SCREENING TOOLS	39
FORMAL SCREENING TOOLS	39
INFORMAL SCREENING TOOLS	42
PROCEDURES	43
DATA COLLECTION METHODS	43
SCORING PERFORMANCE ON THE FORMAL SCREENING TOOLS	44
SCORING THE INFORMAL SCREENING TOOLS	45
RESEARCH DESIGN AND DATA ANALYSIS	45
MIXED METHODS RESEARCH DESIGN	46
DATA ANALYSIS	47
CHAPTER 4: RESULTS	50
RESEARCH QUESTION 1:WHAT IS THE EFFICACY OF USING FORMAL SCREENING TOOLS IN L1 AND L2 TO DIFFERENTIATE BETWEEN LANGUAGE DIFFERENCES VERSUS LANGUAGE LEARNING DISABILITIES IN SPEAKERS OF KANNADA AND ENGLISH IN INDIA?	50
USING THE <i>CELF 5</i> TO ESTABLISH A CLASSIFICATION SYSTEM	50
USING THE <i>PLS 5</i> TO ESTABLISH LANGUAGE COMPETENCE	51
NARRATIVE ASSESSMENT SCORES	53
RESEARCH QUESTION 2:WHAT IS THE EFFICACY OF USING INFORMAL SCREENING TOOLS TO IDENTIFY EXTERNAL FACTORS THAT CONTRIBUTE TO STUDENTS' PERFORMANCE SCORES ACROSS LOW, MIDDLE AND HIGH-INCOME SCHOOLS?	54
COMPARISON OF TEST SCORES ON THE <i>CELF 5</i>	55
PARENT QUESTIONNAIRE	56
TEACHER INTERVIEW	60
CLASSROOM OBSERVATION CHECKLIST	62
RESEARCH QUESTION 3:HOW DOES THE CULTURE OF THE SCHOOL AND ACCESS TO SPECIAL EDUCATION RESOURCES IMPACT THE UTILIZATION OF A SCREENING TOOL IN L1 KANNADA AND L2 ENGLISH ACROSS LOW, MIDDLE AND HIGH-INCOME SCHOOLS RECRUITED FOR THE STUDY?	64
CONVERSATIONS WITH PRINCIPALS	65
TEACHER INTERVIEWS: SPECIAL EDUCATION RESOURCES AND REFERRAL PROCESS	66
UTILIZATION OF THE SCREENING TOOLS	67
SUMMARY OF FINDINGS	70
CHAPTER 5: DISCUSSION	74
INTERPRETATION OF FINDINGS	75
FORMAL SCREENING TOOLS	75

INFORMAL SCREENING TOOLS	76
SCHOOL CULTURE AND UTILIZATION OF THE SCREENING TOOL	80
IMPLICATIONS FOR PRACTICE	81
THEORETICAL IMPLICATIONS	83
SOCIO-CULTURAL THEORY	83
DISABILITY CLASSIFICATION	84
LINGUISTIC TRANSFER	84
SECOND LANGUAGE ACQUISITION AND LINK TO LANGUAGE LEARNING DISABILITIES	85
LIMITATIONS OF THE STUDY	86
NORMING SAMPLES FOR THE FORMAL ASSESSMENTS	86
SAMPLE SIZE	86
GENERALIZABILITY TO OTHER INDIAN POPULATIONS	87
TRANSLATION TO KANNADA	87
RESTRICTIONS OF A BILINGUAL LANGUAGE SCREENING TOOL	87
RECOMMENDATIONS FOR FUTURE RESEARCH	87
SCREENING TOOLS IN MORE LANGUAGES	88
LINGUISTIC INDICATORS OF BEING AT RISK FOR A DISABILITY ACROSS LANGUAGES	88
STANDARDIZED <i>RTI</i> MODELS	88
BILINGUAL LANGUAGE SUPPORT	88
INFORMAL ASSESSMENTS	89
CONCLUDING COMMENTS	89
REFERENCES	90
<hr/>	
APPENDIX A	101
<hr/>	
SURVEY: ASSESSMENT TOOLS TO DISTINGUISH BETWEEN LANGUAGE DIFFERENCES AND DISORDERS (SHENOY, 2014)	101
APPENDIX B	104
<hr/>	
<i>PRESCHOOL LANGUAGE SCALE 5 SCREENING TEST (ZIMMERMAN, STEINER & POND, 2012)</i>	104
<i>PLS 5 SCREENING TEST: RECORD FORM: TRANSLATED AND ADAPTED TO KANNADA</i>	106
APPENDIX C	110
<hr/>	
<i>CLINICAL EVALUATION OF LANGUAGE FUNDAMENTALS 5 SCREENING TEST (SEMEL, WIIG & SECORD, 2013): RECORD FORM</i>	110
<i>CELF 5 SCREENING TEST: RECORD FORM: TRANSLATED AND ADAPTED TO KANNADA</i>	118
APPENDIX D	129
<hr/>	
NARRATIVE ASSESSMENT: “FROG WHERE ARE YOU?” (MAYER, 1969): ENGLISH PAGE SCRIPT	129
NARRATIVE ASSESSMENT: “FROG WHERE ARE YOU?” (MAYER, 1969): KANNADA PAGE SCRIPT	130
APPENDIX E	133
<hr/>	
PARENT QUESTIONNAIRE: ENGLISH	133
PARENT QUESTIONNAIRE: KANNADA	138

APPENDIX F	145
TEACHER INTERVIEW	145
APPENDIX G	148
CLASSROOM OBSERVATION CHECKLIST	148

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Chapter 1: Introduction

The focus of this study was to develop a screening tool in both English and Kannada in order to help teachers identify students who are “at risk” for language learning disabilities¹. Currently, teachers in Bangalore, India use school-based performance scores in English only to assess students in their classrooms and identify persistent low-achievers who need additional instructional support at home and school. Because all students in these classrooms are English Language Learners², the study aims at expanding teachers’ assessment repertoire to include formal and informal screening tools in both L1 (Kannada) and L2 (English) to help them make a more accurate distinction between students who are in the process of acquiring a second language and those who might be at risk for language learning disabilities. The sample of students for the study was recruited from low-income^{3a}, middle-income^{3b} and high-income^{3c} schools in Bangalore, India, and this was done in an effort not only to compare the performance scores and instructional models followed in these schools, but to also examine the cultural differences between these schools that resulted in varied special education practices.

I draw from three inter-related theoretical frames in order to conceptualize the study: (a) the relationship between oral language development and emergent literacy, especially in relation to developing bilingual and bi-literate competencies; (b) the effect of cultural and linguistic diversity on the special education referral process; and (c) the capacity of assessment tools to distinguish between language differences and disorders for English language learners (ELLs). All three themes run throughout the dissertation and form a funnel-down effect from a broader perspective of language as intrinsically linked to literacy, to the cultural effects on the early identification of learning disabilities and finally to assessment issues that surround identifying students from various home language backgrounds who experience an English immersion model in school.

¹ The term *language learning disabilities* was introduced by Stark & Wallach (1980), in their attempt to develop a new conceptual framework for the term ‘learning disabilities’ by drawing from the fields of reading, psychology, and speech-language pathology. The new approach was an effort to expand views on assessment and intervention and to stress the connections among language, learning, and literacy. For the purposes of this dissertation, I employ the term *language learning disabilities* (LLD) to incorporate learning disabilities that manifest primarily as problems with oral and written language development.

² I use the term *English Language Learners* (ELLs) to refer to students who come from different home language backgrounds and are introduced to English as a second language and the primary language of instruction in school. For the purposes of this study, all students in the sample spoke Kannada at home and their schools followed an English immersion model. The students’ fluency rates in English varied from beginning and early intermediate to advanced depending on the level of English language support they had at home.

^{3a} For the purposes of this study, low-income schools refer to private schools in Bangalore, India where the annual tuition costs for each student is approximately Rupees 7200 (\$120)

^{3b} For the purposes of this study, middle-income schools refer to private schools in Bangalore, India where the annual tuition costs for each student is approximately Rupees 40,000 (\$667)

^{3c} For the purposes of this study, high-income schools refer to private schools in Bangalore, India where the annual tuition costs for each student is approximately Rupees 1,50,000 (\$2500)

Relationship Between Oral Language Development and Emergent Literacy

According to Sulzby (1989), “emergent literacy consists of the skills, knowledge and attitudes that are developmental precursors to reading and writing” (p. 88). Whitehurst and Lonigan (1998) elaborated on this idea and proposed that there were two distinct domains that characterized emergent literacy: inside-out skills, such as phonological awareness and letter knowledge and outside-in skills, such as language and conceptual knowledge. Thus, learning to read and reading to learn both involve language skills. The direct effects of language on literacy can be seen in how background knowledge helps or hinders reading comprehension in the later grades; the indirect effects entail the ways in which phonological sensitivity, letter knowledge, decoding skills (all factors that involve language at the sub-word level), lead to better vocabulary and thus build background knowledge and affects later reading outcomes (Whitehurst & Lonigan, 1998). Various aspects of language are important at different stages: for example, early stages of reading include decoding skills while later stages tap syntactic and semantic abilities (Whitehurst & Lonigan, 1998). The relationship between language and literacy is thus bidirectional in the sense that oral language development transforms perception, attention and other skills, while literacy practices improve oral language development (Whitehurst & Lonigan, 1998).

Effect of Oral Language Development On Emergent Literacy

Milner (1951) was the first to link early language experience to school readiness and reading readiness. He found that scores were linearly related to socio-economic status, with higher scores being obtained by children from higher socio-economic backgrounds. Hart and Risley (1995) found considerable differences in children’s exposure to language and vocabulary growth across SES groups: by 36 months, the children from higher SES backgrounds knew twice as many words as children from lower SES backgrounds, there was a variation in amount of child-directed speech (CDS) among various SES groups which correlated with vocabulary development, and children in professional families heard 30 million more words than children in poverty over the first 3 years of development. All these factors were predictors of children’s academic achievement later on. Whitehurst and Lonigan (1998) found that inside-out emergent literacy skills (e.g., phonological awareness and letter knowledge) become significant in preschool and grade 1 as children are focusing on decoding, while outside-in skills (e.g., vocabulary, language and conceptual knowledge) play a significant role in grade 2 when focus shifts to reading comprehension. Problems with phonological sensitivity at an earlier stage lead to problems with decoding skills at a later stage. According to Stanovich (1986), deficits in outside-in reading skills are very specific in the beginning, but this relationship breaks down later on when reading is driven by knowledge developed in other content areas. He likened it to the “Matthew effect”, or the idea that the rich get richer, and the poor get poorer, to describe the continuity in the reading process and how children who face early difficulties in learning to read continue to experience reading problems in later school years. Juel (1988) observed that the “probability a child would remain a poor reader at the end of 4th grade if he was a poor reader at the end of 1st grade was .88” (p. 437). Strong expressive and receptive language skills underlie the acquisition of specific skills, such as alphabetic knowledge, phonemic awareness, memory, rapid automatic naming, which in turn helps with decoding skills and finally leads on to reading comprehension (Snow, Burns, Griffin, 1998).

More recent studies have also found a positive, long-lasting effect of oral language development on emergent literacy. Lonigan et al (2000) found that oral language, print knowledge, and phonological sensitivity are important factors that aid in reading success. Moreover, Storch & Whitehurst (2002) found moderate sized (.43) indirect effects of language on 4th grade reading; oral language affects code-related skills (phonological processing, print concepts), which in turn affect later reading success. Although the relationship between code-related precursors and oral language is strong in preschool, reading ability is determined by the level of print knowledge and phonological awareness in grades K-4 and reading accuracy and comprehension in later grades; thus emergent literacy is viewed on a developmental continuum. According to Catts et al (2006), the role of language increases as children gain facility decoding text; world knowledge, and background knowledge play a more important role in reading, especially in the middle school and high school years, as students mature. Whereas early reading ability is dependent on code-related skills, later reading comprehension is dependent on language ability (Catts et al, 2006). For children at risk of educational failure, early and intensive language support is critical (Biemiller, 2006). Dickinson, Golinkoff, & Hirsh-Pasek (2010) found that measures of complex language were more predictive of later reading, as opposed to vocabulary that is more commonly assessed, as the effects of language are more pervasive in nature.

Developing Bilingual and Bi-literate Competencies

Reyes (2006) defined bi-literacy as the process of developing a reading and writing system in two languages. She defined emergent bilinguals as “young children ages 3-5 who speak a native language other than English and are in the dynamic process of developing bilingual and bi-literate competencies with the support of their communities (parents, school, community)” (p. 268). Adler (1977) distinguished between sequential and simultaneous bilinguals. Cummins (1995) observed that while children who represent the former group typically learn one language at home and one in school, children who represent the latter group, learn two languages concurrently, usually before age 3. Moreover, although sequential bilinguals have the added advantage of linguistic transfer of skills from their L1 to L2, simultaneous bilinguals cannot use L1 to influence L2 because both languages are learned together and support each other (Cummins, 1995). Reyes & Azuara (2008) found that children who are bilingual develop their own theories and concepts of language and literacy from an early age through conversations and contextual cues. Thus, the socio-cultural model functions as key to literacy, but students need continuous support in both languages from caregivers to become bi-literate (Reyes & Azuara, 2008). Bilingual students construct two overlapping and interacting literate worlds by thinking and exploring their social worlds with others in two languages. Varied activities, participants and interlocutors, as well as their social transactions with adults help in literacy development. Additionally, they also make use of tools and resources available to them in both languages to construct their worlds. Thus, bilingual development could either be sequential or simultaneous, and a key to developing bilingual and bi-literate competencies is dependent on continuous support from both home and school environments.

Tabors & Snow (2001) observed that early childhood is a critical period for language and emergent literacy skills that are a foundation for more sophisticated skills. They characterized the typical development of bilingual children in three stages of

language acquisition: 1. When they are 0-3 years, they learn their first language within their social contexts at home and this has an impact on later literacy skills. 2. When they are 3-5 years, they are exposed to a first language at home and a second language in their preschool environments, and try to navigate these two systems 3. When they are 5-8 years old, they go through the formal process of learning to read and write typically in their second language, with their development of literacy in their first language tied to the level of exposure to that language at home. This developmental sequence is cumulative, though there are individual differences in the rate of acquisition. Based on this process, Collier & Thomas (1989) observed that bilingual and bi-literacy programs are based on two assumptions: (a) Reading is a meaning-constructing process and needs to be in a language that the child understands, and (b) literacy skills acquired in the first language transfer to the second language.

Another common question is related to the likelihood of language interference when children are taught two languages. Cummins (1991) developed the *common underlying proficiency hypothesis*, which states that there are two kinds of literacy skills: foundational level literacy skills (intentionality of print, letter-sound correspondences, conventions of print) and surface-level literacy skills (relationship between two languages like Chinese and English, impact of bi-literacy over time, future literacy development). He stressed linguistic transfer is not restricted to linguistic abilities alone but also impacts academic skills, literacy development, subject knowledge, and learning skills that can transfer from L1 to L2. For example, if a child is exposed to both English and Chinese, the surface-level skills such as different writing systems in both languages are understood as two separate systems in the brain and one does not affect the other; but foundational level skills such as literacy development in one language has a positive effect on the other, the child's interactions with reading and writing both English and Chinese serve to develop basic understanding of literacy. Thomas and Collier (1997) found cognitive facilitation, rather than interference, for bilinguals, which can be parlayed into long-term academic success.

Link Between Early Language and Literacy on Later Language/Reading Disabilities

Scarborough et al (2009) conducted a study to determine whether preschool language and literacy skills were reliable prognostic indicators and/or direct causes of later reading development. She found that although skilled readers derive meaning from text accurately by coordinating many competent skills like language comprehension (including vocabulary, background knowledge and language structure) and word recognition (including phonological awareness, decoding and sight word recognition), poor readers have trouble with word recognition and phonological decoding (Scarborough et al, 2009). Reading (dis)abilities show stability over time: only 5-7% of children who are good readers stumble later, and 65-75% of children who are reading disabled early on continue to remain poor readers throughout school, despite remedial efforts (Scarborough et al, 2009). He identified two strands of the reading process that are the best predictors of later reading outcomes: the word recognition strand, consisting of letter identification and phonological awareness, and the comprehension strand consisting of vocabulary, sentence/story recall, and concepts of print on the other. Although a reciprocal causal relationship between phonological awareness and learning to decode print has been established, a causal relationship with the other factors has not been established (Ehri & Wilce, 1980). Phonological deficits affect phonemic awareness,

which in turn affects the alphabetic principle and finally the ability to decode text (Lieberman et al, 1989; Stanovich & Siegel, 1994). These examples stress the bidirectional relationship between language and literacy skills.

With the realization that language was central to the literacy process, Stark & Wallach (1980) developed a new conceptual framework of *language learning disabilities*, to offer a more holistic view of language remediation. The study of language disorders moved from primarily syntactic to semantic and finally to pragmatic concerns (Owens, 2005), and models of reading evolved toward an understanding of linguistic-based underpinnings of the cognitive processes entailed in reading (Roth & Perfetti, 1980). Therefore the intrinsic link between language and literacy makes it essential to have language-based assessments and intervention for students who are at risk for learning disabilities.

To summarize, oral language development is crucial and intrinsically linked to literacy acquisition, especially in terms of a predictor for reading success. Emergent literacy consists of inside-out skills like phonological awareness and letter knowledge and outside-in skills like language and conceptual knowledge (Whitehurst & Lonigan, 1998), making both learning to read and reading to learn products of language acquisition. Whereas early reading ability is dependent on code-related skills, later reading comprehension is more dependent on language ability (Catts et al, 2006). Although this is true for both monolingual and bilingual children, the important difference is that language and literacy skills that are acquired in one language can be transferred to the second language in the case of bilingual children, if they are given continuous support in both their L1 and L2 within their home and school environments. Finally, there is evidence (Scarborough et al, 2009) to support that reading abilities and disabilities are consistent over time and are linked to oral language development in the early school years.

Cultural Diversity and its Impact on the Special Education Referral Process

Disability Through A Cultural Lens

Disability has been viewed through several perspectives, including (a) the medical model, which focuses on the physical, cognitive, behavioral, psychological and sensory deficits within the individual that sets them apart from other people; (b) the social model, which focuses on hostile environments, negative attitudes, limited communication and resources within a social context that limit services and supports to the person with a disability; (c) the political model, which purports that a disability interferes with a person's capacity to work and thus limits his/her contribution to the economy, a product of the values of the dominant social group, and (d) the cultural model, which focuses on group belongingness and the distinction between oneself and groups that don't share the disability identity (Gilson & Depoy, 2000).

McDermott & Varenne (1995) classify disability from three perspectives: (a) deprivation, which is indicative of one group being better than the other based on the acquisition of certain skills; (b) difference, which is indicative of both groups being different, but celebrating those differences; and (c) culture as disability, which is indicative of a socially-constructed, politically-motivated construct. They claim that both learning disabilities and illiteracy have been institutionalized as an active part of the American education system. For example, from a deprivation perspective, persons with

LD cannot perform a set of tasks as quickly as others because there is something wrong with them. Illiterate individuals in our society, according to this account, weigh us down because they become unproductive workers. In the same vein, if the focus is on difference, those with LD will be viewed as people who might be weak on academic tasks but able to perform other tasks outside this domain, while people who are illiterate maybe viewed differently depending on what the term “literacy” entails and how it varies from one culture to another. The final perspective of ‘culture as disability’ views LD as a label to describe, explain, and remediate children who need to fit into a politically-motivated system, whereas literacy is viewed as something that is good for an individual, difficult to acquire and in need of an explicit system for transmission to illiterate people in the classroom.

Socio-cultural Theory and Disability

One of the prominent theoretical frameworks that guide this discussion on culture and disabilities is the socio-cultural theory. According to Vygotsky (1978), social interaction helps organize the developing mind and mesh with the needs and aspirations of the community at large. During the process of development, the child not only masters the items of cultural experience, but the habit and forms of cultural behavior, the cultural methods of reasoning. Vygotsky (1978) views disability not as a biological impairment having psychological consequences, but as a socio-cultural developmental phenomenon. Disability is perceived as an abnormality only when and if it is brought into the social context. From a social perspective, the primary problem of a disability is not the sensory or neurological impairment itself, but its social implications: For example, even though being blind is more physically restrictive than being deaf, deafness is considered worse because it limits social interactions and hence the transmission of cultural norms (Vygotsky, 1995). The problem is not the primary disability but the secondary consequences that disability engenders within a social milieu. Vygotsky stressed the importance of identifying a disability in a child from the point of strength, not weakness, and concentrating on the levels of independence and needs for support rather than feebleness of mind. It was this idea that led him to introduce the term “inclusion based on positive differentiation” (Vygotsky, 1995, p. 24) Special education, for Vygotsky, was not just a diminished version of general education, but rather a specially designed setting, that focused on rehabilitating the individual using psychological and pedagogical means. The mainstreamed socio-cultural environment is the only adequate context where it can occur (Vygotsky, 1995).

Cultural Considerations in Classifying Students with Disabilities

Florian et al (2006) identified possible purposes of a classification system: (a) to provide identification and intervention services for students within the school context, (b) to provide parents with appropriate services for their children, (c) to abide by the legal rights of the students, (d) to set accountability demands on teachers and the appropriate allocation of resources, and (e) to provide students with the right pedagogy and specialized curricula that they require based on their individual needs. In the process of classifying children from different cultural backgrounds, Gilson & Depoy (2000) developed a set of characteristics of the socio-cultural context to be aware of in understanding the impact of disability on individuals: (a) Identity, or the constants that one sees as belonging to him/herself and that render one recognizable and unique to

others (creating affiliation and affinity); (b) Language, which is the set of symbols that describes, sorts, classifies, and provides the forum for sharing individual experiences (Rogers, 1996); and (c) Community, which provides acceptance and collectivity, as well as a forum for interaction. Mehan (1993) advised educators to focus on the language of representation (how we describe the child with a disability) and how it positions the child vis-à-vis the disability. Mehan's claim, which he documents with compelling examples, is that the view of disability promulgated in our culture (and most vividly represented by the perspective of the psychologist, who situates disability inside the child--"... beneath the skin and between the ears, "whereas the classroom teacher sees it varying from one classroom situation to another and the mother sees it changing through time.

According to McDermott et al (2006),

The cultural work of learning disabilities is not restricted to the children who are diagnosed or the adults who diagnose them, but it entails the millions of people who use a surveillance system, consisting of doctors, psychologists, lawyers, educators, all of whom are ready before the child shows up! They are looking for and producing evidence of LD in educational settings designed to make symptoms of LD visible. You could not be learning disabled in 1900; you were called "lazy"; by 1960, you were called "dyslexic" and "learning disabled" by 1970. (p. 13)

He stressed the idea that a culture could actually be against children, as he observed that a higher percentage of minority students are placed in special education when compared to White peers, and within special education, White students are assigned to least restrictive environments as opposed to minority students (McDermott et al, 2006). "The data, driven by inconsistent methods of diagnosis, treatment, and funding, make the whole system difficult to describe or change" (McDermott et al, 2006, p. 12)

Disproportionate Representation in Special Education Classrooms

Artiles (2003) observed a pattern of disproportionate representation of certain ethnic groups in special education. He found that the placement patterns tend to vary based on ethnic representation in school populations, year, and the indicators used. He found a tendency for the over-representation of African American students and the under-representation of Asian American students in high-incidence disability categories. Donovan & Cross (2002) noted bias in the referral, assessment, and decision-making practices leading to these inconsistencies in placement of students. Artiles et al (2005) observed that disproportionate representation patterns are related to grade level, language proficiency status, disability category, type of special education programs available, and the types of language support available. Students who were proficient in neither their native language nor English were observed to be the most affected in this process (Artiles, 2005). Rueda & Windmueller (2006) found that the larger the minority student population in the school district, the greater the representation of students in special education; he also found that the bigger the educational program, the larger the disproportionate representation. Oswald & Powdthavee (2008) found that low socio-economic status was linked to disability classification and there was a greater identification of students in districts with a high incidence of low SES students.

To summarize, disability has been viewed through the medical, political, social, and cultural models (Gilson & Depoy, 2000). Across these models, emerge a range of perspectives—deprivation, difference and culture as disability, with the cultural perspective emphasizing the social and political underpinnings of disability (McDermott, 1995). Vygotsky's (1978) socio-cultural theory stresses the importance of context in our understanding and treatment of disabilities. Identity, language and community are important considerations while placing students in special education programs. Artiles (2003) observed that the concept of disproportionate representation of some ethnic groups in disability categories stems from the cultural beliefs that surround the criteria and practices involved in identifying or labeling a disability; these criteria lead to a range of assessment and intervention practices, which may or may not be appropriate for particular populations.

Assessment of English Language Learners and Distinguishing between Language Differences and Disorders

English Language Learners with Language Learning Disabilities

Goldenberg (2008) described English Language Learners (ELLs) as students who are not sufficiently proficient in English to benefit adequately from mainstream instruction. The number of ELLs is growing in the US, and according to the U.S. Department of Education (USDOE, 2011) and the National Center for Education Statistics (NCES, 2011), English Language Learners constitute 61% (approximately 5 million students) of the school population in the US. Of these 5 million students, ELLs in California alone constitute 29% (1.6 million) of that population. Approximately 80% of these students are Latino, 10% are Asian, and 10% speak other languages (USDOE & NCES, 2011). Zehler (2003) found that 76% of 4th grade ELL students were performing below grade level in English reading. Hemphill & Vanneman (2011) reported that there was an achievement gap between ELL students and their non-ELL peers, with reading scale scores for non-ELLs being higher than ELLs in 4th to 8th grades. ELLs exhibit lower academic achievement, especially with regard to literacy skills, than their non-ELL peers (August & Hakuta, 1998); and, in general, we know that low achievement tends to be the most important screen in an eventual LD diagnosis. Artiles et al. (2002) found that ELLs were 27% more likely than English-proficient students to be placed in special education in the elementary grades and almost twice as likely in secondary grades. Wilkinson (2006) conducted a study where 21 students legally qualified for LD, but found that they were misidentified because practices included lack of pre-referral interventions, use of translated tests and use of severe discrepancy as factors to qualify students. After analysis, 11 of the students qualified for special education (52%) but formed 2 distinct groups: LD (5) and other disability, not LD (6). The other 10 students (48%) had learning problems that were attributed to factors other than LD. When multiple sources confirmed a disability, the 5 students identified as being learning disabled continued to have disability even with pre-referral strategies in place; in terms of their reading and learning behaviors, they displayed other LD characteristics such as letter reversals, short attention span, poor organizational skills, difficulty completing assignments, and poor memory. In a similar study conducted by Liu et al. (2008), out of 19 Spanish-speaking ELLs who were referred for special education services, they found that only 9 had discrepancies

between IQ and achievement, and after analysis, 1 student had LD, 3 had disabilities other than LD and 5 had problems that could be explained by other factors.

Although instructional practices are similar for both ELLs and non-ELLs, a given practice might prove less effective for ELLs because they face the double challenge of learning academic content and the language of instruction simultaneously (Goldenberg, 2008). Because ELLs are not proficient in the politically dominant language of instruction, they often experience difficulty learning the content. This is part of the normal course of proficiency development for ELLs (Bialystok 2001; Genesse, Paradis & Crago, 2004; Hamayan, 2006). The difficulties experienced by ELLs in the process of learning English, and the difficulties experienced by students with diagnosed LLDs, often appear similar, if not identical (Damico et al, 2003; Paradis 2005). The basis of the language, reading, or written difficulties doesn't point directly to the cause or reason. For example, disfluencies in language development and the ability to perceive and organize information can be distorted in both populations; however, the underlying causes may be very different (Hamayan & Damico, 1991). Other symptoms of disability—e.g., difficulty following directions, experiencing anxiety during the school day etc.—can again stem from different causes; ELLs may have difficulty following spoken directions in English, but students with LLD might have intrinsic difficulties with receptive language that would lead to similar behaviors. Students with LLD may exhibit some or all of the same behaviors but if they are also ELLs, these difficulties will be evident in both languages and across many learning contexts (Crago & Paradis 2003; Cummins, 1984, 2000; Hamayan & Damico, 1991). Differentiating the source of the difficulty for ELLs—language learning disabilities or second language acquisition—is often challenging. Nonetheless, differentiating these sub-populations is critical not only for our understanding of the unique learning trajectories they may experience, but also for appropriate educational placement. An accurate diagnosis would lead to better treatment options, both in general education and special education settings.

Artiles et al. (2005) identified three main factors that led to the language learning disability diagnosis for ELLs:

- Language support: ELLs with straight English immersion were more isolated (no language support) as compared to ELLs with modified English immersion (some language support) or bilingual classrooms (primary language support was part of daily instruction). ELLs in straight English immersion were 3 times more likely to be placed in resource or remedial programs than ELLs in bilingual classrooms.
- Language proficiency: If a student was bilingual and fluent in both English and his/her native language, then he/she was less likely to be placed in special education as opposed to a student who was less fluent in both English and his/her native language.
- Pre-referral strategies: He found that if teachers used intensive small group instruction and pre-referral instructional strategies to target the individual students' needs, students were less likely to be placed in special education.

We tend to think of ELLs as a homogeneous population, but in fact, the range of their language and academic skills is extremely variable. The challenges that ELLs face in classrooms are specifically linked to language demands, or the linguistic knowledge required for productive participation, which are usually transparent in proficient speakers

of the language (Goldenberg, 2008). It is thus important to help them become more proficient in English as well as reach grade-level academic standards in core curriculum.

Problems with Assessment Policies for ELLs

A common concern is the reliability and validity of the tests used to determine the existence of a disability. Moreover, the criteria vary between states and districts, such that a student can qualify for LD in one state or district, but not in another. Fletcher et al. (2004) coined the term “wait-to-fail” model to describe how students are given 2-3 years of normal classroom experience before they can be classified as LD (i.e., the first point at which most students could meet the “two years behind” criterion; in the meantime they do not receive any early intervention services. For ELLs this means waiting for 2-3 years to learn English before they can be assessed, as most tests are still conducted in English only. Finally, external factors such as lack of appropriate instruction, school history, and low SES determine which students are more likely to be identified as having LD compared to others.

Alternative Assessments to Distinguish Language Differences from Disorders

Klinger & Edwards (2006) found the Response-to-Intervention (RTI) model to not only help with early identification but also with identifying LD among students from varied cultural and linguistic backgrounds. Students are first monitored within a general education setting, and non-responders within a classroom are given more intensive supports within the classroom or outside of it. From this group, a smaller group of students who are not responding to instruction are further evaluated and monitored until a disability is suspected. The onus is on the teachers who have to evaluate their curriculum and instructional practices in order to suit the learning needs of a majority of students in their class. The model of multi-tiered instruction helps teachers identify where the breakdown lies and target specific skills that individual students are struggling with before the problems become pervasive. It is a prevention model and also helps in the identification and classification of monolingual and bilingual students with disabilities. Vellutino et al (1996) presented an example of a working RTI model. They requested Grade 1 teachers to nominate their poorest readers at the beginning of the school year, and divided these students into tutoring and contrast groups. Tutoring involved 30-minutes one-on-one intervention 5 days a week that targeted phonemic awareness, decoding, sight word practice, and comprehension strategies. During the next semester, students still below the 30th percentile went for round 2 of tutoring. Two-thirds of students who were tutored in the first semester had caught up with their classmates, which suggested the instruction was not effective for everyone, and 1/3rd of students remained in the lowest 30th percentile despite receiving tutoring during both semesters and were termed “difficult to remediate”. Thus, according to them, early and effective instruction proved to be a valid means of assessment.

Apart from the RTI model, other suggestions include the following: (1) curriculum-based assessments (Shapiro & Derr, 1990) to keep a tab on how students are progressing in basic academic areas such as reading, math, writing, and spelling; (2) dynamic assessments (Vygotsky, 1978) that use the test-intervene-retest format and focus on the cognitive and meta-cognitive processes of the child. In the dynamic assessment method, the evaluator derives important information such as the child’s cognitive modifiability as well as the responsiveness to adult mediation and amenability to

instruction; and (3) portfolio/authentic assessments (Tierney, 1991), which are more holistic assessments that keep a record of students' work samples, classroom observations, and other factors beyond student performance scores to help make instructional decisions regarding individual students. All these assessments are useful and can be used to put pre-referral interventions in place for youth who are ELLs before a LD diagnosis is made.

According to Ortiz and Yates (2002), there are some principles that can aid in differentiating between language differences and disorders: (a) Assess students in both L1 and L2 to get a comparative perspective that can confirm or disconfirm a disability in both languages. (b) Utilize both formal and informal assessments, like conversational samples, story-retelling tasks, and curriculum-based measures to get a more holistic perspective. (c) Obtain parent and family input in terms of home and school histories and significant life events that might have a direct bearing on the child's performance in school. (d) Monitor both short-term and long-term progress of the child, by performing daily and weekly assessments across languages. (e) Perform full and individual evaluations by using pre-referral interventions, observing students in various educational contexts and looking for evidence of bias.

To summarize, the number of ELLs is increasing in schools today, constituting 61% of the school-going population (USDOE, NCES, 2011). Artiles et al (2005) found that ELLs were 27% more likely than English-proficient students to be placed in special education in the elementary grades and almost twice as likely to be placed in secondary grades. The three factors that led to this placement were language support, proficiency, and pre-referral strategies (Artiles et al, 2005). A student in a bilingual program, with equal fluency in both English and a native language and who was offered intensive instructional support, was less likely to be placed in a special education program as compared to a peer in an English immersion program, with limited English fluency and no instructional support outside the classroom. In terms of assessment of ELLs, an RTI model (Vellutino et al, 1996), curriculum-based assessment (Shapiro & Derr, 1990), dynamic assessments (Vygotsky, 1978), and portfolio assessments (Tierney, 1991) are useful in ensuring students receive pre-referral intervention to target specific skills before a pattern of persistent low achievement is considered to be the cause of an underlying language learning disability.

Importance of the Present Study in the Indian Context

Linguistic Context

According to the Census of India (2001)⁴, India has 122 major languages and 1599 minor languages and dialects. The largest language family in terms of speakers is the Indo-Aryan language family, which accounts for 790 million speakers or 70% of the population. The second largest language family is the Dravidian language family, which accounts for 215 million speakers or 20% of the population (Census of India, 2001). Although the Indo-Aryan languages (e.g., Hindi, Bengali, Marathi, Urdu) are mostly spoken in the North India, the Dravidian languages (e.g., Telugu, Tamil, Malayalam and Kannada) are mostly spoken in South India. The official languages of the country are Hindi and English. The British colony legacy has led to English being the primary

⁴ The 2011 census data has not yet been released by the Indian government.

language for government, business, and education. Although Hindi is taught as a primary language and language of instruction in northern India, it is slowly being displaced by English. In the southern states, the medium of instruction in schools is both the state language (e.g., Kannada) and English, with Hindi taking on a third-language status. Again, in the south, English immersion models in schools is displacing heritage languages. Moreover, English is considered the link language that helps with communication among people from different states and communities, who typically speak several local languages. It is also considered the language of power because it provides access to the global job market.

Therefore, most of the urban private schools in the country offer an English immersion program with no bilingual support. According to the Annual Status of Education Report, India (2012), 80% of Indian schools are government schools, but because of the poor quality of education, 27% of Indian children are privately educated. In urban centers, more than 50% of children (27 million) attend private schools and all these students are English Language Learners (ELLs) as they come from different native language backgrounds but follow an English immersion model in school. Although this model has been effective with students from a higher SES background, where they have more exposure to the language in addition to their native language, it has not proved to be the best option with students from lower SES backgrounds where the home language is dominant. The present study was conducted in low, middle, and high-income private schools in Bangalore, India, where the home language background for the sample of students in the study was Kannada and all students were enrolled in schools that followed an English immersion model.

Cultural Context and Special Education Considerations

In terms of culture and its effect on the special education referral process, the Indian context becomes an interesting perspective, especially because special education services are dependent on socio-economic status. There are three tiers of private schools in the urban centers in India: low income, middle income, and high income. In low-income schools, which constitute roughly 50-60% of the school population in urban centers, there is no mention of special education, and parents and teachers still view it within a segregated context that does not find place in their schools. In the middle-income schools, which constitute roughly 30-40% of the school population in urban centers, special day classrooms for moderate/severe disabilities do exist, but although they are located within the school site, the children have no contact with their typically developing peers. In high-income schools, which constitute roughly 10-15% of the school population in urban centers, special education resource rooms that provide pull-out services for mild-moderate disabilities do exist, but there are no special day classes for either mild/moderate or moderate/severe disabilities.

According to Sanjeev (2007), India is one of the few countries where the education of children with special needs does not fall within the purview of the human resource development sector, but rather the social justice and empowerment sector, whose primary focus is rehabilitation, not education. The issue of education of children with disabilities remains imperceptible, hidden from the public domain, a private problem for families and NGOs to deal with. Although most developed countries like the United States face the problem of over-representation of certain minority groups in special education (Harry & Klingner 2006), developing countries like India face a paradox where

majority of the population are under-represented in schools (Peters, 2004). Poverty seems to be an underlying cause and consequence of a disability, as it (a) is more common in poor families and communities, and (b) limits the access to employment and education, which in turn leads to even greater economic exclusion (Kalyanpur, 2008).

Coping with a disability is not just an internal individual struggle of parents and children, but it is closely tied to the cultural values, beliefs and coping strategies that a society uses to view and deal with disability. Gabel (2004) conducted a longitudinal study of cultural beliefs about disabilities among South-Asian Indian immigrants living in the US, finding that many of them believed that intellectual disability is tied to bad karma and that it can be resolved by performing good deeds. Gupta (2011) suggests that the belief in karma promotes negative coping strategies in people with disabilities, who tend to believe that they brought it on themselves; thus, parents are blamed for causing these abnormalities in their children. This in turn leads to feelings of shame, stigma, and dishonor to the family, to an extent where families isolate themselves socially to hide the child who brought them this dishonor (Gilbert, Gilbert & Sanghera, 2004). Another facet of the Hindu philosophy is endurance of suffering privately as a consequence for past misdeeds (Gilbert, Gilbert & Sanghera, 2004). Many families deny going through any stress and pain, and will often not join parent support groups and other organizations to help alleviate their condition or support coping strategies (Gupta, 2011).

Developing Screening Tools in English and Kannada

The NCES reported that approximately 5% of all students in public schools in the US are identified as having a learning disability (NCES 2009). In India, on the other hand, there is no specific data regarding the prevalence of learning disabilities, but the National Institute on Mental Health (NIMH) Report (2010) states that teachers in private schools identified at least 2-3 students in a class of 40 as having a learning disability. Teachers currently identify persistent low achievers and students who might be “at risk” for a disability in classrooms by using English-only assessments that target school-based performance scores. Thus, the most important aim of this study is to expand on current assessments available to teachers and provide them with formal and informal screening tools in both L1 Kannada and L2 English. This in turn will help them develop a more valid classification system in order to provide the most optimal educational placement for their students. The screening tools will be used to compare low, middle and high-income private schools in Bangalore, India, and will serve the following purposes: (a) develop a classification system to classify students as true bilingual, dominant English, dominant Kannada, and “at risk” for a disability; (b) identify bilingual and bi-literate competencies in English and Kannada; (c) observe the effect of socio-economic status on the development of literacy as well as the shift in perspective on the special education referral process; (d) observe the effect of parental income, parental educational qualifications, and home literacy practices on performance scores; (e) observe the effect of the special education resources available to the teachers and their interest in utilizing the screening tool in their practice; and (f) assess the efficacy of the screening tools in differentiating between language differences and disorders in English Language Learners.

Study Aims and Research Questions

Based on the above linguistic and cultural considerations, the following are the specific aims of the study:

- to observe the second language acquisition process and the relationship between bilingualism and bi-literacy between English and Kannada
- to view special education through a cultural lens and how it affects access to assessment and intervention services
- to utilize formal and informal screening tools in English and Kannada to be able to distinguish between language differences versus language learning disabilities.

Given the broad aims of this study, three specific research questions naturally follow:

1. What is the efficacy of using formal screening tools in L1 and L2 to differentiate between language differences versus language learning disabilities in speakers of Kannada and English in India?
2. What is the efficacy of using informal screening tools to identify external factors that contribute to students' performance scores across low, middle and high-income schools?
3. How does the culture of the school and access to special education resources impact the utilization of a screening tool in L1 Kannada and L2 English across low, middle and high-income schools recruited for the study?

Although Chapter 1 lays out a broad overview of the issues related to assessing English Language Learners with language learning disabilities, Chapter 2 unpacks these ideas further and focuses on the link between bilingualism and bi-literacy, the Indian cultural perspective, access to special education services and the development of formal and informal screening tools in L1 and L2 to assess ELLs.

Chapter 2: Review Of Literature

The purpose of the review of literature section is twofold: (1) it hones in on the problem statement and lays out the historical background, and theoretical models that form a research base to study this problem; and (2) it lays out the empirical literature linked to the research questions. Teachers in Bangalore, India predominantly use school-based performance tests in English to assess students in their classrooms and classify a sub-group of students who are persistent low-achievers. Since all these students are English Language Learners (ELLs) with varying levels of fluency in English, my study aims to provide teachers with formal and informal screening tools in both English and a native language, Kannada, in order to classify students into two sub-groups: (a) persistent low-achievers because of delayed English language skills; and (b) persistent low-achievers because of an underlying language learning disability.

The following are the research questions for the study:

- What is the efficacy of using formal screening tools in L1 and L2 to differentiate between language differences versus language learning disabilities in speakers of Kannada and English in India?
- What is the efficacy of using informal screening tools to identify external factors that contribute to students' performance scores across low, middle and high-income schools?
- How does the culture of the school and access to special education resources impact the utilization of a screening tool in L1 Kannada and L2 English across low, middle and high-income schools recruited from the study?

The three inter-related areas that form the theoretical basis for the research questions, all introduced in Chapter 1, are (a) the link between early language and emergent literacy; (b) the role of culture on the disability identification process; and (c) the assessment issues involved in identifying English Language Learners (ELLs) with language learning disabilities (LLDs). In this Chapter, my goal is to provide a more detailed background in these areas, with a special focus on the last one, the assessment of ELLs with and without disabilities. From the first two areas, I predominantly focus on the effects of developing bilingual and bi-literate competencies and the role of culture in the Indian context and how it affects teacher attitudes, pedagogical practices, and parent involvement in relation to special education identification and intervention services. From the third area, I focus on the history of the assessment of ELLs from a US perspective, how this affects ELLs with disabilities, and what methods are currently being used to distinguish between these ELLs with and without accompanying language learning disabilities. I then compare and contrast this to the Indian context and lay out the current referral process in Bangalore, India, where the present study was conducted. The concluding section identifies the research gap and provides a framework with direct and indirect benefits of this study.

Developing Bilingual and Bi-literate Competencies

Literacy Through a Socio-Cultural Lens

According to Vygotsky (1997), literacy is a system of signs that is culturally developed and transmitted; they are what he called “cultural tools” that transform the course of human development. He observed that mental development in children result from both natural development and cultural development. The interaction of mental processes and cultural artifacts results not only in the assimilation into a culture, but also the development of higher mental functions. Complex cognitive functions like reading and writing have strong social origins as well as a cognitive basis. While lower mental functions can be manipulated by a stimulus-response paradigm, higher social functions are acquired through social interactions where learners can predict the outcome of learning. This “deliberateness” in acquiring literacy (Vygotsky, 1997) takes on various forms depending on the social context. Thus productive instruction should aim at a child’s *zone of proximal development*, by using multiple forms of assistance to offer children the optimal mix of cultural tools that help in the development of higher mental functions. Gee (2001) defined literacy as not being a general concept, but rather a set of practices that involve, “...people adopting different ways with the printed word within different socio-cultural practices for different purposes and functions.” (p.30). He defined language similarly as “people adopting different ways with the oral word within different and specific socio-cultural practices.” (p. 33) In order to study both language and literacy, Gee suggests that it is essential to consider the social contexts in which they develop. He views language and literacy as entailing the formation of socially-situated identities through cultural models, which are everyday theories about the world that people socialized within a given discourse share; these models and theories inform participants in a given setting about what is normal and what is deviant.

Literacy Development

Harris, Golinkoff & Hirsh-Pasek (2011) observed that toddlers pick up vocabulary informally as they interact with others in their environments rather than from any program of explicit instruction. Sound patterns typically turn into words, and nouns are learned first followed by verbs and spatial relations. It takes place in natural interactions and builds on the child’s interests, and most important, activities. The focus is not so much on the word, as it is on the concept and function of the object. The acquisition of early literacy skills is tied to the development of different skills (Shanahan & Shanahan, 2008). Strong expressive and receptive language skills underlie the acquisition of specific skills, such as alphabetic knowledge, phonemic awareness, memory, rapid automatic naming, which in turn help with decoding and reading comprehension (Snow, Burns, Griffin, 1998).

Literacy and the Home Environment

Parenting practices are the strongest predictor of early childhood literacy skills (Early Child Care Research Network, 2003). The most common home literacy practice, shared book reading, provides a rich source of information and opportunity for children to learn context-specific language (Pellegrini, Brody & Siegel, 1985; Wheeler, 1983). Wells (1985) found that 5% of the daily speech of a 2-year old child occurred in the context of story-time, and Ninio & Bruner (1978) found that shared reading provided

mothers with the context to label objects in the child's environment. Print exposure and shared book reading foster vocabulary development in pre-school aged children (Senechal & Cornell, 1993; Cunningham & Stanovich, 1991). Other aspects of the home literacy environment, such as number of books in the home, library visits and parents' own print exposure, were also related to children's vocabulary skills (Senechal et al, 1996). Adult-child verbal interactions, such as features of conversations during meals, have also been implicated in the acquisition of emergent literacy skills and contribute to the students' de-contextualized language skills (Dickinson & Tabors, 1991).

Hart & Risley (1995) found that by age 3, children from low-income families hear 25% of the words heard by children from high-income families. They are typically "at risk" for reading difficulties (Juel, Griffith & Gough, 1986) and are more likely to be slow in developing oral language skills (Juel et al, 1986; Whitehurst & Lonigan, 1998). Children from low socio-economic backgrounds are also less likely to develop phonological processing skills, which affect later word-decoding skills as they learn to read (Raz & Bryant, 1990). It is therefore important to consider SES, education, family structure when looking at literacy acquisition.

All of the above factors are true for both monolingual and bilingual children, especially in terms of the socio-cultural context in learning languages, and the influence of parenting practices and socio-economic status on literacy acquisition. I now turn to some specific factors that guide the second language acquisition process as well as ones that affect bilingual children gain bi-literate capabilities.

Bilingualism and Bi-literacy as a Product of the Environment

Whitmore (2003) elaborated on the socio-cultural perspective laid out by Vygotsky in 1978, positing an active role for children, as they exploit their cultural and linguistic experience to construct meaning in interaction with parents, teachers, peers in their environment. Dickinson & Tabors (2002) found that bilingual children develop a variety of abilities in two languages across different tasks such as narrative production, book reading, etc., and this is built on their cooperation with parents and primary caregivers. They develop meta-linguistic awareness and differentiate between oral and written systems as they learn early on that each language is a key to communication and literacy (Dickinson & Tabors, 2002). If children have continuous support from their caregivers in both languages, they are able to move from bilingual to bi-literate competencies. They create two over-lapping and interacting literate worlds by thinking and exploring their social worlds with others in two languages (Reyes, 2006). A bidirectional relationship between L1 and L2 at home and school plays an important role both in developing oral language, as well as supporting bi-literacy. In bilingual children, contextual cues become important not only in differentiating between two literacy systems, but also to be able to recognize the appropriate context in order to switch between languages and be understood by their caregivers.

Cross-Linguistic Transfer as a Positive Effect of Bilingualism and Bi-literacy

Cummins (1984) proposed a *Developmental Interdependence Hypothesis*, which states that proficiency in L1 is required to develop proficiency in L2 and a common underlying proficiency between L1 and L2 facilitates the transfer of cognitive skills in addition to linguistic skills. He observed that literacy skills could be both foundational skills, such as letter-sound correspondences, conventions of print, as well as surface-level

skills such as the relationship between L1 and L2, and the effect of bi-literacy over time (Cummins, 1991). It is important for students to understand the cognate relationships across languages; for example the English word “encounter” which occurs less frequently can be related to the Spanish word “encontrar” which is the word for “meet” and is used more frequently (Cummins, 2005). Another strategy that can be used in the classroom is encouraging students to use both their L1 and L2 to create literature and art and explore issues of social relevance (Cummins, 2005). Linguistic transfer between L1 and L2 thus includes a transfer of linguistic abilities as well as literacy development, subject knowledge, and learning skills. The reading and writing experiences established in one language are passed on to the second language as children navigate between the two to understand literacy development. For example, if a child has formed a schema or a mental framework for the word “table” in his mind in one language, he does not have to re-learn the concept of a table in his L2, but rather substitute the L1 word with the L2 word and have two words instead of one in his lexicon to match his schema for a “table”. The development of bilingualism seems to have a positive linguistic and cognitive effect for most children. They develop meta-linguistic awareness in both languages, seamlessly navigate two language and literacy environments, as well as acquire two sets of vocabulary words and an expanded lexicon to describe everything in their learning contexts. Tapping on heritage language resources helps bilingual students value their L1 in relation to their instructional L2, helps parents of bilingual students be more involved in school-based projects and promotes cross-linguistic transfer between the two languages.

Bilinguals who are “At Risk” for Language Learning Disabilities

According to Tabors & Snow (2001), developmentally, the ages between 0-3 years are critical for children to acquire language and literacy skills. This is the period when bilingual children depend on their home environments to attain these skills. At-risk bilinguals may also be at risk for developing English literacy skills because their parents may have insufficient knowledge in the language (Tabors & Snow, 2001). Between the ages of 3-5 years, language development is dependent on the home environment and the preschool environment. They tend to go through roughly four phases of development: home language use (they take time to realize that language outside their home is a different language), nonverbal period in new language (non-verbal requests like crying, pointing etc to continue communicating; receptive language development), telegraphic language (naming people and objects: get into flow of activities; sound like members of group), and productive use of the new language (build own sentences to describe activities) (Tabors & Snow, 2001). Though these stages are cumulative, the rate of acquisition varies from one child to another. Other factors like motivation, exposure, age and personality have an impact on how fast a child acquires a language. In this stage, the variation in the amount of time dedicated to learning the new language will lead to differences in vocabulary; the bilingual child will have a smaller vocabulary and this may have implications for later acquisition of literacy skills. Finally, by ages 5-8 years, children transition to formal instruction in reading and writing typically in their second language (Tabors & Snow, 2001). Though literacy skills acquired in the first language transfer to the second language, a huge concern at this stage is to prevent reading difficulties in ELLs who navigate through two systems.

Scarborough et al (2009) observed that twenty years ago reading was not thought to begin till formal instruction in school started, and reading disabilities were seen as an education problem. But currently, the prevailing view is reading begins in preschool and is also dependent on home literacy environments. The question is whether pre-school differences in reading language and literacy can serve as reliable prognostic indicators of later reading skills. Skilled readers accurately derive meaning from text by coordinating many competent skills such as vocabulary, background knowledge and word recognition. Most struggling readers, on the other hand, have trouble with phonemic awareness and phonological decoding, which in turn affect comprehension. Reading (dis)abilities seem to show stability over time (Scarborough et al, 2009), with 65-75% of those students who are classified as poor readers early remaining poor readers throughout school.

Cummins (1984) developed a model of second language acquisition and introduced the terms *Basic Interpersonal Communication Skills* (BICS) and *Cognitive Academic Language Proficiency* (CALP) to describe the language acquisition process. *Basic Interpersonal Communication Skills* (BICS), which is the ability to communicate basic needs and wants, as well as carry on basic interpersonal conversations, takes approximately 1-3 years to develop after the student is first exposed to the second language. As important as it is, it is insufficient to facilitate academic success. On the other hand, *Cognitive Academic Language Proficiency* (CALP) or the ability to carry out advanced interpersonal conversations as well as communicate thoughts and ideas effectively, takes approximately 5-7 years to develop, and it is essential for academic success. It thus takes an average ELL at least 4-5 years to become competent in the L2 in order to be assessed in that language (Cummins, 1984). In this period of development of CALP, the errors that are observed in the development of literacy skills often appear similar to students with LLD, which leads to a potential misdiagnosis. Research indicates that the less schooling a child receives in a native language, the longer he/she will take to acquire proficiency in a second language. Another reason for patience stems from the relationship between L1 and L2: proficiency in the native language facilitates the transfer of CALP from the native language to the new one (Thomas & Collier, 1997).

Bilingual Language Support for ELLs

Ortiz & Yates (2001) observed that if a second language is introduced prior to the development of CALP in the native language, it might result in academic problems. However factors such as language of instruction, parental education, continued opportunities for L1 development and age of acquisition could affect the result in a positive way. ELLs are less likely to be referred for special education if they are provided with bilingual language support in schools (Ortiz & Yates, 2001). Hoover (2008) noted that bilingual education became a part of educational policy after the passing of the Bilingual Education Act of 1968. Since then, it has been a controversial topic especially among scholars and the lay public who believe in English immersion programs. But most of the research that compares monolingual versus bilingual education programs suggests that bilingual education is very effective while teaching ELLs (Hoover et al, 2008). Students in developmental bilingual programs, with a gradual transition to English outperform peers in early-exit, transitional programs, as well as English-only programs when tested in English (Ramirez, 1991). Oller & Eilers (2002) found that bilingual instruction positively affected English literacy by grade 2 in comparison to English immersion programs. Thomas & Collier (2002) found that students fared better in two-

way dual immersion programs where English-speaking children learned Spanish, while ELLs learned English. Bilingual programs can vary from transitional/early exit ones that use the native language and culture of the student till they learn English, and maintenance or late-exit programs that concentrate on bi-literacy (Hoover et al, 2008).

To summarize, the bilingual advantages are that students can develop meta-linguistic awareness about two literacy systems and have a larger overall vocabulary in two languages. They also learn both foundational and surface skills in one language that can transfer over to their second language to help them gain bi-literate competencies. Though some students might be misidentified as having language learning disabilities, this is more a result of their delayed second language acquisition patterns rather than the actual presence of a disability. Moreover, research suggests that if students are supported with bilingual language programs, and are encouraged to develop bi-literacy in both languages, the referral to special education is highly reduced. I now turn to language and literacy practices within the Indian context and how this might affect students who are ELLs as well as those that might have underlying language learning disabilities.

Language and Literacy Practices in Indian Homes and Schools

Literacy practices in Indian homes. Kalia (2007) conducted a study in two pre-schools in Bangalore, and found that book reading at home was associated with bilingual children's oral language, narrative and literacy development in L2 English. Some of the languages parents spoke at home were Kannada, Malayalam, Urdu, Hindi, Tamil, Telugu, Bangla, Gujarati and Oriya. These students came from middle-income backgrounds and their parents were high school or college graduates who read to them in English. Parents' report of frequency of library visits was significantly associated with children's scores for complex syntax, and their receptive vocabulary scores were significantly correlated with their scores on concepts of print, blending, elision and the complexity of narrative they produced (Kalia, 2007). The benefits of shared book reading correspond to other studies on monolingual students (Senechal & Cornell, 1993; Cunningham & Stanovich, 1991), and it is true for students from middle-high income backgrounds in India. But I could not find a study that looked at literacy practices in low-income homes; the present study offers some insight into that area, as well as how it corresponds to more students from low-income homes being identified as having language learning disabilities.

Language of instruction in Indian schools. The school system in India consists of private and government schools. The private schools typically follow an international, national or state-level standardized curriculum. The medium of instruction in these schools is usually English, Hindi, or the State language, which varies between states. The government schools typically follow a state-level curriculum and the medium of instruction is usually in the State language. It is important to note that there are no bilingual programs, and all schools follow language immersion models. The sample for the current study was from low, middle and high-income private schools where students followed an English immersion program. English as a medium of instruction serves three purposes in these schools; (a) it is the link language for students coming from various home language backgrounds, especially in urban centers (b) it is believed that early exposure to the language helps students gain proficiency in it and teachers emphasize English language use in their classrooms, (c) the popularity of English education has recently been associated with economic growth since the information technology industry has boomed in India (Mehrotra & Delamonica, 1998). It is estimated that 90 million

children in India are currently being formally schooled in English (Kalia, 2007). Pakir (1991) documented the features of the varieties of English used across the world. According to Ramanathan (1999),

A key assumption has been that the inner circle of countries (Britain, US, Canada and Australia) with native speakers of the language sets English standards for countries in the outer circle (e.g. India, and parts of Africa), where English is used non-natively but extensively and has been given official language status. Unfortunately, English and the privileges associated with it remain inaccessible to those who are from a lower SES or caste or both in India, with the Indian middle-class assuming a position of power through its access to English (p.212).

An Indian Cultural Perspective: Effect on Special Education Services

The field of special education, and inclusive special education in particular, has been a fairly recent development in India and has taken shape only over the last decade. Currently, only high-income private schools, which constitute roughly 10-15% of the school population, provide services for mild/moderate disabilities on the school site. The following sections delineate the political, economic and cultural beliefs that have shaped developments in India so far. It is important to note that special education services in India are still predominantly viewed as being outside the realm of the general education system, even though it is mandatory to have a special education department/learning lab (which are similar to resource rooms in the US) in every school. There is still a considerable amount of stigma attached to a disability, specifically because people with disabilities are not considered valuable to a developing economy. This attitude trickles down to the culture of education and pedagogy, and a lot of families hide the fact that their children are assessed by psychologists or get speech therapy services outside of school. Thus, a focus of this section will be on how cultural beliefs about disabilities affect parent involvement, teacher attitudes, and pedagogical practices for students with disabilities.

Cultural Beliefs about Disability

Coping with a disability is not just an internal individual struggle of parents and children, but it is closely tied to the cultural values, beliefs and coping strategies that a society uses to view and deal with disability. In coming to terms with a disability, people look for sources outside of themselves, like the media, culture and a religion (Langford, 2002). They try to figure out a cause and answers to questions like why they were chosen to carry such a burden in life. According to Gupta (2011), Hinduism provides these answers through the law of “karma,” which states that deeds done by a person in a lifetime, affect their current or later lives; in that a good deed leads to good karma, as opposed to a bad deed which leads to bad karma. The law of karma follows the principle of reincarnation, and thus a person’s misfortune may be linked to bad deeds done in the present or past lives, and the soul carries it along as it transmigrates from one life to another, until it is justified. Gabel (2004) conducted a longitudinal study of cultural beliefs about disabilities among South-Asian Indian immigrants living in the US, and she found that many of them believed that intellectual disability is tied to bad karma; and that it can be resolved by performing good deeds. Gupta (2011) suggests that the belief in karma promotes negative coping strategies in people with disabilities, who tend to believe that they brought it on themselves; thus, parents are blamed for causing these

abnormalities in their children. This in turn leads to feelings of shame, stigma, and dishonor to the family, to an extent where families isolate themselves socially to hide the child who brought them this dishonor (Gilbert, Gilbert & Sanghera, 2004). On the other hand, some individuals take it upon themselves to gain control, and use adaptive coping strategies to deal with the bad karma (Miles, 1995). In terms of access to special education services, some families are not at all involved with their child's education or do not even feel the need to provide them with services, as they would rather not be seen socially. Other families take it on themselves to seek education for their children, become extremely involved, and strongly advocate for their children, by often starting up their own NGOs to provide services to children with similar needs, as a means of overcoming their karma. Another facet of the Hindu philosophy is endurance of suffering privately as a consequence for past misdeeds (Gilbert, Gilbert & Sanghera, 2004). A lot of families deny going through any stress and pain, and will often not join parent support groups and other organizations to help alleviate their condition or support coping strategies (Gupta, 2011).

Parent Involvement at Home and School

Indian parents value academic achievement and family interdependence, and discourage autonomy (Dasgupta, 1989). More recently, Jambunathan & Counselman (2002) conducted a study that focused on the parenting attitudes of Asian Indian women both in India and the US. While the former tended to follow an authoritarian parenting style, the latter followed an authoritative parenting style. According to Baumrind (1967), authoritarian parents tend to be very strict and expect their children to obey them with no room for discussion. These children usually turn out to be dependent, unhappy and socially withdrawn. On the other hand, authoritative parents exercise control with a high level of expectation but also respect their children's decisions. These children usually turn out to be more independent, with a high level of self-esteem.

The family constellation plays an important role; for example a lot of children come from joint or extended families (grandparents, parents and children living together) as opposed to nuclear families, and support for a child is viewed as a universal concern (Goldbart & Mukherjee, 1999). Peshawaria et al (1995) found that grandparents were in a position to offer significant support to families. Within India's traditional family structure, there may be a greater likelihood of other family members participating in child-care and other domestic chores (Kashyap, 1989; Peshawaria et al, 1995). The primary care-giving role, be it in a traditional joint family or the modern nuclear family in India, is still taken on by the mothers with little everyday involvement from fathers (Kashyap, 1989).

Sreekanth (2011) conducted a study to measure parents' involvement in the education of their children. He reported that most of the parents in his sample were committed to attending parent-teacher meetings, supported their children with their homework and were proactive with the teachers to focus on the welfare of their children. But apart from expected roles, parents usually do not question the authority of the teachers and do not have an understanding of alternative education programs, teaching and learning styles beyond what the school expects of them. Moreover, most parents are determined to have their children succeed on school-based exams and believe that the primary goal of education is focused on academic content knowledge.

In India, the availability of teachers and therapists in the field of special education is limited, and this increases the demands on parents to participate in their child's education and therapy (Goldbart & Mukherjee, 1999). An advantage of a joint family system is that a more experienced caregiver might be able to recognize typical versus atypical developmental patterns early on, and the care for the child with a disability is a universal one. Thus, parents are very involved with their children on the home front. Unfortunately, there are limited opportunities for special education services for these children and the society as a whole view them as a liability as they do not contribute to a growing economy. This in turn affects parental decisions regarding schooling of their children with special needs

Education of People with Disabilities in India

According to Sanjeev (2007), India is one of the few countries where the education of children with special needs does not fall within the purview of the human resource development sector, but rather the social justice and empowerment sector, whose primary focus is rehabilitation, and not education. The issue of education of children with disabilities remains imperceptible, hidden from the public domain, a private problem for families and NGOs to deal with. Why is this the case? According to Peters (2007), India has 70 million people with disabilities, and this alarming statistic came to light only after the 2001 census, which was the first time the education and employment status of people with disabilities was accounted for. Only 1-2% of people with disabilities are educated, and they attend schools set up by Non-Government Organizations (NGOs), since public schools don't accommodate them, and private schools are too expensive. Only 1% of people with disabilities are employed in India, and most others are dependent on their families for basic care, as there is no government assistance for unemployment.

While most developed countries like the United States face the problem of over-representation of certain minority groups in special education (Harry & Klinger, 2006), developing countries like India on the other hand, face a paradox where majority of the population are under-represented in schools (Peters, 2004). Pratham (2005) states that there are as many as 13.4 million children in India who have either never gone to school or dropped out. This includes up to 95% of children with disabilities, which accounts for 40% of the total population of people with disabilities who have never received an education, in either general or special schools (Jha 2004; Rao, Narayan & Mani, 2005). India has the "highest absolute number of out-of-school children" (UNESCO Institute for Statistics, 2005, p.21), and it is one of the 35 countries that are most unlikely to meet education for all goals by 2015 (UNESCO, 2005). Poverty seems to be an underlying cause and consequence of a disability, as it (a) is more common in poor families and communities, and (b) limits the access to employment and education, which in turn leads to even greater economic exclusion (Kalyanpur, 2008).

Special Education Movement in India

Education of children with disabilities in India, as all over the world, has moved from segregated schools to special day classes, to integrated education (Rao, 2003). Historically, special education services were provided in segregated schools right from the 1800s, when the first schools for the deaf and blind were set up in Bombay and Amritsar respectively. But according to Saini (2000), education policy in India took shape only after its independence from the British rule in 1947. Out of this, arose the

Universal Education for All policy (1950), which mandated free and compulsory education for children aged 6-14 years. In an effort to serve a huge population, with limited resources, children with disabilities were not addressed.

In the 1960's the government introduced various schemes to train teachers to teach kids with special needs, and in the 1980s, the Welfare Ministry set up an institution to monitor and regulate the disability rehabilitation programs across the country. According to Kalyanpur (2008), later policy efforts in the 1980s and 1990's were specifically directed towards students with disabilities, and included "The National Policy of Education, 1986, three major pieces of legislation (the Rehabilitation Council of India Act of 1992, the Persons With Disabilities [Equal Opportunities, Protection of Rights and Full Participation] Act of 1995, and the National Trust [for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities] Act of 1999), and a bill recently introduced in parliament to make primary education compulsory." (p. 56). The 'Persons with Disabilities (equal opportunities, protection of rights and full participation) Act' of 1995, laid the foundation for the philosophy of inclusive education. Later that year, the District Primary Education Program (DPEP) was set up to address modifications and accommodations that would make curriculum more accessible to students with disabilities. This was the first time that the term "Individualized Education Plan" came into effect.

The number of special schools rose to around 3000 by the year 2000 (Department of Education, 2000). By the year 2005, the National Curriculum Framework, set out to introduce an inclusive education practice throughout the Indian education system. It took into consideration all aspects of inclusive education, including pre-service and in-service training of teachers, smaller classroom sizes, and differentiating instructional practices. Though there have been efforts towards inclusive education, it is still a new practice that has taken shape in the last decade and is restricted to urban centers. Even in the metropolitan cities like Mumbai, Delhi, Calcutta, Chennai and Bangalore, it has not yet made the transition from theory to practice in a majority of schools.

Teacher Attitudes and Pedagogical Practices that Affect Students with Disabilities

Although special schools are the predominant option for students with special needs in India, the movement towards inclusive education has started in some parts of the country (Jangria, 1995; Alur & Natarajan, 2000). Teacher attitudes are an important variable to consider while evaluating the efficacy of inclusive education programs (Ringlaken & Price, 1981). Parasuram (2006) conducted a study in Mumbai, India to learn more about teacher attitudes towards students with disabilities in their classrooms. He was interested in whether background characteristic variables such as age, gender, income level, education level, and teaching experience affected teachers' attitudes towards including students with disabilities in their classrooms. He found that teachers' attitudes significantly varied with age and teaching experience. Younger teachers with fewer years of work experience had more positive attitudes towards inclusive education as opposed to older teachers with more work experience. Moreover, if teachers came from a higher socio-economic status, they had more positive attitudes towards students with disabilities when compared to teachers from lower socio-economic groups. Teachers' positive attitudes towards people with disabilities are also positively correlated with higher education levels (Yuker, 1988; Patterson, 1995; Parasuram, 2006).

According to Clarke (2003), both teachers' openness and resistance to educational reform are embedded in the cultural construction of teaching and learning. Her study explored teacher attitudes in Karnataka, India, where the current study was conducted. The goal of Clarke's (2003) study was to introduce in-service teacher training programs that were focused on student-centric pedagogy in place of the traditional rote memorization system. She based the study on four cultural constructs that represented pedagogical practices in India (Clarke, 2001): (a) shared holistic worldview, which suggests that individuals are not autonomous but linked in an interdependent system of regulation; (b) instruction as duty, which suggests that a person's caste stipulates a set of duties, which must be followed as an obligation; (c) structural hierarchy, which suggests that the teacher is more knowledgeable to the student; and (d) knowledge as collectively accumulated, where an individual's decisions are constructed by choices of the community rather than individual experience. Her results showed that "openness to regulation, the conception of their task as duty and possibly the hierarchical social framework allows teachers to be receptive to reform programs outlined by central authorities" (Clarke, 2003, p. 37). But though teachers have started using instructional aids, activities and demonstrations during their instruction, they have not integrally transformed teaching and learning; for example the classes are still teacher-centric and the school-based exams are still focused on verbatim responses from the textbook. I could not find a similar study that introduced special education reform in terms of assessment and intervention practices, so it would be interesting to look at the impact of my study on teachers more than ten years after the Clarke (2003) study was conducted in Karnataka, India.

Assessment Issues in Identifying English Language Learners (ELLs) with Language Learning Disabilities (LLDs)

Problems with the IQ-Discrepancy Model

Bateman (1965) suggested a method for identifying learning disabilities by establishing a discrepancy between a student's general intelligence (by using an IQ test) and actual academic performance (by using an achievement test). In 1977, the US Department of Education established federal guidelines for identifying students with LD, and set parameters to use the discrepancy model identified by Bateman (1965), and this approach persisted until the last decade. According to Reschly (2005), the IQ-achievement discrepancy model assesses whether there is a significant difference between a student's scores on a test of general intelligence (e.g., an IQ test such as the WISC-IV) and scores obtained on an achievement test (e.g. the Woodcock Johnson Achievement Test). If a student's score on the IQ test is at least two standard deviations (30 points) higher than his or her scores on an achievement test, the student is described as having a significant discrepancy between IQ and achievement and therefore as having a learning disability.

Although this practice has been well-established, even entrenched, in schools, Speece et al (2003) found that problems with it far outweighed the gains made by employing this model. Some problems with this model are that assessments do not always discriminate between genuine disability and a range of other explanations of low performance, such as inadequate teaching, teacher or testing bias, or invalid criteria. These explanations, coupled with the fact that this approach does not inform instructional

practices, led to concerns about its validity. Continuing to be problematic and controversial over several decades, states and school districts began to opt for different criteria, causing students to be classified as LD in one state or district, but not so in another state or district (Mercer, 1997). More importantly, Fletcher et al (2004), observed that students have to first fail in order to qualify for special education services, and since students have to perform at two grade levels below their own, to establish a discrepancy, students with serious learning disabilities could not be identified or receive services in the primary grades. He called this the “wait to fail” model.

Introduction of the *RTI* Model

According to Smith (2005), the reauthorization of IDEA (2004) stressed a move away from the discrepancy model to diagnose learning disabilities, and introduced the term, “*Response to Intervention*” (RTI) as a means to providing students with a more holistic assessment that focused not on the intrinsic abilities of the child, but extended to extrinsic variables such as instructional practice, assessment tools etc. The thrust has been on early intervention and prevention at the school-wide and district-wide level rather than concentrating on the limited cognitive abilities of the child or waiting for children to fail, as was the case in the earlier era in which the IQ-discrepancy model prevailed.. According to Fuchs & Fuchs (2006), the responsiveness to intervention is seen at three different tiers, and additional instructional supports are put in place at each stage usually before a diagnosis is made.

The purpose of RTI is for teachers to reflect on their teaching practices and curriculum at every tier and make an informed decision related to special education referral and educational placement. For example, if a student is not responding to tier 1 instruction, a teacher will refer the child for more intensive instruction that is targeted to their specific needs in reading and writing skills in tier 2, before he/she moves on to more complex ideas. Thus, at every level, a child gets instructional supports and early intervention practices to avoid falling behind the other students in class. And when the child clearly does not respond to intervention even at tier 3, the teacher is more convinced of his/her decision to refer the student for special education services. Fuchs & Fuchs (2006) unpack the reasons why there has been a shift towards using RTI as a more effective form of assessment and instruction. First, special education services are expensive, and the number of kids being diagnosed with LD has increased exponentially. Second, the varying definitions and criteria related to the IQ-achievement discrepancy have led to inconsistencies in the criteria for classification and the resulting prevalence of LLD across States and districts, making it possible for students to qualify for special education services in one state but not another. And finally, the “wait-to-fail approach” propagated by the discrepancy model—which by requiring students to be performing at least two grades below their grade level, essentially denies assistance until grade 3—is not optimal in providing students with early intervention when they need it. Thus a school-wide assessment policy based on a tiered model of instruction is more effective in pinpointing where the problem lies and providing students with intensive instruction at every tier before they are considered “at risk” for a disability.

Considerations While Assessing English Language Learners (ELLs)

The number of ELLs has been increasing in the US. According to the latest report of the US Department of Education (USDOE, 2009) and National Center for Education

Statistics (NCES, 2009); they constitute 61% of the school population (5.1 million students). There have been several policy changes through the years to address the issues related to assessment practices for this population, in order to provide them with the most effective pedagogical practices as well as appropriate educational placement decisions.

Standardized tests like IQ tests and achievement tests are usually conducted in English only and this limits access to English Language Learners, who are often misidentified as having LLDs. Special education identification, placement, and instruction decisions for students who are English-language learners (ELLs) have been largely based on research and practices used with monolingual students with disabilities (Artiles & Ortiz, 2002). These are problematic for many ELL students with disabilities, as these practices do not take into consideration fluency rates and linguistic basis of acquiring a second language. Even though ELLs usually attain oral language fluency at an earlier stage of reading development, they might still take longer to develop reading comprehension. And though they develop decoding skills without developing a lexicon or prior knowledge to understand what is being read, a period of acculturation may be the most important factor for ELLs to develop contextual cues and augment their vocabularies. Because ELLs are not proficient in the language of instruction, they usually experience difficulty learning the content. This is part of the typical development of proficiency in an additional language (Bialystok, 2001; Genesse, Paradis & Crago, 2004; Hamayan & Freeman, 2006). On one hand, there is a need to identify students early on, so that they can receive early intervention services, but on the other hand, it is critical to take into account language and cultural issues before deciding on the best educational placement for these students. Without a considerate assessment instrument and an educator who is aware of these differences, there is considerable risk of identifying a communication disorder or language learning disability.

If ELLs are misidentified as having language learning disabilities, they are usually referred for special education services. Ironically, instructional models of special education are individual-specific and directed towards the cognitive aspects of the disability, such as phonological processing, learning styles, attention, and memory, rather than individual language support, such as ESL classes, and bilingual programs which target specific linguistic aspects such as vocabulary, story recall, and letter identification that is better suited to their needs. Thus ELLs without disabilities are more likely to get intensive second-language support and educational placement in bilingual programs as opposed to ELLs with disabilities, who are mainly instructed only in English—a practice that would be consistent with a disability-centric diagnosis (Klinger & Harry, 2006). While remediation programs cater to particular reading and writing deficits that are exhibited in students with language learning disabilities (LLDs), these may not be efficient instructional practices for students who are ELLs and do not have a more global understanding of the language as the struggle to gain proficiency in it. According to Connor & Boskin (2001), there has been a large amount of research on language acquisition from the perspective of linguists, psycholinguists, medical personnel, and sociologists, but very little research exists on how language usage influences the educator's decisions on the placement of students. It is also critical to note that ELLs are usually diagnosed with language learning disabilities at grade 3, after they are given a couple of years to pick up the second language. This is similar to the special education model, where students have to test at two grade levels below their current grade to be

considered learning disabled. According to Klinger and Harry (2006), these considerations include not knowing when a child is ready to be assessed in English, confusion about when to refer ELLs, overreliance on test scores, without considering other factors that might play a role and misdiagnosing low proficiency in a language as an indicator of LLD. Thus a lot of assessment issues have to be resolved in order to target a sub-population of ELLs with language learning disabilities.

Research-Based Assessments for Diagnosing Language Learning Disabilities in English Language Learners

Language differences versus disorders in ELLs. It is relatively easier to tease apart differences versus disorders in monolingual students, but this process becomes more complex with ELLs. The limited research evidence is delineated below and gives us an insight into some considerations to take into account while diagnosing ELLs with LLDs. Harry & Klinger (2006) observed that *classroom ecology* was an important factor to consider while making referral decisions. Instructional and teacher variables in terms of supporting language development in students played an important role in academic success, meaning, of course, that a vulnerable student might succeed in one classroom but fail in a second. Harry & Klinger (2006) found that if a teacher supported language acquisition, provided contextual cues, and used teaching methods that focused on providing comprehensible input to the students, then the number of referrals to special education were considerably lowered, when compared to teachers who did not incorporate these strategies while teaching ELLs.

Teachers' concerns about academic achievement and low reading and language achievement were the primary reasons for special education referrals, without trying out any pre-referral interventions, as suggested by Carrasquillo & Rodriguez (1997). Similar findings were recorded by Harry, Klinger et al. (2002). Test performance in English, without considering the student's home language, was a primary reason for misdiagnosis as Maldonado-Colon (1988) and Barrera Metz (1988) concluded with their studies. Hamayan et al (2007) presented their research on possible difference vs. disability explanations for observed classroom behavior. Among other findings, they learned that if an ELL presents behaviors such as omitting or adding words to sentences, has trouble following directions, avoids writing tasks, misses inferences, has trouble with retelling a story, it is possible that the words are not in the child's vocabulary as yet, material has not been accessible to them in terms of visual cues, they have no demonstrated context for learning and they don't understand a topic well enough to represent abstract concepts within it. On the other hand, if a student presents with the same list of symptoms, an LLD diagnosis is more likely if the student is observed to have additional problems related to memory, auditory and visual processing difficulties, sequencing problems, inattention, fine motor difficulties, organizational issues and sequencing problems. In other words, students who are ELLs, present us with surface similar surface behaviors but the underlying cause is different. In the case of ELLs, the symptoms are almost always related to their language learning process and their struggles with communication in both receptive and expressive forms of the language. In contrast to this, ELL students with LLD have deeper issues in terms of sequencing, processing, memory that go beyond the language itself. For example, ELLs may have difficulty following spoken directions, but students with LLD might have intrinsic difficulties with receptive language that would lead to similar behaviors. Students with LLD may exhibit some or all of the same

behaviors, however if they are also ELLs, these difficulties will be evident in both languages and across many learning contexts (Crago & Paradis 2003; Cummins 1984, 2000; Hamayan & Damico, 1991).

Assessment practices to differentiate language differences versus disorders in ELLs. Donovan & Cross (2002) discuss the long-standing concern in special education related to the over and under representation of students from linguistically diverse groups due to inappropriate assessment and instruction. With ELLs, there are additional considerations such as the language of instruction and opportunity to learn English (Linan-Thompson, 2007) that have to be accounted for before an instructional program is put into practice. The following are some suggestions of research-based practices to assess ELLs and differentiate language differences from disorders:

RTI model. This model is effective as it makes use of students' learning rate and performance in determining instructional supports at every tier (Linan-Thompson, 2007). It thus gives students time to acquire reading skills, before a referral decision is made. According to Vaughn et al. (2006), this would mean identifying students with LLD from a "risk" perspective, where large numbers of students at risk for significant academic problems would be provided interventions and students whose response to intervention remained low would be identified as having a language learning disability. The RTI process would likely decrease the number of ELLs that are referred as having LLD, and it could support them with quality instruction in the general education setting before they underachieve. In addition to this, interventions that have interspersed language support activities to enhance oral language development produced a marked increase in performance on several reading measures (Gersten et al, 2006), suggesting that there is a transfer of L1 skills on to L2 literacy acquisition. The RTI framework is an evidence-based practice that is linked to school success not only for monolingual students, but bilingual and multilingual students as well; not only for students in general education settings, but branching out to address the needs of students in special education settings as well. For ELLs, the benefits of a RTI model can be tremendous especially in terms of offering instructional support at every tier, and building on their language acquisition skills, instead of relying on the "wait-to-fail" approach (Fletcher et al, 2004).

Testing in L1 and L2. In order to improve assessments of ELLs in general and special education, Ortiz and Yates (2002) propose the following recommendations. They suggest assessing both the child's native language, as well as the second language, by using equivalent measures that allow comparison of a student's performance across two languages as well as their performance in relation to monolingual speakers of each language and bilingual peers. In addition to using bilingual versions of cognitive abilities and achievement tests, they also suggest using other informal assessment tools such as rating scales and observational protocols to understand the students' language acquisition trajectories. Rating students on proficiency and fluency levels gives us an indication of whether they struggle at the semantic, syntactic, and/or pragmatic level, and that in turn helps us track their language gains as they interact with other students in the classroom setting.

Formal and informal assessments. Ortiz and Yates (2002) propose using both standardized and non-standardized assessments, such as conversational samples and narrative skills, as well as alternative assessments (e.g. authentic or dynamic) as indicators of fluency in each language. In addition to this, they advocate obtaining parent

and family input, monitor short term and long-term progress and provide full and individualized evaluations. These holistic evaluations are conducted with evaluators insisting on pre-referral intervention, before conducting assessments, examining referrals for bias or need for professional development and observing students in various educational contexts. Based on the work by Krashen (1982) and Valenzuela et al (2006), observational protocols and field notes add a different dimension to the assessment process. In addition to gathering information about a child through standardized clinical protocols, it is important to add informal assessments to a battery of tests, especially if they can be easily administered by the teacher to get a quick screen of the language acquisition process of the ELLs in the classroom. In addition, alternative assessments such as classroom observations, teacher rating scales, child language samples etc. can give the observer a wealth of knowledge about a child's language acquisition trajectories, and thus help in the process of differential diagnosis between language differences and disorders.

Current Trends in Assessment Practices

Though policy changes through the years have mandated a RTI model, testing in both L1 and L2, using bilingual cognitive abilities tests, using supplemental assessments such as home language surveys and classroom observations etc., the current trends in special education suggests that these recommendations have not made their transition from policy to practice (Collier, 2011). Shenoy (2014) conducted a survey (in Appendix A, p. 101) to take stock of the assessment tools that are used to diagnose students at risk for language and/or learning problems and to get a deeper understanding of what is available to professionals such as special educators, speech pathologists and school psychologists in various school districts today. She developed a survey to collect data from a random sample of 75 professionals (27 special educators, 31 speech language pathologists, and 17 school psychologists) in the field within the California school district system. She asked them about the range of assessments they use to determine the language acquisition patterns as well as presence of a language learning disability in ELLs. The following are the assessments that they utilized in their practice:

IQ and achievement tests. My survey indicated that school psychologists continue to use both IQ and achievement tests to make a differential diagnosis. The most popular tests seem to be the *Woodcock-Johnson Cognitive Abilities and Achievement Tests* (Woodcock & Johnson, 2001), reported to be used by 37% of the school psychologist respondents and the *Wechsler Intelligence Scale for Children* (Wechsler, 2003), reported by 25.5% of the same group. But it was interesting to note that only three of them (4%) mentioned using the Spanish version of the *Woodcock-Johnson Cognitive Abilities and Achievement Tests* (Woodcock & Johnson, 2001), and two of the respondents mentioned having used the non-verbal (performance) version of the *Wechsler Intelligence Scale for Children* (Wechsler, 2003). My pilot data suggests that cognitive abilities and achievement tests are still primarily conducted in English only.

Supplemental and alternative assessments. Supplemental assessments are alternative assessments that professionals use to get a holistic evaluation of a child, rather than relying solely on cognitive abilities and achievement tests to make a differential diagnosis (Sparrow & David, 2000). Professionals in the study tended to use both standardized and non-standardized assessment protocols. From the total of four standardized protocols, parent questionnaires (50 out of 75 participants, or 66.66%), and

teacher rating scales (38 out of 75 participants, or 50.66%) were the most commonly used. Additionally, from the total of five non-standardized assessment protocols, classroom observations (57 out of 75 participants or 76%) and work samples (47 out of 75 participants or 62.66%) were the most commonly used supplemental assessments.

Language/bilingual tests. While school psychologists administer cognitive abilities and achievement tests, special educators are more concerned with curriculum-based measures. Thus, almost all the language testing is left to speech language pathologists in the field. The most popular tests are the (a) *Clinical Evaluation of Language Fundamentals 5 Test* (Semel, Wiig & Secord, 2013), which was reported to be used by 26 out of 75 participants (34.66%); (b) the *Expressive One Word Picture Vocabulary Test 4* (Martin & Brownell, 2011), which was reported to be used by 26 out of 75 participants (34.66%); and (c) the *Receptive One Word Picture Vocabulary Test 4* (Martin & Brownell, 2011), which was reported to be used by 22 out of 75 participants (29.33%). A majority of speech-language pathologists (65%) reported that they used these tests in their practice, especially since they can be administered in both English and Spanish. They also reported that these tests were the most helpful in making a differential diagnosis between students who were acquiring a second language and those that had language learning disabilities.

To summarize, professionals report leaning more towards standardized tests in their practice, but non-standardized tests are also used depending on the job description of the participant. For example, special educators tend to focus on work samples, and classroom observations, to help them produce a more holistic assessment profile of their students, whereas school psychologists tended to utilize standardized assessment tools. Speech pathologists on the other hand, tended to use more standardized bilingual tests and other language tests that were both standardized and non-standardized.

According to the survey, professionals in the field reported that the most commonly used tools to make a differential diagnosis were a battery of tests consisting of both formal and informal tests that assessed not only cognitive abilities, but also language abilities in both L1 and L2. Though some professionals reported having other district policies (like an RTI model, non-verbal tests and bilingual language support) in place to support ELLs, it was not a widespread consensus. The following are some suggestions from the research literature that have not fully been translated to practice:

RTI Model. Out of the 75 survey respondents, a total of 4 respondents (5.33%) indicated that their school/district followed a structured RTI model, 21 respondents (28%) reported that their school/district did not follow a structured RTI model, and all the other respondents did not answer the question. When asked to describe the RTI model that was followed in their school/district, 3 out of 4 respondents made the following observations: “RTI is followed in resource and speech, but it is not a school-wide policy”, “RTI is talked about, but scarcely seen in practice” and “Literacy intervention in all grade levels for the bottom 10% readers functions as RTI”.

Non-verbal tests. In terms of access to non-verbal and/or performance tests, 30 respondents (40%) said that they did not have access to these tests and did not use them in their practice. Though none of the respondents conferred to using non-verbal tests, 45 of them did not respond to the question.

Language support. Language support refers to bilingual programs to help ELLs transition to the second language. Four professionals in total (5.33%) reported that they

had some form of language support in their school/district. Two respondents described the language support offered by their school/district as being targeted intervention groups, and pull-out support for students without IEPs.

To summarize, professionals in the field are aware of policy changes that include an RTI model, non-verbal performance tests and language support at various levels of the school system. These changes are not only critical assessment tools for the appropriate placement of ELLs, but also expand on assessment and instruction efforts throughout the school district system. Though the latest trend in assessment aims at targeting the entire school system, it has not yet transitioned from theory to practice across all schools and districts in California.

Assessment of English Language Learners in an Indian Context

Current referral process. The predominant model of assessment in India is the “wait to fail model” (Fletcher et al, 2004), with students being diagnosed with learning disabilities only by Grade 3 or 4, after they establish a significant discrepancy between IQ and achievement, as well as have been given enough time to learn English in order to be assessed in it. The current special education practices in private schools in Bangalore, India (where the study was conducted) depends on the resources that are available to schools and is also closely tied to socio-economic status. Generally speaking, there are three ways in which students who have disabilities get identified and are provided with services within and outside the school system:

- There is limited or no awareness about special education as a field in the school. This is predominantly the case in low-income private schools that constitute roughly 50-60% of the school-going population, where there are limited resources. The focus is on improving pedagogy in general education settings and thus special education is not a concern. In this case, parents have to advocate for their children and get services in segregated school settings. Again, this is highly dependent on the level of awareness that the parent has about mild/moderate disabilities and whether they are willing to accept it in their child or not.
- The school does not practice inclusion as yet, and has no provisions for special education, but they are aware of it, and teachers are trained to look for red flags in students, in which case a referral is made by the teacher, (through the school board) to a psychologist, who practices at a clinical assessment center outside of school (much like a referral is made for a physician/pediatrician outside of school). This is typically the case in middle-income private schools that constitute roughly 30-40% of the school-going population. The educational outcomes are usually special education after-school programs that help with specialized one-on-one intensive instruction, like a tutoring service. Depending on the severity of the disability, it works for some students and they continue to get 100% of instruction in general education, but most students have to move back to segregated schools.
- The school has been introduced to inclusive practices and has a special education department on site, usually called a “learning lab”. This is typically the case in high-income private schools that roughly constitute 10-15% of the school-going population. In this case, the teacher in general education notices that a child has trouble grasping both oral and written language and literacy skills and is not performing at grade level, and refers the child to the “learning lab” (resource room). The lab uses informal reading inventories to assess the child and provides

one-on-one instruction, working on the specific needs of the child. After pre-referral interventions are tried out, and the child does not respond to it after 7-10 months (usually the entire academic year), they are referred to psychologists in assessment centers/clinical settings (similar to the role of school psychologists in the US) outside of school, who do a complete psycho-educational assessment (primarily consisting of cognitive abilities/achievement tests) and come up with a diagnosis.

It is important to note that almost all forms of assessment are in English only, with limited or no access to native language assessments even though all the students are English Language Learners. Based on the level of their special education needs, students can be referred: (a) back to general education classrooms with pull-out services in resource rooms on the school site; (b) to after school programs with one-on-one instruction; or (c) to special schools in segregated settings. The option of a special day class on the school site does not exist.

Problems with the current referral process. Firstly, they follow the “wait-to-fail” model (Fletcher et al, 2004) where students need to perform two grades below to qualify for services, which usually means that students only get diagnosed at Grade 3. The time taken to make a diagnosis could span over an entire school year, or even longer, because a significant discrepancy between expected performance for the grade level and actual performance has to be established before a diagnosis is made. Secondly, the demographic of the students, who are all English Language Learners, means that they are a heterogeneous population who vary in terms of their exposure to and fluency in English. They get no language support in school, as they follow the English immersion model. There are usually anywhere between 25-50 students in a classroom with one teacher. Currently, teachers only use two forms of assessment to identify students who are “at risk” for a learning disability: (a) performance on school-based exams, which are conducted every three months, and focus on content-area skills, and (b) work samples, which focus on students’ written work. Other assessment tools such as bilingual/language tests and informal tests across learning contexts are not considered essential in diagnosing a cognitive disability. Thirdly, when students are directly referred to a psychologist outside the school site, a disability label is typically generated during a one-time visit rather than a cumulative record of the child’s performance, and this could be detrimental to the student. Once a student is considered “at risk” by his/her teacher, he/she is then referred to the special education department if the school has one, or it is brought to the parents’ attention and they take over to help their child with resources within the community. A school’s special education department or learning lab, usually consists of 3-4 trained special educators who are certified to work with children with mild-moderate disabilities. The team does an initial evaluation that varies from school to school, but primarily consists of classroom observations, examining work samples, and conducting informal reading inventories. Based on the results, they target specific areas of need in terms of grade-level skills and work with students in small groups or provide one-on-one instruction. After trying out these pre-referral strategies, the following recommendations are made: (a) The student needs more time to learn English before a psycho-educational assessment can be conducted (b) The student may be “at risk” for a learning disability and is referred for a complete psycho-educational evaluation outside of school, if they are proficient in English. The report that is generated by the psychologist

is based on the results of cognitive abilities and achievement tests such as the Weschsler Intelligence Scale for Children and Woodcock-Johnson Cognitive Abilities and Achievement Tests. Based on these results, the psychologist either refers the child back to general education, with pull-out special education services, or refers them to special education schools, that are segregated and do not follow the general education curriculum, but rather focus on individualized education plans. It is important to note that there are no additional resources such as ESL teachers, bilingual language support, itinerant speech-language pathologists, school psychologists etc. within the school system to get a multi-dimensional assessment of the child, so the psychologists' report which is from a one-time visit forms the official diagnosis criteria for these students. Finally, **the** only form of assessment currently available, other than those administered by the psychologist, are curriculum-based rote memorization exams usually around 4-6 times in a school year. In addition to this, considering that all students are ELLs, there is no option of L1 language tests and the available L2 English tests focus on grammar and comprehension. In short, all tests, whether conducted in the classroom or by a psychologist outside of the school setting is primarily conducted in English only.

Relevance of the Present Study

Main Objectives

This dissertation study was conducted in Bangalore, India, where the native language is Kannada. The goal of this study was to provide teachers and educators with a screening tool in both English (L2) and Kannada (L1), in order to help them identify students who are “at risk” for language learning disabilities. Currently, all forms of assessment are conducted in English only, which means that students can be tested only after they acquire the language. But providing teachers with a native language assessment ensures that students can be tested early on to get a continuum of language and literacy skills across both languages. Teachers can then use this information to guide their instructional practice, with all the students in their class, ranging from students who have a strong background in L1 and L2 to students who are struggling with both L1 and L2, and might possibly have a disability.

The study was conducted in high-income, middle-income and low-income private schools in Bangalore, India. In high-income schools, if the teacher suspects a disability, the student can be referred to a Learning Lab within the school where they are usually provided with one-on-one instruction to try various pre-referral strategies based on their performance on informal reading inventories and informal language assessments. If the student is non-responsive to individualized instruction, a disability is suspected and he/she is referred to a Psychologist/Speech Language Pathologist outside the school system to confirm the presence of a disability and make special education recommendations. In a middle-income school, the same screening tool can help teachers refer students to psychologists outside school to come up with a holistic evaluation and possible diagnosis of a language learning disability. This in turn will influence placement decisions such as after-school remedial one-on-one instruction or special schools, depending on the severity of the disability. Lastly, in low-income schools, the focus will be directed more towards language acquisition and what the school can do to help students from strong native language backgrounds gain mastery in English. The focus is on improving pedagogy for students who don't have any L2 exposure at home, and a

secondary goal will be moving children who might have special education needs to special schools where their needs will be met. The proposed referral process will be more streamlined and will empower teachers to make more informed placement decisions. It will help provide a framework for appropriate assessment and identification, which will impact pedagogical decisions not only in terms of instruction but language support as well.

Benefits Within the Context

The study took place in schools in Bangalore, India, where the primary native language is Kannada, and the second language and medium of instruction is primarily in English. It was undertaken in three phases: (a) translation/adaptation of both formal and informal tests into British English and Kannada; (b) pilot testing the assessments in both L1 and L2 and changing ambiguous questions to make it more culturally relevant; and (c) data collection efforts to assess students in both L1 and L2 and discern a pattern of language difference versus disorders that emerges from analyzing the test results.

The immediate benefits and the long-term benefits of the study within the Indian context are represented in Table 1 below:

Table 1
Hypotheses about Immediate and Long-Term Benefits of the Study within the Indian Context

Immediate Benefits	Long-Term Benefits
It provides a framework to use language assessments in both the native language and English, as screening tools in a move away from the English-only assessments that are currently being used.	It will hopefully lead to the development of multi-disciplinary teams within the school and will increase the need for more specialized professionals, like itinerant speech-language pathologists, special educators and psychologists within the school, as opposed to all concerns being directed to psychologists outside of the school setting.
The term “assessment” will be re-conceptualized and expanded within the school setting to supplement the standard assessments used to classify students with more situated measures across formal schooling and informal non-classroom contexts.	It provides opportunities for professional development and will shed more light on how best to teach students who are ELLs, and addresses pedagogical concerns.
It provides a more comprehensive framework for assessment of ELLs and also sets the stage for making a differential diagnosis between ELLs with and without disabilities.	It will help improve the current referral process as well as inform better educational placement outcomes for these students.

Caveat to Translating from English to Kannada

Although the benefits of testing students in both L1 and L2 far outweigh the current assessment process of testing in L2 only, a confounding factor that has to be

considered is the origin of the linguistic family of each language, with English being an Indo-European Language and Kannada being a Dravidian Language. Though every effort is being taken to make the translation of tests as linguistic and culture-specific as possible, it may pose as a caveat in terms of pinpointing linguistic indicators of typical vs. atypical language learners. According to Shackle (in Swan & Smith, 2001), as a result of the long period of the British rule, English has become very firmly established in South Asia. The spectrum of English language use varies from those with no direct command of English, but have still been exposed to many loanwords that have entered South Asian languages, to students who are highly educated and use standard British English with a 'received pronunciation'. In between these two groups lie those who have varying degrees of command over 'Indian English'. Given the long-established position of English in the schools of the subcontinent, the problems encountered by learners are likely to be determined by educational rather than language background.

According to Narasimhan (in Swan & Smith, 2001), though the writing system poses no general problem for South Asian learners, as all languages have their own script written from left to right, some of the other problems that speakers of these languages may encounter with standard British English as the target model are as follows (references' to typical learners' mistakes should be seen within this framework):

- (a) Phonology: The Kannada vowel system consists of five pairs of short and long vowels, with no diphthongs, and so these are not accurately perceived and are either shortened or lengthened according to Dravidian pronunciation patterns. Example: they have problems with distinguishing between "cot", "coat" and "caught". Dravidian languages do not have aspirated consonants, and the English initial /p/, /t/, and /k/ might be interpreted as /b/, /d/, /g/ instead.
- (b) Morphology and syntax: Word order and sentence structure are different in both languages, as well as the use of indirect speech and tense. For example, in Kannada, you might say "next year he will come back home" when you actually mean "next year he may come back home" in English.
- (c) Speech and writing: The spoken and written varieties of Dravidian languages vary a lot, and it might lead learners to favor an over-elaborate or over-formal style in written English.

These considerations have to be kept in mind while translations are made, and students' usage of 'Indian English' should not be confused with a disability.

Summary

When working with students who are ELLs, it is important to consider second language acquisition patterns and how it contributes to the development of bilingual and bi-literate competencies. Children can fall on to a spectrum of bilingualism from being a true bilingual, with equally good language and literacy competencies in both languages to struggling with either the L1 or L2 and finally struggling with both L1 and L2, at which point they might be "at risk" for language learning disabilities. As teachers, it is imperative to assess students on the level of their language and literacy competencies and use this effectively in the classroom as a guide to appropriate educational placement as well as pedagogical considerations.

Another important consideration for assessment is the cultural context in which students are identified and provided with special education services. It is important to keep in mind various cultures of our students within the classroom and how these cultures

approach a disability. This can vary from stigmatization on one hand, to acceptance on the other, but other factors like medium of instruction, language support, parental access to literacy, socio-economic statuses, low income to high income schools, resources within the school, all determine how disability is viewed and whether children get access to services or not.

The assessment of ELLs in the US has undergone many changes from the IQ-discrepancy model to the RTI model that is prominent in some schools today. Moreover, students are being assessed in both L1 and L2 and there has been some amount of language support in schools. In India on the other hand, there is a cultural push towards English immersion programs and all assessments are restricted to English only. The current study explores the effects of a language screening tool in both English and Kannada to help teachers chart out second language acquisition patterns as well as identify students “at risk” for language learning disabilities.

Chapter 3: Research Methodology

This study follows a mixed-methods research design that integrates both quantitative and qualitative data analyses. The main aim of the study was to develop a battery of formal and informal screening tools in English and Kannada to help teachers with an initial classification system to differentiate between language differences and disorders in this population. The purpose of the Methods chapter is to hone in on the demographic of the participants, the description of the measures that were used in the study and the procedure for data collection and analyses that is directly linked to the research questions.

Participants

The sample for the current study consisted of 104 students: 64 from a low-income private school³, 32 from a middle-income private school,⁴ and 8 from a high-income private school⁵, all from Bangalore, India. The students were selected to participate in the study if their home language was Kannada⁶ (which is primarily spoken in the state of Karnataka, India), and their medium of instruction in school was English. All of them were from grades 2-5 and were between 7-10 years old. All the programs followed an English immersion model⁷ with no L1 bilingual support.

Initially, the schools were contacted and the principals gave us a signed permission letter to work with their students. After this, we met with the coordinators of the respective grade levels and obtained a list of Kannada-speaking students in these grade levels.

In the low-income school, eighty students were identified who spoke Kannada at home. We sent out the school letter and parent permission forms as recruitment materials. Sixty-four parents (80%) returned the signed permission forms allowing us access to work with their children. Sixteen forms (20%) were not returned to us. Thus, the final sample from this school consisted of 64 students. Of these, 24 were male and 40 were female, with 31 students representing grades 2-3 and 33 students representing grades 4-5 respectively.

In the middle-income school, seventy-two students were identified who spoke Kannada at home. We sent out the school letter and parent permission forms as recruitment materials. Thirty-two parents (44.44%) returned the signed permission forms allowing us access to work with their children. Twenty forms (27.77%) were returned,

³ For the purposes of this study, low-income schools refer to private schools in Bangalore, India where the annual tuition costs for each student is approximately Rupees 7200 (\$120)

⁴ For the purposes of this study, middle-income schools refer to private schools in Bangalore, India where the annual tuition costs for each student is approximately Rupees 40,000 (\$667)

⁵ For the purposes of this study, high-income schools refer to private schools in Bangalore, India where the annual tuition costs for each student is approximately Rupees 1,50,000 (\$2500)

⁶ Kannada is one of the languages from the Dravidian language family. It is primarily spoken in Karnataka, which is located in southern India. All the schools were located in Bangalore, the largest city and the capital of Karnataka.

⁷ An English immersion model within this context refers to an education model where the predominant medium of instruction is in English. The goal is to expose students to English early on and not allow a native language to interfere with students' English language development.

with parents indicating that they did not want their children to be participants in the study, and twenty parents (27.77%) did not return the forms. The final sample from this school consisted of thirty-two students. Of these, 16 were male and 16 were female, with 12 students from grades 2-3 and 18 students from grades 4-5 respectively.

Finally, in the high-income school, fifteen students were identified who spoke Kannada at home. Eight (53.33%) signed permission forms were returned, and seven (46.66%) were not returned. The final sample from this school consisted of eight students, 5 female and 3 male. Five of these students were from grades 2-3 and three were from grades 4-5.

Measures: Formal and Informal Screening Tools

The main aim of the study was to introduce screening tools in both English and the native language, Kannada, for use in schools in Bangalore, India, in order to determine if students were “at risk” for language-based learning disabilities. Several formal and informal tools (described below) were adapted and developed.

Formal Screening Tools

Non-verbal IQ test. A non-verbal IQ test, *Raven’s Colored Progressive Matrices* (Raven, 2003) was individually administered to each participant before the bilingual language screening tools were introduced to rule out, or at least be aware of any issues related to intelligence. *Raven’s Colored Progressive Matrices* (Raven, 2003) is a reliable measure of non-verbal intelligence and logical reasoning. Comprehensive standardization and validation studies have been conducted all over the world, with the majority of internal consistencies lying between $r=.80$ and $r=.90$, and in most cases retest reliability is above $r=.80$ (Raven, 2003). All factor analytical tests showed that the CPM is a good indicator of Spearman’s g factor (Raven, 2003).

Language screening measures. Two language-screening tools: the *Preschool Language Scale 5 Screening Test* (Zimmerman, Steiner, & Pond, 2012) and *Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013) were utilized for the study. These tools were both translated by the researcher into Kannada and adapted to Indian English. They were rendered culturally appropriate for students in an Indian context by ensuring that the language used was grounded in artifacts and experiences that are relevant to and typical of the culture of the region. Some of the items were changed from American English to reflect British language use, and the picture prompts were changed to be more context-specific, but they still tested the same language skill.

Preschool Language Scale 5 Screening Test. The record form for age 7 (in Appendix B, p. 104) was the only one used from the PLS 5 Screening Test as it was developed for ages 0-7 years and the sample for the current study was made up of students aged 7-10 years. It consisted of subtests that measured the students’ knowledge of prefixes, semantic categories, sentence formulation, synonyms and plurals. These items were developed to assess communication skills identified as important markers of typical development in young children. These skills are well-documented in the literature addressing language development, language disorders and psycholinguistics (e.g., Silliman, Wilkinson & Brea-Spahn, 2004; Owens 2004; Nelson 2010). The item set selected for each age demonstrated the greatest difference in performance between children with typically developing language skills and children identified as having a

language disorder. Except for the use of irregular plurals, all items remained the same for the Kannada version of the form (in Appendix B, p. 106). As irregular plurals are not a part of the language, these had to be changed to regular plurals. The English version of the form was administered in the same format. Both versions of the screening tool were confirmed to be appropriate for age and grade level by a panel of eight teachers. The *PLS 5 Screening Test* was developed to assess communication skills identified as important markers of typical development in young children (Zimmerman et al, 2012). The Screening Test was developed using existing language and articulation items from the *PLS 5*. In terms of test reliability, the *PLS 5 Screening Test* revealed sufficient stability of scores from test to retest with percentage of classification agreement ranging from 88-100% across all age groups (Zimmerman et al, 2012). The validity of the *PLS5 Screening Test* reflects how accurately it can identify individuals who need further language assessment. Results for the Developmental Language Delay group indicated that 80% of children previously identified with a Developmental Language Delay were identified in need of further testing by the *PLS 5 Screening Test* and 84% of the students in the typically-developing population were identified as not needing additional assessment (Zimmerman et al, 2012). Moreover, results from the Language Disorder group indicated that 83% of the students previously identified as having a language disorder were identified in need of further assessment, and 84% of the students in typically-developing population were identified as not needing additional assessment (Zimmerman et al, 2012).

Clinical Evaluation of Language Fundamentals 5 Screening Test. The CELF 5 Screening Test (in Appendix C, p. 110) was developed for students aged 5-21 years. It consists of the following subtests: word structure, word classes, following directions, sentence recall, sentence assembly, and semantic relationships. These items were developed to assess language skills that have been shown to be problematic for and/or indicative of individuals with language disorders. These skills include, but are not limited to morphological rules (Miller & Deevy, 2003; Deevy & Leonard 2004; Cirrin & Gillam, 2008), semantic relationships between words (Cirrin & Gillam, 2008), following directions that involve temporal and/or conditional relationships (Sharma, Purdy & Kelly 2009), and remembering orally presented information (Archibald & Joanisse, 2009; Cirrin & Gillam, 2008). This screening tool was translated to Kannada (in Appendix C, p. 118) and adapted to Indian English, to be used in an Indian context. For example, item 8: subjective pronoun, under the word structure subtest, had the words “hot dog” and “hamburger”, which were changed to “sandwich” and “burger” which are more familiar terms in Indian English. Similarly, in the case of item 10, under the word classes subtest, the word “marker” was replaced with “sketch pen”, again a term that the students would be more familiar with. The only item that had to be dropped was question 37, which uses the phrase “A quarter past three”, because that is not a common way in which time is expressed either in Indian English or Kannada. All other items on the test remained the same and were translated the same way into Kannada. The *CELF 5 Screening Test* was developed using existing items from the CELF 5. In terms of test reliability, the *CELF 5 Screening Test* revealed excellent stability of scores from test to retest with percentage of classification agreement ranging from 86-94% (Semel et al, 2013). The validity of the *CELF5 Screening Test* reflects how accurately it can identify individuals who need further language assessment. Results for the 5-8 year old sample indicated that 90% of

the students previously identified as having a language disorder were identified in need of further assessment, and 87% of the students in the non-clinical population were identified as not needing additional assessment (Semel et al, 2013). Moreover, results from the 9-21 year old sample indicated that 93% of the students previously identified as having a language disorder were identified in need of further assessment, and 84% of the students in the non-clinical population were identified as not needing additional assessment (Semel et al, 2013).

The advantages of using these specific screening tools are summarized in Table 2. These two screening tools were specifically chosen because they are criterion-referenced bilingual tests that have already been developed and validated in both English and Spanish. It was thus easier to validate them in another language, by taking into consideration the cultural norms, practices and concepts, and conducting a pilot study to replace any ambiguous items. They are not diagnostic tools designed to provide an in-depth diagnosis of speech/language disability or the degree of impairment of speech or language abilities, rather, they both help in identifying students who are “at risk” for a language disorder, and need to be referred for further language assessment. They help in measuring whether the students’ language abilities appear to be adequate for his/her age. The total score attained by the student is compared to a research-based criterion score appropriate for the student’s age and certain recommendations are made. Typically, these recommendations include conducting a diagnostic test and conducting informal assessments like teacher and parent interviews as well as classroom observations.

Table 2

Benefits of Using the PLS 5 Screening Test (Zimmerman, Steiner, & Pond, 2012) and the CELF 5 Screening Test Semel, Wiig, & Secord, 2013)

	<i>PLS 5 Screening Test</i>	<i>CELF 5 Screening Test</i>
Purpose of the test	<ul style="list-style-type: none"> Identify students who are “at risk” for a language disorder and a recommendation can be made for an in-depth language assessment. Screens language, articulation, connected speech, social/interpersonal communication and fluency (language milestones for birth-7 years) 	<ul style="list-style-type: none"> Identify students who are “at risk” for a language disorder and a recommendation can be made for an in-depth language assessment. Screens for developmentally-appropriate language abilities (5-21 years)
Recommendations that can be made based on the results of the test	<ul style="list-style-type: none"> Standardized Diagnostic assessment Conducting caregiver and teacher interviews Using informal assessment procedures (language sampling and observation during interactions). 	<ul style="list-style-type: none"> Additional screening Observation and data collection in multiple settings, including classroom observations Parent interview Language sampling
Subtests	<ul style="list-style-type: none"> Language Articulation Connected Speech Social/Interpersonal Language Use Fluency Voice. 	<ul style="list-style-type: none"> Word Structure Word Classes Following Directions Recalling Sentences, Sentence Assembly Semantic Relationships Pragmatic Checklist

Informal Screening Tools

Four informal screening tools, namely parent questionnaire, teacher interview, classroom observation checklist and narrative assessment scores were used in order to get a more holistic assessment of both home and classroom settings as well as a language sample of the child. The parent questionnaire, teacher interview and the classroom observation checklist was developed by the researcher in an effort to observe the cultural backgrounds of the students and comment on their performance scores in relation to external factors such as literacy practices at home, family income and pedagogical practices that might have an influence on performance scores on the formal tests. The purpose of the parent questionnaire was for parents to provide more details on the demographics of the family, language of dominance at home, and language acquisition problems that they’ve observed in the child in both L1 and L2. The purpose of the teacher interview was to get a sense of the teacher’s dominant language, pedagogical practices and culture of the school as it relates to special education resources. The purpose of the classroom observation checklist was to assess the classroom ecology and pedagogical practices that are especially directed at ELLs. The narrative assessment scores were generated by collecting language samples from students in their dominant language,

transcribing them and using the Narrative Scoring Scheme (Heilmann et al, 2010) to rate students as “proficient”, “emerging” or minimal” in their narrative skills.

Teacher interview. (in Appendix F, p.145): This assessment consisted of 24 questions in total. These included 8 questions regarding demographic information such as gender, age, educational qualifications, number of years teaching and number of students in classrooms; 5 questions regarding dominant language use; 3 open-ended questions on culture of the school and teaching style; and 8 open-ended questions regarding the special education referral process, resources and accommodations used in classrooms to address the needs of students with disabilities. Specific questions targeted pedagogical practices and the current policies in place to address concerns regarding second language acquisition in the classroom. This tool was developed and administered in English because all the schools visited were schools that followed an English-immersion model and the medium of instruction was English.

Classroom observation checklist. (in Appendix G, p. 148): This checklist consisted of 10 questions designed to learn more about the class structure, number of students, instructional methods, teachers’ fluency in the medium of instruction, participation and engagement of the students. The focus of the checklist was to assess the classroom ecology and pedagogical practices that are especially directed at ELLs. The classroom observations were conducted by the author.

Parent questionnaire. (in Appendix E, p. 133): This questionnaire served as a home language survey, and consisted of 11 questions to find out more about the dominant languages used at home for speaking, listening, reading and writing, as well as the languages that the child was exposed to in his/her community. Parents were also asked to mention if the child had any trouble with these modalities in either English or Kannada. The questions were targeted at getting more information on the demographics of the family, language of dominance at home, and language acquisition problems that they’ve observed in the child in both L1 and L2. This screening tool was developed and administered in both English and Kannada in order to give parents the option of answering in their dominant language.

Narrative assessment. Narrative assessment scores were established by having students retell the story, “Frog Where Are You?” by Mercer Mayer (1969). The language samples were transcribed and analyzed using the Narrative Scoring Scheme (Heilmann et al, 2010) to check for typical and atypical language patterns in the story-retell task. The script for this tool was translated to Kannada (in Appendix D, p. 130) to give students the opportunity to retell the story in their dominant language.

Procedures

Data Collection Methods

From March to June 2014, I collaborated with two bilingual psychologists from Bangalore University to translate and culturally adapt the formal screening tools in English and Kannada. We also translated the parent permission form and the script for the narrative assessment test to Kannada. During July and August, we contacted schools and got permission from three school principals to work with their students from September to December. During this time, we convened with a panel of eight bilingual teachers to discuss the items on the formal tests and all of them approved the assessment tools as age and grade appropriate in both English and Kannada. We then contacted a

couple of English tutors who worked with students from different schools in the city and got permission from them and the students' parents to try out the assessment tools on these students. We piloted the tools on a group of seven students between the ages of 7-10 years. Based on the suggestions we received from the teachers as well as the performance of the students, we changed the test items mentioned in the previous section.

At the school site, for the main part of the study, we met with the coordinators of the respective grade levels and obtained a list of Kannada-speaking students in these grade levels. A school cover letter, a parent permission form and the parent questionnaire were sent out as a packet to the parents through the child. Parents were given a week to return the signed forms to the researchers. Based on the response, we got a total of 104 students to take part in the study, ranging from low to high-income private schools. The students had to miss a total of three class periods to take part in the study. They were taken out of classes such as Music, PE, and Art, so as not to miss core instructional time. During the first class period of 40 minutes, they were administered the non-verbal IQ test, *Raven's Colored Progressive Matrices* (Raven, 2003). During the second class period, with three researchers working together, we were able to complete the *PLS and CELF* screening tools in English and the Narrative Assessment in their dominant language. During the third class period, we were able to complete the language screening tools in Kannada. This was done two weeks after the English version, so as to not bias the results, and not have students give us rehearsed answers from the previous session. The teacher interviews, which lasted approximately 15-20 minutes each, were conducted after school hours. Both students and teachers were given an assent form and consent form to sign respectively. Classroom observations were conducted during the school day on a random basis after getting permission from the coordinators and teachers. Data collection for the study took place over a three-month period. After the parents gave us permission, we did not experience attrition rate among the students, but we did have a few teachers who refused to participate in either the interviews or classroom observations.

Scoring Performance on the Formal Screening Tools

On the *Preschool Language Scale (PLS) 5 Screening Test* (Zimmerman, Steiner, & Pond 2012), students were awarded 1 point for each of the five subtests, giving them a total of 5 possible points. A score of 4 was required to pass the test. Based on their score on the *PLS*, students were either considered "above criterion" or "below criterion" for age 7, which was where the test was capped. For the purposes of this study, the *PLS 5 Screening Test* was used as a measure of language development and bilingual competencies in students aged 7-10 years.

On the *Clinical Evaluation of Language Fundamentals (CELF) 5 Screening Test* (Semel, Wiig, & Secord, 2013), students were administered four subtests if they were between the ages of 7-8 years, namely word structure, word classes, following directions, and sentence recall; and five subtests if they were between the ages of 9-10 years, namely word classes, following directions, sentence recall, sentence assembly, and semantic relationships. They were awarded one point for each correct response, with a total of 26 points possible for ages 7 and 8, and a total of 45 for ages 9 and 10. The criterion score varied depending on the age of the child and accordingly he/she was considered "below criterion" or "at/above criterion". Based on the *CELF 5 Screening Test*, students were classified as "true bilingual" if they passed both the English and Kannada versions of the test. If they passed one but not the other, they were classified as dominant for the test

they passed: either dominant English or dominant Kannada. If they passed neither, they were classified as “at risk for a disability.”

Scoring the Informal Screening Tools

Parent questionnaire. Four qualitative codes were developed to rate the parent questionnaire. Depending on the responses that were received, the main categories for describing and analyzing trends were as follows: (a) dominant home language; (b) parents’ income levels; (c) parents’ educational attainment; and (d) frequency of reading to their children. These factors were then correlated with student performance scores to observe their predictive value.

Teacher interview. The teacher interview was an important source to learn more about the special education practices at the school as well as to chart the referral process and teachers’ varying views on special education from low, middle and high-income schools. The qualitative analysis considered the following questions: (a) How does the teacher’s native language and dominant language affect their instructional practices? (b) What kinds of special education resources does the school employ? (c) What is the referral process? (d) What accommodations and modifications are in place to help students who are not performing at grade level?

Classroom observation checklist. The checklist was developed to get a sense of the overall class structure, the student-teacher ratio, materials used to support ELLs, student-teacher interactions, and instructional practices. Specifically, the checklist targeted the (a) classroom setting; (b) typical lesson plans; (c) student engagement and participation in class activities, and (d) instructional practices and materials used in the classroom. Qualitative codes were developed to comment on these factors as possible explanations for student performance scores on the formal tests.

Narrative assessment. The narrative assessment served as a language sample of the student and was analyzed using the Narrative Scoring Scheme (Heilmann et al, 2010) in Appendix p. The script for the wordless picture book, “Frog Where Are You?” (Mayer, 1969) was read to the student in their dominant language as they followed along with the pictures in the book. They were then recorded as they retold the story. Each of the transcripts was analyzed according to the presence of various aspects or components of the story: introduction, character development, mental states (i.e., the amount and type of vocabulary that are used to describe the characters’ thoughts and feelings), referencing (i.e., consistent and appropriate use of antecedents and clarifiers), conflict resolution, cohesion (i.e., appropriate sequencing, details, and transitions throughout the narrative), and conclusion. NSS uses a 0-5 point scale for each of these seven dimensions (Heilmann et al, 2010). A score of 5 indicates proficient; 3, emerging/inconsistent; and 1, immature or minimal. Narratives of neuro-typical adults would fall into the somewhat proficient to proficient range (4–5). The dimension scores are summed together to create the NSS total score (maximum = 35), which serves as a holistic impression of the narrative (Heilmann et al, 2010). This measure served as an assessment of problems in sequencing, and cohesion. Proficient scores were indicative of typical language development; emerging and minimal scores were noted as an area of concern requiring further evaluation.

Research Design and Data Analysis

This study incorporated a mixed methods research design that combines both quantitative and qualitative analyses in order to answer the research questions. The data

analysis includes descriptive statistics, and correlations on one hand, and qualitative codes, and a language sample analysis on the other.

Mixed Methods Research Design

This study follows a concurrent mixed-method research design, with intent to merge quantitative data and qualitative descriptive data to address the research questions. According to Johnson & Onwuegbuzie (2004), mixed method research is defined as the “class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study” (p. 17). Philosophically, it provides an alternative solution to the quantitative-qualitative paradigm wars. Both quantitative and qualitative research methodologies are employed and the strengths of both are intertwined to create “the fundamental principle of mixed research” (Johnson & Turner, 2003). For example it includes quantitative aspects such as deduction, hypotheses testing, standardized data collection and statistical analyses, as well as qualitative aspects such as induction, discovery, exploration, observational data, and qualitative analysis.

Greene et al (1989) summed up five purposes that mixed methods research serves, which is relevant for this particular study as well:

- (a) Triangulation: the convergence of results from different methods to study the same phenomenon. For example, building a classification system to distinguish between second language learners and students with language learning disabilities by using both formal screening tools with a quantitative result and informal screening tools with a qualitative result.
- (b) Complementarity: seeking elaboration, clarification of the results from one method to another. For example, my study explores introducing formal and informal screening tools in both L1 and L2 to schools ranging from low to high income in Bangalore, India. Both formal and informal tools will help with a classification of students in order to improve educational placement decisions. On one hand, the formal tools give me a criterion score that is quantitative, and helps me make a distinction between students who are delayed second language learners versus students who might be “at risk” for language learning disabilities. On the other hand, the informal tools give me qualitative data from an interview, observation notes and questionnaire to help expand on why home and school environments might lead to specific scores in specific students.
- (c) Initiation: discovering paradoxes and contrasts that might lead to re-framing the research questions. When I started my data collection, I expected to recruit three schools from the same income bracket, but I ended up with three schools representing high-income, middle-income and low-income brackets, which changed the number of students who were misidentified as having a disability across school income levels. Although more students were being identified from the low-income group, my informal screening tools played a bigger role in figuring out what the cause for this might be.
- (d) Development: using findings from one method to inform the other one and
- (e) Expansion: expanding the breadth and range of research by using different methods.

Data Analysis

Onwuegbuzie & Teddlie (2003) describe seven stages for the mixed methods data analysis process:

- (a) Data reduction: reducing the dimensionality of qualitative data by introducing thematic analysis and quantitative data by descriptive statistics or cluster analysis.
- (b) Data display: describing pictorially the qualitative data in terms of charts, graphs, lists and quantitative data in terms of tables and graphs.
- (c) Data transformation: this is an optional stage where qualitative data are converted to numerical codes that can be represented statistically and quantitative data is converted to narrative text.
- (d) Data correlation: both quantitative and qualitative data are combined to create new or consolidated variables.
- (e) Data comparison: comparing data from quantitative and qualitative data sources
- (f) data integration: integration of the quantitative and qualitative data as a whole or separate sets.
- (g) Legitimation: to assess the validity of both quantitative and qualitative data as well as interpretations of the same.

These stages apply directly to the current study, permitting me to lay out the various statistical models as well as qualitative codes that I used to analyze the data. The framework also permits me to state and unpack my research questions and the rationale for choosing the specific statistical methods and qualitative codes to answer those questions. The quantitative statistical methods and qualitative descriptive data are integrated throughout the study and serve to answer my research questions.

The **first research question** states,

What is the efficacy of using formal screening tools in L1 and L2 to differentiate between language differences versus language learning disabilities in speakers of Kannada and English in India?

Teachers currently use English-only school-based exams to identify students who are persistent low-achievers in their classrooms. Data from four sources will be used to answer this question: (a) a teacher-generated list of low-achieving students will be compared to their *CELF 5* scores; (b) the *CELF 5 Screening Test*, will be able to distinguish students on four categories: Bilingual, Dominant English, Dominant Kannada and At Risk for a Disability; (c) With *the PLS 5 Screening Test* that is capped at age 7, they will be able to look at bilingual competencies across age/grade levels as well as point to students who might be “at risk” because they fall more than two grade levels below on language competencies in either/both L1 and L2; (d) The Narrative assessment scores could give them an insight into the child’s story-telling ability and could be an indicator of students’ underlying language learning disabilities. Ideally, the findings from this investigation would reveal complementarity among these formal tools so that teachers can gauge the stability of their inferences about language ability in both L1 and L2 as they attempt to use the data from these measures to make valid and useful recommendations about placements and instructional plans for students at risk for language disability.

The **second research question** states,

What is the efficacy of using informal screening tools to identify external factors that contribute to students' performance scores across low, middle and high-income schools?

The hypothesis implicit in asking this question about the informal tools is that they will complement the formal assessments by adding valuable contextual perspectives on factors such as home language background, parents' income levels and education backgrounds, instructional practices in schools, student participation and engagement, class size, and special education resources.

Four data sources will be employed to answer this question.

- Performance scores on the formal tests will be compared across the two populations using descriptive statistics.
- Data from the parent questionnaire will be used to correlate parents' educational attainment, family income, dominant home language and parents' reading frequency to their children on performance scores
- Qualitative aspects of this question will come from teacher interviews to learn more about (a) teacher's dominant language and its effect on instruction; (b) special education resources, the referral process and accommodations across SES schools that affect identification of students who are "at risk" for a disability.
- Qualitative analysis of the Classroom Observation Checklist will generate a description of classrooms in terms of class size, teacher fluency rates and will yield answers to questions regarding the (a) effect on instructional methods on school performance; (b) student participation; and (c) student engagement.

The **third research question** states,

How does the culture of the school and access to special education resources impact the utilization of a screening tool in L1 Kannada and L2 English across low, middle and high-income schools recruited for the study?

This question will be answered by qualitative analyses of the teacher interview, classroom observation checklist and the responses to a report submitted by the researcher to each school. Five aspects of the data collected from these interviews are relevant to answering this question: (a) the school's response to recruiting their students; (b) the school's openness to classroom observations; (c) interest of the Principal and teachers in participating in the study; (d) responses to the recommendations made by the researcher after the data collection was done; and (e) implementation of the screening tools by the schools in their practice. This is a genuinely open question in the sense that I have no pre-existing hypotheses, no apriori reason to expect any particular pattern of differential responses as a function of school SES.

To summarize, the study follows a concurrent mixed methods research design incorporating both quantitative and qualitative analyses in order to answer the three key research questions. Table 3 sums up the research questions and the corresponding data sources that will be used to answer them.

Table 3
Research Questions and Data Sources

	Quantitative Data Source	Qualitative Data Source
RQ 1: What is the efficacy of using formal screening tools in L1 and L2 to differentiate between language differences versus language learning disabilities in speakers of Kannada and English in India?	<ul style="list-style-type: none"> ▪ Teacher-generated list of persistent low-achievers ▪ Performance scores on the formal tests (CELF 5 Screening Test and PLS 5 Screening Test) in English and Kannada. ▪ Narrative assessment scores in the child’s dominant language. 	
RQ 2: What is the efficacy of using informal screening tools to identify external factors that contribute to students’ performance scores across low, middle and high-income schools?	<ul style="list-style-type: none"> • Performance scores on the formal tests in both English and Kannada • Parent questionnaire 	<ul style="list-style-type: none"> • Teacher Interviews • Classroom Observation Checklist
RQ 3: How does the culture of the school and access to special education resources impact the utilization of a screening tool in L1 Kannada and L2 English across low, middle and high-income schools recruited for the study?		<ul style="list-style-type: none"> • Teacher Interviews • Classroom Observation Checklist • Responses to report submitted by the researcher

Chapter 4: Results

The results chapter presents the findings from the formal and informal screening tools that were used to identify students who were at risk for language learning disabilities. The chapter is organized to reflect the research questions and the corresponding analyses from the various data sources.

Research Question 1: What is the efficacy of using formal screening tools in L1 and L2 to differentiate between language differences versus language learning disabilities in speakers of Kannada and English in India?

Currently, teachers in schools in Bangalore, India rely on school-based exams in L2 English to identify students who are persistent low achievers and might be at risk for a disability. Providing them with formal screening tools in both L1 and L2 could help them accurately classify students into four sub-categories: “bilingual”, “dominant English”, “dominant Kannada” and “at-risk for a language learning disability”, as a move away from the generic label of low achievement that is currently being used. This in turn should help teachers refer the students who are “at risk” for a complete diagnostic language evaluation, as well as provide them with appropriate educational placements. To this end, the efficacy of the formal screening tools utilized for the study was considered in order to draw out the sources of data that are available to them in order to make more informed decisions. First, I evaluated the efficacy of the two formal language screening tools, namely the *Preschool Language Scale 5 Screening Test* (Zimmerman, Steiner, & Pond 2012) and the *Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013), that were administered in both English and Kannada. Second, I evaluated the validity of the Narrative Assessment scores, by using the Narrative Scoring Scheme (Heilmann et al, 2010) as a predictor of students’ performance on the formal tests.

Using the CELF 5 to Establish a Classification System

During my initial interactions with the teachers from the schools, I asked them for a list of 2-5 students from their class, out of the entire pool of participants in the study, whom they considered persistent low achievers based on their school-based performance scores. Out of the 104 participants in the study, teachers identified 33 students who fit that profile; of the 33, 27 were from the low-income school, and 6 were from the middle-high income schools. I then administered and scored the *Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013) in both English and Kannada (in Appendix C, p. 110 and 118 respectively) for all of the participants in all three schools. I followed a classification system, that of “bilingual” if the students passed (where passed means that they achieved a criterion score of 14, 17, 11 and 13 if they were 7, 8, 9 and 10 years old respectively) both tests in their L1 and L2, “dominant language English” if they only passed the English version of the test, “dominant language Kannada” if they only passed the Kannada version of the test, and “at risk for a language learning disability” if they did not pass either test. I compared the teachers’ list to the classification that I established through the formal language test. Table 4 presents a summary of these results.

Table 4
Classification of Student Scores on the CELF 5 Screening Test (Semel, Wiig, & Secord, 2013) in both English and Kannada for Students Identified as “At Risk” by Teachers

N=33	Bilingual	Dominant Language English	Dominant Language Kannada	“At Risk” for a Language Learning Disability
Total number of students from low income schools (N=27)	0	0	15 (55.55%)	12 (44.44%)
Total number of students from middle-high income schools (N=6)	0	4 (66.66%)	0	2 (33.33%)

Whereas more than half of the students identified as being “at risk” by their teachers were in fact classified as “Dominant Language Kannada” in the low income schools, it was interesting to note that 44.44% of students from these schools did actually identify as being “at risk for a language learning disability”. Compared to this, 33.33% of students in the middle-high income schools were identified as “at risk” according to their *CELF* score but 66.66% were classified “Dominant Language English”. It was interesting that even though these students were proficient in English, which is the medium of instruction, there were other contributing factors, such as dominant home language and instructional practices that could have led to their poor performance on school-based tests. The above variation in scores between low income and middle-high income schools will be explained further while analyzing Research Question 2.

Using the *PLS 5* to Establish Language Competence

The Preschool Language Scale 5 Screening Test (Zimmerman, Steiner, & Pond 2012), which in principle caps out at age 7, was administered in both English and Kannada (in Appendix, p. 103 and 105 respectively) to students aged 7-10 years and in Grades 2-5. I used this test with the older students even though the norms assume that no one above age 7 takes the test, in order to observe the variability in language competence with age. These scores were then compared to the classification that the students received on the *Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013), which was a measure of their age-appropriate language competencies. Teachers should be able to use this measure to get information on their students’ L1 and L2 competencies as well as point to persistent signs of some students being “at risk” for a language learning disability.

In order to observe bilingual competencies, the students were divided into two groups, 7-8 year olds and 9-10 year olds, and an independent samples t-test was conducted to compare bilingual competencies in English and Kannada. Although the latter group (9-10 year olds) performed better than the former group (7-8 year olds) on both tests, their scores on the L2 English test were higher (relative to published norms) than their scores on the L1 Kannada test. There was a significant difference in the scores for the English version of the test between 7-8 year olds (M=1.55, SD=0.50) and 9-10

year olds ($M=1.40$, $SD=0.49$); $t(102)=1.39$, $p=0.05$. But the difference in scores was not significant on the Kannada version of the test between 7-8 year olds ($M=1.55$, $SD=0.50$) and 9-10 year olds ($M=0.47$, $SD=0.50$); $t(102)=0.77$, $p=0.44$. These results suggest that while L2 English is sustained as an academic language, L1 Kannada is not. All students are English Language Learners who come from a Kannada language background at home and are being instructed in L2 English instruction at school from kindergarten on. The difference in performance score between the two languages as the students master English in an academic settings suggest that continued bilingual support in both languages may be crucial to ensuring bilingual and bi-literate competencies.

In order to observe persistent signs of students being “at risk” for language learning disabilities, scores for students aged 9-10 years were examined. Out of 51 students in this sample, 10 (9 from the low-income school and 1 from the middle-high income school) were classified “at risk” by the PLS 5, as they did not pass either the Kannada or English test developed for students aged 7 years. Eight of these students were classified “at risk” by the *CELF* as well, suggesting persistent signs of a language learning disability for 80% of the sample. These students who showed up as being “at risk” on both the *PLS* and the *CELF* would most likely need to be referred for a diagnostic language and psycho-educational assessment.

The Pearson product-moment correlation was used to compare the predictive value of the formal tests. The correlation matrix is presented in Table 5. The *PLS 5* English Test significantly predicted scores on the *CELF 5* English Test ($r= .62$, $p< .001$) and the *PLS 5* Kannada Test significantly predicted scores on the *CELF 5* Kannada Test ($r= .24$, $p< .01$) but at a much lower magnitude (6% of shared variance versus 38%). Perhaps the most interesting and puzzling finding from the inter-correlations in Table 5 is the dramatic difference in the correlation between English and Kannada on the *PLS* ($r = .65$) versus the *CELF* ($r = .16$). This may simply reflect the fact that when my colleagues and I developed the Kannada version of the *PLS*, we did a more credible job of adapting it to the Kannada context than we did for the *CELF*.

Table 5
Correlations Between the Formal Test Scores in L1 and L2

	1. PLS5 English	2. PLS5 Kannada	3. CELF5 English	4. CELF5 Kannada
1. PLS5 English	—			
2. PLS5 Kannada	0.65***	—		
3. CELF5 English	0.62***	0.17	—	
5. CELF 5 Kannada	0.01	0.24**	-0.16	—

* $p < .05$. ** $p < .01$. *** $p < .001$

Narrative Assessment Scores

The Narrative Scoring Scheme (Heilmann et al, 2010) was used to analyze the narrative skills of students in the sample. They were classified as “proficient”, “emerging,” and “minimal” in their narrative skills based on the retelling of the story, “Frog Where are You” (Mercer, 1964) in their dominant language (in Appendix D, p. 129 and 130). The narrative skills classifications of “proficient”, “emerging,” and “minimal” were then compared to students’ *CELF 5* classifications of “bilingual”, “dominant English/Kannada,” and “at risk for a language learning disability”. A great degree of overlap was observed between the scores and this is illustrated in Figure 1.

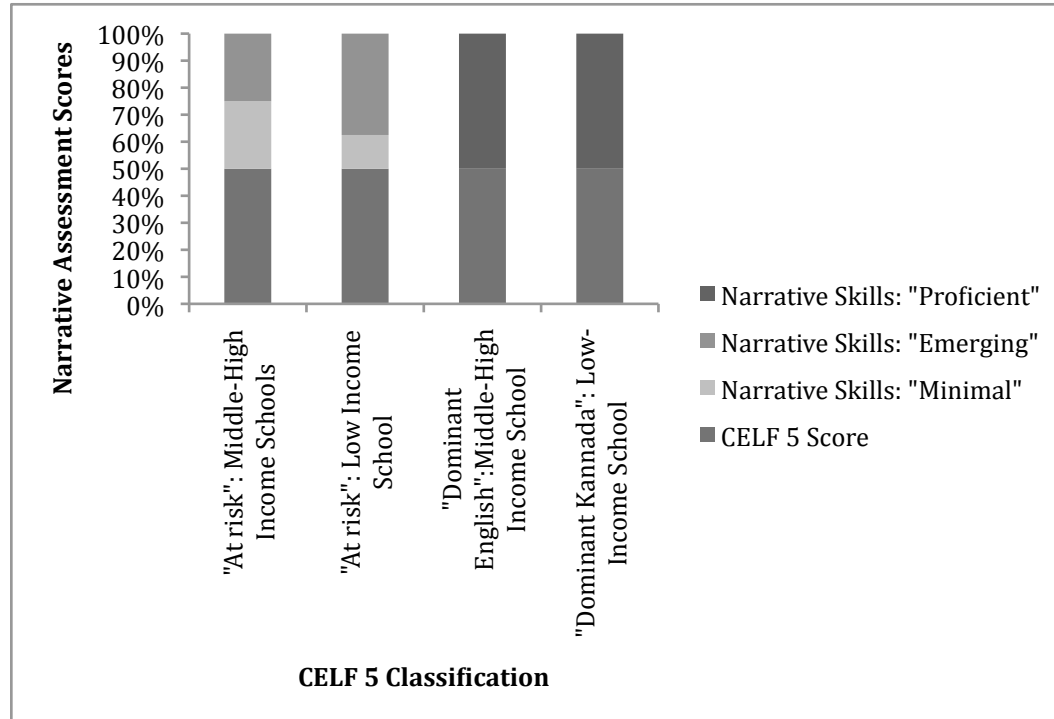


Figure 1. Column graph showing the overlap between the CELF5 classification and narrative assessment scores.

Whereas 39/40 (97.50%) of the students from the middle-high income schools chose to retell the story in English, 54/64 (84.37%) of students from the low income school chose to retell the story in Kannada. Out of the 2 students identified by the *CELF 5 Screening Test* (Semel, Wiig, & Secord, 2013) in the middle-high income schools to be “at risk” for a disability, one demonstrated “minimal” and the other demonstrated “emerging” narrative language skills. Moreover, the 4 students from the middle-high income schools who were identified as “dominant English” by the *CELF 5 Screening Test* (Semel, Wiig, & Secord, 2013) also turned out to have “proficient” English language skills according to the narrative assessment analysis. From the 12 students identified by the *CELF 5 Screening Test* (Semel, Wiig, & Secord, 2013) in the low-income school to be “at risk” for a disability, 3 students had “minimal” narrative skills and 9 had “emerging” narrative skills; none were proficient. Additionally, from the 15 students who were identified as “dominant Kannada” according to the *CELF 5 Screening Test* (Semel, Wiig, & Secord, 2013) in the low-income school, all of them were identified as

“proficient” according to the narrative skills assessment. The high correspondence between narrative skills assessment scores and scores on the *CELF 5* language assessment points to narrative assessment as a possible screener for underlying language learning disabilities. It was also interesting to note that out of the 10 students who chose to retell the story in English from the low-income schools, 7 of them had “emerging” narrative language skills in English, 2 of them had “proficient” narrative language skills in English, and one student had “minimal” narrative language skills in English. But none of these students were identified “at risk” by their teachers or the *CELF 5 Screening Test* (Semel, Wiig, & Secord, 2013). This suggests that the Narrative Assessment is a good predictor of students being “at risk” only if they take the test in their dominant language, which for these students was Kannada.

The Pearson product-moment correlation was used to compare the predictive value of Narrative Assessment Scores and the *CELF 5 Screening Test*. The correlation matrix is presented in Table 6. *CELF 5* English scores significantly predicted Narrative assessment scores ($r = 0.43, p < .01$) and *CELF 5* Kannada scores significantly predicted Narrative assessment scores ($r = 0.34, p < .05$).

Table 6
Correlations Between the CELF 5 Scores and Narrative Assessment Scores

	1. <i>CELF 5</i> English	2. <i>CELF 5</i> Kannada	5 Narrative assessment scores
1. <i>CELF 5</i> English	—		
2. <i>CELF 5</i> Kannada	-0.16	—	
3. Narrative assessment scores	0.43**	0.34*	—

* $p < .05$. ** $p < .01$. *** $p < .001$

Looking across the formal measures as a group, the encouraging finding is that all three of the measures were moderately predictive of the teachers’ classification of students as a likely candidate for being “at risk” of academic failure; with even the narrative assessment serving as a good proxy for identifying those students. The most surprising finding was the difference between the *PLS*, which is geared toward a younger population, and the *CELF* in terms of the correlation between English and Kannada scores.

Research Question 2: What is the efficacy of using informal screening tools to identify external factors that contribute to students’ performance scores across low, middle and high-income schools?

This research question was addressed using both quantitative and qualitative data sources. My hypotheses and prediction was that the informal tools would yield added

value above and beyond the scores provided by the formal assessments—that they would provide perspectives to aid in the classifying of students and in providing diagnostic insights that would assist teachers in planning interventions.

First, performance scores on the L1 Kannada and L2 English on the *Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013) were examined across the two populations using descriptive statistics. Second, the parent questionnaire was used to examine four factors: dominant home language, parents’ educational attainment, parents’ income levels and frequency of reading to their children, in relation to students’ performance scores. Third, teacher interviews were examined to learn more about the effect of the teachers’ dominant language on instruction. Finally, qualitative analyses of the classroom observation checklist was used to generate a description of classrooms in terms of class sizes, instructional practices, teacher fluency rates in English and Kannada; and will yield some insight into the effect of these factors on student performance on the formal tests.

Comparison of Test Scores on the CELF 5

Table 7 presents the variation in performance scores across two groups, namely, students from low-income schools and students from middle-high income schools. It is important to note that out of the 104 participants, 64 were from a low-income school, 32 were from a middle-income school and 8 were from a high-income school. For the purposes of this section related to performance scores, students from the middle and high-income schools were treated as one group and their scores were compared to the students from the low-income school.

Table 7
Comparison of Student Performance on L1 Kannada and L2 English Scores on the CELF 5 Screening Test (Semel, Wiig, & Secord, 2013) Between Low-Income and Middle-High Income Schools

	L1 Kannada Test Performance: Low income schools	L1 Kannada Test Performance: Middle-High Income Schools	L2 English Test Performance: Low Income Schools	L2 English Test Performance: Middle-High Income Schools
Total number of students	64	40	64	40
Number of students who passed the CELF 5 Screening Test N (%)	36 (56.25%)	7 (17.5%)	11 (17.18%)	35 (87.5%)

Although 56.25% of students from low-income schools passed the L1 Kannada test, only 17.5% of students from middle-high income schools passed the same test. In contrast, 17.18% of students from low income schools passed the L2 English version of the test while 87.5% of students from the middle-high income schools passed the same test. This pattern shows that while the dominant language of the students in the low-income schools is Kannada, the dominant language of the students in middle-high income

schools is English. Moreover it is interesting to note that the percentage of students who passed the L1 Kannada test in low-income schools (56.25%) was still much lower than the percentage of students who passed the English test in the middle-high income schools (87.5%).

Parent Questionnaire

The completed parent questionnaire (in Appendix E, p. 133 and 138) was returned by 54 of the 64 parents from the low-income school and by 39 of the 40 parents from the middle-high income schools. Figure 2 illustrates the educational background of parents from low-income backgrounds and middle-high income backgrounds. In the low-income sample, out of the 54 parents, 37 (68.50%) mentioned that the highest degree awarded to at least one of them was a high school degree. In contrast, in the middle-high income sample, out of 39 parents, 35 (89.73%) mentioned that the highest degree awarded to at least one of them was an undergraduate or graduate college degree.

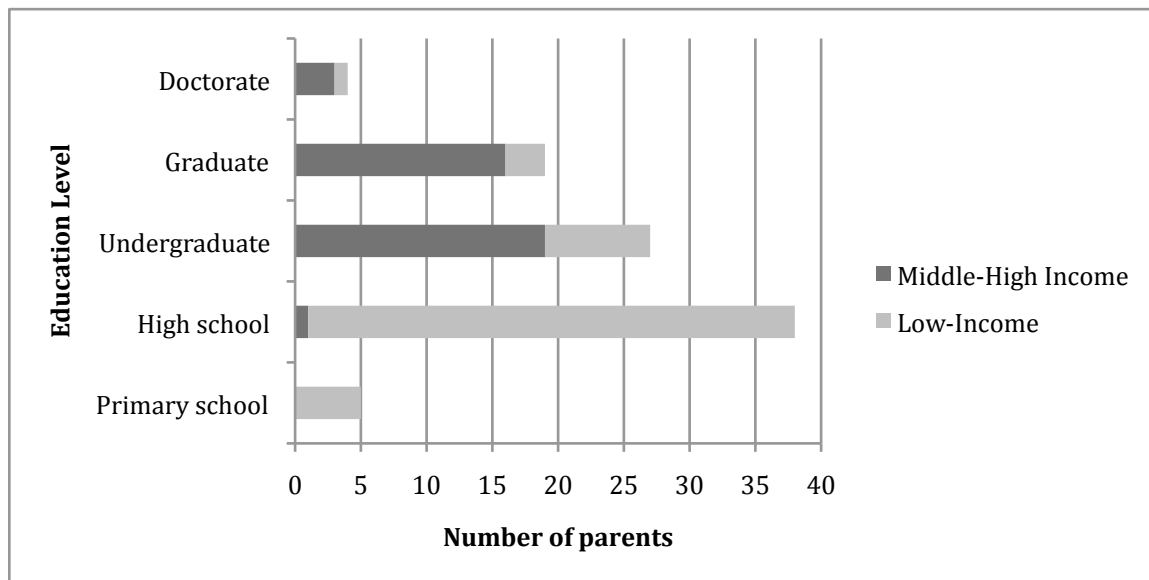


Figure 2. Bar graph comparing the educational background of parents from low-income versus middle-high income backgrounds.

Figure 3 illustrates the income distribution of parents from low-income versus middle-high income backgrounds. In the low-income sample, 31 parents (57.40%) mentioned that their monthly family income was below Rs. 10,000 (\$166.66). Contrasted to this, in the middle-high income sample, 21 parents (56.4%) mentioned that their monthly family income was between Rs. 31,000-70,000 (\$516-1166).

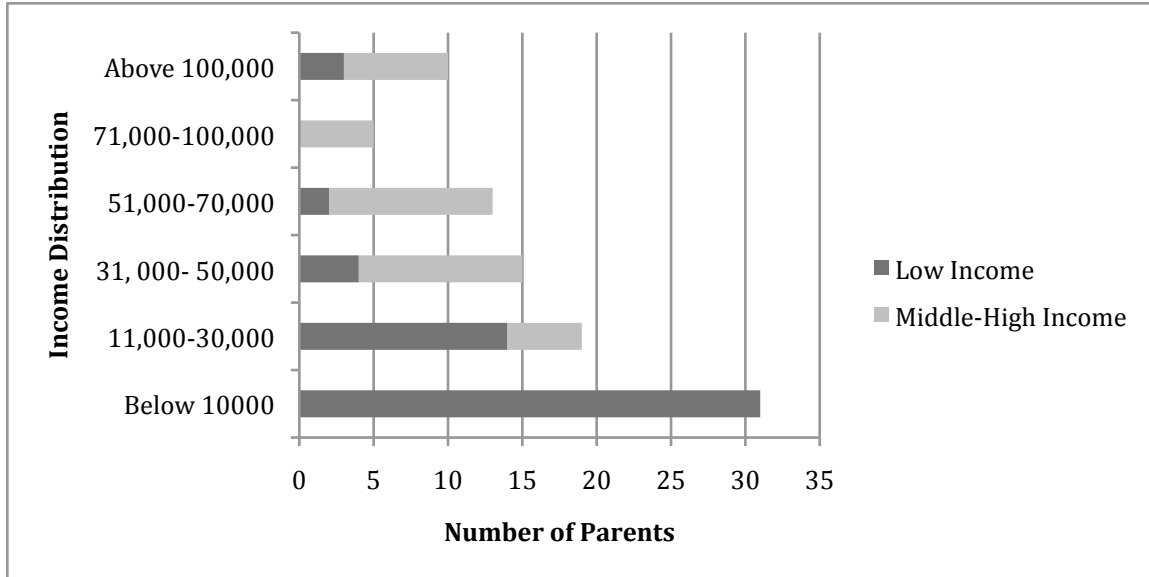


Figure 3. Bar graph comparing the income distribution of parents from low-income versus middle-high income backgrounds

In terms of dominant home language, 51 parents (94.44%) from the low-income sample identified Kannada as their dominant language for speaking, listening, reading, and writing activities at home, and 56.48% of family members reported that they had trouble understanding and speaking English. Contrasted to this, 28 parents (71.80%) from the middle-high income sample identified English as their dominant home language. They mentioned that although they were fluent in both languages while speaking and listening, their dominant language for reading and writing was English. While some parents mentioned that they had trouble understanding and speaking Kannada (28.80%), some said they had the same trouble with English (20.02%).

Figure 4 illustrates the frequency of reading to children in low-income versus middle-high income homes. A majority of 30 parents (55.55%) from the low-income schools reported that they read to their children in Kannada approximately once a month at home. Contrasted to this, a majority of 26 parents (66.66%) from the middle-high income schools reported that they read to their children in English at least once a week at home.

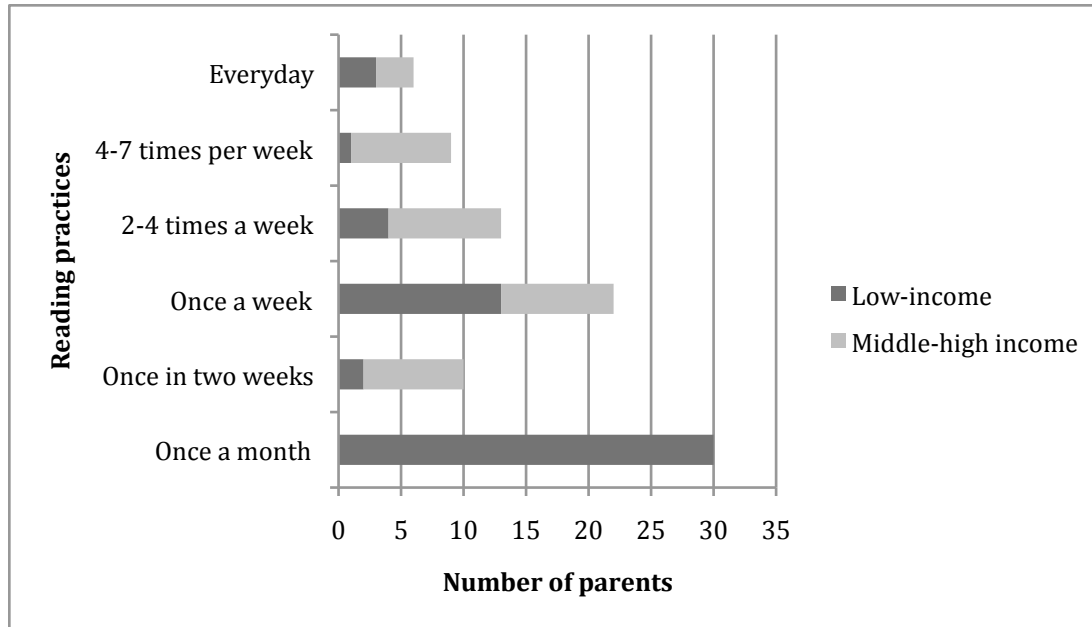


Figure 4. Bar graph comparing the frequency of reading to children in low-income versus middle-high income homes.

Pearson product-moment correlation coefficients (Pearson's r) were computed to assess the relationship between four variables: (a) dominant language, (b) parents' educational backgrounds, (c) parents' income levels, (d) frequency of reading to children at home, and performance scores. The correlation matrices for the low-income school and middle-high income schools are presented in Table 8 and Table 9 respectively.

Although none of the four factors predicted performance scores in the low-income school, parents' income levels predicted students' performance scores on the CELF 5 Kannada test ($r = .48, p < .01$) in the middle-high income schools. Moreover, the inter-correlations between the factors revealed that parents' educational attainment predicted income levels ($r = .50, p < .001$) in the low-income school and reading frequency ($r = .37, p < .01$) in the middle-high income schools respectively. Finally, performance scores on the CELF5 English test predicted performance scores on the CELF5 Kannada test ($r = .35, p < .05$) in the middle-high income schools.

Table 8
Correlations Between Four Variables and Performance Scores in L1 and L2 in the Low Income School

	1. Dominant Home Language	2. Parents' Educational Attainment	3. Income Levels	4. Reading Frequency	5 Performance on CELF 5 English	6 Performance on CELF5 Kannada
1. Dominant Home Language	—					
2. Parents' Educational Attainment	0.12	—				
3. Income Levels	-0.02	0.50***	—			
4. Reading Frequency	0.04	-0.15	0.04	—		
5. Performance Scores on CELF 5 English	0.02	0.02	0.14	0.13	—	
6. Performance Scores on CELF 5 Kannada	-0.03	-0.09	-0.01	-0.04	0.13	—

*p < .05. **p < .01. ***p < .001

Table 9
Correlations Between Four Variables and Performance Scores in L1 and L2 in the Middle-High Income Schools

	1. Dominant Home Language	2. Parents' Educational Attainment	3. Income Levels	4. Reading Frequency	5 Performance on CELF 5 English	6 Performance on CELF5 Kannada
1. Dominant Home Language	—					
2. Parents' Educational Attainment	-0.25	—				
3. Income Levels	-0.28	-0.07	—			
4. Reading Frequency	0.00	0.37**	0.24	—		
5. Performance Scores on CELF 5 English	-0.13	0.16	-0.11	-0.21	—	
6. Performance Scores on CELF 5 Kannada	-0.24	0.04	0.48**	0.14	0.35*	—

*p < .05. **p < .01. ***p < .001

Teacher Interview

The teacher interviews (in Appendix F, p. 145) were conducted during lunch, recess, or after school and took approximately 15-20 minutes each. I was able to interview a total of 16 teachers, of whom 5 were from the low-income school, 6 from the middle-income school, and 5 from the high-income school. All the teachers were female, working with students in Grades 2-5, following an English-immersion model. It is important to note that in India, educational qualifications for school teachers are restricted to a Bachelor of Education. Typically, teachers will have an undergraduate Bachelor of Arts or Science degree and tag on a teacher-training program, which results in a B.Ed. There are limited opportunities for them to pursue a degree in higher education.

Figure 5 illustrates variations in teaching experience across low, middle and high-income schools.

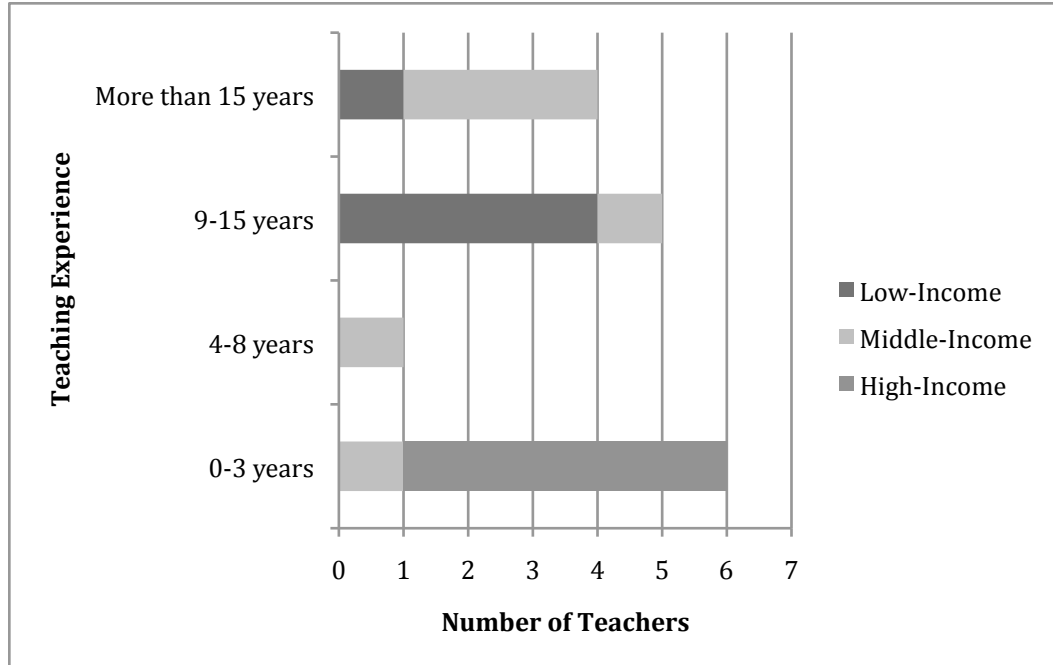


Figure 5. Bar graph comparing the teaching experience between teachers in low, middle and high-income schools.

In the low-income school, the teachers' ages ranged between 31-50 years, their highest educational qualifications were either a Diploma in Primary Teacher Training or a Bachelor of Education. A majority 4/5 (80%) of the teachers had more than ten years of teaching experience and had served at that particular school site for 4-8 years. They all mentioned that they were fluent in both English and Kannada. Although all of them agreed that students in the lower grades between K-5 would benefit from Kannada instruction, they followed an English-immersion model prescribed by the school board and alternated between the two languages in their classrooms, especially to explain harder concepts.

In the middle-income school, the teachers' ages ranged between 26-50 years, their highest educational qualifications were both a Bachelor of Education and a Master of Arts/Master of Science degree in their areas of specialization. A majority of the teachers had more than 9 years of teaching experience, with 3/5 (60%) of them having more than 15 years of experience. Half of them also mentioned that they had taught at this particular school site for more than 15 years, while the others had taught there between 4-15 years. They all mentioned that they were fluent in English in terms of speaking, listening, reading and writing, and they were fluent in their native language (varied) while speaking and listening, so they identified their dominant language to be English. They all agreed that their students would not benefit from native-language instruction especially since they came from different home language backgrounds and English served as a link language. They stated that the students had been exposed to the English-immersion model from kindergarten and had a lot of support from home in this language as well, such that they picked it up by Grade 3 at the latest.

In the high-income school, the teachers' ages ranged between 26-50 years, their highest educational qualifications were both a Bachelor of Education and a Master of Arts/Master of Science degree in their areas of specialization. All the teachers who were

interviewed (5/5) had 0-3 years of teaching experience and all of it was at this particular school site. They identified their dominant language to be English in speaking, listening, reading and writing, even though they had varied home language backgrounds. They all mentioned that the students in the school came from English-dominant homes and did not have any problems with the language, so native language instruction would not be applicable to this population.

Classroom Observation Checklist

The classroom observation checklist (in Appendix G, p. 148) was developed to get a sense of the class sizes, teacher fluency rates, instructional strategies and student participation and engagement in classroom activities. I was able to observe a total of 16 classrooms, 5 from the low-income school, 7 from the middle-income school and 4 from the high-income school. I spent approximately 2 hours in each classroom, which varied across grades 2-5, with a total of 32 hours of classroom observation across these schools. In the following section, I have compiled data to describe a typical classroom in each of these settings: low, middle, and high-income schools, in an effort to provide a more holistic assessment of the classroom setting, which might be influential regarding students' performance scores. A summary of these findings is presented in Table 10.

In the low-income school, a typical class had a student-teacher ratio of approximately 40:1, with no assistant teachers. The classroom was cramped for space with 4-5 students sitting on a bench with an attached desk on either side of the aisle, which could hold 3 students. There was a lot of noise and distraction from the other classes as teachers and students had to move from one class to another to get to their own, with a single entrance and exit door. There were pillars in the classroom and some students sat behind them, making it very difficult to see the front of the class. Some other students were in benches that were pushed up against the blackboard and had to strain their necks to figure out what was written on the board, and more often than not, the teachers' backs were turned to them. The primary medium of instruction was English, but teachers explained at least 30% of the concepts in Kannada as well. The teachers were fluent in Kannada and somewhat fluent in English, though many of their English pronunciations and spellings were inaccurate. For example, one teacher insisted that the word "parliament" in the textbook was printed wrong, and the correct spelling of the word was "parli-ment"! The teachers were highly organized in the presentation of materials; all followed a teacher-centric lecture method of reading from the textbook and explaining concepts by repeating them, providing examples, and checking for student comprehension. 60% of the teachers spent the first class period this way and the second one writing answers to questions that were presented at the back of each chapter in the textbook, on the black board and having students copy these in their notebooks. These were the questions and answers that they would be assessed on in their school-based exams. The oral participation in these classrooms varied from 30-70% but was restricted to teachers instructing them to read a paragraph from the textbook or answer questions about the topic. Only 10-30% of the participation was based on student-generated questions. Whereas 70% of the students were judged by me to be engaged in the class and were following through with the reading and writing activities, approximately 30% of the class did not comprehend the topic of discussion, as evidenced by their lack of interest, not staying on task, and not being able to answer questions.

Table 10
Comparison of Low, Middle and High-Income Schools Based on the Classroom Observation Checklist

	Low-Income School (N=5)	Middle-Income School (N=7)	High-Income School (N=4)
Average number of students	40	60	30
Class space	Cramped, with long desks/chairs shared by 4-5 students	Spacious with a combined desk/chair for 2 students	Very spacious with individual desks, chairs and lockers
Medium of instruction	70% English and 30% Kannada	100% English	100% English
Percentage of English fluency rates	60%	100%	100%
Primary Instructional Focus	Content	Content and Process	Content, Process and Product
Primary Instructional Materials	Blackboard	Blackboard	Whiteboard and Smart-board
Percentage of student participation and engagement	70%	90%	95%

In the middle-income school, a typical class had a student-teacher ratio of approximately 60:1, with no assistant teachers. The classroom was large and spacious, with two students sharing a long desk and bench actually designed for 2 students, so they had enough space for their heavy backpacks and lunch bags. There were no distractions from outside and each class had two doors to enter and exit the classroom. Students were assigned seats, that were rotated every week, so they all got an equal opportunity to be in the front, middle and back of the class. All the students sat in rows, facing the teacher at all times. The only medium of instruction was English, with all teachers being extremely fluent in the language. All 5 of the teachers demonstrated a high degree of organization, planfulness and skillful execution of their planned lessons. Rarely did I witness any of the teachers lose her place or struggle to move from one step to another in carrying out the planned steps. The first half of the class was dedicated to teacher-centric lectures, where they either read to the students and had them follow along or requested students to take turns reading the textbook, providing examples, and checking for student comprehension. The second half of the class was dedicated to either writing (on the blackboard) answers to questions that were presented at the back of each chapter in the textbook and having students copy these in their notebooks; or giving them an opportunity to work out math problems and grammar exercises either on the blackboard or their textbooks independently. The oral participation in these classrooms varied from 30-70% but was

restricted to teachers instructing them to read a paragraph from the textbook or answer questions about the topic. Only 10-30% of the participation was based on student-generated questions. Whereas 90% of the students were judged by me to be engaged in the class and were following through with the reading and writing activities, approximately 10% of the class did not comprehend the topic of discussion.

In the high-income school, a typical class had a student-teacher ratio of approximately 30:1, with no assistant teachers. The classrooms had individual desks for each student and individual lockers at the back of the classroom for students to store their class workbooks and textbooks. All the classrooms had smart-boards and white boards with markers. The classrooms were bright and spacious and there were no distractions from outside the classroom. The only medium of instruction was English, with all teachers being extremely fluent in the language. All the teachers followed a similar lesson plan which was organized in the following way: (a) Students silently read the textbook for 30% of the time; (b) In-class discussion to learn more about what students already knew about the topic for 40% of the time; (c) Smart-boards to show them videos and learn important key words linked to the chapter for 20% of the time; and (d) Review of the lesson and other questions for 10% of the time. The class structure was extremely student-centric and tapped on all their background knowledge of a topic through their silent reading of it or past experiences. All the students participated and had something valuable to add to the topic. The oral participation in these classrooms was 80-100% and was based on student-generated questions and answers. Almost all the students seemed engaged in the class and were following through with the reading, writing and discussion activities.

Looking at the informal tests as a whole, it is apparent that various factors could potentially cause the variance in test scores between low, middle and high-income schools. The parent questionnaire revealed that parents' educational attainment predicted income levels in the low-income school and reading frequency in the middle-high income schools respectively. The teacher interview pinpointed that the teachers in high-income schools were younger and less experienced compared to teachers in low and middle-income schools. The classroom observation checklist stressed that teachers across the board were well prepared for class, and looked out for the best interests of their students, even though their instructional methods and aids varied across these schools.

Research Question 3: How does the culture of the school and access to special education resources impact the utilization of a screening tool in L1 Kannada and L2 English across low, middle and high-income schools recruited for the study?

This question will be answered by qualitative analyses of the data from these sources: the teacher interview, the classroom observation checklist and conversations with the Principal at each school. The primary aspects that will be discussed are as follows: (a) The school's response to recruiting their students and reasons for their participation; (b) Special education resources, the referral process, and accommodations across SES schools that affect identification of students who are "at risk" for a disability; and (c) Implementation of the screening tools by the schools in their practice.

I initially planned to recruit students only from middle-high income schools. From my experience working in these schools, I found they were making strides towards special education models and inclusive education. Although this progress affects roughly 10-15% of the school-going population in Bangalore, India, I thought only middle and

high income schools would be interested in my study. But my colleague who was helping me with my data collection efforts suggested that I approach low-income schools, too, because they had a larger number of Kannada-speaking students and a large proportion of beginning and intermediate English Language Learners (ELLs) and might be interested in the study for reasons other than special education.

Conversations with Principals

Low-income school. In the low-income school, the principal was very open to working with the students from her school and wanted to collaborate on the project in order to learn more about the academic needs of her students and how we could help them improve overall student performance. She was interested both in student participation and engagement as well as pedagogy to support students so that they could reduce the number of dropouts in high school. Her main concern was that students came from homes where Kannada was the dominant language and they were typically first generation school-goers who did not have any English language support at home. She expected us to provide her with a report of our findings from the assessments, as well as connect her to resources in the community that could help with professional development based on the results. We were able to recruit a larger group of students to take part in the study from this school because almost 80% of the student population came from Kannada-speaking backgrounds.

Middle-income school. In the middle-income school, the principal was very open to working with students from his school and wanted to collaborate on the project in order to help teachers and students with a screening tool to identify students who were “at risk” for a disability. He mentioned that the school had recently invested in a special education program for students with moderate-severe disabilities and students who attended this program were very proud to wear the school uniform and attend a regular school with a self-contained program as opposed to being housed in a separate, segregated setting. In addition, the school was moving towards addressing the needs of mild-moderate disabilities, which was currently addressed outside of the school site in special segregated schools for students with special needs. He expected the screening tool to serve three purposes: (a) Build awareness among the teachers to look out for red flags that might point to a potential disability; (b) Improve student performance scores on the formal tests and how they matched on to school-based performance scores; (c) Compare student performance from this particular school in relation to student performance from other schools in the sample. A concern that he had while recruiting students for the study was that the demographic of the school represented students from various home language backgrounds, with only 30% of students from Kannada-speaking backgrounds.

High-income school. In the high-income school, the principal was very motivated by the study and took a personal interest in recruiting students. She mentioned that the school was invested in differentiating instruction and moving towards inclusive models of special education. She was a pioneer in changing the education system of the school by recruiting teachers after they went through an intensive training program that introduced them to hands-on instructional strategies and student-centric educational foci. In addition, the school offered students an option to opt out of the national curriculum at Grade 9, and move on to an international Cambridge-recognized curriculum that is more application-based as they go through high school. She wanted me to meet with the Special Educators on the school site and learn more about their assessment and intervention services as well

as provide them with an opportunity to learn more about my research study. Again, a concern that she had in terms of recruitment was that the demographic of the school represented students from various home language backgrounds, with English being the dominant language because of the international student population in the school. She thus anticipated only 15-20% of students from Kannada-speaking backgrounds.

It was interesting to note that the primary focus in the low-income school was to prevent high-school drop-out rates and increase school-based performance scores. The focus in the middle-income school was to increase school-based performance scores as well as sensitize teachers to mild-moderate disabilities in their classrooms. And the focus of the high-income school was more geared towards individual learning styles.

Teacher Interviews: Special Education Resources and Referral Process

A summary of the results is presented in Table 11.

Table 11

Comparison of Low, Middle and High-Income Schools Based on Special Education Resources and Utilization of Screening Tools in L1 and L2

	Low-Income School	Middle-Income School	High-Income School
Special Education Referral Process	None. Students “at risk” and performing below class average are given individual/small group instruction	Special Education issues taken care of by school counselor and Special day class on the school site. Outside the purview of typical classroom setting.	Students identified “at risk” → Parents and teachers work with students individually → Non-responders are referred to the special education resource room
Special Education Resources in School	None.	Special Education Program for Moderate-Severe Disabilities (Special Day Class)	Special Education Resource Room for Intensive Instruction in English and Math
How will the school utilize the Screening Tools in L1 and L2?	The school will not utilize the screening tools.	To identify students who are “at risk” for a disability and provide them with small group instruction before they are referred for special education services outside of school.	To identify students who are “at risk” for a disability and provide them with special education services on the school site.

Low-income school. In the low-income school, if students are identified “at risk” and are performing below average on school-based exams, they are given individual and small-group instructional time for an hour after school, which is reported to have helped many of them improve. None of the teachers had any experience working with students with disabilities in their classrooms, they were not aware of learning disabilities, and the school did not have a referral process in place. They were, however, aware of different learning styles and did mention that when they introduced visuals like pictures, charts, maps to their lesson plans, a lot more students were interested and participated in class.

Middle-income school. In the middle-income school, the teachers did not seem to be aware of learning disabilities or any other “invisible” disabilities. Most of the teachers reported that they do not look out for signs of a disability in their classrooms because either the student has behavior problems that are taken care of by the school counselor or they have cognitive deficits for which they are screened in kindergarten and placed in the moderate-severe special education program on the school site. Therefore, special education was seen as a phenomenon that occurred outside the purview of their classrooms.

High-income school. In the high-income school, the teachers were very aware of learning disabilities and other invisible, high-incidence disabilities, as well as behavior problems that were observed in the students. If students were considered “at risk” based on their school-based performance scores, they had support both at home and in school in terms of hands-on reading activities, phonics programs, differentiated instruction and workshops for parents on shared book reading practices at home. Moreover, if the students were still performing below grade level, especially on reading and math, even after efforts made by both teachers and parents to support them, then they would be referred to the special education resource room on the school site after parents consented to it. Some of the reasons why students were referred for special education services were a continued observation of the following: (a) Child has trouble expressing ideas; (b) Child has problems with writing in terms of sentence formation and inverted letters, invented spellings and finds it hard to copy from the blackboard; (c) Child is restless, inattentive, hyperactive. The results of these referrals had been positive in most cases as teachers notice an improvement in their students especially since the special educators use multiple modalities to teach the same concept as well as provide accommodations for these students to give oral responses when being tested. The teachers have observed 1-2 students in each cohort who have benefitted from special education services and they look out for certain red flags and work closely with the special educators to mainstream education for these students. Some modifications in their classrooms that are targeted at these students are activity-based learning, extra time to participate in a discussion or work on assignments, individualized instruction and photocopied notes, and reinforcement by giving them leadership roles.

Utilization of the Screening Tools

Given the culture of the school, and the special education resources that were available to their students, I was interested in finding out how they would utilize the screening tool that I had developed. I came up with a report of student performance and recommendations based on my study for each school site. With my colleagues, who helped me administer the tests, I presented these results to the principal and the school board, in order to find out how they would implement the screening tool in their practice.

Low-income school. The principal from the low-income school had collaborated with us on the project because her main aim was to observe student performance in terms of English and Kannada scores and use that to guide pedagogical decisions. The screening tools were efficacious in this domain and we found that students performed better on the Kannada version of the *CELF 5 Screening Test*, with 56.25% meeting the pass criterion, compared to the English version of the test, with only 17.18% reaching the pass criterion. The following are the top-level recommendations that I made in my report

to the low-income school, based on the trends and patterns that emerged both from formal and informal tests:

- (a) The school could introduce a two-way bilingual program, in order to develop proficiency in both L1 (Kannada) and L2 (English).
- (b) The school could introduce contextual language use in their classrooms like talking to a friend on the phone, story-telling in L2 English, in addition to academic content.
- (c) They could use the screening tool to provide intensive small group instruction for students who are “at risk” and recommend non-responders to an assessment organization outside of the school.
- (d) They could increase parent involvement and point them to adult literacy classes to help them support their children at home.
- (e) The school could use local resources like the Teacher Foundation that conduct teacher workshops and complete school overhauls for low-income urban and rural schools, and scholarships available to students from low-income schools.

In response to my recommendations, the school authorities countered with several rejoinders:

- (a) Our school is an English-medium school, and we cannot introduce Kannada instruction. Currently, in a typical classroom, half the students understand English and in the other half, some students understand the concept when it is repeated in Kannada and others are provided with small group instruction to “drill down” the concept so they pass the exams. English needs to be introduced as early as possible because students are tested in it in high school, and if we provide them with Kannada instruction, they will become “complacent”.
- (b) Our main problem as a school is that we have no support from the parents. It is their job to introduce students to contextual language use and ours to introduce academic content. We understand that if students are fluent in Kannada, it will transfer to their English language skills, but this is something that the parents need to address.
- (c) We can point parents to literacy classes, but we cannot have them involved with the working of the school because it would be a distraction to the students and the teachers have to do their jobs
- (d) We already have an after school program that provides small group instruction to over one-third of our students, and it is helping them improve and pass the exams.
- (e) We will follow-up with the local resources especially in terms of teacher workshops.

Although the screening tool led to insight about students’ bilingual and bi-literate competencies, which in turn could guide pedagogical decisions, especially in terms of language of instruction, I do not expect this school will utilize it in their practice.

Middle-income school. The principal from the middle-income school had collaborated with us on the project in order to learn more about his school’s performance on the formal tests, developing a classification system, and introducing teachers to a screening tool that would help them identify students who are “at risk” for language learning disabilities. I shared the following results with the school:

- (a) Students at the school performed better on the English version of the test with 84.37% meeting the pass criterion versus the Kannada test with 9.37% meeting the pass criterion
- (b) The screening tool was efficacious in providing a classification system, and out of the 6 students identified by teachers as being “at risk”, two of them were given the same categorization by the formal tests, while 4 of them had proficient English scores, suggesting that other factors like instructional support at school and home may play a role in their poor school performance.
- (c) The large class sizes might reduce opportunities for students to produce learning artifacts, but teachers could introduce project-based learning in small groups and activities from the textbooks that could enhance learning.
- (d) The screening tool can help teachers with an initial classification system in order to form small groups for intensive instruction before students are referred to psychologists off the school site for more comprehensive evaluations.
- (e) If the school is considering setting up a mild-moderate program for their students, then investing in a special educator and a classroom for pull-out services in reading and math would be helpful. One local resource to help the school get started with the program would be Endeavor Extended Learning Services, which is an organization that provides assessment and intervention services on a consultancy basis.

This is a summary of the paraphrased responses that were generated by the school authorities:

- (a) Instead of having three annual exams, we could probably consider a project-based activity to substitute one of them. We can come up with matched student groups, so all of them have access to internet resources and public libraries.
- (b) This will be very useful to the teachers and we can set up a training session.
- (c) This might be a project for down the road, but we’ll consider working with Endeavor and reach out to you when we have enough capital and need for these services.

From the positive response I got from the school, I am hopeful that they will implement my screening tool in their practice as a tool to parse out language differences versus disabilities.

High-income school. The principal from the high-income school collaborated with us on the project because she believed the screening tool would guide pedagogical decisions in terms of differentiating instruction in the classroom to serve students with language learning disabilities. When I spoke to the special education department on the school site, I was informed that students get intensive one-on-one instruction in math and reading if they have language learning disabilities. This in turn is determined by a consultancy service called Endeavor Extended Learning Services that provides assessment reports to the school. It was interesting to meet with the person in charge of this program and learn about the battery of tests that is currently utilized in order to make eligibility determinations, which included the *Wechsler’s Intelligence Scale for Children IV* (Wechsler, 2003), and the *Brigance Diagnostic Inventory of Early Development* (Brigance, 1991). Based on these observations, the following recommendations were made to the school:

- (a) The screening tool is a measure that can help teachers classify students as “bilingual”, “dominant English”, “dominant Kannada” and “at risk for a disability”. If teachers observe persistent low achievers, they could use the screening tool in order to differentiate instruction in their classroom based on student needs.
- (b) Teachers can also use the tool to guide their conversations with parents about language learning disabilities and get their consent to evaluate and intervene as soon as possible.
- (c) The screening tool will be an initial introduction to a bilingual language test and informal assessments that could be added to a battery of tests to work with Kannada-speakers.

This is a summary of the paraphrased responses that were generated by the school authorities:

- (a) We would like to go ahead and set up a teacher-training workshop so they can learn more about the screening tool.
- (b) The special education department would like to utilize the screening tool in our practice. We currently have one student in Grade 5 who has been identified as having a learning disability and we would like a measure in Kannada to add on to the battery of English tests that we currently have.

From the positive response I got from the school, I believe they will implement my screening tool in their practice as they have shown a great interest and have been proactive with teacher training as well as modifying the special education referral process.

The responses towards the utilization of the screening tools varied across the schools. The low-income school is not likely to use the screening tools in their practice. The middle-income school might consider using the screening tools as they develop a mild-moderate disabilities program in their school. The high-income school was open to incorporating the screening tools in their practice.

Summary of Findings

The results of this study emerged from integrated quantitative and qualitative analyses of data from varied formal and informal sources. There are important findings for each of the tools used in the study.

The CELF 5 Screening Test (Semel, Wiig, & Secord, 2013) in both English and Kannada can help educators come up with a classification system of four categories based on the comparison of their scores in two languages: “true bilinguals” are students who achieve high scores in both language assessments, “dominant English” and “dominant Kannada” score high in one language but not the other, and at-risk students score low on both assessments. *The Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013) was efficacious in serving this purpose since approximately 60% of the students who were identified as “at risk” by their teachers, in fact showed up as “dominant Kannada” or “dominant English” on the test.

The PLS 5 Screening Test (Zimmerman, Steiner, & Pond 2012) was administered in both English and Kannada, and was efficacious in confirming that 9-10 year old students might be at risk for language learning disabilities because they were administered the same test as students in the sample who were 7 years old. It also pointed to differences in bilingual and bi-literate competencies for this age group. Although both

the English and Kannada scores were higher for 9-10 year olds, when compared to 7-8 year olds, the difference between the age groups was significant only for the English assessment. This suggests that while L2 English is sustained as an academic language, L1 Kannada is not.

Comparing the formal test scores, it was observed that the *PLS 5* English Test significantly predicted scores on the *CELF 5* English Test ($r = .62, p < .001$) and the *PLS 5* Kannada Test significantly predicted scores on the *CELF 5* Kannada Test ($r = .24, p < .01$) for the whole population. One surprising and puzzling finding was that the correlation between the English and Kannada versions of the *PLS* were stronger than they were for the *CELF*.

The *narrative assessment* scores were observed to be highly predictive of students who might have underlying language learning disabilities, if they took the test in their dominant language. The Narrative Scoring Scheme (Heilmann et al, 2010) was used to classify students as “proficient”, “emerging” and “minimal” in their narrative skills. The narrative skills classifications of “proficient”, “emerging” and “minimal” were then compared to students’ *CELF 5* classifications of “bilingual”, “dominant English/Kannada” and “at risk for a language learning disability”. A great degree of overlap was observed between the scores, with the *CELF 5* English scores significantly predicting Narrative assessment scores ($r = 0.43, p < .01$) and *CELF 5* Kannada scores significantly predicting Narrative assessment scores ($r = 0.34, p < .05$).

The *parent questionnaire* was indicative of home language backgrounds, parents’ educational and income levels and literacy activities at home. Parents whose children were enrolled in low-income schools mentioned that on an average they (a) had high school degrees; (b) earned below Rupees 10,000 a month; (c) spoke Kannada as their home language; and (d) typically read to their children once a month or less. In contrast, parents whose children were enrolled in middle-high income schools mentioned that on an average they (a) had college degrees; (b) earned between Rupees 31,000-70,000 a month; (c) spoke English as the dominant home language; and (d) typically read to their children at least once a week or more. Although none of the four factors predicted performance scores in the low-income school, parents’ income levels predicted students’ performance scores on the *CELF 5* Kannada test ($r = .48, p < .01$) in the middle-high income schools. Moreover, the inter-correlations between the factors revealed that parents’ educational attainment predicted income levels ($r = .50, p < .001$) in the low-income school and reading frequency ($r = .37, p < .01$) in the middle-high income schools respectively. Finally, performance scores on the *CELF5* English test predicted performance scores on the *CELF5* Kannada test ($r = .35, p < .05$) in the middle-high income schools.

The *teacher interview* was developed to get a sense of the dominant language of instruction, the special education referral process and special education resources at the school. The dominant languages of instruction in the low-income classrooms were both English and Kannada, whereas the dominant language of instruction in the middle-high income classrooms was English. In the low-income school, all the teachers agreed that students in the lower grades between K-5 would benefit from Kannada instruction, but they followed an English-immersion model prescribed by the school board and alternated between the two languages in their classrooms, especially to explain harder concepts. In the middle-high income schools, the teachers agreed that their students would not benefit

from native-language instruction especially since they came from different home language backgrounds and English served as a link language. Moreover, they were exposed to the English-immersion model from kindergarten and had a lot of support from home in the language as well, that they picked it up by Grade 3 at the latest. The special education resources varied between low, middle and high- income schools. The low-income school was not concerned about special education, but rather was focused on preventing high school drop-out rates. The middle-income school had a special day class that was set up to serve students with moderate/severe disabilities, but they did not have a mild/moderate program and did not follow an inclusive model. If they noticed that students were persistent low-achievers, they referred them to a psychologist for a complete diagnostic evaluation. The high-income school practiced mainstream education for students with mild-moderate disabilities and had several resources in place such as a special education department, a consultancy service that provided assessment reports, collaboration with classroom teachers and parent participation to support these students.

The *classroom observation checklist* was developed to get a sense of the classroom setting, instructional practices, student participation and engagement that might be reflective of their performance scores. The medium of instruction in the low-income school was approximately 70% in English and 30% in Kannada, with teachers being somewhat fluent in English. In contrast, the medium of instruction in the middle-high income schools was 100% in English, with teachers being very fluent in the language. The low-income school had an average class size of 40 students, who were cramped into small classrooms. The primary instructional focus was making sure the content of the class was relayed to students, without checking for comprehension or expecting a learning outcome. While 60-70% of the class seemed engaged in the class, approximately 12-15 students (30-40%) did not follow what the teacher was saying; they were either using compensatory strategies like copying from their partners or were distracted and/or acting up in the classroom. The middle-income school had an average class size of 60 students, who had large, spacious classrooms. The primary instructional focus was both on the content and process of learning: half the class time was spent on explaining a concept, while the other half was spent on checking for student comprehension, checking student notebooks to make sure everyone was on the same page, and giving students opportunities to demonstrate their learning on the black board. Students were however not expected to produce a learning artifact or allowed to discuss a topic that went beyond the scope of the textbook. Although most of the students (90%) seemed engaged in the class, approximately 10% of students did not follow what the teacher was saying, and were typically using compensatory strategies like copying from their partners or repeating what other students were saying to stay on task. The teachers were very cognizant and perceptive of students who were falling behind during the lesson, and gave them multiple opportunities to answer questions and understand the content. The high-income school had an average class size of 30 students, who had large, spacious classrooms, with individual desks and chairs. The primary instructional focus was on the content, process and product of learning: the first part of the class time was typically spent on explaining a concept; the second part was spent on students reading and/or writing on the topic of discussion to process the information presented and the final part of the class focused on student outcomes like classroom discussions and Smart-board activities to provide students with application-based examples of the concept, and

learn more about the topic through student presentations. Although almost all the students seemed engaged in the class, approximately 2-5% of students did not follow what the teacher was saying, and were given more opportunities to express themselves and were allowed to take more time to contribute to the class discussion or were given extra time after class where teachers worked with them on an individual basis.

Finally, it was interesting to look at the culture of the school and their expectations as well as how a screening tool can take on all these different functions in low, middle and high-income schools. Based on the resources mentioned above, the schools collaborated on the study for the following reasons: (a) In the low-income school, the focus was on preventing high school drop-out rates and helping students with better pedagogical practices, so the school was interested in a classification system in both students' L1 and L2 to achieve this goal; (b) In the middle-income school, the focus was on not only identifying students who were low-achievers, but also distinguishing between delayed second language learners and students who were "at risk" for a language learning disability. This will help the school narrow down the number of students that they refer for psycho-educational evaluations; (c) In the high-income school, the focus was on adding a native language-screening tool to an already-existing English assessment. The screening tool will help teachers and special educators pinpoint students who might have underlying language learning disabilities by testing them in both their L1 and L2.

Chapter 5: Discussion

The discussion chapter focuses on the interpretation of the findings, the implications for research and practice, the limitations of the study and the recommendations for future research in the field.

The research questions that guide the discussion section are as follows:

- (1) What is the efficacy of using formal screening tools in L1 and L2 to differentiate between language differences versus language learning disabilities in speakers of Kannada and English in India?
- (2) What is the efficacy of using informal screening tools to identify external factors that contribute to students' performance scores across low, middle and high-income schools?
- (3) How does the culture of the school and access to special education resources impact the utilization of a screening tool in L1 Kannada and L2 English across low, middle and high-income schools recruited for the study?

The hypothesis linked to the first question is that formal screening tools can be effective in laying down a classification system of “bilingual”, “dominant English/Kannada” and “at risk for a language learning disability” to differentiate between language differences and disorders in speakers of English and Kannada. For the second question, the implicit hypothesis is that because external factors such as pedagogical practices, culture of the school, literacy practices at home, parents' income levels, and dominant home language play an important role in determining students' performance scores on formal tests, more in-depth information about them will aid in the diagnosis of language learning disabilities and planning for instructional interventions for students who are at risk for school failure because of language issues. For the third research question, the hypothesis is that teachers from schools in the three different socio-economic tiers may well respond to the screening tool differently because of differences in the contextual surround within the school and the community. More specifically, my prediction, based on differential access to resources and overall goals for student achievement, is that teachers from the low-income school will not use the screening tool in their practice; teachers from the middle-income school will see a use for the screening tool to classify students as being “at risk” for a disability and possible referral for a complete psycho-educational assessment and intervention services outside of the school site; and finally teachers from the high-income school will use the screening tool to classify students as being “at risk” for a disability and will refer them for a complete psycho-educational assessment and intervention services to the special education department on the school site (because they are the only school type with on-site special services). Three inter-related theoretical frames support the discussion related to the research questions and these hypotheses: (a) the link between early bilingualism and developing bi-literate competencies; (b) the cultural frame of disabilities and how it affects access to special education services in low, middle, and high income schools within the Indian context; and (c) the assessment of English Language Learners in an effort to parse out language differences and disorders. These frames will guide the discussion regarding the implication of the results as well as the conclusions that can be inferred from them. Drawing from research and methodology in psychology, linguistics,

education, speech/language pathology, and special education, the study offers a mixed methods examination of the results.

Interpretation of Findings

The primary aim of the study was to provide teachers in Bangalore, India, a screening tool in both English and Kannada in order to identify English-Language Learners who might be “at risk” for a language learning disability. Based on the results of the screening tool, teachers would be able to distinguish between low-performing English learners who are simply learning English slowly (i.e., students who score relatively higher on the Kannada language assessment compared to the English) and those more likely to be at risk for a disability (i.e., students who score low on both the Kannada and English assessments). Differential follow up would be called for in these two situations. In the first case (high Kannada scores in relation to English), redoubling genuine efforts in the spirit of true bilingual education (teaching students in both Kannada and English) is the most likely pathway to success, at least according to research accumulated over the last 30 years (see Cummins, 1984; Ramirez, 1991; Ortiz & Yates, 2002; Hoover et al, 2008). In the second instance (low scores in both languages), it is probably best to refer students for a complete diagnostic language assessment (Artiles & Ortiz, 2002, Ortiz & Yates, 2002). This referral could also lead to better educational placement decisions for students with language learning disabilities as well as pedagogical decisions regarding working with English Language Learners. Currently teachers assess students on school-based performance in English and identify persistent low-achievers. My study takes into consideration both formal and informal screening tools in students’ L1 Kannada and L2 English in order to make a more accurate classification of students who are delayed in the second language acquisition process versus students who are truly “at risk” for language learning disabilities.

Formal Screening Tools

Two formal screening tools, namely the *Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013) and the *Preschool Language Scale 5 Screening Test* (Zimmerman, Steiner, & Pond 2011), were administered in English and Kannada to the students in the sample. The scores on the *Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013) not only seek to pinpoint students who may be “at risk” for a disability, but also lay out an initial classification system that will allow teachers to classify students into one of four categories, based on a comparison of their scores in the two languages: “true bilinguals” are students who achieve high scores in both language assessments, “dominant English” and “dominant Kannada” score high in one language but not the other, and at-risk students score low on both assessments. Out of 33 students who were identified as being at risk by their teachers, the *CELF 5* scores determined that 14 students (42.42%) might in fact warrant that classification, while 19 (57.57%) students were classified as either dominant English or dominant Kannada. Moreover, 12 students (out of the 14 students identified as being at risk for a language learning disability) were from low-income schools and 2 students were from middle-high income schools. This constituted roughly 19% of the sample in the low-income school and 5% of the sample in the middle-high income school. The latter finding is consistent with a recent report in the

US by the National Center for Learning Disabilities (2014), which stated that the prevalence of learning disabilities is approximately 5% of the total public school enrollment under the Individuals with Disabilities Education Act. In India, on the other hand, there are no specific data regarding the prevalence of learning disabilities, but The National Institute on Mental Health (NIMH) Report (2010) states that teachers in private schools identified at least 2-3 students in a class of 40 as having a learning disability. The discrepancy between *CELF 5* performance scores between the low-income and middle-high income schools points to other contributing factors, such as the school and home environments, that might affect students' scores.

The *Preschool Language Scale 5 Screening Test* (Zimmerman, Steiner, & Pond, 2011) that was administered in both English and Kannada was efficacious in pinpointing the differences in bilingual and bi-literate competencies between 7-8 year olds and 9-10 year olds in the sample. Although both the English and Kannada scores were higher for 9-10 year olds, when compared to 7-8 year olds, the difference between the age groups was significant only for the English assessment. This finding suggests that although L2 English is sustained as an academic language, L1 Kannada is not.

All the students in the sample were ELLs from a Kannada home language background, and all the schools followed an English immersion model. Although, students are exposed to social and pragmatic language use of their L1, Kannada, at home, they are not exposed to it as a medium of instruction or academic language in school. In most private schools in India, English is the primary language of instruction and the only academic language to which students are exposed. When they start school, students are usually proficient in speaking their home language, which is typically Kannada in the state of Karnataka, and some students are also bilingual in English. But the exposure to academic English in English immersion models could be a factor that contributes to their not developing bi-literate competencies in Kannada in the later grades. The difference in performance scores between the two languages as the student masters English in an academic setting suggests that continued bilingual support in both languages is crucial to ensuring bilingual and bi-literate competencies. According to Cummins (1992) there is an interdependence of literacy-related or academic skills across languages. The Ramirez Report (Ramirez, Yuen & Ramey, 1991) found that Latino students who received sustained L1 instruction throughout elementary school had better academic prospects than students who were in English immersion programs. Moreover, developmental and two-way bilingual programs rather than immersion models were better suited to develop both bilingual and bi-literate competencies.

Informal Screening Tools

Narrative assessment scores. Narrative skills play a crucial role in the development of discourse, literacy, and socialization practices (McCabe, 1996). According to Bryan, Ergul, & Burstein (2008), measures of children's language abilities, such as narrative assessment and language samples, inform classroom instruction as well as identify children who might need additional learning supports. This is based on the findings that language abilities serve as a predictor for later reading skills, social behavior, and academic performance (Catts et al, 2001, Pankratz et al, 2007 and Storch & Whitehurst, 2002). The Narrative Scoring Scheme (Heilmann et al, 2010) was used to analyze the narrative skills of students in the sample. They were classified on three levels, as "proficient", "emerging" and "minimal" in their narrative skills based on the retelling

of the story, “Frog Where are You” (Mercer, 1969), in their dominant language. These classifications of “proficient,” “emerging,” and “minimal” were then compared to students’ *CELF 5* classifications of “bilingual,” “dominant English/Kannada,” and “at risk for a language learning disability”. A great degree of overlap was observed between the scores, with 70% of the students identified as being at risk by the *CELF 5* also received a classification of “emerging” narrative skills and 30% of students identified as being at risk by the *CELF 5* received a classification of “minimal” narrative skills. It would be interesting to conduct a complete diagnostic battery to determine if only 30% of these students who were “at risk” and had “minimal” narrative skills emerge as the students with language learning disabilities. In addition, 100% of the students who were identified as being either “dominant English” or “dominant Kannada” by the *CELF 5*, also had “proficient” narrative skills. This finding is consistent with an earlier finding by Justice and her colleagues (2009), who observed that narrative assessment provides professionals with a valid and informative assessment approach to examine language skills as it had significant concurrent and predictive relations with measures of general language ability. It was also useful in establishing and monitoring language growth and planning language interventions. One twist on the narrative assessment scores: the data suggest that the narrative assessment was most effective in predicting an underlying disability *only if* the student took the test in his or her dominant language. Some students who chose to retell the story in English, even though their dominant language was Kannada, got a classification of “minimal” or “emergent” but were not identified to be “at risk” either by their teachers or the *CELF 5* Screening Test.

Parent questionnaire. The Parent Questionnaire was an informal screening tool that was developed to get a more holistic background of the student beyond school-based performance scores and formal bilingual language test scores. Parents whose children were enrolled in low-income schools mentioned that on an average they (a) had high school degrees, (b) earned below Rupees 10,000 a month, (c) spoke Kannada as their home language, and (d) typically read to their children once a month or less. In contrasted, parents whose children were enrolled in middle-high income schools mentioned that on an average they (a) had college degrees, (b) earned between Rupees 31,000-70,000 a month, (c) spoke English as the dominant home language, and (d) typically read to their children at least once a week. Four factors, namely educational attainment, income levels, dominant language and reading frequency were correlated with performance scores on the formal tests. Although none of these factors significantly predicted test scores, parents’ educational attainment predicted income levels in low-income schools and reading frequency in middle-high income schools. The differences between reading frequency in low-income and middle-high income schools might be an important factor to consider while interpreting students’ test scores. According to Nagy and Anderson (1984), “There are staggering individual differences in the volume of language experience and therefore opportunity to learn new words” (p. 328). Also, Anderson et al. (1988) observed that there are differences in the volume of reading outside the classroom, which is linked to reading ability, and these differences become larger and larger as schooling progresses. Stanovich (1986) elaborated on this idea and said that the large skill differences in reading volume could result in “the Matthew effects” (p. 381) of reading to stress the cumulative effect of reading development. Therefore a strong reader is more likely to get the optimal support to develop his or her

vocabulary development versus a poor reader who is less likely to get this support, falling into a cycle of “rich-get-richer” and “poor-get-poorer”.

Classroom observation. The Classroom Observation Checklist was developed to get a sense of the classroom setting, instructional practices, student participation, and engagement that might be reflective of their performance scores. The medium of instruction in the low-income school was approximately 70% in English and 30% in Kannada, with teachers being somewhat fluent in English. In contrast, in the middle-high income schools, the medium of instruction was 100% in English with teachers being very fluent in the language. Language fluency rates could potentially affect learning outcomes, especially because both schools follow an English immersion model and assess their students in English. Unfortunately, fluency rates are also linked to income levels and according to Ramanathan (1999), the Indian middle class has relatively easy access to English and represents an inner circle of power and privilege, whereas English remains inaccessible to lower classes of society. This is primarily because “certain institutional and teaching practices keep English out of reach of lower income groups and push them into outer circles” (Ramanathan, 1999, p. 211).

In the low-income school, the primary instructional focus was making sure the content of the class was relayed to students, without checking for comprehension or expecting a learning outcome. In the middle-income school, the primary instructional focus was both on the content and process of learning: half the class time was spent on explaining a concept, while the other half was spent on checking for student comprehension, checking student notebooks to make sure everyone was on the same page, and giving students opportunities to demonstrate their learning on the blackboard. Finally, in the high-income school, the primary instructional focus was on the content, process, and product of learning: the first part of the class time was typically spent on explaining a concept; the second part was spent on students reading and/or writing on the topic of discussion to process the information presented; and the final part of the class focused on student outcomes like classroom discussions and Smart-board activities to provide students with application-based examples of the concept, and learn more about the topic through student presentations. Both low-income and middle-income schools were focused on preparing students for the national-level school board exams that tested students’ content knowledge and rote memorization skills. On the other hand, the high-income schools were focused on preparing students for an international-level school board exam, which tested students’ application-based knowledge and presentation skills. Considering that only 10-15% of the students in private schools in India can afford to enroll in high-income schools, the vast majority Indian students attend low-middle income private schools, where teachers follow a strict curriculum that leaves little room for innovation. Clarke (2003) conducted a study in Karnataka, India to study the reform in teaching and learning. She reported that, “while there are observable changes in the classroom in the use of instructional aids and activities during instruction, the essential characteristics of traditional practice, namely rote and repetition has not changed. Both teachers’ openness and resistance to reform are portrayed as embedded in the cultural construction of teaching and learning” (p. 27).

Teacher interview. The Teacher Interview was developed to get a sense of the dominant language of instruction, the special education referral process, and special education resources at the school. It was used to compare teacher responses in low,

middle, and high-income school settings. Teachers in the low-income schools mentioned that they were equally fluent in both English and Kannada. Although all of them agreed that students in the lower grades between K-5 would benefit from Kannada instruction, they followed an English-immersion model prescribed by the school board and alternated between the two languages in their classrooms, especially to explain harder concepts. Contrasted to this view, teachers in middle-high income schools mentioned that they were fluent in English in terms of speaking, listening, reading, and writing and fluent in their native language (varied) while speaking and listening, so they identified their dominant language to be English. They all agreed that their students would not benefit from native-language instruction, especially because they came from different home language backgrounds and English served as a link language. Moreover, they were exposed to the English-immersion model from kindergarten and had a lot of support from home in the language as well, picking it up by Grade 3 at the latest. It is estimated that 90 million children in India are currently being formally schooled in English (Kalia, 2007). In essence, students from low-income backgrounds struggled with English instruction because there was a disparity between home and school languages, whereas students from middle-high income backgrounds easily transitioned to English as a second language because their parents were bilingual and in fact dominant in English for literacy practices. Moreover, teachers in low-income schools were fluent in both English and Kannada and often switched between the two languages to explain concepts, so a two-way bilingual program (Cummins, 1984) would be an ideal alternate to English immersion programs currently being practiced. In the middle-high income school, English language fluency both at home and in school made it easier for students to access their second language and their English school-based and test performance scores reflected that the English immersion model does not have any negative effects on their performance.

In terms of the special education referral process, teachers from low-income schools mentioned that they did not have one in place. All low-achieving students were treated the same, offered small group instruction in an after-school program that had helped most of them improve. The school did not have any special education resources in place, as this was not considered a priority. Teachers from the middle-income school mentioned that they had a moderate-severe program on the school site that catered to students with special needs. They did not consider students with mild-moderate learning disabilities within their classrooms and viewed special education as a phenomenon that occurred outside the purview of their classrooms. In the high-income school, teachers had access to a special education department that provided pull out services to students with mild/moderate disabilities. They followed a process by which parents were informed about students being at risk for language learning disabilities before they were referred for special education services. They practiced mainstream education for students with mild-moderate disabilities and had several resources in place such as a special education department, a consultancy service that provided assessment reports, collaboration with classroom teachers, and parent participation to support these students. In principle, low and middle-income schools were not as invested in identifying mild/moderate disabilities. Although most developed countries like the United States face the problem of over-representation of certain minority groups in special education (Harry & Klinger, 2006), developing countries like India face a paradox where the majority of the population is

under-represented in schools (Peters, 2004). Pratham (2005) states that there are as many as 13.4 million children in India who have either never gone to school or dropped out. This includes up to 95% of children with disabilities, which accounts for 40% of the total population of people with disabilities who have never received an education, in either general or special schools (Jha 2004; Rao, Narayan & Mani, 2005). Poverty seems to be an underlying cause and consequence of a disability, as it (a) is more common in poor families and communities, and (b) limits the access to employment and education, which in turn leads to even greater economic exclusion (Kalyanpur, 2008).

It was interesting to note that in my sample, teachers were older and more experienced in the low and middle-income schools versus younger and less experienced in the high-income schools. Attitudes towards inclusive education seemed to vary with age and experience. For example, teachers in the low income schools were not motivated to include students with disabilities in their classrooms, teachers from middle-income schools were open to the idea but did not want to take the initiative to follow through with it, and teachers in the high-income schools were very open to inclusive education. This finding is consistent with that of Parasuram (2006) who found that teachers' attitudes significantly varied with age and teaching experience. Younger teachers with fewer years of work experience had more positive attitudes towards inclusive education as opposed to older teachers with more work experience. Moreover, if teachers came from a higher socio-economic status, they had more positive attitudes toward students with disabilities when compared to teachers from lower socio-economic groups (Parasuram, 2006).

School Culture and Utilization of the Screening Tool

Based on the culture of the school and the special education resources available to them, I was interested in finding out how they would utilize the screening tool that I had developed. I came up with a report of student performance and recommendations based on my study for each school site. The principals of the schools collaborated on the research project for the following reasons: (a) In the low-income school, the focus was on preventing high school drop-out rates and helping ELL students with better pedagogical practices. (b) In the middle-income school, the focus was on differentiating between language differences and disorders in a large classroom setting, and moving toward introducing a mild/moderate program. (c) In the high-income school, the focus was on adding a native language assessment to an already-existing English one to be able to test students in both L1 and L2, in order to accurately refer students for special education services.

In the low-income school, the students performed better in the Kannada version of the test, they came from Kannada-dominant home backgrounds, and teachers suggested that grades K-5 would benefit from Kannada instruction. My recommendations included introducing a two-way bilingual program to support both Kannada and English development, as well as increase parent involvement in the school. These data remind us, somewhat ironically, of the conclusions of Cummins (1992), who observed that bilingual programs that support students' L1 literacy skills also help to develop English academic achievement. Moreover, it reinforces students' cultural identity and increases the likelihood of parents being more involved (Cummins, 1992). Unfortunately, the school was not open to new suggestions and although the screening tool led to a lot of insight about students' bilingual and bi-literate competencies, which in turn could guide

pedagogical decisions, especially in terms of language of instruction, I do not expect this school will utilize any of these assessments in their practice.

In the middle-income school, the students performed better in the English version of the test, they came from English-dominant and bilingual homes, and teachers suggested that instruction in English was helping students as they got support in the language at home. Although the language of instruction was not an area of need, they were treating all low-achieving students alike and collaborated on the project to be able to identify sub-groups among these students in an effort to reduce misidentification of language learning disabilities. My recommendations included using the formal and informal screening tools to make an initial distinction between students who are acquiring a second language and those that might have language learning disabilities. This initial classification system in turn can help teachers form small groups for intensive instruction before students are referred to psychologists off the school site for more comprehensive evaluations. The Principal of the school had a vision to introduce a mild-moderate disabilities program within the school and wanted to invest in training workshops to sensitize teachers to look for signs of learning disabilities in their classrooms. He viewed the screening tool as a first step towards this goal. From the positive response I got from the school, I am hopeful that they will implement my screening tool in their practice as a tool to parse out language differences versus disabilities.

In the high-income school, the students performed better in the English version of the test, they came from English-dominant and bilingual homes, and teachers suggested that instruction in English was helping students as they got support in the language at home. The differentiated instructional practices in the classroom catered to the needs of students' individual needs, as well as provided students with special education resources if they needed it. The area of need in this school was adding a screening tool in a native language to an already-existing English tool that special educators were currently using in practice. Test performance in English, without considering the student's home language, was a primary reason for misdiagnosis, as Maldonado-Colon (1988) and Barrera Metz (1988) concluded with their studies. Teachers at this school were aware of this, and collaborated on the project to learn about how to use a screening tool in both L1 and L2 in their practice. My recommendation was to add the formal and informal screening tools as a pre-cursor to the already-existing assessment batteries that the school used. In this way, Kannada-speakers could be assessed early on, and the screening tools could serve as a springboard to differentiate instruction in their classroom based on student needs. The school was very open to this suggestion and wanted me to help train their teachers. From the positive response I got from the school, I believe they will implement my screening tool in their practice as they have shown a great interest and have been proactive with teacher training as well as modifying the special education referral process. Based on these observations, although the screening tool in L1 and L2 is not applicable to the low-income school, it is in the process of becoming applicable in the middle-income school and has already been incorporated in practice within the high-income school.

Implications for Practice

Regarding the efficacy of the various measures, I conclude that there was something to learn from nearly all of them and that they converged on helping to identify students who fall into those 4 key categories: “bilingual”, “dominant English”, “dominant Kannada,” and “at risk for a language learning disability”. The *CELF 5*

Screening Test (Semel, Wiig, & Secord, 2013) was helpful in developing and validating this very classification system. The *PLS 5 Screening Test* (Zimmerman, Steiner, & Pond, 2011) was effective in laying out bilingual and bi-literate competencies in both English and Kannada for students in Grades 2-5.

The informal screening tools (the narrative assessment scores, the parent questionnaire, teacher interview and classroom observation) served different roles. Specifically, the narrative assessment scores served to confirm the hypotheses of formal tests (the *CELF* and the *PLS*), and the parent questionnaire, teacher interview, and the classroom observation checklist helped to understand the role of external factors on student performance. There was a high degree of overlap between the scores on the *CELF 5 Screening Test* (Semel, Wiig, & Secord, 2013) and the narrative assessment scores. Whereas all the students who were identified as being “at risk” by the *CELF 5* also had “emerging” and “minimal” narrative skills, all the students who were identified as being “dominant Kannada or dominant English” by the *CELF 5* also had “proficient” narrative skills. This finding is consistent with an earlier finding by Justice et al (2009), who observed that narrative assessment provides professionals with a valid and informative and perhaps more “doable” assessment that could serve as a proxy for a more elaborate and time-consuming measure of general language ability.

The parent questionnaire was useful in revealing information about dominant home language use, parents’ educational attainment, income levels, and reading frequency to their children. It is an easy-to-administer screening tool that can help teachers learn more about their students’ home backgrounds and help support their learning outcomes. The teacher interview helped to learn more about special education practices in schools, teachers’ attitudes and beliefs about inclusive education, and pedagogical practices. The classroom observation checklist helped to understand teacher and student expectations, curriculum development, and learning outcomes for students. Both these screening tools provided a more holistic assessment and understanding of key factors entrenched in the culture of learning and teaching across low, middle, and high-income schools in Bangalore, India.

In conclusion, it was interesting to examine the implications of the study not only for special education, but for general education as well. When I started out with the idea of introducing a screening tool in both English and Kannada for use in schools in Bangalore, India, I was concerned that only high income schools and a few middle income schools might be open to collaborating with me since they were the only ones who followed inclusive models of special education. But it was surprising that low-income schools were also interested in participating in the research study, specifically with a goal to better serve ELLs and improve student performance and pedagogical outcomes. Additionally, middle-income schools were interested in moving toward a model of inclusive special education by sensitizing teachers to use a screening tool in order to identify students who might be “at risk” for a disability. This in turn, would help them provide students with more appropriate educational support within or outside of the school. Finally, even though high-income schools had more special education resources, they only utilized English-based assessments. They were thus looking for a bilingual screening tool to identify students who were at risk for a disability if it showed up in both their L1 and L2. It was compelling as a researcher to observe the impact of the screening tool across low, middle, and high-income school settings, as well as the multi-

dimensional perspectives that were built into the study. Of special interest were the three themes that emerged and supported the study: (a) Bilingual and bi-literate competencies: On one hand, students in the low-income school were more fluent in Kannada as opposed to English. The English immersion model was not tapping on their L1 language skills and did not allow for transfer of language and literacy skills, resulting in them being bilingual but not bi-literate. On the other hand, students in middle-high income schools were more fluent in English as opposed to Kannada. The English immersion model worked well in terms of developing academic skills as there was a continuum between home and school, but they were losing out on learning a heritage language. (b) Culture and its impact on identifying disabilities: Students identified as being “at risk” for a disability from the low-income school typically fell through the cracks because there were no resources to support them with intervention services either on or off the school site. In the middle-income school, large class sizes made it difficult to differentiate instruction, but they were moving toward a referral process for special education and a model to support students outside the school. In the high-income school, appropriate educational placement and special education resources were in place to identify and support students who had disabilities. (c) Assessment of ELLs and differentiating between language differences and disorders: The formal screening tools were efficacious across the board in order to classify students as bilingual, dominant English, dominant Kannada, and “at risk” for a disability. The informal screening tools were helpful in explaining other external factors like parental involvement and instructional practices that would be responsible for explaining scores on the formal tests, and confirming the presence of a disability.

Theoretical Implications

In addition to shedding light on some implications for practice, I would also like to address some theoretical implications of the study. In particular, the study explores themes related to (a) the socio-cultural context through which disability is viewed; (b) the classification of disabilities as deprivation, difference and culture as disability; (c) the positive effect of linguistic transfer between L1 and L2 for bilingual students; and (d) the second language acquisition process and the link to language learning disabilities. In this section, I explore these themes in relation to Vygotsky’s (1978) socio-cultural theory, McDermott & Varenne’s (1995) disability classification system, Cummins’ (1984) developmental interdependence hypothesis and Cummins’ (1984) stages of the second language acquisition process.

Socio-Cultural Theory

According to Vygotsky (1978), social interaction helps organize the developing mind and mesh with the needs and aspirations of the community at large. During the process of development, the child not only masters the items of cultural experience, but the habit and forms of cultural behavior, the cultural methods of reasoning. Vygotsky (1978) views disability not as a biological impairment having psychological consequences, but as a socio-cultural developmental phenomenon. The problem is not the primary disability but the secondary consequences that disability engenders within a social milieu. Special education, for Vygotsky, was not just a diminished version of general education, but rather a specially designed setting, that focused on rehabilitating the individual using psychological and pedagogical means. The mainstreamed socio-cultural environment is the only adequate context where it can occur (Vygotsky, 1995).

It was interesting to note that in the Indian context, the social construction of special education varies across low, middle and high-income populations. The findings from my study revealed that Vygotsky's vision of mainstreamed education was restricted to high-income schools, which constituted roughly 10-15% of the school-going population. In addition to this, teachers from high-income schools had a more positive attitude towards inclusive education and these teachers were younger and less experienced compared to teachers in the low and middle-income schools. This reveals that the culture of the school is an important component to consider while observing trends in special education practices. For example, the culture of the high-income school had a positive effect on practicing "inclusion based on positive differentiation" (Vygotsky, 1995, p. 24); the culture of the middle-income school was slowly evolving in that direction with a positive first step of a special day classroom on the school premises and the culture of the low-income school had a negative effect on differentiating instruction as the only focus was on improving standardized test scores.

Disability Classification

McDermott & Varenne (1995) classify disability from three perspectives: (a) deprivation, which is indicative of one group being better than the other based on the acquisition of certain skills; (b) difference, which is indicative of both groups being different, but celebrating those differences; and (c) culture as disability, which is indicative of a socially-constructed, politically-motivated construct. They claim that both learning disabilities and illiteracy have been institutionalized as an active part of the American education system. For example, from a deprivation perspective, persons with LD cannot perform a set of tasks as quickly as others because there is something wrong with them. Illiterate individuals in our society, according to this account, weigh us down because they become unproductive workers. In the same vein, if the focus is on difference, those with LD will be viewed as people who might be weak on academic tasks but able to perform other tasks outside this domain, while people who are illiterate maybe viewed differently depending on what the term "literacy" entails and how it varies from one culture to another. The final perspective of 'culture as disability' views LD as a label to describe, explain, and remediate children who need to fit into a politically-motivated system, whereas literacy is viewed as something that is good for an individual, difficult to acquire and in need of an explicit system for transmission to illiterate people in the classroom.

The culture of the schools in my study had an impact on how teachers classified students with disabilities. In the low-income school, the teachers treated all low-achieving students the same and were not aware of mild disabilities in their classroom. In the middle-income school, the teachers viewed disability through a deprivation lens; it was something that occurred outside the purview of their general education classrooms. In the high-income school, the teachers viewed disability through a difference lens and pointed out how students with learning disabilities were more interested in discussions and activity-based learning rather than the traditional reading and writing academic tasks.

Linguistic Transfer

Cummins (1984) proposed a *Developmental Interdependence Hypothesis*, which states that proficiency in L1 is required to develop proficiency in L2 and a common underlying proficiency between L1 and L2 facilitates the transfer of cognitive skills in

addition to linguistic skills. He observed that literacy skills could be both foundational skills, such as letter-sound correspondences, conventions of print, as well as surface-level skills such as the relationship between L1 and L2, and the effect of bi-literacy over time (Cummins, 1991). Linguistic transfer between L1 and L2 thus includes a transfer of linguistic abilities as well as literacy development, subject knowledge, and learning skills. The reading and writing experiences established in one language are passed on to the second language as children navigate between the two to understand literacy development. For example, if a child has formed a schema or a mental framework for the word “table” in his mind in one language, he does not have to re-learn the concept of a table in his L2, but rather substitute the L1 word with the L2 word and have two words instead of one in his lexicon to match his schema for a table. The development of bilingualism seems to have a positive linguistic and cognitive effect for most children. They develop meta-linguistic awareness in both languages, seamlessly navigate two language and literacy environments, as well as acquire two sets of vocabulary words and an expanded lexicon to describe everything in their learning contexts. Tapping on heritage language resources helps bilingual students value their L1 in relation to their instructional L2, helps parents of bilingual students be more involved in school-based projects and promotes cross-linguistic transfer between the two languages.

Regarding my study, the scores on the *PLS 5* revealed that older students performed better on the English version of the test as opposed to the Kannada version of the test. When they start school, students are usually proficient in speaking their home language, which is typically Kannada in the state of Karnataka, and some students are also bilingual in English. But the exposure to academic English in English immersion programs could be a factor that contributes to their not developing bi-literate competencies in Kannada in the later grades. The difference in performance scores between the two languages as the student masters English in an academic setting suggests that continued bilingual support in both languages is crucial to ensuring the development of bilingual and bi-literate competencies. According to Cummins (1992) there is an interdependence of literacy-related or academic skills across languages. Moreover, developmental and two-way bilingual programs rather than immersion models were better suited to develop both bilingual and bi-literate competencies. My study revealed that in the low-income school, the students performed better in the Kannada version of the test, they came from Kannada-dominant home backgrounds, and teachers suggested that grades K-5 would benefit from Kannada instruction. Applying Cummins (1984) theory related to the positive effect of linguistic transfer, I suggested introducing a two-way bilingual program to support both Kannada and English development, as well as increase parent involvement in the school. But unfortunately, the school was not willing to make any changes in that direction.

Second Language Acquisition and Link to Language Learning Disabilities

Cummins (1984) developed a model of second language acquisition and introduced the terms *Basic Interpersonal Communication Skills* (BICS) and *Cognitive Academic Language Proficiency* (CALP) to describe the language acquisition process. *Basic Interpersonal Communication Skills* (BICS), which is the ability to communicate basic needs and wants, as well as carry on basic interpersonal conversations, takes approximately 1-3 years to develop after the student is first exposed to the second language. As important as it is, it is insufficient to facilitate academic success. On the

other hand, *Cognitive Academic Language Proficiency (CALP)* or the ability to carry out advanced interpersonal conversations as well as communicate thoughts and ideas effectively, takes approximately 5-7 years to develop, and it is essential for academic success. It thus takes an average ELL at least 4-5 years to become competent in the L2 in order to be assessed in that language (Cummins, 1984). In this period of development of CALP, the errors that are observed in the development of literacy skills often appear similar to students with LLD, which leads to a potential misdiagnosis. Research indicates that the less schooling a child receives in a native language, the longer he/she will take to acquire proficiency in a second language.

Cummins (1984) model of BICS and CALP has implications for interpreting the findings of my study and for identifying students as being at risk for language learning disabilities. The number of students who were identified by the formal tests as being at risk in the low-income schools far out-numbered the students identified as being at risk from middle-high income schools. The informal screening tools revealed that other factors such as parent educational attainment, income levels, reading practices at home and dominant language use at home and school needed to be considered before students were considered at risk. Particularly, students in low-income schools did not have any English support at home and were receiving no bilingual language support to develop their Kannada language skills in school. This could be a reason linked to many of them were identified as being at risk compared to their middle-high income peers.

Limitations of the Study

There are several key limitations in this study. I mention five in particular: norming samples for the formal assessments, sample size, generalizability to other Indian populations, translation to Kannada, and restrictions of using a bilingual language screening tool.

Norming Samples for the Formal Assessments

The *Preschool Language Scale 5 Screening Test* (Zimmerman, Steiner, & Pond, 2012) and the *Clinical Evaluation of Language Fundamentals 5 Screening Test* (Semel, Wiig, & Secord, 2013) were specifically chosen because they have (a) bilingual versions in both English and Spanish and (b) a Screening Test to get a sense of language competence before students are referred for a complete diagnostic evaluation. The only limitation to using these tests was that they both were normed on a sample of American students. English was the most frequently used language of all participants in the standardization and related reliability and validity of both tests. For the CELF 5 Screening Test, 20% of students were bilingual and 27% of the students spoke dialects of English other than mainstream American English. I couldn't find an equivalent statistic for the PLS 5 Screening Test. Although both tests were translated to British English and Kannada and rendered culturally appropriate by a group of experts in the field, it would be helpful to create norms on a larger sample of Indian students in both English and Kannada.

Sample Size

The small size of the sample, consisting of 104 students in total, of who 64 students were from a low-income school, 32 students from a middle-income school, and 8 students from a high-income school, make it hard to generalize the data to other

speakers of English and Kannada, as well as make comparisons between the schools. Larger sample sizes would not only address the issue of norms, but also provide more comparison data and improve the predictive value of the data.

Generalizability to other Indian Populations

The sample consisted of students from private schools in Bangalore, India, which provides a snapshot of the education system. But this is skewed, as it does not include government schools and other rural schools in the country. Moreover, students in the low-income school followed a state-level curriculum, while students in the middle-high income schools followed a national-level curriculum. The high-income school also offered an international-level curriculum in high school and the pedagogy reflected these aims. The study was also conducted in a large metropolitan city that is the IT hub of India, and the exposure to technology and other instructional aids especially in the middle-high income schools and homes may not be the case with other students in the country.

Translation to Kannada

The official languages of India are English and Hindi. If the screening tools were translated to Hindi, it would have had a far greater reach throughout the country, as opposed to the limited reach of Kannada, which is predominantly restricted to one Indian state, Karnataka. Even though the natives to the state of Karnataka speak Kannada, the study was conducted in a large city, Bangalore, where not all the students spoke the language. In most Indian classrooms, especially in urban settings, students come from varying home language backgrounds. Although a larger percentage of students in low-income schools spoke Kannada, they were less likely to use the screening tool in their practice. In contrast, there were fewer Kannada-speaking students in the middle-high income schools and they were more likely to use the screening tool in their practice. The diversity of languages in the city limited the sample sizes from these schools. It is thus important to develop the Screening Tool in more Indian languages in order to serve more students in the classrooms. Moreover, Kannada is a Dravidian language and not an Indo-Aryan language like English and Hindi. Although every effort was taken to make the translation of tests as linguistic and culture-specific as possible, it may pose a caveat in terms of pinpointing linguistic indicators of typical vs. atypical language learners.

Restrictions of a Bilingual Language Screening Tool

The screening tool will be able to identify English Language Learners who are “at risk” for Language Learning Disabilities but not diagnose the existence of a disability within the school setting. Recommendations will be made to utilize complete language testing and diagnostic tools outside of the school setting. Developing a bilingual diagnostic test that can be used by psychologists and speech/language pathologists in the field would be helpful.

Recommendations for Future Research

This study serves as a springboard for future research regarding the assessment of English Language Learners, both in terms of identifying students who might be at risk for a disability, as well as informing pedagogical decisions for this population. It is a pioneer study that was aimed at developing formal and informal screening tools in both English and Kannada to serve students in Bangalore, India, who come from Kannada-speaking

backgrounds. The most common form of assessment used in schools in Bangalore is restricted to school-based performance tests that are administered in English only. The current bilingual screening tool will help teachers expand on this assessment, and will serve as a quick screener in their classrooms, especially since all students are English Language Learners. Teachers can use the results of the screening to guide their instructional practices as well as refer students for further language testing. Eventually, the hope is that it will improve educational placement decisions for these students. The following are some recommendations for future research in the field: (a) adapt tools to more languages, (b) compare student performance across language families, (c) develop standardized RTI models, (d) develop programs with bilingual language support, and (e) make informal assessment tools part of every battery of tests.

Screening Tools in More Languages

Based on my study, I realized how important it was to test ELL students in both their L1 and L2 in order to classify them as bilingual, dominant L1, dominant L2 or at risk for a language learning disability. ELLs are a heterogeneous population who vary in their English fluency rates (Artiles & Ortiz, 2002). It is therefore important not only to identify ELLs who might be at risk for language learning disabilities but to extend the value of a screening tool to consider ELLs varying needs and provide them with appropriate instruction.

Linguistic Indicators of Being At Risk for a Disability Across Languages

It would be interesting to look at the differences and similarities between language families such as the Indo-Aryan language family, and the Dravidian language family, to come up with specific linguistic indicators that are potential red flags for teachers to be aware of while looking for signs of language learning disabilities in their students.

Standardized RTI Models

With a move away from the discrepancy model, it becomes pertinent to develop more standardized RTI models (Fuchs & Fuchs, 2006). The efficacy of tiered instruction has been paramount while providing students with more intensive instruction at each tier before they finally qualify for special education services in Tier 3. A standardized RTI model can help eliminate most of the problems related to differential diagnoses that we face today. It is helpful not only in the early identification of learning disabilities but can also help differentiate instruction to various sub-groups of students within the classroom.

Bilingual Language Support

In the low-income private schools in India, there is a definite need to restructure education based on the language of instruction. Students from these schools will benefit from bilingual language programs that foster their L1 and help them transition to learning a new second language by using conceptual and background knowledge that has already been developed in their L1 even before they enter school. L1 instruction also helps schools reach out to parents and have them be more involved in their children's education.

Informal Assessments

I found that the informal assessments gave me a lot more information about students' backgrounds compared to formal test scores. It would be very useful for test developers to include informal assessments and recommendations to use other measures such as narrative assessment scores while they develop formal tests. They complement the data that can be obtained from formal tests and help explain certain nuances especially in terms of culture, which will be missed if we only rely on formal test scores to classify students as having language learning disabilities.

Concluding Comments

Looking across the array of questions, hypotheses, findings and interpretations traversed in this study, a few themes stand out in assessing the importance of this work for the critical issues I attempted to address; namely, increasing the validity of the inferences we can draw about English learners who may be at risk for language learning disabilities. When examined in that light, what can be said about the contributions of this work is that various formal and informal measures are useful in predicting teacher impressions of who is or is not at risk of failure. The study is a move away from the traditional view of assessment, which was focused on assessing ELLs on English school-based performance scores, to a battery of formal and informal screening tools in both L1 and L2, which will provide teachers with a more holistic assessment of their students. The formal measures were useful in providing a classification system to identify sub-populations of students into four categories: bilinguals, dominant L1, dominant L2 and at risk for a language learning disability. The hope is that this classification system will lead to more appropriate pedagogical decisions regarding the ELL population as well as appropriate educational placement decisions for students with underlying language learning disabilities. Informal measures are likely to provide added information that may assist educators in making these grave decisions about students. For example, the parent questionnaire was useful in reflecting on the frequency of shared book reading at home, and schools can take on initiatives to make literacy-based activities more accessible to students, especially from low-income homes. It was interesting that students enjoyed the story retell task the most and were encouraging other students to take part in the study because they got to listen to a story and retell it. A simple activity that schools could introduce would be to have a mini-library in their classrooms and engage in story-time or receptive language development in either students' L1 or L2. This in turn could impact literacy-practices at home, especially for first-generation school-goers whose parents would like to be involved but do not know how to as they did not attend schools themselves. Having assessments available in a home language dramatically increases the utility of existing tools like the *PLS* and the *CELF*, and makes it easier to support students and explain their areas of strength and needs to their parents. Although this study was a first step in assessing students early on, we still have a lot to learn about the implementation of the screening tools, as well as the cultural considerations such as pedagogical reform and parent involvement within the Indian school context.

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Appendix A

Survey: Assessment Tools to Distinguish between Language Differences and Disorders (Shenoy, 2014)

I Initial Screening

This survey should take you approximately 10 minutes to complete. Your participation is voluntary and your responses are anonymous

You qualify for this survey only if you answer "yes" to ALL of these questions:

- I am 18 years or older.
- I have experience working in a U.S. school district as a school psychologist, special educator, speech pathologist and/or paraprofessional.
- I have experience working with students in a mild-moderate setting.
- I have worked with English Language Learners (ELLs) with disabilities.
- I have first-hand (administration) OR second-hand (observation) experience with assessment procedures.

II Background Information

For Questions 1-3, please indicate all the options that apply to you.

1. I have served in a school district in the U.S. sometime between 2003 to the present as a:

- Speech Pathologist
- School Psychologist
- Special Educator (Special Education Day Class)
- Resource Room Specialist
- Paraprofessional
- Other (please specify)

2. During this time, I have worked with students in the following grades:

- Preschool
- K-3
- 4-6
- 7-9
- 10-12
- Other (please specify)

3. The population that I usually work with are students with:

- Specific Learning Disabilities
- Speech-Language Impairments
- Autism Spectrum Disorders
- Cerebral Palsy
- Other (please specify)

III Assessment: Cognitive Abilities/Achievement Tests and Supplemental Tests

For Questions 4-5, please indicate all the options that apply to you, and elaborate on assessments that are not commonly used.

Note: If you have not personally administered tests, indicate what tests you are familiar with and have observed being administered in your school or district.

4. Some of the standardized cognitive abilities and achievement tests that I have used in the past or continue to use in my practice are:

- Woodcock-Johnson Tests of Cognitive Abilities (WJ III)
- Bateria III Woodcock-Muñoz (Spanish Woodcock-Johnson Battery III)
- Wechsler Intelligence Scale for Children (WISC IV)
- Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
- Differential Ability Scales (DAS II)
- Hawaii Early Learning Profile (HELP 2nd edition)
- Other (please specify)

5. Some of the standardized/non-standardized supplemental assessments that I have used in the past or continue to use in my practice are:

- Behavior Assessment System for Children (BASC II)
- Home Language Survey
- Parent Questionnaires
- Teacher Rating Scales
- Work Samples
- Classroom Observations
- Curriculum-based measures (CBMs)
- Dynamic Assessment
- Learning Profile Questionnaires/Inventories (eg: QuickSmart Multiple Intelligence Scale)
- Other (please specify)

IV Language Assessments and Bilingual Tests

For Questions 6-7, please indicate all the options that apply to you, and elaborate on assessments that are not commonly used.

Note: If you have not personally administered tests, indicate what tests you are familiar with and have observed being administered in your school or district.

6. Some of the standardized language assessments and/or bilingual tests that I have used in the past or continue to use in my practice are:

- Clinical Evaluation of Language Fundamentals (CELF 4)
- CELF Spanish
- Comprehensive Test of Phonological Processing (CTOPP II)
- Test of Phonological Processing in Spanish (TOPPS)
- Preschool Language Scales (PLS 5)
- PLS Spanish Screening Test
- Expressive One Word Picture Vocabulary Test (EOWPVT 4)
- EOWPVT Spanish Bilingual Test
- Receptive One Word Picture Vocabulary Test (ROWPVT 4)
- ROWPVT Spanish Bilingual Test
- Collier's Classroom Language Interaction Checklist (CCLIS)
- English-Espanol Informal Reading Inventory for the Classroom (Flynt & Cooter)
- Other (please specify)

7. Some of the bilingual/language assessments that I have administered in languages other than Spanish are:

V Differentiating between Language Differences and Disorders

For the following questions, please think specifically about students who are English Language Learners (ELLs) and have been referred to you because of a suspected language learning disability.

Note: If you have not personally administered tests, indicate what tests you are familiar with and have observed being administered in your school or district to make a differential diagnosis.

8. Out of the assessments mentioned in Q 4-7, I usually find the following battery of tests/subtests to be most helpful in making a differential diagnosis between students who are acquiring a second language and those who might potentially have a language learning disability:

9. My district has the following assessment policies in place for English Language Learners (ELLs) to help make a differential diagnosis between language differences and disorders (Please explain):

- Response To Intervention (RTI) model
- Non-verbal/performance tests
- Non-standardized tests
- Testing in both L1 and L2
- Language support (bilingual programs and/or immersion programs)
- Other (please specify)

10. In general, I focus on the following aspects of oral language development, reading, writing and/or social development with this population:

11. In my experience so far, some distinguishing factors between students who are acquiring a language and those who might potentially have a language learning disability are:

- Students with language learning disabilities reach benchmarks/milestones at a slower rate when compared to students who are ELLs
- Students with language learning disabilities will have problems with reading, writing and oral language development that is seen across both languages and not only the L2.
- Students with language learning disabilities have difficulties grasping concepts and have difficulties with non-linguistic/non-verbal tests as well as linguistic-based tests.
- Students with language learning disabilities still have problems with reading and writing, even after giving them a couple years to acquire the second language.
- Other (please specify)

12. Is there any additional information about the topic that you would like to share?

Appendix B

Preschool Language Scale 5 Screening Test (Zimmerman, Steiner & Pond, 2012)



Record Form

SCREENING TEST
PLS-5™

	Year	Month	Day
Date Tested			
Date of Birth			
Age			

AGE 7

Name _____ Sex: F M
 Address _____
 Screening Site _____
 Caregiver/Teacher _____ Examiner _____

This test has six sections (Language, Articulation, Connected Speech, Social/Interpersonal, Fluency, and Voice). Scoring directions are at the beginning of each section. Pass criteria are at the end of each section. See the Manual for complete item descriptions, administration and scoring directions, and visual stimuli for the Language and Articulation sections. Record the results from each section in the Screening Summary.

Language Check the Correct or Incorrect box for each subitem based on the child's responses. Score each item using the criterion listed and record a 1 or 0 in the box next to the item number. Add the item scores and record the sum in the Language Total box.

1. Understands prefixes (AC65)

	Correct	Incorrect
a. comfortable	<input type="checkbox"/>	<input type="checkbox"/>
b. disappear	<input type="checkbox"/>	<input type="checkbox"/>
c. more than one time	<input type="checkbox"/>	<input type="checkbox"/>

Score: 1 = Three correct

4. Uses synonyms (EC62)

	Correct	Incorrect
a. angry	<input type="checkbox"/>	<input type="checkbox"/>
b. small	<input type="checkbox"/>	<input type="checkbox"/>
c. beautiful	<input type="checkbox"/>	<input type="checkbox"/>
d. simple	<input type="checkbox"/>	<input type="checkbox"/>

Score: 1 = Three correct

2. Identifies a word that does not belong in a semantic category (AC64)

	Correct	Incorrect
a. banana	<input type="checkbox"/>	<input type="checkbox"/>
b. green	<input type="checkbox"/>	<input type="checkbox"/>
c. eraser	<input type="checkbox"/>	<input type="checkbox"/>

Score: 1 = Two correct

5. Uses irregular plurals (EC63)

	Correct	Incorrect
a. leaves	<input type="checkbox"/>	<input type="checkbox"/>
b. children	<input type="checkbox"/>	<input type="checkbox"/>
c. feet	<input type="checkbox"/>	<input type="checkbox"/>

Score: 1 = Two correct

3. Formulates sentences (EC61)

	Correct	Incorrect
a. girl, running	<input type="checkbox"/>	<input type="checkbox"/>
b. boy, bicycle	<input type="checkbox"/>	<input type="checkbox"/>
c. school, boy, late	<input type="checkbox"/>	<input type="checkbox"/>
d. Billy, hungry, very	<input type="checkbox"/>	<input type="checkbox"/>

Score: 1 = Three correct

Language Total

Sum of Items 1-5

Pass: Score of 4 or more items correct

Clinician's Note: Corresponding PLS-5 item numbers (e.g., AC65) are provided for each of the PLS-5 Screening Test items in the Language section.

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Articulation

Check the appropriate box to indicate whether the child produces the sound in bold, colored type correctly or incorrectly.

	Correct	Incorrect
bird	<input type="checkbox"/> ir	<input type="checkbox"/> ir
horse	<input type="checkbox"/> or <input type="checkbox"/> s	<input type="checkbox"/> or <input type="checkbox"/> s
feather	<input type="checkbox"/> th <input type="checkbox"/> er	<input type="checkbox"/> th <input type="checkbox"/> er
zebra	<input type="checkbox"/> z <input type="checkbox"/> br	<input type="checkbox"/> z <input type="checkbox"/> br
teeth	<input type="checkbox"/> th	<input type="checkbox"/> th
car	<input type="checkbox"/> ar	<input type="checkbox"/> ar
red	<input type="checkbox"/> r	<input type="checkbox"/> r

Pass: 8 or more sounds correct

Connected Speech

Check one statement that best describes the child's speech.

- You understand most of what the child says.
- You understand some of what the child says.
- You understand little of what the child says.

Pass: You understand most of what the child says.

Social/Interpersonal

Check all that apply.

- Greets you when you say "hi"
- Responds to your questions
- Speaks to adults
- Speaks to other children
- Asks questions
- Says "bye" when you say "bye"

Pass: 4 or more statements checked

Fluency

Check all that apply.

Typical characteristics

- Speaks as smoothly as peers
- Occasionally repeats part of a word (e.g., n- n- n- name)
- Occasionally repeats whole words (e.g., my my my name)

Atypical characteristics

- Frequently repeats part of a word (e.g., n- n- n- name)
- Frequently repeats whole words (e.g., my my my name)
- Has difficulty getting words out; appears to get "stuck" on some words
- Has eye twitches when talking
- Pauses excessively when talking

Pass: No atypical characteristics noted

Voice

Check all that apply.

Typical characteristics

- Voice sounds like other children of the same age and sex

Atypical characteristics

- Voice sounds hoarse, rough, or breathy
- Coughs or clears throat often
- Yells or screams often
- Voice sounds different from other children of the same age and sex
- Voice sounds like the child is "talking through his or her nose," or as though the child has a "stuffy nose"

Pass: No atypical characteristics noted

Screening Summary

Check only one box for each section. If the child does not meet the pass criteria, check "Obtain Additional Information."

Section	Pass	Obtain Additional Information
Language	<input type="checkbox"/>	<input type="checkbox"/>
Articulation	<input type="checkbox"/>	<input type="checkbox"/>
Connected Speech	<input type="checkbox"/>	<input type="checkbox"/>
Social/Interpersonal	<input type="checkbox"/>	<input type="checkbox"/>
Fluency	<input type="checkbox"/>	<input type="checkbox"/>
Voice	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

PLS 5 Screening Test: Record Form: Translated and Adapted to Kannada

PLS 5 Kannada: AGE 7

1. ಉಪಸರ್ಗ ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವುದು (AC65) Prefixes

	Correct	Incorrect
a. ಸಮಾಧಾನ	<input type="checkbox"/>	<input type="checkbox"/>
b. ಕಾಣಿ ಆಯಿತು	<input type="checkbox"/>	<input type="checkbox"/>
c. ಒಂದರ್ಕಂತ ಹೆಚ್ಚು ಬಾರಿ	<input type="checkbox"/>	<input type="checkbox"/>

Score: 1= ಮೂರು ಸರಿಯಾದ ಉತ್ತರ

2. ಹೊಂದಾಣಿಕೆ ಇಲ್ಲದ/ ಸರಿಯಾದ ಪದವರ್ಗನು ಗುರುತಿಸುವುದು (AC64) Semantic Category

	Correct	Incorrect
a. ಬಾಳೆ ಹಣ್ಣು	<input type="checkbox"/>	<input type="checkbox"/>
b. ಬೆಕ್ಕು	<input type="checkbox"/>	<input type="checkbox"/>
c. ರಬ್ಬರ್	<input type="checkbox"/>	<input type="checkbox"/>

Score: 1= ಎರಡು ಸರಿಯಾದ ಉತ್ತರ

3. ವಾಕ್ಯಗಳನ್ನು ನಿರ್ಮಿಸುವುದು (EC61) Sentences

	Correct	Incorrect
a. ಹುಡುಗಿ, ಹುಡುಗ	<input type="checkbox"/>	<input type="checkbox"/>
b. ಹುಡುಗ, ಸೈಕಲ್	<input type="checkbox"/>	<input type="checkbox"/>
c. ಶಾಲೆ, ಹುಡುಗ, ಪುಸ್ತಕ	<input type="checkbox"/>	<input type="checkbox"/>
d. ಸುರೇಶ್, ಹಸಿವು, ತುಂಬು	<input type="checkbox"/>	<input type="checkbox"/>

Score: 1= ಮೂರು ಸರಿಯಾದ ಉತ್ತರ

4. ಸಮಾನಾರ್ಥಕ ಪದಗಳನ್ನು ಉಪಯೋಗಿಸುವುದು (EC62)

	Synonyms	
	Correct	Incorrect
A. ಕೊಪ್ಪ	<input type="checkbox"/>	<input type="checkbox"/>
B. ನಣ್ಣು	<input type="checkbox"/>	<input type="checkbox"/>
C. ಸುಂದರ	<input type="checkbox"/>	<input type="checkbox"/>
D. ಸರಳ	<input type="checkbox"/>	<input type="checkbox"/>

SCORE: 1= ಮೂರು ಸರಿಯಾದ ಉತ್ತರ

5. ಅನಿಮಿತ ಬಹುವಚನಗಳನ್ನು ಬಳಸುವುದು (EC63) Plurals

	Correct	Incorrect
A. ಲೋಟಗಳು	<input type="checkbox"/>	<input type="checkbox"/>
B. ಎಲೆಗಳು	<input type="checkbox"/>	<input type="checkbox"/>
C. ಮಕ್ಕಳು	<input type="checkbox"/>	<input type="checkbox"/>
D. ಕಾಲಗಳು	<input type="checkbox"/>	<input type="checkbox"/>

SCORE: 1= ಎರಡು ಸರಿಯಾದ ಉತ್ತರ



Language Total (Sum of items 1-5)

Pass: Score of 4 or more items correct

ಮಾತನಾಡುವಿಕೆಗೆ Connected Speech

- ಮಗುವಿನ ಮಾತನಾಡುವಿಕೆಗೆ
ಅನುವಯವಾಗುವ ಆಯ್ಕೆಯನ್ನೂ ಸೂಚಿಸಿ
• ಮಗುವು ಹೇಳುವ ಹೆಚ್ಚಾದ ವಿಸಯಗಳು ನಮಗೆ
ಅರ್ಥವಾಗುತ್ತದೆ
• ಮಗುವು ಹೇಳುವ ಕೆಲವು ವಿಸಯಗಳು ನಮಗೆ
ಅರ್ಥವಾಗುತ್ತದೆ
• ಮಗುವು ಹೇಳುವ ಸ್ವಲ್ಪವು ವಿಸಯಗಳು ನಮಗೆ
ಅರ್ಥವಾಗುತ್ತದೆ

ಪಠ್ಯ: ಮಗುವು ಹೇಳುವ ಹೆಚ್ಚಾದ ವಿಸಯಗಳು ನಮಗೆ
ಅರ್ಥವಾಗುತ್ತದೆ

ಸಾಮಾಜಿಕ/ ಪರಸ್ಪರ Social/Interpersonal

ಅನುವಯವಾಗುವ ಎಲ್ಲ ಆಯ್ಕೆಗಳನ್ನೂ ಸೂಚಿಸಿ

- ನಾವು "ಹಾಯ್" ಹೇಳಿದಾಗ ನಮಗೆ
ಸರ್ವಾಗತಿಸುತ್ತಾರೆ
• ನಮಗೆ ಪರಸ್ಪರಗಳಿಗೆ ಪರಸ್ಪರಿಯೆ ನಡೆಯುತ್ತಾರೆ
• ವಯಸ್ಕರ ಜೊತೆ ಮಾತನಾಡುತ್ತಾರೆ
• ಇತರ ಮಕ್ಕಳ ಜೊತೆ ಮಾತನಾಡುತ್ತಾರೆ
• ಪರಸ್ಪರಗಳನ್ನೂ ಕೇಳುತ್ತಾರೆ
• ನಾವು 'ಬಾಯ್' ಹೇಳಿದಾಗ 'ಬಾಯ್' ಹೇಳುತ್ತಾರೆ
ಪಠ್ಯ: ನಾಲರೂ ಹೇಳಿಕೆಗಳು ಅಥವಾ ಹೆಚ್ಚು
ಆರಿಸಿಬರಬೇಕು

ವಾಗ್ಧಾರಿ Fluency

ಅನಾವಯವಾಗುವ ಎಲೆಲ ಆಯ್ಕೆಗಳನ್ನೂ ಸೂಚಿಸಿ

ಸಮಯ ಲಕ್ಷಣಗಳು

- ಅದೇ ವಯಸ್ಸಿನವರಂತೆ ನುಣುಪಾಗಿ ಮೂತನಾಡುತಾರರೆ
- ಕೆಲವೊಮ್ಮೆ ಒಂದು ಪದದ ಭಾಗವನ್ನೂ ಪುನಹ ಹೇಳುತ್ತಾರರೆ
(ಹ- ಹ- ಹೆಸರು)
- ಕೆಲವೊಮ್ಮೆ ಒಂದು ಪದವನ್ನೂ ಪುನಹ ಹೇಳುತ್ತಾರರೆ (ನನ್ನ
ನನ್ನ ನನ್ನ ಹೆಸರು)

ವಿಲಕ್ಷಣ ಲಕ್ಷಣಗಳು

- ಆಗಾಗ ಒಂದು ಪದದ ಭಾಗವನ್ನೂ ಪುನಹ ಹೇಳುತ್ತಾರರೆ (ಹ- ಹ-
ಹೆಸರು)
- ಆಗಾಗ ಒಂದು ಪದವನ್ನೂ ಪುನಹ ಹೇಳುತ್ತಾರರೆ (ನನ್ನ ನನ್ನ
ನನ್ನ ಹೆಸರು)
- ಪದಗಳನ್ನೂ ಹೊರಗೆ ತರುವುದರಲ್ಲೂ ಕಷ್ಟ ಅನುಭವಿಸುತ್ತಾರರೆ
 - ಮೂತನಾಡುವಾಗ ಕಣ್ಣು ತುಡಿತಗಳೂ ಆಗುತ್ತವೆ
- ಮೂತನಾಡುವಾಗ ಅತಿಯಾಗಿ ವೀರಾಮ ತೆಗೆದುಕೊಳ್ಳುತ್ತಾರರೆ

ಪಠ್ಯ: ಯಾವುದೇ ವಿಲಕ್ಷಣ ಲಕ್ಷಣಗಳೂ ಕಂಡುಬಂದಿಲ್ಲ

ಧರ್ಮಿ Voice

ಅನಾವಯವಾಗುವ ಎಲೆಲ ಆಯ್ಕೆಗಳನ್ನೂ ಸೂಚಿಸಿ

ಸಮಯ ಲಕ್ಷಣಗಳು

- ಅದೇ ವಯಸ್ಸಿನ ಹಾಗೂ ಲಿಂಗದ ಮಕ್ಕಳಂತೆ ಧರ್ಮಿ ಇದೆ

ವಿಲಕ್ಷಣ ಲಕ್ಷಣಗಳು

- ಗಂಟಲು ಕಟ್ಟಿದ ಹಾಗೆ, ಒರಟಾದ ಧರ್ಮಿ
- ಕೆಮ್ಮುತಾರರೆ ಅಥವಾ ಅನೇಕವೇಳೆ ಗಂಟಲು
ತೆರೆವುಗೊಳಿಸುತ್ತಾರರೆ
- ಅನೇಕವೇಳೆ ಕಿರಿಚುತ್ತಾರರೆ
- ಅದೇ ವಯಸ್ಸಿನ ಮತ್ತೊಬ್ಬ ಲಿಂಗದ ಮಕ್ಕಳಿಗಿಂತ ಭಿನ್ನವಾದ ಧರ್ಮಿ
 - ಮೂಗಿನಿಂದ ಮೂತನಾಡುವಂತೆ ಕೇಳಿಸುತ್ತದೆ

ಪಠ್ಯ: ಯಾವುದೇ ವಿಲಕ್ಷಣ ಲಕ್ಷಣಗಳೂ ಕಂಡುಬಂದಿಲ್ಲ

ಸರ್ಕಾರೀನಿಂಗ್ ಸಮರ್ಪಣೆ Screening Summary

ಅನರ್ಪಣೆಯಾಗುವ ಆಯ್ಕೆಯನ್ನು ಸೂಚಿಸಿ. ಮಗುವು ಪಾಸ್ ಮಾಡದಂತಹವುಗಳನ್ನು ಪೂರೈಸದಿದ್ದರೆ "ಅಧಿಕ ಮಾಹಿತಿಯನ್ನು ಪಡೆಯಿರಿ" ಎಂಬುದನ್ನು ಸೂಚಿಸಿ

ಪಾಸ್	ಅಧಿಕ ಮಾಹಿತಿಯನ್ನು ಪಡೆಯಿರಿ		
ಭಾಷೆ	<input type="checkbox"/>	<input type="checkbox"/>	
ಉಚ್ಚಾರಣೆ	<input type="checkbox"/>	<input type="checkbox"/>	
ಮಾತನಾಡುವಿಕೆ	<input type="checkbox"/>	<input type="checkbox"/>	
ಸಾಮಾಜಿಕ/ ಪರಸ್ಪರ	<input type="checkbox"/>	<input type="checkbox"/>	
ವಾಗ್ಧಾರಣೆ	<input type="checkbox"/>	<input type="checkbox"/>	
ಧರ್ಮ	<input type="checkbox"/>	<input type="checkbox"/>	

Appendix C

Clinical Evaluation of Language Fundamentals 5 Screening Test (Semel, Wiig & Secord, 2013): Record Form



ELISABETH H. WIIG ■ ELEANOR SEMEL ■ WAYNE A. SECORD

Record Form

Name _____
 Address _____
 Age _____ Sex: F M Grade _____ School _____
 Teacher _____
 Examiner _____

Calculation of Student's Age			
	Year	Month	Day
Test Date	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>
Birth Date	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>
Age	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>

Total Score	Criterion Score	(Circle one)
		+ At or Above Criterion - Below Criterion

Pragmatics Screening
<input type="checkbox"/> Meets pass criterion <input type="checkbox"/> Does not meet pass criterion

Ages 5-8		Ages 9-21	
Age (years:months)	Criterion Score	Age (years:months)	Criterion Score
5:0-5:5	8	9:0-9:11	11
5:6-5:11	10	10:0-10:11	13
6:0-6:5	11	11:0-11:11	15
6:6-6:11	13	12:0-12:11	16
7:0-7:11	14	13:0-13:11	18
8:0-8:11	17	14:0-14:11	19
—	—	15:0-15:11	20
—	—	16:0-16:11	21
—	—	17:0-21:11	22

Notes:

PEARSON

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2 3 4 5 6 7 8 9 10 11 12 A B C D E

Product Number 0154036579

Items 1–9			
Ages	Visual Stimuli	Repetitions	CELF–5 Test
5–8	Trial A and Items 1–9	Allowed	Word Structure

► **Scoring:** Circle 1 for a correct response or 0 for an incorrect response or no response.

Note. Throughout this record form, each item number is immediately followed by another number in parentheses. The number in parentheses is the corresponding CELF–5 item number. For example, Item 2 is followed by (5), which indicates that Item 2 in the CELF–5 Screening Test is Item 5 in the Word Structure test in the diagnostic CELF–5.

Trial A

Say, **I’m going to show you some pictures and say some things about them. I want you to help me by finishing some of the things I say.**

This boy (point) is standing and this boy is... (point and pause). The student should say, “sitting.” If the student responds correctly, proceed to the Test Items. If the student requests a repetition, responds incorrectly, or does not respond within 10 seconds, repeat Trial A. If the student still responds incorrectly, say, **I want you to say, “sitting” to finish what I was saying** and wait for the student to respond. If the student seems reluctant to finish your sentence, say, **You have permission to finish my sentences.** Then repeat the trial.

Say, **Now let’s do some more. Listen carefully to what I say about the picture and help me finish what I say about each one.**

	Score	
A. Regular Plural		
1. (1) Here is one book. Here are two _____ . [books/more books]	1	0
B. Third Person Singular		
2. (5) The boy likes to read. Every day he _____ . [reads]	1	0
C. Possessive Noun		
3. (8) This is a king. Whose crown is this (point)? It is the _____ . [king’s/man’s]	1	0
D. Auxiliary + -ing		
4. (12) This boy (point and pause) is cutting. This boy _____ . [is eating/is chewing/is snacking]	1	0
E. Regular Past Tense		
5. (16) The girls are playing a game. This is the game that the girls _____ . [played]	1	0
F. Objective Pronouns		
6. (17) They have a new puppy. The puppy belongs to all of _____ . [them/em]	1	0
7. (19) The girl has a guitar. The guitar belongs to _____ . [her]	1	0
G. Subjective Pronoun		
8. (31) The boy has a hot dog to eat. Tell me, who has a hot dog? (Pause.) He does. The girl has a hamburger to eat. Tell me, who has a hamburger? _____ . [She does]	1	0
H. Irregular Past Tense		
9. (33) The girl is riding a bicycle. This is the bicycle that the girl _____ . [rode]	1	0

Note. Refer to the Manual for information about recording and scoring dialectal variations.

Items 10–14

Ages 5–8	Visual Stimuli Trial B and Items 10–12	Repetitions Allowed	CELF-5 Test Word Classes
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► **Scoring:** Circle 1 if the student selects both correct words or 0 if the student does not.

Trial B

Say, **I am going to say some words and show you some pictures. Two of the words go together. Look and listen carefully to the words I say, then tell me the two words that go together: *milk, apple, banana.***

If the student responds by identifying the words *apple* and *banana*, proceed to the Test Items. If the student requests a repetition, does not respond within 10 seconds, or identifies two unrelated words, say, **Listen carefully to the words: *milk, apple, banana.* Two of them go together best. Do you know which ones they are?** If the student responds incorrectly, say, **The two words that go together are *apple* and *banana.*** Proceed to the Test Items.

Say, **Here are some more. Look, listen, and tell me which two words go together.**

					Score	
10. (2)	marker	pencil	strawberry		1	0
11. (9)	comb	soap	brush	tissue	1	0
12. (11)	key	razor	hammer	nail	1	0
Say, Now we are going to do some that don't have pictures. Listen and tell me the two words that go together best.						
13. (18)	park	candle	wax	mirror	1	0
14. (30)	enthusiastic	envious	effective	eager	1	0

Start  **Ages 9–21 start here**

Items 15–19

Ages All Ages	Visual Stimuli Trials C & D and Items 15–19	Repetitions Not allowed	CELF-5 Test Following Directions
-------------------------	---	-----------------------------------	--

► **Scoring:** Circle 1 for a correct response or 0 for an incorrect response or no response.

Response Key

1, 2, 3... = specified order of individual responses and = both must be selected

Trial C

Say, **Here are some pictures. I will point to the circle** (point and pause). **Now you point to the picture that I name. Point to the triangle** (pause). **Point to the X** (pause). **Point to the circle** (pause). **Point to the square** (pause).



If the student responds correctly proceed to Trial D. If the student requests a repetition, responds incorrectly, or does not identify any one of the shapes within 10 seconds, say, **Listen carefully**, and repeat the trial.


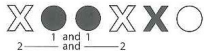
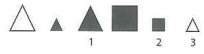


Trial D

Now, I'll show you some more pictures. This time I will say "Go," when I want you to point. Point to the pictures in the same order I tell you. Point to the black circle and the white square. Go.



If necessary, repeat Trial D and remind the student to point to the pictures in the order mentioned and not to point until you say, "Go." Proceed to the Test Items.

Say, **Now let's try some more. Remember to point to the pictures in the order that I tell you. Do not point until I say, "Go." Listen carefully because I can't say them again.**

		Score	
15. (6)	Point to the square at the same time that you point to the X. Go. (Student must point to both pictures at the same time.)		1 0
16. (13)	After you point to the black circles, point to the white Xs. Go.		1 0
17. (17)	Point to the big black triangle, the little square, and the little white triangle. Go.		1 0
18. (22)	Before pointing to the last circle, point to the first triangle and the first square. Go.		1 0
19. (32)	Point to the third X and the third little X after you point to the first X. Go.		1 0

Items 20–26

Ages All Ages	Visual Stimuli None	Repetitions Not allowed	CELF-5 Test Recalling Sentences
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► **Scoring:** Circle 1 for a verbatim response or 0 if the response is not verbatim or there is no response.

Trial E

Say, **Now I am going to say a sentence. I want you to listen carefully and repeat what I say. Let's try. My sister is in the sixth grade.** If the student repeats the sentence verbatim, proceed to the Test Items. If the student does not repeat the item accurately, does not respond, or requests a repetition, say, **Let's try again. Listen carefully and say exactly what I say. My sister is in the sixth grade.**

Say, **Now let's try some more. Remember to listen carefully and say exactly what I say because I can only say it one time.**

Editing Symbols

omission —	watched-	repetition ~ Did the...	addition ^ the film word long	transposition ~ Did (the girl)	substitution — watched word saw
------------	----------	-------------------------	----------------------------------	--------------------------------	------------------------------------

	Score	
20. (1) The children are working.	1	0
21. (4) Didn't the boys eat the apples?	1	0
22. (7) Was the van followed by the ambulance?	1	0
23. (15) If the rain doesn't stop before noon, the field trip will have to be canceled.	1	0
24. (17) The class that sells the most tickets to the dance will win a prize.	1	0
25. (18) After the students had finished the book, the teacher asked them to write a report.	1	0
26. (21) Coach gave the trophy to the team that won the track meet on Saturday.	1	0

Note. Refer to the Manual for information about recording and scoring dialectal variations.

Total Score Ages 5–8
(Items 1–26)

STOP Ages 5–8 stop here. Proceed to the Pragmatics Screening on p. 8 of this Record Form.

Items 27–32			
Ages 9–21	Visual Stimuli Trial F and Items 27–32	Repetitions Allowed	CELF–5 Test Sentence Assembly

► **Scoring:** Circle 1 if the student gives two correct sentences or 0 if the student does not.

Trial F

Say, **Here are some words that can be made into two different sentences: *is, on the chair, the kitten*. Make two sentences with these words. Use only these words.**

is on the chair the kitten

Correct sentences: The kitten is on the chair. / Is the kitten on the chair?

If the student produces only one sentence, say, **Now make another sentence with the words.** If the student requests a repetition, responds incorrectly, or pauses for more than 10 seconds, say, **Remember the words are *is, on the chair, the kitten*. Make a sentence (or a different sentence) with those words.** If the student cannot produce a sentence, say, **You could have said...** (present an option). Proceed to the Test Items.

Say, **Now let's do some more. Each time, you will make two sentences using the words I show you. If you need me to, I can repeat each one once. Both sentences must be logical and make sense.** For each item say, **Make a sentence with these words.** Read the words and pause for a response. Say, **Now make a different sentence.**

		Score	
27. (1)	if it is cold you'll need to wear a coat		
	a) If it is cold, you'll need to wear a coat.	1	0
	b) You'll need to wear a coat if it is cold.		
28. (5)	she got she bought the job the car after		
	a) She bought the car after she got the job.		
	b) She got the job after she bought the car.	1	0
	c) After she got the job, she bought the car.		
	d) After she bought the car, she got the job.		
29. (12)	the restaurant the pizza to deliver going isn't		
	a) The restaurant isn't going to deliver the pizza.	1	0
	b) Isn't the restaurant going to deliver the pizza?		
30. (17)	remember can't he it if mailed he		
	a) Can't he remember if he mailed it?		
	b) He can't remember if he mailed it.	1	0
	c) If he mailed it, he can't remember.		
31. (18)	the nicest the person has who the most friends is		
	a) The person who is the nicest has the most friends.		
	b) The person who has the most friends is the nicest.	1	0
	c) Is the person who has the most friends the nicest?		
	d) The nicest is the person who has the most friends.		
32. (19)	he left he caught the house the bus after		
	a) He caught the bus after he left the house.	1	0
	b) After he left the house, he caught the bus.		

Items 33–39

Ages 9–21	Visual Stimuli Trial G and Items 33–39	Repetitions Allowed	CELF-5 Test Semantic Relationships
---------------------	--	-------------------------------	--

► **Scoring:** Circle 1 if the student selects both correct choices or 0 if the student does not.

Trial G

Say, **I'm going to read you some problems to figure out. Each problem has two correct answers. Let's do one and see if you can tell me the two correct answers.**

A man is bigger than a _____.

- a) house
- b) **button**
- c) **spoon**
- d) plane

If the student gives both correct choices, proceed to the Test Items. If the student provides only one correct choice within 10 seconds, or requests a repetition, say, **Listen carefully to the problem again. Two of the choices are correct.** Repeat Trial G. If the student still does not respond correctly, say, **You should have said *button* and *spoon*.** Proceed to the Test Items.

Say, **Now let's do some more problems. Remember to tell me the two correct answers. If you need me to, I can repeat each one once.**

		Score	
33. (2)	Teenagers are younger than a) infants b) adults c) grandparents d) children	1	0
34. (4)	In the alphabet, G comes a) between L and Z b) after C c) before M d) between A and E	1	0
35. (5)	In any month, the 17th comes a) between the 11th and the 16th b) before the 16th c) between the 13th and the 19th d) after the 11th	1	0
36. (9)	The dog sat under the table, next to the cat. The food was in a dish on the table. The food was a) next to the dog b) above the cat c) under the table d) on the table	1	0

		Score	
37. (14)	A quarter past three is a) exactly 3:15 b) after 3:25 c) before 3:35 d) the same as 3:45	1	0
38. (16)	Marie is first in line with Angie and Ken standing behind her. Louie squeezed between Angie and Ken. Louie is a) third in line b) second in line c) after Marie d) before Marie	1	0
39. (17)	If a person lived for exactly a quarter of a century, he is a) 50 years old b) younger than 40 years old c) older than 30 years old d) at least 20 years old	1	0

Items 40–45			
Ages 9–21	Visual Stimuli None	Repetitions Allowed	CELF–5 Test Word Classes

► **Scoring:** Circle 1 if the student selects both correct words or 0 if the student does not.

Trial H

Say, I am going to read some words. Two of the words go together; they are related. Listen to the words and tell me the two words that go together best: (pause) *dark, hot, soft, cold*. If the student responds by identifying the words *hot* and *cold*, proceed to the Test Items. If the student requests a repetition, does not respond within 10 seconds, or identifies two unrelated words, say, Listen to the words again and tell me the two words that go together—the two words that are related: *dark, hot, soft, cold*. If the student responds incorrectly, say, The two words that go together best are *hot* and *cold*. Proceed to the Test Items.

Say, Now I will read some more words. Listen carefully to each set of words and tell me the two words that go together best.

					Score	
40. (18)	park	candle	wax	mirror	1	0
41. (20)	north	Celsius	globe	west	1	0
42. (27)	crooked	connected	joined	rotated	1	0
43. (30)	enthusiastic	envious	effective	eager	1	0
44. (33)	occupied	relevant	complicated	vacant	1	0
45. (35)	biography	lecture	memoir	parchment	1	0

Total Score Ages 9–21
(Items 15–45)

Pragmatics Screening

Ages

Examiner completes for all students ages 5–21.

Place a check mark next to any behavior that the student *nearly always* exhibits.

- is unable to maintain the topic and often says things that do not seem to relate to the conversation or make sense logically
- talks repeatedly about topics he or she is interested in but others are not (has limited conversational topics)
- does not seem to realize when a listener does not understand him or her
- fails to coordinate gaze with the speaker's gaze and ongoing talk (lack of expected/appropriate eye contact)
- appears to misunderstand the speaker when he or she does **not** consider the context (situation, event, or participant) of the message
- talks too much

Pass: None of the behaviors are observed.

CELF 5 Screening Test: Record Form: Translated and Adapted to Kannada
CELF 5 RECORD FORM

NAME _____

ADDRESS _____

AGE _____ SEX _____ GRADE _____ SCHOOL _____

TEACHER _____ EXAMINER _____

CALCULATION OF STUDENT'S AGE

	YEAR	MONTH	DAY
TEST DATE			
BIRTH DATE			
AGE			

TOTAL SCORE	CRITERION SCORE	(CIRCLE ONE)	PRAGMATICS SCREENING
		+AT OR ABOVE CRITERION -BELOW CRITERION	<input type="checkbox"/> MEETS PASS CRITERION <input type="checkbox"/> DOES NOT MEET PASS CRITERION

AGES 5-8		AGES 9-21		Notes: _____ _____ _____ _____ _____ _____ _____ _____ _____
AGE (YEARS:MONTHS)	CRITERION SCORE	AGE (YEARS:MONTHS)	CRITERION SCORE	
5:00-5:5	8	9:0-9:11	11	
5:6-5:11	10	10:0-10:11	13	
6:0-6:5	11	11:0-11:11	15	
6:6-6:11	13	12:0-12:11	16	
7:0-7:11	14	13:0-13:11	18	
8:0-8:11	17	14:0-14:11	19	
--	--	15:0-15:11	20	
--	--	16:0-16:11	21	
--	--	17:0-21:11	22	

AGES 5-8	VISUAL STIMULI: ITEMS 1-9 & 10-12	REPETITIONS - ALLOWED	WORD STRUCTURE & WORD CLASSES
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ಟ್ರಾನ್ಸಿಯಲ್ ಡಾ

ಹೇಳಿ 'ನಾವು ನಮಗೇ ಕಲಿಯುವ ಚಿತ್ರಗಳನ್ನು ತೋರಿಸಿ ಅವುಗಳ ಬಗ್ಗೆಗೆ ಕಲಿಯುವ ವಿಷಯಗಳನ್ನು ಹೇಳುತ್ತೇನೆ. ನೀವು ಆ

ವಿಷಯಗಳನ್ನು ಮುಗಿಸುವುದರಲ್ಲೇ ನನಗೆ ಸಹಾಯ ಮಾಡಬೇಕು'

ಈ ಹುಡುಗ (ತೋರಿಸಿ) ನಿಂತು ನಿಂತಿದ್ದಾನೆ ಮತ್ತೆ ಈ ಹುಡುಗ

(ತೋರಿಸಿ ಮತ್ತೆ ಉತ್ತರಿಸುವಾಗಲೇ ವಿರಾಮ ನೀಡಿ).

ವಿದ್ಯಾರ್ಥಿಯು ಕುಳಿತಿದ್ದಾನೆ ಎಂದು ಹೇಳಬೇಕು.

ವಿದ್ಯಾರ್ಥಿಯು ಸರಿಯಾದ ಉತ್ತರವನ್ನು ನೀಡಿದುದರಲ್ಲೇ

ಮುಂದಿನ ಪರಶ್ವರನಿಗೆ ಕಡಿ ಮುಂದುವರಿಯಿರಿ.

ವಿದ್ಯಾರ್ಥಿಯು ಪರಶ್ವರನನ್ನು ಪುನಃ ಕೇಳಿದರೆ ಅಥವಾ ತಪ್ಪಾದ

ಉತ್ತರ ನೀಡಿದುದರಲ್ಲಿ ಅಥವಾ 10 ಸೆಕೆಂಡುಗಳ ಒಳಗೆ ಪರೀಕ್ಷಾರ್ಥಿಯೇ

Q 8(31) ಹುಡುಗನ ಹತ್ತಿರ ತೆನ್ನುವುದಾದರೆ	1	0
ಬರೆಯಿರಿ ಇದೆ. ಹೇಳಿ ಯಾರ ಹತ್ತಿರ ಬರೆಯಿರಿ ಇದೆ? A 1.(1) ಇಲ್ಲವೆಂದು ಒಂದು ಪುಸ್ತಕವಿದೆ. ಇಲ್ಲವೆಂದು ಉತ್ತರಿಸುವುದು ನಿರೀಕ್ಷಿಸಿ. ಅವನ ಹತ್ತಿರ. [ಪುಸ್ತಕಗಳಿವೆ]	SCORE 1	0
B 2.(5) ಹುಡುಗನಿಗೆ ಓದಲು ಇಷ್ಟ. ಪರತೆನ್ನಿನ ಅವನು ಹತ್ತಿರ ಬರೆಯಿರಿ ಇದೆ? _____ [ಅವಳ ಹತ್ತಿರ] [ಓದುತ್ತಾನೆ]	1	0
H 9.(33) ಹುಡುಗಿಯು ಸ್ವಲ್ಪ ಕಲರ್ ಓದಿಸುತ್ತಿದ್ದಳು. ಈ	1	0
C 3.(8) ಇವನು ಒಂದು ರಾಜ. ಇದು ಯಾರ ಕೀಟ (ತೋರಿಸಿ)? ಸ್ವಲ್ಪ ಹುಡುಗಿಯು _____ [ಓದಿಸಿದರು] ಇದು _____ [ರಜನಿಧಿ/ ಅವನದು]	1	0
D 4.(12) ಈ ಹುಡುಗ ಕತ್ತರಿಸುತ್ತಿದ್ದಾನೆ. ಈ ಹುಡುಗ _____ [ತೆನ್ನುವುದಾದರೆ/ ಆಗಿಯುತ್ತಿದ್ದಾನೆ]	1	0
E 5.(16) ಹುಡುಗಿಯರು ಒಂದು ಆಟವಾಡುತ್ತಿದ್ದಾರೆ. ಈ ಆಟ ಹುಡುಗಿಯರು _____ [ಆಡಿದರು]	1	0
F 6(17) ಅವರ ಹತ್ತಿರ ಒಂದು ಹೊಸ ನಾಯಿಮರಿ ಇದೆ. ನಾಯಿಮರಿ _____ ಗೆ ಸೇರಿದರು [ಅವರಿಗೆ] 7(19) ಹುಡುಗಿಯ ಹತ್ತಿರ ಗಿಟಾರ್ ಇದೆ. ಗಿಟಾರ್ _____ ಗೆ ಸೇರಿದರು [ಅವಳಿಗೆ]	1	0
Q 8(31) ಹುಡುಗನ ಹತ್ತಿರ ತೆನ್ನುವುದಾದರೆ ಬರೆಯಿರಿ ಇದೆ. ಹೇಳಿ ಯಾರ ಹತ್ತಿರ ಬರೆಯಿರಿ ಇದೆ?	1	0

ನೀಡದಿದ್‌ದಲಿ, ಟಾರಯಲರ್ ಎ ಮತಾತೆ ಮೂಡೆ. ಈಗಲೂ
ವೆದರ್‌ಯಾರ್‌ಧಿಯಿ

ತಪ್ಪಾದ ಉತರ್‌ತರ ನೆಡೆದರೆ ಹೇಳಿ ನವು ಹೇಳಿದ್‌ದನನು
ಮುಗಿಸಲು "ಕುಳಿತಿದ್‌ದವೆ" ಎಂದು ಹೇಳಬೇಕು. ವಾಕ್ಯವನನು
ಮುಗಿಸಲು ವೆದರ್‌ಯಾರ್‌ಧಿಯಿ ಹಿಂದೆಮುಂದೆ ನೆಡೆದರೆ ಹೇಳಿ
ವಾಕ್ಯವನನು ಮುಗಿಸಲು ನೆಮಗೆ ಅನುಮತಿ ಇದೆ.

ಈಗ ಇನನು ಕೆಲವು ಮುಷೋಣ. ಗಮನವೆಟ್‌ಟು ಕೇಳಿಸಿಕೊಳ್ಳಲಿ ಹಂಪು
ವಾಕ್ಯವನನು ಮುಗಿಸಲು ನನಗೆ ಸಹಾಯ ಮುಷಿ

ಟಾರಯಲರ್ ಬೇ ಹೇಳಿ 'ನವು ಕೆಲವು ಪದಗಳನನು ಹೇಳುತ್ತಾನೆ
ಮತಾತು ಕೆಲವು ಚಿಹ್ನೆಗಳನನು ತೋರಿಸುತ್ತಾನೆ. ಎರಡು ಪದಗಳು
ಹೊಂದುತ್ತವೆ. ನೋಡಿ ಜಂಠಾರತೆಯಿಂದ ಕೇಳಿಸಿಕೊಳ್ಳಲಿ ಮತಾತೆ
ಯವ ಎರಡು ಪದಗಳು ಹೊಂದುತ್ತವೆ ಎಂದು ಹೇಳಿ: ಹುಳು, ಆಪಲ್,
ಬಾಣೆಹಣ್ಣು.

ಮಗುವು ಆಪಲ್ ಮತಾತು ಬಾಣೆಹಣ್ಣು ಎಂದು ಹೇಳಿದ್‌ದಲಿ ಟೆಸ್ಟ್‌ಟ್
ಐಟಮ್

ಕಡೆ ಮುಂದೆವರೆಯಿರಿ. ಮಗುವು ಪರ್‌ಶನ್‌ನೆಯನನು ಪುನಹ ಕೇಳಲು
ವಿನಂತಿಸಿದರೆ ಅಧವಾ 10 ಸೆಕೆಂಡುಗಳ ಒಳಗೆ ಪರ್‌ಕರ್‌ರಿಯೆ ನೀಡದಿದ್‌ದಲಿ
ಅಧವಾ ತಪ್ಪಾದ ಉತರ್‌ತರ ನೆಡೆದಲಿ ಹೇಳಿ ಹುಷಂಪು ಕೇಳಿ ಪದಗಳು
ಹುಳು, ಆಪಲ್, ಬಾಣೆಹಣ್ಣು ಇವುಗಳಲಿ ಎರಡು ಪದಗಳು
ಹೊಂದುತ್ತವೆ. ಯವುದೆಂದು ಗೊತ್ತೇ? ಮಗುವು ತಪ್ಪಾದ
ಉತರ್‌ತರವನನು ನೀಡಿದರೆ ಹೇಳಿ ಹೊಂದುವ ಎರಡು ಪದಗಳು ಆಪಲ್
ಮತಾತು ಬಾಣೆಹಣ್ಣು. ಟೆಸ್ಟ್‌ಟ್ ಐಟಮ್ ಕಡೆ ಮುಂದೆವರೆಯಿರಿ.
ಹೇಳಿ, ಇಲಲಿ ಇನನೂ ಕೆಲವು ಪದಗಳಿವೆ. ನೋಡಿ, ಕೇಳಿಸಿಕೊಳ್ಳಲಿ
ಮತಾತು ಯವ ಪದಗಳು ಹೊಂದುತ್ತವೆ ಎಂದು ಹೇಳಿ

		SCORE	
10.(2)	ಸರ್‌ಕೆಚ್ ಪೆನರ್	1	0
11.(9)	ಬಾಣೆಹಣ್ಣು ಸೂಪು ಬಾಣೆಹಣ್ಣು	1	0
12.(11)	ಕೇ ರೇಜರ್ ರಬ್‌ಬರ್‌ಲೇಡರ್ ಸುತಾತಿ ಮೂಳ	1	0

ಹೇಳಿ, ಈಗ ಚಿತ್ರಾರವಿಲದ ಕೆಲವು ಮಂಚೋಣ. ಗಮನವಿಟಾಟು ಕೇಳಿಸಿಕೊಂಡು ಯಾವ ಎರಡು ಪದಗಳು ಹೊಂದುತ್ತವೆ ಎಂದು ಹೇಳಿ

		SCORE	
13.(18) ಉದಾಹರಣೆ	ಕಾಯಾಡಲ್	1	0
ಮೇಣ (ವಾಚಾನ್ಯ)	ಕನಾಡ		
14.(30) ಉತ್ಪಾದಕ	ಅನುಯೇ ಪಟಾಟ	1	0
ಪರಿಣಾಮಕಾರಿ	ಆನಕಾತಿಲುಳಿ		

AGE 9 - 21 - START HERE

ALL AGES	VERBAL STIMULI ITEMS 15-19	REPETITIONS - NOT ALLOWED	FOLLOWING DIRECTIONS
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RESPONSE KEY: 1,2,3...=SPECIFIED ORDER OF INDIVIDUAL RESPONSES
 AND=BOTH MUST BE SELECTED

ಟಾರಯಲ್ ಸೇ

ಹೇಳಿ ಇಲಾಲ ಕೆಲವು ಚಿತ್ರಾರಗಳಿವೆ. ನಾವು ಸರಕಲ್ ಅನಾನ್ಯ ತೋರಿಸುತ್ತೇನೆ (ತೋರಿಸಿ). ಈಗ ನೇವು ನಾವು ಹೇಳಿದ ಚಿತ್ರಾರವನಾನ್ಯ ತೋರಿಸಿ. ತಾರಿಕೋನ (ಟಾರೈ ಯಾಗಲ್) ಅನಾನ್ಯ ತೋರಿಸಿ. ಎಕಾನ್ ಅನಾನ್ಯ ತೋರಿಸಿ. ಸರಕಲ್ ಅನಾನ್ಯ ತೋರಿಸಿ.



ಚದರ (ಸಾಕಾಪೇರ್) ಅನಾನ್ಯ ತೋರಿಸಿ.

ಮಗುವು ಸರಿಯಾದ ಉತ್ಪಾದನಾನ್ಯ ನೇಡಿದರೆ ಟಾರಯಲ್ ಡೇ ಕಡೆ ಮುಂದುವರಿಯಿರಿ. ಮಗುವು ಪಾರಶನೇಯನಾನ್ಯ ಮತಾತ ಕೇಳಲು ವಿನಂತಿಸಿದರೆ ಅಥವಾ ತಪಾಪಾದ ಉತ್ಪಾದನಾನ್ಯ ನೇಡಿದರೆ ಅಥವಾ ಆಕಾರಗಳನಾನ್ಯ ಸರಿಯಾಗಿ ಗುರುತಿಸದಿದರೇ ಹೇಳಿ ಗಮನವಿಟಾಟು ಕೇಳಿಸಿಕೊಂಡು ಟಾರಯಲ್ ಅನಾನ್ಯ ಪುನರಾವರತಿಸಿ ಟಾರಯಲ್ ಡೇ

ಈಗ ಇನಾನ್ಯ ಕೆಲವು ಚಿತ್ರಾರಗಳನಾನ್ಯ ತೋರಿಸುತ್ತೇನೆ. ಈ ಸಲ ನಾವು 'ಗೊ'



ಎಂದು ಹೇಳಿದನೇ ನೇವು ಚಿತ್ರಾರಗಳನಾನ್ಯ ತೋರಿಸಬೇಕು. ನಾವು ಹೇಳುವ ಕಾರಮದಲಾಲಿಯೇ ತೋರಿಸಿ. ಕಪಾಪು ಸರಕಲ್ ಮತಾತು ಬಿಳಿ ಚದರವನಾನ್ಯ ತೋರಿಸಿ. ಗೊ

ಬೇಕಾದರೆ ಟಾರಯಲ್ ಡೇಅನಾನ್ಯ ಮತಾತೇ ಮೂಡೆ ಮಗುವಿಗೆ ಹೇಳಿದ ಕಾರಮದಲಾಲಿಯೇ ಚಿತ್ರಾರಗಳನಾನ್ಯ ತೋರಿಸಲು ಜಾಪಾಪಿಸಿ.

'ಗೂ' ಎಂದೂ ಹೇಳುವವರೆಗೂ ಚಿತ್ರಗಳನ್ನೂ ತೋರಿಸಬಾರದೆಂದು ಹೇಳಿ.
ಟೆಸ್ಟ್ ಐಟಿಮ್ ಗಳ ಕಡೆ ಮುಂದೂವರೆಯಿರಿ
ಹೇಳಿ ಈಗ ಇನ್ನೂ ಕೆಲವು ಪಠ್ಯತೆನೆಸೋಣ. ಜ್ಞಾಪಕವಿಲಿ
ಹೇಳಿದ ಕಾರಮದಲಾಲಿಯೇ ತೋರಿಸಿ. 'ಗೂ' ಹೇಳುವವರೆಗೂ
ತೋರಿಸಬೇಡಿ. ಗಮನವಿಟ್ವು ಕೇಳಿಸಿಕೊಳ್ಳಿ ಏಕೆಂದರೆ ನವು
ಪವನಹ ಹೇಳುವುದಕ್ಕೇ ಅನುಮತಿ ಇಲಾಲ.

		SCORE	
15.(6) ಚದರವನ್ನೂ ತೋರಿಸುವ ಅದೇ ಸಮಯಕ್ಕೇ ಎಕಾಸ ಅನ್ನೂ ತೋರಿಸಿ. ಗೂ <small>(ಮಗುವು ಎರಡು ಚಿತ್ರಗಳನ್ನೂ ಒಂದೇ ಸಮಯ ತೋರಿಸಬೇಕು)</small> 1 and 1		1	0
16.(13) ಕಪ್ಪು ಸರ್ಕಲರ್ ಗಳನ್ನೂ ತೋರಿಸಿದ ಮೇಲೆ ಬಿಳಿ ಎಕಾಷರ್ಶರ್ ಗಳನ್ನೂ ತೋರಿಸಿ. ಗೂ AND 1----2		1	0
17.(17) ದೊಡ್ಡ ಕಪ್ಪು ತಾರಿಕೋನ, ಚಿಕ್ಕ ಚದರ ಮತ್ತು ಚಿಕ್ಕ ತಾರಿಕೋನ ತೋರಿಸಿ. ಗೂ 1 2 3		1	0
18.(22) ಕೊನೆಯ ಸರ್ಕಲರ್ ಅನ್ನೂ ತೋರಿಸುವ ಮೊದಲು ಮೊದಲ ತಾರಿಕೋನ ಮತ್ತು ಮೊದಲ ಚದರ ವನ್ನೂ ತೋರಿಸಿ. ಗೂ 3 2		1	0
19. (32) ಮೂರನೆಯ ಎಕಾಸ ಮತ್ತು ಮೂರನೆಯ ಚಿಕ್ಕ ಎಕಾಸ ಅನ್ನೂ ಮೊದಲ ಎಕಾಸ ಆದಮೇಲೆ ತೋರಿಸಿ. ಗೂ 2 3		1	0

ALL AGES	VISUAL STIMULI NONE 20-26	REPETITIONS - NOT ALLOWED	RECALLING SENTENCES
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ಟರ್ನಿಯಲ್ ಈ

ಹೇಳಿ ಈಗ ನಾವು ಒಂದು ವರ್ತನೆಯವನನ್ನು ಹೇಳುತ್ತೇವೆ. ನೀವು
ಗಮನವನ್ನು ಕೇಳಿಸಿಕೊಂಡು ಅದನ್ನು ಪುನರಾವರ್ತಿಸಬೇಕು.

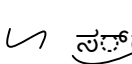


ಪ್ರಾಯಶಃ ಮಂಜೂರಿ. ನನ್ನ ಅಕ್ಕ ಆನಂದಿಯ ತರಗತಿಯಲ್ಲಿ ಇದ್ದಾರೆ.
ಮಗುವು

ಪದಶಃ ವರ್ತನೆಯವನನ್ನು ಹೇಳಿದರೆ ಟೆಸ್ಟ್ ಬಟಮ್ ಕಡೆಗೆ

ಮುಂದುವರಿಯಿರಿ. ಮಗುವು ವರ್ತನೆಯವನು ಸರಿಯಾಗಿ
ಹೇಳಿದರೆ

ಅಥವಾ ಪ್ರಾಯಶಃ ನೀಡದಿದ್ದರೆ ಅಥವಾ ಪ್ರಾಯಶಃ ನೀಡದಿದ್ದರೆ ಪುನಃ
ಕೇಳಲು ವಿನಂತಿಸಿದರೆ ಹೇಳಿ ಮತ್ತೆ ಪ್ರಾಯಶಃ ಮಂಜೂರಿ.

ಗಮನವನ್ನು ಕೇಳಿಸಿಕೊಂಡು ನಾವು ಹೇಳಿದುದನ್ನು ಮತ್ತೆ ಹೇಳಿ.
ಒಂದು ಸಲ ಮತ್ತೆ ನಾವು ಹೇಳಲು ಸರ್ವೆ.

EDITING SYMBOLS	
ಲೇಖನ— ನೋಡಿದನು	
 ಸ್ಥಳಾಂತರ (SUBSTITUTION) _____ ಚಿಹ್ನೆ	ಅವಳು ಕೇಳಿದಳು ಪ್ರಾಯಶಃ ಪದ ಪುಟಾಣಿ
 ಪುನರಾವರ್ತನ  ಸೇರಿಸುವಿಕೆ	ಏನು ಮಾಡಲು ಅದರ ಉದ್ಧೇಶದ ಬಾಲ್

	SCORE	
20.(1) ಮಕ್ಕಳು ಕೆಲಸ ಮಾಡುತ್ತಿದ್ದಾರೆಯೇ?	1	0
21. (4) ಹುಡುಗರು ಆಪಲ್ ಗಲನ್ನು ತಿನ್ನಲು ಬಯಸಿದರೇ?	1	0
22.(7) ವಾನ್ ಅನ್ನು ಆಂಬಿಯಲಿನಲ್ಲಿ ಸಾರ್ ಹುಡುಗನಿಗೆ ತಿಳಿಸಿದರೇ?	1	0
23.(15) ಮಳೆ ಮಧ್ಯಾಹ್ನದ ಒಳಗೆ ನೆಲೆನಡೆದಿದ್ದರೆ ಪ್ರಾಯಶಃ ಪದವಿ ಸಬ್ಜೆಕ್ಟ್ ಗಳನ್ನು	1	0
24.(17) ಯಾವ ತರಗತಿ ನಾಟಕಕ್ಕೆ ಹೆಚ್ಚಿನ ಬಡ್ಡಿ ಗಳನ್ನು ಮಾರುತ್ತದೋ ಅದು ಬಹುಮಾನವನ್ನು	1	0
25.(18) ವಿದ್ಯಾರ್ಥಿಗಳ ಪುಸ್ತಕವನ್ನು ಮುಗಿಸಿದ ಮೇಲೆ ಶಿಕ್ಷಕರು ಅವರನ್ನು ಒಂದು ವರದಿಯನ್ನು	1	0

26.(21) ಕರೋಚರ್ ಟರ್ನೋಫಿ ಅನರ್ನು ಶನಿವಾರದ ಟರ್ನರ್ಯಾಕರ್ ಮೀಟರ್ ನಲರ್ಲಿ ಗೆದರ್ದ ತಂಡರ್ಕರ್	1	0
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AGE 5-8 STOP HERE

Total Score

AGES 9-21	27-32	REPETITIONS - ALLOWED	SENTENCES ASSEMBLY
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ಟರ್ನರ್ಯಾಕರ್ ಎಫರ್

ಇಲರ್ಲಿ ಕೆಲವು ಪದಗಳಿವೆ. ಇವುಗಳನ್ವಯ ಉಪಯೋಗಿಸಿಕೊಂಡು
ವರ್ತನೆಯಗಳನ್ವಯ ಮಂಟಪಹುದು: ಇದೆ, ಕುರ್ಚಿ ಮೇಲೆ, ಬೆಕ್ಕು. ಈ
ಪದಗಳನ್ವಯ ಉಪಯೋಗಿಸಿ ಒಂದು ವರ್ತನೆಯವನ್ವಯ ರಚಿಸಿ. ಈ
ಪದಗಳನ್ವಯ ಮಂಟಪ ಉಪಯೋಗಿಸಿ
ಸರಿಯಾದ ವರ್ತನೆಯ: ಬೆಕ್ಕು ಕುರ್ಚಿ ಮೇಲೆ ಇದೆ/ ಕುರ್ಚಿ ಮೇಲೆ
ಬೆಕ್ಕು ಇದೆ. ಎರಡು ವರ್ತನೆಯಗಳನ್ವಯ ರಚಿಸುವ ಸಾಧ್ಯತೆ
ಇದ್ದದ್ದಲಿ ಹೇಳಿ, ಈಗ ಇನ್ವಯ ಒಂದು ವರ್ತನೆಯವನ್ವಯ ರಚಿಸಿ. ಮಗುವು
ಪುನಹ ಪರ್ಶನೆಯನನ್ವಯ ಕೇಳಿದರೆ ಅಥವಾ ತಪ್ಪಾದ ಉತ್ತರ
ನೀಡಿದರೆ ಅಥವಾ 10 ಸೆಕೆಂಡುಗಳಿಂತ
ಹೆಚ್ಚು ವರಮ ತೋಗೊಂಡರೆ, ಹೇಳಿ, ಪದಗಳು ಇದೆ, ಕುರ್ಚಿ ಮೇಲೆ,
ಬೆಕ್ಕು. ಈ ಪದಗಳನ್ವಯ ಉಪಯೋಗಿಸಿ ಒಂದು ವರ್ತನೆಯವನ್ವಯ ರಚಿಸಿ.
ಮಗುವಿಗೆ ಆಗದಿದ್ದದ್ದಲಿ ಹೇಳಿ, ನೀವು ಈ ವರ್ತನೆಯವನ್ವಯ
ರಚಿಸಬಹುದೆಂತು.....

ಇನ್ವಯ ಕೆಲವು ಪರ್ಶನೆಯನೀನೋಣ. ಪರ್ಶನೆ ಸಲ ನೀವು ಪದಗಳನ್ವಯ
ಉಪಯೋಗಿಸಿಕೊಂಡು ವರ್ತನೆಯವನ್ವಯ ರಚಿಸಬೇಕು. ಬೇಕಾದರೆ ನಾನು
ಪುನಹ ಒಂದು ಸಲ ಹೇಳುತ್ತೇನೆ. ವರ್ತನೆಯವು
ಅರ್ಥಪೂರ್ಣವಾಗಿರಬೇಕು

	SCORE	
27(1) ಚಳಿಯಾಗಿದ್ದರೆ ನೀವು ಕೋಟ ಅನನ್ವಯ ಹಾಕಿಕೊಳ್ಳಬೇಕಾಗುತ್ತದೆ A) ಚಳಿಯಾಗಿದ್ದರೆ ನೀವು ಕೋಟ ಅನನ್ವಯ ಹಾಕಿಕೊಳ್ಳಬೇಕಾಗುತ್ತದೆ	1	0
28(5) ಸಿಕ್ಕಿಡ ಅಳು ತೋಗೊಂಡಳು ಕೆಲವು ಕಾರನನ್ವಯ ಆಮೇಲೆ A) ಅಳು ಕೆಲವು ಸಿಕ್ಕಿಡ ಆಮೇಲೆ ಕಾರನನ್ವಯ ತೋಗೊಂಡಳು B) ಕೆಲವು ಸಿಕ್ಕಿಡ ಆಮೇಲೆ ಅಳು ಕಾರನನ್ವಯ	1	0

29(12) ಈ ಹೋಟೆಲರ್ ಕೊಡುವುದೆಲರ್ಲ ಅನರ್ನು ಪೇಜ್ A) ಈ ಹೋಟೆಲರ್ ಪೇಜ್ ಅನರ್ನು ಕೊಡುವುದೆಲರ್ಲ B) ಪೇಜ್ ಅನರ್ನು ಈ ಹೋಟೆಲರ್ ಕೊಡುವುದೆಲರ್ಲ	1	0
30(17) ನೆನಪು ಮೂಡೆಕೊಳ್ಳಲ್ಲ ಆಗುತರ್ತೆಲರ್ಲ ಅನರ್ಗೆ ಈಮೈಲರ್ ಮೂಡೆದರ್ದನರ್ನು A) ಈಮೈಲರ್ ಮೂಡೆದರ್ದನರ್ನು ಅನರ್ಗೆ ನೆನಪು ಮೂಡೆಕೊಳ್ಳಲ್ಲ ಆಗುತರ್ತೆಲರ್ಲ	1	0
31(18) ಒಳ್ಳೆಲೆಯ ಮನುಷ್ಯಯ ನೋ ಅನರ್ಗೆ ಯಾರು ಅನೇಕ ಸರ್ನೇಹೆತರು ಇರುತರ್ತಾರೆ A) ಯಾರು ಒಳ್ಳೆಲೆಯ ಮನುಷ್ಯಯ ನೋ ಅನರ್ಗೆ	1	0
32(19) ಅನು ಬೆಟರ್ಟ ಹೆಡೆದನು ಮನೆಯನರ್ನು ಬಸರ್ ನಂತರ A) ಅನು ಮನೆಯನರ್ನು ಬೆಟರ್ಟ ನಂತರ ಬಸರ್	1	0

AGES 9-21	33-39	REPETITIONS - ALLOWED	SEMANTIC RELATIONSHIPS
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ಟರ್ರೈಯಲ್ ಜೇ

ಹೇಳಿ ನವು ಕೆಲವು ಸಮಸ್ಯೆಯೆಗಳನು ಒದುತರ್ತೇನೆ. ಪರ್ತೆ ಸಮಸ್ಯೆಯೆಗೂ ಂಡು ಉತರ್ತರಗಲೆವೆ. ಒಂದನು ಪರ್ಯರ್ತನ ಮುಖೋಣ ಒಬರ್ಬ ಮನುಷ್ಯಯ _____ಗಿಂತ ದೊಡ್ಡವನು:

- ಮನೆ
- ಬಟರ್
- ಸರ್ಪೂರ್
- ಏರ್ನೇಪರ್ಲೇರ್

ಮಗುವು ಂಡೂ ಆರ್ಕೆಗಳನು ಸರ್ಿಯಾಗಿ ಆರ್ಸೆದರೆ ಟೆರ್ನಾಟ್ ಐಟಮರ್ ಕಡೆ ಮುಂದುವರ್ಯೆರೆ

ಬರೆ ಒಂದು ಆರ್ಕೆಯನು ಸರ್ಿಯಾಗಿ ಆರ್ಸೆದರೆ ಅಧವಾ

ಪರ್ಶರ್ನೆಯನು ಪುನಹ ಕೇಳಿದರೆ ಹೇಳಿ, ಗಮನವು

ಕೇಳಿಸೆಕೊಳ್ಳಲೆ ಸಮಸ್ಯೆಯೆಗೆ ಂಡು ಸರ್ಿಯು ಉತರ್ತರಗಲೆವೆ.

ಟರ್ರೈಯಲ್ ಜೇಯನು ಮರ್ತೆ ಮೂಡಿ. ಮಗುವು ಸರ್ಿಯಾದ ಉತರ್ತರ

ನೆಡದಿದರ್ದರೆ ಹೇಳಿ, ನೇವು ಬಟರ್ ಮರ್ತೆ ಸರ್ಪೂರ್ ಂಡು

ಹೇಳಬೇಕುತಿ. ಹೇಳಿ, ಈಗ ಇನುನು ಕೆಲವು ಸಮಸ್ಯೆಯೆಗಳನು

ನೋಡೋಣ

	Score	
33(2) ಪರ್ವಾಯದಹುಡುಗ (ಟೀನೇಜರ್) _____ ಗಿಂತ ಕಿರಿಯ A) ಶಿಶು B) ಪರ್ವಾಯಸರ್ಥ C) ಅಜ್ಜ ಅಜ್ಜಿ D) ಮಕ್ಕಳು	1	0
34(4) ಅರ್ಷರಮಾಲೆಯಲಾಲಿ ಉ ಎಲಾಲಿ ಬರತರ್ತದರೆ? a) ಎ ಮತರ್ತು ಔ ನಡುವೆ b) ಇ ಆದಮೇಲೆ c) ಒ ಮುನ್ d) ಅ ಮತರ್ತು ಈ ನಡುವೆ	1	0
35(5) ಯಾವುದೇ ತಿಂಗಳಲಾಲಿ 17ನೇ ತಾರೀಖು ಯಾವಾಗ ಬರತರ್ತದರೆ? a) 11 ಮತರ್ತು 16ರ ನಡುವೆ b) 16ರ ಮುಂಚೆ c) 13 ಮತರ್ತು 19ರ ನಡುವೆ d) 11 ಆದಮೇಲೆ	1	0
36(9) ನಾಯಿ ಟೀಬಲ್ ಕೆಳಗೆ ಕುಳಿತುಕೊಂಡಿತು, ಬೆಕರ್ಕುವಿನ ಪರ್ಕದಲಾಲಿ. ಉಟ ಟೀಬಲ್ ಮೇಲೆ ಒಂದು ಪಾತರ್ಯಲಾಲಿ ಇತರ್ತು. ಉಟ: a) ನಾಯಿಯ ಪರ್ಕ ಇತರ್ತು b) ಬೆಕರ್ಕುವಿನ ಮೇಲೆಗಡೆ ಇತರ್ತು c) ಟೀಬಲ್ ಕೆಳಗಡೆ ಇತರ್ತು d) ಟೀಬಲ್ ಮೇಲೆ ಇತರ್ತು	1	0

	Score	
37(14) ಮೂರುವರೆ ಎಂದರೆ: a) ಸರಿಯಾಗಿ ಮೂರು ಮೂವರ್ತು b) ಮೂರು ನಲವರ್ತು ಆದಮೇಲೆ c) ಮೂರು ಮೂವರ್ತು ದರ ಮುಂಚೆ d) ಮೂರು ಮುಕ್ಕಾಲರ ಸಮ	1	0

<p>38(16) ಮೂಲಾ ಸಾಲಿನಲಲಿ ಮೂದಲಯ ಮತಾತಯ ಅವಳ ಹಿಂದೆ ಅನು ಹಾಗೂ ಕಾವಯ ನಂತೆದದಾರರೆ. ಲಾವಣಯ ಅನು ಮತಾತಯ ಕಾವಯ ಳ ಮಧಯ ತೂರಿದಳು. ಲಾವಣಯ ಎಲಲಿ ನಂತೆದದಾಳೆ?</p> <p>a) ಸಾಲಿನಲಲಿ ಮೂರನೆಯದಂತೆ</p> <p>b) ಸಾಲಿನಲಲಿ ಎರಡನೆಯದಾಗೆ</p> <p>c) ಮೂಷದಮೇಲೆ</p> <p>d) ಮೂಲಾ ಮಂದರೆ</p>	1	0
<p>39(17) ಒಬ್ಬ ವಯಕ್ತೆ ಕಾಲಯ ಶತಮಾನ ಬದಲಿದದರೆ, ಅವನು:</p> <p>a) 50 ವರ್ಷದವನು</p> <p>b) 40ಕ್ಕಿಂತ ಕಡಿಮೆ ವಯಸ್ಸಿನವನು</p> <p>c) ಮೂವತ್ತಕ್ಕಿಂತ ಹೆಚ್ಚು ವಯಸ್ಸಿನವನು</p> <p>d) ಕನಿಷ್ಠ 20 ವಯಸ್ಸು ಆಗಿರುವವನು</p>	1	0

AGES 9-21	VISUAL STIMULI NONE 40-45	REPETITIONS - ALLOWED	WORD CLASSES
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ಟಾರ್ಜಿಯಲ್ ಏಜ್

ಹೇಳಿ 'ನವು ಕೆಲವು ಪದಗಳನ್ನೂ ಹೇಳುತ್ತೇನೆ. ಎರಡು ಪದಗಳು ಹೊಂದುತ್ತವೆ. ಜ್ಞಾರತೆಯಿಂದ ಕೇಳಿಸಿಕೊಳ್ಳಲಿ ಮತಾತೆ ಯವ ಎರಡು ಪದಗಳು ಹೊಂದುತ್ತವೆ ಎಂದು ಹೇಳಿ: ಕತಾಲೆ ಬಿಸಿ ಮೃದು ತಣ್ಣಗೆ!' ಮಗುವು ಬಿಸಿ ಮತಾತು ತಣ್ಣಗೆ ಎಂಬ ಪದಗಳನ್ನೂ ಗುರುತಿಸಿದರೆ ಟಾರ್ಜಿ ಐಟಮ್ ಕಡೆ ಮುಂದುವರೆಯಿರೆ. ಪುನಹ ಪಾರಶನ್ಯನನ್ನೂ ಕೇಳಬೇಕಾದದಲಲಿ ಅಧವಾ 10 ಸೆಕೆಂಡಗಳ ಒಳಗೆ ಪಾರಕರಿಯೆ

ನೀಡದಿದರೆ ಅಧವಾ ಹೊಂದಿರುವ ಎರಡು ಪದಗಳನ್ನೂ ಗುರುತಿಸಿದರೆ ಹೇಳಿ ಪದಗಳನ್ನೂ ಮತಾತೆ ಕೇಳಿಸಿಕೊಳ್ಳಲಿ ಮತಾತು ಹೊಂದುವ ಎರಡು ಪದಗಳನ್ನೂ ಗುರುತಿಸಿ - ಹೊಂದುವ ಪದಗಳು: ಕತಾಲೆ, ಬಿಸಿ, ಮೃದು, ತಣ್ಣಗೆ.

ಮಗುವು ತಪ್ಪಾದ ಉತರ ನೀಡಿದರೆ ಹೇಳಿ ಹೊಂದುವ ಎರಡು ಪದಗಳು

ಬಿಸಿ ಹೆಚ್ಚು ತಣ್ಣಗಾಗಿ. ಹೇಳಿ ಈಗ ಇನ್ನೂ ಕೆಲವು ಪದಗಳನ್ನು ಓದುತ್ತೇನೆ. ಗಮನವಿತ್ತು ಕೇಳಿಸಿಕೊಳ್ಳೋಳಿ ಮತ್ತೆ ಹೊಂದುವ ಎರಡು ಪದಗಳನ್ನು ಗುರುತಿಸಿ

	Score	
40(18). ಉದ್ಯಾನ ಕರ್ಯಾಡಲ್ ಮಣಿ(ವ್ಯಾಂಟ್ಸ್) ಕನ್ನಡ	1	0
41(20). ಉತ್ತರ ಸೆಲೆನ್ಸಿಯನ್ ಮಂಡಲ ಪಶ್ಚಿಮ	1	0
42(27). ಡೊಂಕಾದ ನಂಪರ್‌ಕವಿರುವ ನೇರವು ತೆರಬಗಿನು	1	0
43(30). ಉತ್ತಮಾಹಿತ ಅನುಯೆ ಪಟಾಟ ಪರಿಣಾಮಕಾರಿ ಆಸಕ್ತಿಉಳ್ಳ	1	0
44(33). ತುಂಬಿರುವ ಪರ್ವತ ಜಟಿಲ ಖಾಳಿ	1	0
45(35). ಜೀವನಚರಿತ್ರೆ ಉಪನ್ಯಾಸ ಘಟನೆಗಳಿ ಚರ್ಚೆಮದ ಕಾಗದ	1	0

Total Score Ages 9-21 (Items 15-45)

Pragmatics Screening:

Place a check mark next to any behavior that the student nearly always exhibits.

- Is unable to maintain the topic and often says things that do not seem to relate to the conversation or make sense logically
- Talks repeatedly about topics he or she is interested in but others are not (has limited conversational topics)
- Does not seem to realize when a listener does not understand him or her
- Fails to coordinate gaze with the speaker's gaze and ongoing talk (lack of expected/
appropriate eye contact)
- Appears to misunderstand the speaker when he or she does not consider the context
(situation, event or participant) of the message
- Talks too much

Pass: None of the behaviours are observed

Appendix D

Narrative Assessment: “Frog Where Are You?” (Mayer, 1969): English Page Script

- 1 There once was a boy who had a dog and a pet frog. He kept the frog in a large jar in his bedroom.
- 2 One night while he and his dog were sleeping, the frog climbed out of the jar. He jumped out of an open window.
- 3 When the boy and the dog woke up the next morning, they saw that the jar was empty.
- 4 The boy looked everywhere for the frog. The dog looked for the frog too. When the dog tried to look in the jar, he got his head stuck.
- 5 The boy called out the open window, “Frog, where are you?” The dog leaned out the window with the jar still stuck on his head.
- 6 The jar was so heavy that the dog fell out of the window headfirst!
- 7 The boy picked up the dog to make sure he was ok. The dog wasn’t hurt but the jar was smashed.
- 8 - 9 The boy and the dog looked outside for the frog. The boy called for the frog.
- 10 He called down a hole in the ground while the dog barked at some bees in a beehive.
- 11 A gopher popped out of the hole and bit the boy right on his nose. Meanwhile, the dog was still bothering the bees, jumping up on the tree and barking at them.
- 12 The beehive fell down and all of the bees flew out. The bees were angry at the dog for ruining their home.
- 13 The boy wasn’t paying any attention to the dog. He had noticed a large hole in a tree. So he climbed up the tree and called down the hole.
- 14 All of a sudden an owl swooped out of the hole and knocked the boy to the ground.
- 15 The dog ran past the boy as fast as he could because the bees were chasing him.
- 16 The owl chased the boy all the way to a large rock.
- 17 The boy climbed up on the rock and called again for his frog. He held onto some branches so he wouldn’t fall.
- 18 But the branches weren’t really branches! They were deer antlers. The deer picked up the boy on his head.
- 19 The deer started running with the boy still on his head. The dog ran along too. They were getting close to a cliff.
- 20 - 21 The deer stopped suddenly and the boy and the dog fell over the edge of the cliff.
- 22 There was a pond below the cliff. They landed with a splash right on top of one another.
- 23 They heard a familiar sound.
- 24 The boy told the dog to be very quiet.
- 25 They crept up and looked behind a big log.
- 26 There they found the boy’s pet frog. He had a mother frog with him.
- 27 They had some baby frogs and one of them jumped toward the boy.
- 28-29
The baby frog liked the boy and wanted to be his new pet. The boy and the dog were happy to have a new pet frog to take home. As they walked away the boy waved and said “goodbye” to his old frog and his family.

Narrative Assessment: "Frog Where Are You?" (Mayer, 1969): Kannada Page Script

1. ಒಂದು ಕಾಲದಲಢ್ಲಲಿ ಒಬ್ಬ ಹುಡುಗನು ಒಂದು ನಾಯಿ ಹಾಗೂ ಕಪ್ಪೆಯನಢ್ಲನು ಸಾಕಿದಢ್ಲನು. ಕಪ್ಪೆಯನಢ್ಲನು ತನಢ್ಲನ ಕೂಟಡಿಯಲಢ್ಲಲಿ ಒಂದು ದೂಡಢ್ಲ ಜಾಡಿಯಲಢ್ಲಲಿ ಇಟಢ್ಲಲಿ ದಢ್ಲನು.
2. ಒಂದು ರಾತಢ್ಲರಿ ಅವನು ಹಾಗೂ ಅವನ ನಾಯಿ ಮಲಗಿದಢ್ಲದಾಗ , ಕಪ್ಪೆ ಜಾಡಿಯಿಢ್ಲದ ಹೂರಗಲಿ ಬಂದಿತು. ತಲಲಿ ಕಟಕಿಯಿಢ್ಲದ ಹೂರಗಲಿ ನಲಗಲಿಯಿತು.
3. ಮರುದಲಿ ಬಲಿಲಿಗಲಿ ಹುಡುಗ ಮತಢ್ಲತು ನಾಯಿ ಂಚಢ್ಲರಗೂಡಲಿ , ಜಾಡಿಯು ಖಾಲಿಯಾಗಲಿರುವುದನಢ್ಲನು ಕಂಡಲು.
4. ಹುಡುಗನು ಕಪ್ಪೆಗಲಿ ಂಲಲಿಡಲಿ ಹುಡುಕಿದನು. ನಾಯಿಯು ಕೂಡ ಕಪ್ಪೆಯನಢ್ಲನು ಹುಡುಕಿತು. ನಾಯಿಯು ಜಾಡಿಯೂಲಗಲಿ ಇಣುಕಲಿ ಹುಡುಕಲು ಹೂಡಲಿ, ಅದರ ತಲಲಿ ಜಾಡಿಯಲಢ್ಲಲಿ ಸಲಕಲಿಕೂಂಡಲಿತು.
5. ಹುಡುಗನು ತಲಲಿಡಲಿ ಕಟಕಿಯಿಢ್ಲದ " ಕಪ್ಪೆ , ಂಲಲಿರುವಲಿ ?" ಂದು ಕೂಗಲಿದನು. ನಾಯಿಯು ಸಹ ತಲಲಿ ಸಲಕಲಿಕೂಂಡ ಜಾಡಿಯ ಸಮಲಿ ಕಟಕಿಯಿಢ್ಲದ ಇಣುಕಲಿತು.
6. ಜಾಡಿಯು ಂಷಲಿ ಭೂರವಲಿಗಲಿತಢ್ಲತಲಿಢ್ಲದಲಿ ನಾಯಿ ಕಟಕಿಯಿಢ್ಲದ ತಲಲಿಮುಢ್ಲದಲಿ ಬಲಿಡಲಿಬಲಿಟಢ್ಲಲಿ!
7. ಹುಡುಗನು ನಾಯಿಯು ಹುಡುಗಲಿಡಲಿಢ್ಲ ಂದು ಖಚಲಿತಡಲಿ ಸಕೂಲಲಲಿ ಅದನಢ್ಲನು ಂತಢ್ಲತಲಿಕೂಂಡನು. ನಾಯಿಗಲಿ ಂನು ಗಲಿಯವಲಿಗಲಿಲಲಿ ಆದಲಿ ಜಾಡಲಿ ಒಡಲಿದು ಹೂಗಲಿತಢ್ಲತು.
- 8-9. ಹುಡುಗ ಹಾಗೂ ನಾಯಿ ಕಪ್ಪೆಯನಢ್ಲನು ಹೂರಗಲಿ ಹುಡುಕಲಿದಲು. ಹುಡುಗನು ಕಪ್ಪೆಯನಢ್ಲನು ಕೂಗಲಿದನು

- 20-21. ಜಿಂಕೆಯು ಇದ್ದಾದರೂ ಕೆಡದಂತೆ ನೆಂತಾಗ ಹುಡುಗ ಮತ್ಯತು ನಾಯಿ ಪರ್ಪಾತದ ಅಂಚಿನಿಂದ ಕೆಳಗೆ ಬಿದ್ದದರು.
22. ಪರ್ಪಾತದ ಕೆಳಗೆ ಒಂದು ಕೊಳವೆತ್ಯತು.ಹುಡುಗ ಮತ್ಯತು ನಾಯಿ ಅದರಲಲ್ ಒಬ್ಬರ ಮೀಲೋಬ್ಬರು ಬಿದ್ದದರು.
23. ಆಗ ಅವರಿಗೆ ಪರಿಚಿತ ಸದ್ಧೊಂದು ಕೀಳಿಸಿತು.
24. ಹುಡುಗನು ನಾಯಿಯನು ನೆಶಬ್ಬದವಾಗಿರಲು ಹೀಳಿದನು.
25. ಸದ್ಧು ಮಡದೆ ಹೂಗೆ ಒಂದು ದೊಡ್ಡ ಮರದ ಕೆಳಗೆ ನೋಡಿದರು.
26. ಅಲ್ ಲಿ ಅವರಿಗೆ ಹುಡುಗನ ಸಾರು ಕಪ್ಪೆ ಸೆಕೆಕೆತು.ಅದರ ಜೊತೆ ಅದರ ಅಮ್ನು ಸಹ ಇತ್ಯತು.
27. ಅಲ್ ಲಿ ಮರೆ ಕಪ್ಪೆಗಳೂ ಇದ್ದವು ಮತ್ಯತು ಅದರಲಲ್ ಒಂದು ಹುಡುಗನ ಕಡೆಗೆ ಜಿಗಿಯಿತು.
- 28-29. ಮರೆ ಕಪ್ಪೆಗೆ ಹುಡುಗನು ಇಷ್ಠವಾಗಿ ಅವನ ಸಾರು ಕಪ್ಪೆಯಾಗಲು ಬಯಸಿತು.ಹುಡುಗ ಹಾಗೂ ನಾಯಿಗೆ ಮನೆಗೆ ಒಯ್ಯಲು ಹೊಸ ಸಾರು ಕಪ್ಪೆ ಸೆಕೆಕಾಗಿ ಬಹಳ ಸಂತೂಷವಾಯಿತು. ಮನೆಗೆ ಮರಳುವ ಮಂಚೆ ಹುಡುಗ ಕೈ ಬೀಸಿ ತನ್ನ ಹಳೇ ಕಪ್ಪೆ ಮತ್ಯತು ಅದರ ಸಂಸಾರಕೆ ವಿದಾಯ ಹೀಳಿದನು.

Appendix E
Parent Questionnaire: English

Identification Number: _____

1. What is your educational background? Please tick below:

- Primary school (Class 6)
- High school (Class 10)
- PUC (Class 12)
- College Degree (B.A, B.Sc, B.Com, BE)
- Post-Graduate (M.A, M.Sc, M.Com)
- Doctorate (PhD)

2. What is your spouse's educational background? Please tick below. If there is no spouse residing with you, please skip this question.

- Primary school (Class 6)
- High school (Class 10)
- PUC (Class 12)
- College Degree (B.A, B.Sc, B.Com, BE)
- Post-Graduate (M.A, M.Sc, M.Com)
- Doctorate (PhD)

3. What is your monthly family income? Please tick below.

- Below Rs. 10,000
- Rs. 11,000-Rs. 30,000
- Rs. 31,000-Rs. 50,000
- Rs. 51,000-Rs. 70,000
- Rs. 71,000-Rs. 100,000
- Above Rs. 100,000

3. In order to give us a clear idea of how much Kannada and English, both written and oral, your child is exposed to at home, please circle the best answers below.

a. How much **English** do you use in the following activities at home?

Speaking	None	Some	All
Listening	None	Some	All
Writing	None	Some	All
Reading	None	Some	All

b. How much **Kannada** do you use in the following activities at home?

Speaking	None	Some	All
Listening	None	Some	All
Writing	None	Some	All
Reading	None	Some	All

c. How much **English** does your spouse use in the following activities at home?

Not applicable; I have no spouse living in our home right now.

Speaking	None	Some	All
Listening	None	Some	All
Writing	None	Some	All
Reading	None	Some	All

d. How much **Kannada** does your spouse use in the following activities at home?

Not applicable; I have no spouse living in our home right now.

Speaking	None	Some	All
Listening	None	Some	All
Writing	None	Some	All
Reading	None	Some	All

e. How much **English** do brothers/sisters of the child use in following activities at home?

Not applicable; there are no brothers and/or sisters living in our home right now.

Speaking	None	Some	All
Listening	None	Some	All
Writing	None	Some	All
Reading	None	Some	All

f. How much **Kannada** do brothers and/or sisters of your child use in the following activities at home?

Not applicable; there are no brothers and/or sisters living in our home right now.

Speaking	None	Some	All
Listening	None	Some	All

Writing **None** **Some** **All**

Reading **None** **Some** **All**

g. How much **English** do grandparents of your child use in the following activities at home? Please circle the best answer:

Not applicable; there are no grandparents living in our home right now.

Speaking **None** **Some** **All**

Listening **None** **Some** **All**

Writing **None** **Some** **All**

Reading **None** **Some** **All**

h. How much **Kannada** do grandparents of your child use in the following activities at home? Please circle the best answer:

Not applicable; there are no grandparents living in our home right now.

Speaking **None** **Some** **All**

Listening **None** **Some** **All**

Writing **None** **Some** **All**

Reading **None** **Some** **All**

This next section is to help us understand more about the languages your child uses and understands.

4. a. What language does your family use most often? Please circle or fill in:

English Kannada other: _____

b. How much **English** does your child use in the following activities at home? Please circle the best answer:

Speaking **None** **Some** **All**

Listening **None** **Some** **All**

Writing **None** **Some** **All**

Reading **None** **Some** **All**

c. How much **Kannada** does your child use in the following activities at home? Please circle the best answer:

Speaking **None** **Some** **All**

Listening	None	Some	All
Writing	None	Some	All
Reading	None	Some	All

5. a. At what age did your child start studying in an English-medium school? (please write down):
_____.

b. If he/she studied in a different medium of instruction before that, please indicate in what language:
_____.

c. Assuming English is the first language in school (medium of instruction), what are the second and/or third language classes that your child is enrolled in?

Hindi **Kannada** **Tamil** **Telugu** **Other:** _____

6a. Does your child speak any other language apart from English or Kannada within the community (when communicating with neighbors, friends, relatives)? If so, please list the other languages that your child understands or speaks.

b. Within your home/community, whom does your child converse in **English** with? (Circle all that apply)

With parents **With brothers/sisters** **With friends**
With grandparents **With other relatives**

c. Within your home/community, whom does your child converse in **Kannada** with? (Circle all that apply)

With parents **With brothers/sisters** **With friends**
With grandparents **With other relatives**

7. How often do you or other family members read stories to your child (Please circle)?

Once a month **Once in two weeks**
Once a week **Two to four times per week**
Four to seven times per week **Every day**

If yes, in what language(s) do you read to your child?

English Kannada Both Other: _____

8. a. Does your child have difficulty understanding what you or other family members say?

No Yes

If yes, in what language(s)?

Kannada English Both Other: _____

b. Does your child have difficulty following instructions?

No Yes

If yes, in what language(s)?

Kannada English Both Other: _____

c. Does your child have difficulty expressing or communicating what they want to say?

No Yes

If yes, in what language(s)?

Kannada English Both Other: _____

9.a. Does anyone in your family, not including your child, have difficulty **speaking** English?

No Yes

b. Does anyone in your family, not including your child, have difficulty **speaking** Kannada?

No Yes

10 a. Does anyone in your family, not including your child, have difficulty **understanding** English?

No Yes

b. Does anyone in your family, not including your child, have difficulty **understanding** Kannada?

No Yes

Parent Questionnaire: Kannada

ಪೋಷಕರ ಪಾಠಶಿಕ್ಷಣವಿಷಯ (ಭಾಷಣೆ ಸಮೀಕ್ಷಣೆ)

ವಿದ್ಯಾರ್ಥಿಯ ಹೆಸರು/ಗುರುತಿನ ಸಂಖ್ಯೆ _____

ಕಾಲಿಗೆ ಬಿಟ್ಟು ಜಾಗವನ್ನು ಭರತೆ ಮಾಡಿ ಅಧವಾ ಸರಿಯಾದ ಉತ್ತರವನ್ನು ಸೂಚಿಸಿ.

೧. ನೆಮ್ಮದಿ ಶೈಕ್ಷಣಿಕ ಹಿನ್ನೆಲೆ ಏನು? ಸರಿಯಾದ ಉತ್ತರವನ್ನು ಸೂಚಿಸಿ.

- ಪೂರ್ವಮುಖ ಶೈಕ್ಷಣಿಕ (೬ನೇ ತರಗತಿ)
- ಪೂರ್ವಾಧಿಪತ್ಯ (೧೦ನೇ ತರಗತಿ)
- ಪಿ.ಯು. ಸಿ (೧೨ ನೇ ತರಗತಿ)
- ಕಾಲೇಜು ಡಿಗ್ರಿ (ಬಿ.ಎ/ ಬಿ. ಎಸ್‌ಸಿ/ ಬಿ .ಇ/ಬಿ. ಕಾಮನ್)
- ಸ್ನಾನಾಂತರೋತ್ತರ ಪದವಿ (ಎಂ. ಇ/ ಎಂ.ಎಸ್‌ಸಿ/ಎಂ.ಎ/ ಎಂ. ಕಾಮನ್)
- ಡಾಕ್ಟರೇಟ್ - ಪದವಿ (ಪಿ. ಎಚ್ .ಡಿ)

೨. ನೆಮ್ಮದಿ ಗಂಡನ/ ಹೆಂಡತಿಯ ಶೈಕ್ಷಣಿಕ ಹಿನ್ನೆಲೆ ಏನು? ಸರಿಯಾದ ಉತ್ತರವನ್ನು ಸೂಚಿಸಿ.

ನೆಮ್ಮದಿ ಜೀವನ ಸಂಗಾತಿ ನೆಮ್ಮದಿ ಜೊತೆ ಇಲ್ಲದಿದ್ದರೂ ಅಧವಾ

ವಾಸಿಸುತ್ತಿಲ್ಲದಿದ್ದರೂ ಉತ್ತರಿಸುವ ಅಗತ್ಯವಿಲ್ಲ.

- ಪೂರ್ವಮುಖ ಶೈಕ್ಷಣಿಕ (೬ನೇ ತರಗತಿ)
- ಪೂರ್ವಾಧಿಪತ್ಯ (೧೦ನೇ ತರಗತಿ)
- ಪಿ.ಯು. ಸಿ (೧೨ ನೇ ತರಗತಿ)
- ಕಾಲೇಜು ಡಿಗ್ರಿ (ಬಿ.ಎ/ ಬಿ. ಎಸ್‌ಸಿ/ ಬಿ .ಇ/ ಬಿ. ಕಾಮನ್)
- ಸ್ನಾನಾಂತರೋತ್ತರ ಪದವಿ (ಎಂ. ಇ/ ಎಂ.ಎಸ್‌ಸಿ/ಎಂ.ಎ/ ಎಂ. ಕಾಮನ್)
- ಡಾಕ್ಟರೇಟ್ - ಪದವಿ (ಪಿ. ಎಚ್ .ಡಿ)

೩. ನೆಮ್ಮದಿ ಕುಟುಂಬದ ತಿಂಗಳ ಆದಾಯ ಎಷ್ಟು?

- ೧೦,೦೦೦ ಕ್ಕಿಂತ ಕಡಿಮೆ
- ೧೦,೦೦೦ - ೨೦,೦೦೦
- ೨೦,೦೦೦- ೩೦,೦೦೦
- ೩೦,೦೦೦- ೪೦,೦೦೦
- ೪೦,೦೦೦- ೬೦,೦೦೦
- ೬೦,೦೦೦- ೧೦೦,೦೦೦
- ೧೦೦,೦೦೦ ಕ್ಕಿಂತ ಹೆಚ್ಚು

೪. ನೆಮ್ಮದಿ ಮಗುವಿಗೆ ಎಷ್ಟರ ಮಟ್ಟಿಗೆ ಕನಡ ಮತ್ತೂ ಆಂಗ್ಲ ಭಾಷೆಯಲ್ಲಿ ಮಾತನಾಡಲು ಹಾಗೂ ಬರೆಯಲು ಮನೆಯಲ್ಲಿ ಅಪಕಾಶ ಸಿಗುತ್ತದೆಯೆ ಎಂದೂ ತಿಳಿಯಲು ಈ ಮುಂದಿನ ಭಾಗದಲ್ಲಿ ಮಾಹಿತಿ ನೀಡಿ.

ಅ. ಮನೆಯಲರಲಿ ಎಷರರ ಮಟರಟಿಗಿ ನೇವು ಆಂಗಲ ಭಾಷೆಯನನು ಕೆಳಕಂಡ

ಚಟುವಟಿಕೆಗಳಲಲಿ ಬಳಸುವಿರಿ?

ಮಾತನಾಡುವಾಗ	ಇಲಲವೇಇಲಲ	ಸಲಲ	ಯಂನಲ
ಕೇಳಿಸಿಕೊಳ್ಳಲಲಾಗ	ಇಲಲವೇಇಲಲ	ಸಲಲ	ಯಂನಲ
ಬರೆಯಲಲಾಗ	ಇಲಲವೇಇಲಲ	ಸಲಲ	ಯಂನಲ
ಓದಲಲಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ

ಆ. ಮನೆಯಲರಲಿ ಎಷರರ ಮಟರಟಿಗಿ ನೇವು ಕನನಡ ಭಾಷೆಯನನು ಕೆಳಕಂಡ

ಚಟುವಟಿಕೆಗಳಲಲಿ ಬಳಸುವಿರಿ?

ಮಾತನಾಡುವಾಗ	ಇಲಲವೇಇಲಲ	ಸಲಲ	ಯಂನಲ
ಕೇಳಿಸಿಕೊಳ್ಳಲಲಾಗ	ಇಲಲವೇಇಲಲ	ಸಲಲ	ಯಂನಲ
ಬರೆಯಲಲಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ
ಓದಲಲಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ

ಇ. ಮನೆಯಲರಲಿ ಎಷರರ ಮಟರಟಿಗಿ ನೇಮರ ಗಂಡ/ ಹೆಂಡತಿ ಆಂಗಲ ಭಾಷೆಯನನು

ಕೆಳಕಂಡ ಚಟುವಟಿಕೆಗಳಲಲಿ ಬಳಸುವಿರಿ?

ಅನವಯಿಸುವುದಿಲಲ - ಜೀವನ ಸಂಗಾತಿ ಜೊತೆಯಲಲಿ ವಾಸಿಸುತ್ತಿಲಲ.

ಮಾತನಾಡುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ
ಕೇಳಿಸಿಕೊಳ್ಳಲಲಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ
ಬರೆಯಲಲಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ
ಓದಲಲಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ

ಈ. ಮನೆಯಲರಲಿ ಎಷರರ ಮಟರಟಿಗಿ ನೇಮರ ಗಂಡ/ ಹೆಂಡತಿ ಕನನಡ ಭಾಷೆಯನನು

ಕೆಳಕಂಡ ಚಟುವಟಿಕೆಗಳಲಲಿ ಬಳಸುವಿರಿ?

ಅನವಯಿಸುವುದಿಲಲ - ಜೀವನ ಸಂಗಾತಿ ಜೊತೆಯಲಲಿ ವಾಸಿಸುತ್ತಿಲಲ.

ಮಾತನಾಡುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ
ಕೇಳಿಸಿಕೊಳ್ಳಲಲಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ
ಬರೆಯಲಲಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ
ಓದಲಲಾಗ	ಇಲಲವೇ ಇಲಲ	ಸಲಲ	ಯಂನಲ

೉. ಮನೆಯಲಡಲಿ ಮಗುವಿನ ಸಹೋದರರು ಮತ್ತು ಸಹೋದರಿಯರು ಂಷರ
 ಮಟರಟಿಗಿ ಆಂಗಲ ಭಾಷೆಯನನು ಕೆಳಕಂಡ ಚಟುವಟಿಕೆಗಳಲಲಿ ಬಳಸುವರು?

ಅನುವಯಿಸುವುದಿಲಲ - ಮಗುವಿಗೆ ಸಹೋದರರು/ ಸಹೋದರಿಯರು ಇಲಲ
 ಅಥವಾ ಜೊತೆಯಲಲಿ ವಾಸಿಸುತ್ತಲಿಲಲ.

ಮಾತನಾಡುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ
ಕೇಳಿಸಿಕೊಳ್ಳುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ
ಬರೆಯುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ
ಓದುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ

೉. ಮನೆಯಲಡಲಿ ಮಗುವಿನ ಸಹೋದರರು ಮತ್ತು ಸಹೋದರಿಯರು ಂಷರ
 ಮಟರಟಿಗಿ ಕನನಡ ಭಾಷೆಯನನು ಕೆಳಕಂಡ ಚಟುವಟಿಕೆಗಳಲಲಿ ಬಳಸುವರು?

ಅನುವಯಿಸುವುದಿಲಲ - ಮಗುವಿಗೆ ಸಹೋದರರು/ ಸಹೋದರಿಯರು ಇಲಲ
 ಅಥವಾ ಜೊತೆಯಲಲಿ ವಾಸಿಸುತ್ತಲಿಲಲ.

ಮಾತನಾಡುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ
ಕೇಳಿಸಿಕೊಳ್ಳುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ
ಬರೆಯುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ
ಓದುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ

೉. ಮನೆಯಲಡಲಿ ಮಗುವಿನ ತಾತ ಮತ್ತು ಅಜರಜಿ ಂಷರ ಮಟರಟಿಗಿ ಆಂಗಲ
 ಭಾಷೆಯನನು ಕೆಳಕಂಡ ಚಟುವಟಿಕೆಗಳಲಲಿ ಬಳಸುವರು?

ಅನುವಯಿಸುವುದಿಲಲ - ಮಗುವಿನ ಅಜರಜಿ ಮತ್ತು ತಾತ ನಮಮ
 ಜೊತೆಯಲಲಿ ವಾಸಿಸುತ್ತಲಿಲಲ

ಮಾತನಾಡುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ
ಕೇಳಿಸಿಕೊಳ್ಳುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ
ಬರೆಯುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ
ಓದುವಾಗ	ಇಲಲವೇ ಇಲಲ	ಸವಲಪ	ಯಂಗಳೂ

೉. ಮನೆಯಲಡಲಿ ಮಗುವಿನ ತಾತ ಮತ್ತು ಅಜರಜಿ ಂಷರ ಮಟರಟಿಗಿ ಕನನಡ
 ಭಾಷೆಯನನು ಕೆಳಕಂಡ ಚಟುವಟಿಕೆಗಳಲಲಿ ಬಳಸುವರು?

ಅನುವಯಿಸುವುದಿಲಲ - ಮಗುವಿನ ಅಜರಜಿ ಮತ್ತು ತಾತ ನಮಮ
 ಜೊತೆಯಲಲಿ ವಾಸಿಸುತ್ತಲಿಲಲ

ಮಾತನಾಡುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ
ಕೇಳಿಸಿಕೊಳ್ಳುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ
ಬರೆಯುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ
ಓದುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ

ನಿಮಿಷ ಮಗು ಯಾವ ಭಾಷೆಗಳನ್ನೂ ಅರ್ಥೈಸಿಕೊಂಡಿದ್ದಾರೋ ಹಾಗೂ ಉಪಯೋಗಿಸುತ್ತಾರೋ ಎಂಬುದನ್ನೂ ತಿಳಿಯಲು ಮುಂದಿನ ಭಾಗ ಉಪಯುಕ್ತವಾಗುತ್ತದೆ.

೫. ಅ. ನಿಮಿಷ ಕುಟುಂಬದವರಲ್ಲಿ ಯಾವ ಭಾಷೆಯನ್ನೂ ಹೆಚ್ಚು ಬಳಸುತ್ತಾರೋ? ಕಾಲಿ ಬೆಟರ್ ಜಾಗವನ್ನು ಭರ್ತಿಯೆ ಮಾಡಿ ಅಥವಾ ಸರಿಯಾದ ಉತ್ತರವನ್ನು ಗುರುತಿಸಿ.

ಆಂಗ್ಲ ಕನ್ನಡ ಇತರ: _____

ಆ. ಮನೆಯಲ್ಲಿ ಎಷ್ಟರ ಮಟ್ಟಿಗೆ ನಿಮಿಷ ಮಗು ಆಂಗ್ಲ ಭಾಷೆಯನ್ನು ಕೇಳಿಕೊಂಡು ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಬಳಸುತ್ತಾರೋ?

ಮಾತನಾಡುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ
ಕೇಳಿಸಿಕೊಳ್ಳುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ
ಬರೆಯುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ
ಓದುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ

ಇ. ಮನೆಯಲ್ಲಿ ಎಷ್ಟರ ಮಟ್ಟಿಗೆ ನಿಮಿಷ ಕನ್ನಡ ಭಾಷೆಯನ್ನೂ ಕೇಳಿಕೊಂಡು ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಬಳಸುತ್ತಾರೋ?

ಮಾತನಾಡುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ
ಕೇಳಿಸಿಕೊಳ್ಳುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ
ಬರೆಯುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ
ಓದುವಾಗ	ಇಲರ್ಲವರೇ ಇಲರ್ಲ	ಸರ್ವಲರ್ಪ	ಯವ್ಷಲೂ

ಉ. ಅ. ಆಂಗ್ಲ ಮಾಧ್ಯಮ ಶಾಲೆಗೆ ಸೇರಿದಾಗ ನಿಮಿಷ ಮಗುವಿನ ವಯಸ್ಸು ಎಷ್ಟು?

ಆ. ಇದರ್ಕರ್ಕೆ ಮುನರ್ನ ನೆಮರ್ಮ ಮಗುಲು ಬೇರೆರೆ ಮೂರ್ಧಯಮದಲರ್ಲೆ ಓದಿದರ್ಡರೆ ಅದು ಯಾವುದೆಂದೆಂದು ಬರೆಯಿರೆರೆ

ಇ. ಶಾಲೆಯಲರ್ಲೆ ಆಂಗ್ಲ ಭಾಷೆಯ ಪರ್ಥಮ ಬಾಷೆ ಆಗಿದರ್ಡರ್ಲೆ, ದ್ವಿತೀಯ ಹಾಗೂ ತೃತೀಯ ಬಾಷೆಗಳೆ ಯಾವೆವು?

ದ್ವಿತೀಯ : ಹಿಂದೆ	ಕರ್ನಾಡ	ತಮಿಳು
ತೆಲಗು	ಇತರ: _____	
ತೃತೀಯ: ಹಿಂದೆ	ಕರ್ನಾಡ	ತಮಿಳು
ತೆಲಗು	ಇತರ: _____	

೭. ಅ. ನೆಮರ್ಮ ಮಗು ಆಂಗ್ಲ ಅಥವಾ ಕರ್ನಾಡ ಭಾಷೆ ಬೆಟರ್ಟು ಬೇರೆರೆ ಯಾವುದಾದರೂ ಭಾಷೆ ಮಾತನಾಡುತ್ತಾರಾ? ಉದಾಹರಣೆ: ಅರ್ಕ ಪರ್ಕದ ಮನೆಯವರ ಜೊತೆ, ಸರ್ನೇಹಿತರ ಜೊತೆ, ಸಂಬಂಧಿಕರ ಜೊತೆ ಇತ್ಯಾದಿ. ಹಾಗಿದರೆ ನೆಮರ್ಮ ಮಗುವಿಗೆ ಅರ್ಥವಾಗುವ ಅಥವಾ ಮಾತನಾಡಲು ಬರುವ ಭಾಷೆಗಳನ್ನೆ ಕೆಳಗೆ ಬರೆಯಿರೆರೆ.

ಆ. ನೆಮರ್ಮ ಮಗು ಮನೆಯಲರ್ಲೆ ಅಥವಾ ಸಮುದಾಯದಲರ್ಲೆ ಯಾರ ಜೊತೆ ಆಂಗ್ಲ ಭಾಷೆ ಉಪಯೋಗಿಸುತ್ತಾರೆ? ಅನ್ವಯವಾಗುವ ಎಲರ್ಲ ಉತ್ತರಗಳನ್ನೆ ಸೂಚಿಸಿ

ತಂದೆ/ ತಾಯಿ ಜೊತೆ	ಸಹೋದರರ ಜೊತೆ	ಸರ್ನೇಹಿತರ
ಜೊತೆ	ಅಜ್ಜಿ ಮತ್ತೆ ತಾತ ಜೊತೆ	ಸಂಬಂಧಿಕರ
ಜೊತೆ		

ಇ. ನೆಮರ್ಮ ಮಗು ಮನೆಯಲರ್ಲೆ ಅಥವಾ ಸಮುದಾಯದಲರ್ಲೆ ಯಾರ ಜೊತೆ ಕರ್ನಾಡ ಭಾಷೆ ಉಪಯೋಗಿಸುತ್ತಾರೆ? ಅನ್ವಯವಾಗುವ ಎಲರ್ಲ ಉತ್ತರಗಳನ್ನೆ ಸೂಚಿಸಿ

ತಂದೆ/ ತಾಯಿ ಜೊತೆ	ಸಹೋದರರ ಜೊತೆ
ಸರ್ನೇಹಿತರ ಜೊತೆ	ಅಜ್ಜಿ ಮತ್ತೆ ತಾತ ಜೊತೆ
ಸಂಬಂಧಿಕರ ಜೊತೆ	

೮. ನೆಮಿಮ್‌ಮ ಮಗುವಿಗೆಗೆ ನೇವು ಅಥವಾ ನೆಮಿಮ್‌ಮ ಮನೆಯ ಸದಸ್ಯರು ಎಷ್‌ಟು ಬಾರಿ ಕಥೆಗಳನ್ನೆಂದು ಒದುತ್ತಾತೀರಾ?

ತೆಂಗಲಾಳಲಿ ಒಂದು ಬಾರಿ	ಎರಡು ವಾರದಲಾಳಲಿ ಒಂದು ಬಾರಿ
ವಾರದಲಾಳಲಿ ಒಂದು ಬಾರಿ	ವಾರದಲಾಳಲಿ ಎರಡರಿಂದ
ನಾಲಾಳಲಿ ಬಾರಿ	ವಾರದಲಾಳಲಿ ನಾಲಾಳಲಿ ಎರಡರಿಂದ ಏಳು ಬಾರಿ

ಪ್ರತಿ ದಿನ

ಮೇಲಿನ ಪದ್ಧತಿಯನ್ನು ಉತ್ತರ 'ಕಥೆಗಳನ್ನೆಂದು ಒದುತ್ತಾತೀವೆ' ಎಂದು ನೇವು ಅಥವಾ ನೆಮಿಮ್‌ಮ ಮಗುವಿಗೆಗೆ ಕಥೆಯನ್ನೆಂದು ಹೇಳುತ್ತಾತೀರಾ?

ಆಂಗ್ಲ ಕನ್ನಡ ಎರಡೂ ಇತರ:

೯. ಅ. ನೆಮಿಮ್‌ಮ ಮಗುವಿಗೆಗೆ ನೇವು ಅಥವಾ ಕುಟುಂಬದ ಸದಸ್ಯರು ಹೇಳುವುದು ಅರಾಧಮಾಡಿಕೊಳ್ಳುವುದು ತೊಂದರೆ ಆಗುತ್ತದೆಯೇ?

ಇಲ್ಲ ಹೌದು

ನೆಮಿಮ್‌ಮ ಉತ್ತರ ಹೌದು ಆಗಿದೆಯಾದರೆ ಯಾವ ಭಾಷೆಗಳನ್ನೆಂದು ಅರಾಧಮಾಡಿಕೊಳ್ಳುವುದು ತೊಂದರೆ ಆಗುತ್ತದೆಯೇ?

ಆಂಗ್ಲ ಕನ್ನಡ ಎರಡೂ ಇತರ:

ಆ. ನೆಮಿಮ್‌ಮ ಮಗುವಿಗೆಗೆ ಸೂಚನೆಗಳನ್ನೆಂದು/ ಆದೇಶಗಳನ್ನೆಂದು ಅನುಸರಿಸಲು ತೊಂದರೆ ಆಗುತ್ತದೆಯೇ?

ಇಲ್ಲ ಹೌದು

ನೆಮಿಮ್‌ಮ ಉತ್ತರ ಹೌದು ಆಗಿದೆಯಾದರೆ ಯಾವ ಭಾಷೆಯಲ್ಲಿ ತೊಂದರೆ ಆಗುತ್ತದೆಯೇ?

ಆಂಗ್ಲ ಕನ್ನಡ ಎರಡೂ ಇತರ:

೧೦. ಅ. ನೆಮಿಮ್‌ಮ ಕುಟುಂಬಲಾಳಲಿ ನೆಮಿಮ್‌ಮ ಮಗುವನ್ನೆಂದು ಬಿಟ್ಟು ಬೇರೆ ಯಾರಿಗೆಂದೂ ಆಂಗ್ಲ ಭಾಷೆ ಮಾತನಾಡಲು ತೊಂದರೆ ಇರುವುದೇ?

ಇಲ್ಲ ಹೌದು

ಆ. ನೆಮಿಮ್‌ಮ ಕುಟುಂಬಲಾಳಲಿ ನೆಮಿಮ್‌ಮ ಮಗುವನ್ನೆಂದು ಬಿಟ್ಟು ಬೇರೆ ಯಾರಿಗೆಂದೂ ಕನ್ನಡ ಭಾಷೆ ಮಾತನಾಡಲು ತೊಂದರೆ ಇರುವುದೇ?

ಇಲಾಲ್

ಹೌದು

೧೧. ಅ. ನೆಮಿಮ ಕುಟುಂಬಲಾಲಿ ನೆಮಿಮ ಮಗುವನನು ಬೆಟೆಟು ಬೇರೆ ಯಾರಿಗಾದರೂ ಆಂಗಲ ಭಾಷೆ ಅರಥಮಾಡಿಕೊಳ್ಳುವುದರಲಾಲಿ ತೊಂದರೆ ಇದೆಯೇ?

ಇಲಾಲ್

ಹೌದು

ಆ. ನೆಮಿಮ ಕುಟುಂಬಲಾಲಿ ನೆಮಿಮ ಮಗುವನನು ಬೆಟೆಟು ಬೇರೆ ಯಾರಿಗಾದರೂ ಕನಡ ಭಾಷೆ ಅರಥಮಾಡಿಕೊಳ್ಳುವುದರಲಾಲಿ ತೊಂದರೆ ಇದೆಯೇ?

ಇಲಾಲ್

ಹೌದು

Appendix F

Teacher Interview

1. Gender: Male Female

2. Age: 1) 20-25 2) 26-30 3) 31-40 4) 41 to 50 5) More than 50

3. Highest Level of Education and Institution from which degree(s) obtained:

- 1) B.A./B.Sc.
- 2) B.Ed.
- 3) M.A./M.Sc.
- 4) M.Ed.
- 5) PhD

4. Number of years teaching:

- 1) 0 to 3 years 2) 4-8 years 3) 9-15 years 4) More than 15 years

5. Number of years teaching at this school:

- 1) 0 to 3 years 2) 4-8 years 3) 9-15 years 4) More than 15 years

6. Which class level do you teach?

- 1) Second standard 2) Third standard 3) Fourth standard 4) Fifth standard

7. Number of years teaching at this class level:

- 1) 0 to 3 years 2) 4-8 years 3) 9-15 years 4) More than 15 years

8. (a) How many students do you have in your class? _____

(b) Apart from you, are there other teachers' assistants who help you? If so, how many people help you with instruction and classroom management? _____

9. What is your native language?

- 1) Kannada 2) Hindi 3) Tamil 4) Malayalam 5) Telugu 6) English

Other (Please specify) _____

10. What is your dominant language in speaking?

- 1) Kannada 2) Hindi 3) Tamil 4) Telugu 5) English

Other (Please specify) _____

11. What is your dominant language in listening comprehension?

- 1) Kannada 2) Hindi 3) Tamil 4) Telugu 5) English

Other (Please specify) _____

12. What is your dominant language in reading?

1) Kannada 2)Hindi 3) Tamil 4) Telugu 5) English

Other (Please specify)_____

13. What is your dominant language in writing?

1) Kannada 2)Hindi 3) Tamil 4) Telugu 5) English

Other (Please specify)_____

14. Do you think some students in your class would benefit from instruction in their native language? If so, how many of them (what percentage)?

15. While you are teaching a concept, and you feel students don't understand what you are saying, do you try to explain it in their native language? If so, what percentage of instruction time is spent in the native language?

16. If students continue to have problems with language that affect their literacy and academic skills, what do you do?

17. What kinds of special education resources do you have at your school? Does your school have a learning lab?

18. If you notice that a child has a learning problem, do you refer them to the learning lab? How many students have you referred?

19. Based on what factors/evidence do you make these referrals?

20. What are the results of those referrals?

21. How much experience do you have with children who have special needs? Please explain:

23. What kinds of special needs students have you worked with in the past?

Learning Disabled

Autistic

Physically Disabled

Behavior Disorder

Speech or Language Impaired

Intellectually Disabled

Hearing Impaired

Visually Impaired

Other (Please explain)

24. What are some accommodations/modifications that you adopt in your classroom to help these students learn the material that is presented? What in your opinion helps them learn better?

Thank you for your time!

Appendix G

Classroom Observation Checklist

A: Overall Classroom Structure

1. How long did you observe the class?
 - 15-20 mins (half class period)
 - 20-40mins (full class period)

2. What was the subject covered in the class?
 - English Language
 - Maths
 - Social Science
 - Science
 - Other language class

3. How many students are in the class?
 - 20-30
 - 30-40
 - 40-50
 - 50-60
 - More than 60

4. Are there any assistant teachers? If so what is the student: teacher ratio?
 - Yes
 - No

Student: Teacher _____

5. On the scale provided, how would you rate the teacher on the following:

(a) Fluency in English:	Fluent	Somewhat Fluent	Not fluent
(b) Fluency in Kannada:	Fluent	Somewhat Fluent	Not fluent
(c) Other native language	Fluent	Somewhat Fluent	Not fluent

6. On the scale provided how would you rate the teacher on the following:

(a) Organized presentation of materials	Yes/No
(b) Clear lesson plan	Yes/No
(c) Uses other instructional methods apart from chalkboard lecture	Yes/No

If yes, what materials were used?

7. a. On the scale provided how would you rate the students' participation in class? (Check all the apply)
 - Passive listeners
 - Less than 10% of the students ask/answer questions
 - 10-30% of students ask/answer questions in class

- 30-50% of students ask/answer questions in class
- 50-70% of the students ask/answer questions
- 70-100% of the students ask/answer questions

b. How engaged are students in the class observed?

- Less than 10% of students seem engaged in the class
- 10-30% of students seem engaged in the class
- 30-50% of students seem engaged in the class
- 50-70% of students seem engaged in the class
- 70-100% of students seem engaged in the class

8. How do the students generally feel about the teacher? (Check all that apply)

- They seem to like him/her
- They seem to have a personal relationship with him/her and share jokes, stories etc.
- They seem to be scared of him/her
- They seem to be reserved around the teacher
- They seem to be open with the teacher

9. If a student does not seem to understand a concept because they are still learning English, what does the teacher do? (Check all that apply)

- Explain the concept in a native language that the child understands
- Use hand gestures or objects from the environment to explain the concept non-verbally
- Refer the child to some other teacher that can help with the language
- Insist on English immersion, without any other alternatives
- Other: please specify:

10. Additional Comments/Notes