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Using The ABLLS with English Language Learners: Implications for Students and Teachers

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Using The ABLLS with English Language Learners:
Implications for Students and Teachers

by

Lorie G. Schultz

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts in Applied Behavior Analysis
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ABSTRACT

English language learners are traditionally behind in academics such as reading, math and science. Hispanics, who make up the vast majority of English language learners, tend to not enroll in pre-school or higher education, have higher dropout rates and as adults earn less than whites. Common instructional strategies used in public schools are not meeting the needs of these students. The field of TESOL (Teachers of English to Speakers of Other Languages) has typically offered a wide variety of poorly defined teaching strategies that are not based on empirical research. Within public schools, assessment tends to serve the purpose of qualifying students for ESOL services rather than being used to guide instruction. The present study examined using the Assessment of Basic Language and Learning Skills (ABLLS) with three English language learners in an elementary public school setting to discern its usefulness for teachers and students. Results showed that the ABLLS could be used for English language learners, and teachers generally liked the assessment information, although the current assessment may be too lengthy and time intensive to be practical for regular education settings. Also, it did not appear that reviewing the ABLLS assessment had much effect on teacher behavior in terms of changes in instructional strategies used for the three students, although teachers did indicate that they would target different skills as

a result of viewing the assessment. Suggestions are made for developing a modified version of the ABLLS for use with English language learners. Possible trends in student data are examined, as well as possible teaching strategies that may be suggested by the ABLLS.

Chapter One

Introduction

It is predicted that by the 2030s, minority language students will comprise 40% of the overall school-age population in the United States (Collier & Thomas, 1999). Unfortunately, long-term studies show that common instructional programs are not meeting the needs of these students (Collier & Thomas, 1999; U.S. Department of Education, 1999). Individuals who formerly were English as a second language learners (ESL) frequently graduate in the 10th percentile of their class or do not graduate at all (Collier & Thomas, 1999; U.S. Department of Education, 1999). For example, Hispanic students, who make up the vast majority of ESL learners, are less likely to attend preschool, have higher dropout rates, are more likely to be behind in reading, mathematics and science, and to not to enroll in higher education. As adults, Hispanics have lower levels of literacy, earn less than whites, and experience higher rates of unemployment (U.S. Department of Education, 1999).

In the United States, the number of Hispanics has grown by over 50% between 1990 and 2000 (Guzman, 2001). The U.S. Census Bureau estimates that 5% of elementary and high school students are foreign born and that 20% of school-age children have one or more foreign-born parents (Jamieson, Curry, & Martinez, 1999). Geographically, the state with the highest number of limited English proficiency (LEP) students is California, where approximately 25% of all students are LEP, followed by

Texas (13%), Florida (10%), and New York (8%) (National Clearinghouse for Bilingual Education survey, 1997-98).

Worldwide, approximately 60% of the population speaks more than one language, and the economic and social welfare of many are dependent upon their ability to use a second language (McLaughlin & Zemblidge, 1991). These statistics point to a continued and growing need to focus on effective assessment and teaching methodologies for learning second languages.

The number and types of instructional methods used in second and foreign language teaching today are extensive (Nunan, 1999; Richards & Rodgers, 1986). Not only do the methods and approaches vary widely, they are often based on very different views of what language is and how it is learned (Nunan, 1999; Richards & Rodgers, 1986). According to Richards and Rodgers, the main goal of language instruction prior to World War II was to teach the skill of reading. However, most current methods place an initial focus on the spoken language. Ten different methods/approaches to language instruction are described by Richards and Rodgers. Some provide very specific instructional guidance for use in the classroom, whereas others provide very little. The communicative approach appears to be one of the most widely accepted teaching approaches, although the term is so comprehensive and its meaning so varied that it is also more ambiguous than any other method or approach. There is no single model or text that is accepted as the standard for this method (Grabe & Kaplan, 1991; Richards & Rodgers, 1986). It is generally defined as an approach that seeks to develop competence in communication as well as teaching procedures that link language and communication. The wide acceptance of this “learning by doing” approach is likely because most

educators can identify with it, interpret it, and use it in different ways (Richards & Rodgers, 1986). The communicative approach, along with most language teaching methods, does not provide the specific learning objectives that are to be met, and provides little to no empirical research on its effectiveness (Collier & Thomas, 1999; Richards & Rodgers, 1986).

This lack of theoretical and empirical bases within the field of second language teaching has been acknowledged in the literature. Nunan (1999) commented on the lack of a disciplinary base:

A challenge for education in general, and TESOL (Teachers of English to Speakers of Other Languages) in particular, is to define, refine and articulate its disciplinary basis. Education is a hybrid, drawing on a range of disciplines such as psychology and sociology. In addition to these, TESOL is influenced by linguistics (both theoretical and applied), psycholinguistics, sociolinguistics, cognitive science, and numerous other disciplines. Partly because of this, we don't have a shared set of rules of the game. In fact, we don't even come close. (p. 3)

Nunan's comments illustrate that data on the effectiveness of the various second language teaching methods are for the most part, non-existent in the literature.

Others in the field of linguistics have focused their criticisms on the methods used to train teachers in second language learning, and have characterized this training as "haphazard and incomplete" (Bialystok & Hakuta, 1994). Interestingly, these same authors argue that there is no single most effective method for teaching or learning a second language and that the quest for one may not be prudent. This conclusion is based on the authors' agreement with Noam Chomsky's (1957) cognitive view of language,

which proposes that the basics of language are universal and therefore not greatly affected by instructional variables. They also propose that a variety of methods may be necessary to prepare learners for the many different language situations they will encounter or in which they wish to be proficient.

Despite such claims, Gersten, Baker and Unok-Marks (1998) recently compiled research-based practices for teaching second language learners who have learning difficulties and recommended the following key instructional principles: 1) the inclusion of vocabulary instruction, 2) the use of clear, consistent language when introducing new concepts, 3) the provision of many opportunities for the student to speak and use English in academic and social settings with teachers and peers, 4) the use of visual aids and graphic organizers during instruction, 5) the tailoring of feedback to correspond with the student's response and/or errors, 6) the systematic development of background knowledge starting with the student's existing repertoire, 7) the recognition of the difference between language development in conversational language and complex academic language and the inclusion of both types of learning activities, and 8) the provision of a balanced approach to language development that includes an emphasis on all three traditional approaches: grammar and syntax, conversation, and academic (or out of context) language.

The basis for much contemporary language teaching comes primarily from three theories of language. These are the structural view, the functional view, and the interactional view (Richards & Rodgers, 1986). The structural view, which still provides the basis for much of the field of linguistics, proposes that language is a system whereby words get their meanings because of their relation to other words. Grammar and the way

that words form sentences are the basic patterns that the learner practices through intensive oral drilling. The second prominent language theory, the functional view, proposes that language is a way to communicate meaning. Its proponents emphasize meaning and function rather than structure and grammar. The third theory, known as the interactional view, proposes that language serves the purpose of allowing individuals to interact socially; therefore, it focuses on conversational exchanges.

In 1957, Skinner offered his theory of language in the book *Verbal Behavior*. In developing this theory, he took the concepts and principles empirically verified in the laboratory and applied them to language. His analysis of language contends that it is learned in the same way that all other behavior is learned, which is through operant conditioning. What is unique, however, is how the reinforcement is achieved. In contrast to most other operant behaviors, which are directly reinforced through mechanical action with the environment, verbal behavior is reinforced indirectly and only through someone else's behavior (Michael, 2001; Skinner, 1957).

In functionally analyzing language, Skinner named elementary verbal operants or relations. These include *echoics*, which are words said under the conditions of hearing someone else say them first; *mands*, which are requests; *tacts*, which are labels or names of objects, properties, or actions in the environment; *intraverbals*, which are words that are said under the conditions of hearing other unrelated words, e.g., as in a conversation or "filling in the blank", and *textual*, which are verbal behaviors that have point-to-point correspondence but no formal similarity, such as when someone reads aloud from a book. The mand is the only verbal relation for which reinforcement is specific to what is being requested. All the other relations receive generalized reinforcement through the verbal

community that is not specific to the particular tact or intraverbal response (Michael, 2001). An example of generalized reinforcement would be verbal praise for correctly identifying an item.

In Skinner's behavioral analysis of language, he described meaning as being in the speaker's personal history and present environment as opposed to being present in what the speaker says. He described rules of grammar as the contingencies maintained by verbal communities. As for the generation of sentences, he stated that they are a result of contingencies of reinforcement and rarely generated through the use of rules (Skinner, 1987).

Initially, Skinner's analysis was criticized both outside and inside the field of behavior analysis. The criticism within the field of behavior analysis appeared to center on the lack of empirical data to support the analysis (Michael, 1984 in Sundberg, 1998). Critics outside the field, however, claimed that the theory was inherently flawed. The most prominent of these critics was Noam Chomsky, whose negative review is cited once for every two times Skinner's book, *Verbal Behavior* was cited during the years 1972-1990 (Knapp, 1992). Chomsky's (1957) view of language hypothesized that the speaker has an innate knowledge of syntax and that this knowledge could not have been learned. To support this view, Chomsky cited examples of sentences that people can discern as grammatically correct or incorrect even when the person has no prior experience with the content of the sentences, and also gave examples of sentences that have two meanings, but look the same on the surface (Bialystok & Hakuta, 1994; Chomsky, 1957). Because examples such as those above are not directly taught to the speaker by the verbal community, he argued that this knowledge must be innate (Palmer, 2000).

Although there were more than a dozen other reviews of Skinner's book that were mostly positive, Chomsky's review has remained the most prominent (Knapp, 1992). Despite the criticism, however, there has been some recent acknowledgment from outside the field of behavior analysis that Skinner's work is valuable for the field of linguistics (Sundberg, 1998). J.T. Andresen (1990), a linguistics historian, criticized Chomsky's review on the basis of its repeated references to rats and lever pressing, despite Skinner's focus on the analysis of human language. She positively reviewed Skinner's book not only for its broad conception of how language is learned, but for its detailed analysis and focus on the functions of language.

Skinner's theory has also gained greater acceptance within the field of behavior analysis. This is largely due to the amount of empirical research conducted in the last 15 to 20 years. Forty-six articles (out of 126 total papers) published in the journal *The Analysis of Verbal Behavior* are empirical, as well as a number of other articles published in *The Journal of the Experimental Analysis of Behavior* and the *Journal of Applied Behavior Analysis* (Sundberg, 1998). Much of the research to date has focused on the development of teaching programs for individuals who lack language skills, such as children with autism (Sundberg, 1998). However, there is very little use of Skinner's analysis in applied behavioral research on language development in non-developmentally disabled populations (Knapp, 1980 in Sundberg, 1998), including the acquisition of second languages (Sundberg, 1991, 1998). There are, however, a few notable exceptions in which researchers have sought to use operant methods to teach language to non-English speakers.

Davis and O'Neill (2001) evaluated the use of response cards on the behaviors of four middle school students who were English language learners. Response cards are small chalkboards, erasable white boards, or other hand held materials with which students display answers to a teacher's questions during group instruction. Using a reversal design, the researchers alternated between hand raising (baseline) and response cards (treatment) conditions. The dependent variables included: (1) the percentage of trials/questions to which students made a written or verbal response during hand-raising and response card conditions; (2) the percentage of correct written or verbal responses; (3) the percentage of trials/questions to which students responded by raising their hands during hand raising conditions; and (4) the percentage of trials/questions to which students did not respond and were engaging in other disruptive behavior. The study also included tracking the percentage of correct responses to weekly quizzes. Results indicated that the use of response cards increased active student responding, decreased off-task behaviors, and increased scores on student quizzes.

Peer tutoring has also been shown to be an effective strategy in teaching adolescent ESOL students (as well as below average readers) to read. Houghton and Bain (1993) taught eight below average readers (age fourteen) a procedure called "Pause, Prompt and Praise" (developed by Glynn, McNaughton, Robinson and Quinn, 1979) for tutoring the ESOL students. This procedure involved pausing following errors, prompting the correct responses, and praising correct responses. Data were collected to measure the degree to which peer tutors accurately implemented the "Pause, Prompt and Praise" procedure. The researchers also measured the mean rate of correct words read per minute as well as the mean rate of errors made per minute for the students being tutored. In

addition, the study measured gains in reading achievement for both groups of students by conducting a standardized reading test to measure reading accuracy and comprehension. Both groups made significant gains in both reading accuracy and comprehension. One possible limitation of this study is that it was conducted for a period of eight weeks and did not measure the long-term effects of the intervention.

Direct Instruction is another method that has been shown to be effective in teaching mathematics and reading to elementary grade English language learners (Gersten, 1981a, 1981b; Gersten, Carnine, & Williams, 1982 in Gersten, Brockway, & Henares, 1983). Direct Instruction is a research-based teaching methodology that provides the teacher with a precisely scripted lesson, which allows him or her to present material using “faultless communication” through the use of specific antecedent and consequence stimuli. There are typically many student/teacher interactions in the lesson, and students are placed in small groups according to ability rather than grade. Assessment is conducted throughout the teaching, which focuses on teaching skills to mastery.

In Gersten, Brockway, and Henares (1983), the direct instruction methods known as SRA’s *Corrective Reading*, as well as direct instruction in mathematics, produced significant reading and mathematics gains in students with limited English proficiency. The *Corrective Reading* and direct instruction mathematics group was compared to a group who received that district’s standard bilingual education. Data showed that 75 percent and 96 percent were above grade level in reading and math, respectively, compared to 19 percent for reading and 62 percent for mathematics in the standard

bilingual education group. Students continued to perform above the national average one and two years after leaving the program.

While some behavioral researchers have sought to examine methods for improving learning outcomes for English language learners, others have attempted to more closely examine the ecological variables that are likely to affect these students. Arreaga-Mayer, Carta and Tapia (1994) conducted a study with 36 elementary students in four different schools. The children were identified as limited English proficient (LEP) and were receiving special education services or were at risk for developmental disabilities. Two of the schools were categorized as English immersion models, meaning that all instruction was in English with no structured ESOL instruction or support in the native language. However, these schools had pull-out services (meaning students are removed from the regular classroom for specialized instruction) for ESL services, bilingual special education, and special education. One school was a math, science and language magnet school with pull-out services to instructional labs, special education, bilingual special education, and ESOL programs. The fourth school was a Spanish-language magnet school that provided full bilingual instruction (such as Spanish and English) as well as pull-out services for ESOL, language labs, bilingual special education, and special education.

The authors developed a computerized data collection system called ESCRIBE (The Ecobehavioral System for the Contextual Recording of Interactional Bilingual Environments) in which they examined four categories of variables. These included stationary variables (e.g., settings, number of adults, number of children), instructional variables (e.g., student activities, materials, language of materials, instructional

grouping), teacher variables (e.g., specific teacher, what students the teacher is focusing on, language used, type of correction or affirmation used by the teacher), and student variables (e.g., language initiating or responding behaviors, oral responses, language of the student, activity related responses). The data produced quantitative descriptions of important programmatic and linguistic factors present in the children's classrooms, as well as their subsequent effects on behavior. Data showed that the students spent 92% of their day neither responding to nor initiating language of a verbal or written nature and that only 44% of their day was spent actively engaged in academic activities. Data also revealed that small-group instruction produced more active responding than whole-group instruction in the area of academics and language use, yet students spent 67% of their day engaged in whole-group instructional formats. Additionally, results showed that the English Immersion School produced the highest rates of academic responding across all three types of classrooms (regular education, special education, and ESOL).

It is interesting to note that in the behavioral research reviewed, there is a paucity of data reporting pre-assessment of language skills separate from academic skills such as reading and mathematics. This finding is interesting due to the fact that assessment prior to intervention is one of the foundational principles of behavior analysis. The role of pre-intervention assessment is primarily to select and define target behaviors that need to change for the particular person being assessed (Cooper, Heron & Heward, 1987). Although studies on direct instruction report pre-assessment data, the assessments focus more on proficiency in a particular academic skill rather than the student's competency in English language use (Gersten, 1981a, 1981b; Gersten, Carnine, & Williams, 1982 in Gersten, Brockway, & Henares, 1983).

A general type of pre-assessment of English language skills occurs for the purposes of qualifying students for ESOL services in public schools. The particular assessment used appears to vary across school districts. One common assessment tool is called the IDEA Oral Language Proficiency Test (IPT) (St. Lucie County School Board, 2002). This particular test is normed for students pre-kindergarten through high school, and is used to determine eligibility for ESOL programs/services. It is typically given to an individual student by a school staff member such as the guidance counselor, and consists of various directions and questions, as well as questions that are asked as the examiner refers to a picture book. Based on test results, the student is designated as non-English speaking; limited English speaking; and fluent English speaking. The results of this assessment are placed in the student's cumulative folder, but they are not necessarily shared with the classroom teacher. Additionally, this assessment is not used to suggest teaching strategies or pinpoint areas of weakness. It is used again, however, as a tool to determine continued eligibility for ESOL services after a student has been in the program for three years (St. Lucie County School Board, 2002).

Another common initial assessment test is called the Language Assessment Scales, Oral (LAS-O) (M.Ware, personal communication, March 12, 2003; Hargett, 1998). Also individually administered, it includes a variety of oral responses, such as naming pictures, answering comprehension questions, and commenting on pictures. This test classifies a student into one of five proficiency levels within the broad categories of non-English speaking, limited English speaking, and fluent English speaking. This test not only determines eligibility, but can also be used to determine instructional grouping, and to track annual progress with oral English proficiency. It can also be used to help

determine whether a student is proficient with English and ready to exit the program. Because the type of assessment that is used varies across school districts and states, it is difficult to determine to what extent these particular assessments are used. Of three additional Florida school districts that were randomly surveyed by the principal investigator, one used the IDEA assessment and two used the LAS assessment.

In unstructured interviews with three regular education elementary teachers (selected by convenience and willingness to be interviewed) within the school district of St. Lucie County, Florida (D. Scellato, personal communication, March 8, 2003; J. Summerall, personal communication, April 22, 2003; I. Williams, personal communication, May 21, 2003), teachers commented on the lack of information regarding specific language skills for ESOL students. They were in agreement that information on present levels of various language skills, including requesting, labeling, receptive and imitative skills, as well as specific levels in the areas of mathematics and reading, is not provided. When asked, the three teachers all stated that this information would be helpful in guiding instruction and in helping them to interact with the students when they first come to the classroom.

One language assessment tool that might prove helpful to teachers of English language learners is the Assessment of Basic Language and Learning Skills or ABLLS (Partington & Sundberg, 1998). The ABLLS is an assessment, curriculum guide, and skills tracking system for children with language delays. This assessment is used most frequently with children with autism or other developmental disabilities. It is unique in that it is based on B.F. Skinner's behavioral analysis of language outlined in his book *Verbal Behavior* (1957).

The ABLLS focuses not only on the verbal operants outlined by B.F. Skinner (1957), but includes these in with what are termed “Basic Learner Skills”. These skills have been identified because they appear to be crucial in order for students to learn from their everyday interactions (Partington & Sundberg, 1998). These skills include cooperation and reinforcer effectiveness, imitation, social interaction, appropriate play, participation in group instruction, following classroom routines and generalization of acquired skills. These skills were identified through observation of typically-developing, kindergarten students (Partington & Sundberg, 1998). The ABLLS also includes four areas that assess specific academic skills: reading, math, writing, and spelling. Also included are sections on self-help skills, such as dressing and grooming, as well as sections on gross and fine motor skills.

After the ABLLS has been completed, it is intended to guide instructional objectives by providing very specific information on skills that the student has and does not have. This allows the teacher to choose specific skill deficits and teach those objectives.

The goals of the present study were to complete the ABLLS assessment with three Limited English Speaking (LES) or Non-English Speaking (NES) public elementary school students in three different classrooms and to assess the usefulness of the assessment information to the children’s teachers. The study attempts to draw possible conclusions about how the ABLLS assessment may impact instructional goals and teaching methods used for the three students. In addition, the individual ABLLS data for each student were analyzed to see if any particular trends appear to exist in terms of

skills and/or skill deficits across the three ESOL students. Such trends may suggest particular teaching methods or strategies.

Chapter Two

Method

Participants and Setting

The student participants were one male Limited English Speaking (LES) and two male Non-English Speaking (NES) public elementary school students in three different classrooms in St. Lucie County, Florida. The first student, Nathan, was labeled Non-English Speaking (NES) after being tested by a St. Lucie County Guidance Counselor at the beginning of the school year. He was in the fourth grade and was ten years, zero months old at the time of the ABLLS assessment. He was born in Columbia and entered school in the United States in at the beginning of the school year (August, 2003). His native language was Spanish. The second student, James, was labeled Non-English Speaking (NES) after being tested at the end of the previous school year. He was in the second grade and was seven years, seven months old at the time of the ABLLS assessment. He was born in the Dominican Republic and entered school in the United States in August, 2002. His native language was Spanish. The third student, Charles, was labeled Limited English Speaking (LES) after being tested in September of the present school year. He was in the fifth grade and ten years old, four months at the time of the ABLLS assessment. He was born in Columbia and entered school in the United States in February, 2003. His native language was also Spanish. The rationale for

choosing the age range of second through fifth grades was based in part upon anecdotal data gathered through personal communications with a guidance counselor and with a district ESOL coordinator from St. Lucie County, FL (L. Ambrose, personal communication, October 15, 2002; M. Ware, personal communication, March 12, 2003), who indicated that children who are non-English speaking when they begin kindergarten or first grade generally appear to progress well compared to children who enter at later grades. It was therefore hypothesized that if the ABLLS assessment has value in terms of its potential impact on instruction, it may be more beneficial to children in higher grades, such as two through five. As for choosing elementary age children as opposed to middle or high school students, it was speculated that it may be more feasible for elementary teachers, who are the primary teachers for the students, to complete the assessment and implement more consistent instructional strategies than would be feasible at the middle or high school levels.

A list of potential participants was generated from the school data base by the guidance counselor, who performed the screenings for ESOL eligibility and oversaw the ESL program for the school. This list identified the children by grade and by their classification (NES or LES). From the list of the five potential participants who met all the grade-level and language background (Spanish speaking as opposed to Creole or French, for example) criteria, three students were randomly selected by the principal investigator. The principal investigator had no previous knowledge of the children, but had met one of the teachers approximately two years prior to the study being conducted. However, the principal investigator did not have ongoing contact with that teacher since that time. Informed written consent (translated into Spanish for the parents of the

students) was obtained for all three student participants and their parents, as well as the three teachers, the ESOL specialist, and the Guidance Counselor, following the Institutional Review Board guidelines. The students were all enrolled in regular education classes and were not receiving or appear to be qualified for any additional services (such as any of those offered through special education or a 504 plan). The services provided as a result of their ESOL eligibility were delivered by the regular education teacher. These strategies are listed in the Pre-ABLIS Assessment teacher survey answers grid (Table 1). Instruction for the three students did not involve any pullout services or any other special services offered by other school personnel. Initially, each teacher participating in the study was to be certified through the state of Florida in ESOL teaching strategies. However, upon interviewing the teachers to ensure this certification, it was learned that four of the five teachers of the potential student participants did not yet have this certification, although most had some type of ESOL training (such as a workshop or some classes). Based on this development, a decision was made to document during the interview process the specific type of formal training each teacher had completed. There were no other criteria (such as level of experience) used to select teachers. Nathan's teacher was Ms. Harrington, who had been a fourth grade teacher for three years. She stated that she had taught three ESOL students (including the student in this study) during that time. She was not certified in ESOL, but had completed one formal college course that focused on ESOL teaching strategies. James' teacher was Ms. Stewart, a second grade teacher with three years experience (one year as a first grade teacher and two years as a second grade teacher). She reported that she taught four ESOL students during that time. She was certified in ESOL through

university coursework. Charles' teacher was Ms. Ramsey, who was not certified in ESOL, but had completed sixty hours of related coursework while in college. She had three years experience as a fifth grade teacher, and reported that she had taught "several" ESOL students during that time.

The guidance counselor was Ms. Walker, who had been an elementary guidance counselor for sixteen years and had overseen the ESOL program at the elementary level for twelve years. The district ESOL specialist was Ms. Anderson, who had been working in the ESOL field for eighteen years (six years as a classroom teacher) and had been the district ESOL specialist for thirteen years.

Data collection occurred either in the classroom (for assessment items as well as pre and post questionnaire items answered by the teacher) or in one of two classrooms that were not being used for items that were presented to the student individually. Within the two settings that were used to assess students, both the principal investigator and the student were seated at a table.

Student Assessment Procedure

All children were individually assessed by the researcher for the following areas of the ABLLS: cooperation and reinforcer effectiveness, receptive language, vocal imitation, labeling, intraverbals, reading, math, writing, and spelling. Items presented to the teachers were for the following areas of the ABLLS: requests, spontaneous vocalizations, syntax and grammar, play and leisure, social interaction, group instruction, and classroom routines. However, within many of these areas, some items were presented to the teacher or the student. The exact items, as they were presented, are listed in Appendix B.

The ABLLS includes both an assessment tool to record scores and track progress for each child (ABLLS Protocol) and a guide book. The ABLLS Protocol provides an initial assessment of a variety of language skills as well as a means to review and update progress. It includes a set of grids (see Appendix A) that allow the person(s) administering it to track the skills that have been acquired and to document the progress with skills over time. Rather than grouping skills together as expressive or receptive, the assessment targets individual skills such as the mand (referred to as requests), the tact (referred to as labeling), the intraverbal, and the echoic, among others.

The materials used in the assessment procedures included hundreds of pictures and common items as well as academic materials compiled by the researcher based on the tasks in those sections of the assessment. A brief initial reinforcer assessment was conducted with each child. The following items were presented all at the same time: pretzels, two kinds of Goldfish crackers, Oreo cookies, chocolate chip cookies, Skittles, M&Ms, and small toys, including a car and a ball. The student was encouraged to select whatever items they liked, and these were available throughout the assessment in small quantities (4 or 5 of each particular food item). The investigator also used praise and other gestures such as a “thumbs up”, “high five” or a pat on the shoulder at various times during the assessment. Throughout the assessment, if a student indicated an interest in some other activity in the classroom, such as building blocks, books, or the computer, these items were also offered for 10-15 minutes following the completion of parts of the assessment. Access to items or activities was not contingent upon correct responding. Students were given breaks during the assessment as deemed necessary by the principal investigator. One of the students, James, occasionally made comments such as “This too

hard”, or showed other signs that he needed a break, such as looking away, or fidgeting with materials. This occurred infrequently and only with this student. Under these circumstances, the investigator would allow a brief break (approximately 10 minutes) contingent upon 3-5 additional responses. During this time, the student could engage in a preferred activity.

Each student had his own ABLLS protocol. As each task was presented, the score was recorded in the protocol. Each task or skill assessed on the ABLLS has a row of columns that include the task number, range of scores, task name, task objective, questions to ask about the child’s skill, examples of responses (that may be required to clarify the response), scoring criteria, and a section for notes. The scoring column has four rows for each skill or task assessed. The score column corresponds to the criteria column (for example, a score of 1, 2, 3, or 4). A score of zero means that the student does not meet the lowest criterion for that item as described in the criteria column. Depending on the particular skill, the scoring column may consist of only a 0 and a 1 or may have 0, 1, 2, 3, and 4. When the skill is assessed for the first time, the top row is completed. The other three rows are to be used and completed in different color ink when the ABLLS is updated. For the purposes of this study, which was to examine the potential usefulness of The ABLLS as an assessment tool (as opposed to measuring progress with skills over time) for English language learners, the investigator completed only the initial assessment.

The ABLLS is divided into four main areas: basic learner skills, academic skills, self-help skills, and motor skills. The 13 areas described below were all included in the basic learner skills section and were included in this study. The first area on the

assessment is cooperation and reinforcer effectiveness. This section assessed not only what items or activities may serve as reinforcers for a student, but also identified if the student could work to receive intermittent social praise and/or for task completion alone. To assess this skill, the researcher presented directly to the student each task listed in that section beginning with task A1 (Take reinforcer when offered) through task A11 (Waits appropriately if reinforcer delivery is delayed). Two exceptions for this section of the assessment were tasks A6 (Variation in reinforcement (non-edible) and A9 (Seeks approval for task completion). These two tasks were asked as questions to the teacher, because this information appeared more appropriately gathered from the teacher, based on their knowledge of the student. If the teacher was unclear as to whether the student had the particular skill to complete any of the tasks, the researcher then presented the task directly to the student, as feasible. A detailed notation was made next to the particular task in the ABLLS protocol if the latter situation occurred. The note included a question mark as well as a notation that the principal investigator needed to test, and then a notation regarding the outcome of that assessment. This procedure was used throughout the assessment process for any tasks that the teachers were unsure of, or if they had not observed the behavior.

The receptive language section assessed the student's ability to respond to the language of others, including responding to their own name, following both simple and more complex directions, selecting pictures, items, body parts, or people from simple to more complex arrays as well as according to by feature, function, or class. To assess these skills, the researcher presented directly to the student the tasks in that section, beginning with task C1 (responds to own name) through task C52 (selects pictures [of]

social interactions). Exceptions that were asked of the teacher rather than presented directly to the student were: tasks C2 (follow instructions to do an enjoyable action in context), C7 (follow instructions to do an enjoyable action out of context), C8 (follow instructions in routine situations).

The vocal imitation section assessed a student's ability to imitate from simple sounds to complex phrases with varying intonation as well as spontaneous imitation of words and phrases. To assess these skills, the researcher presented directly to the student each task in that section, beginning with E1 (imitates sounds on request) through E9 (spontaneous imitation of phrases). Exceptions were tasks E8 (spontaneous imitation of words), and E9 (spontaneous imitation of phrases). Student competency in these tasks was assessed by presenting the tasks to the teacher.

The requests section assessed a student's ability to request wanted items or activities. Many of the tasks listed in this section needed to be observed in the natural environment. Therefore, the researcher first asked the teacher about each task in that section beginning with F1 (requests by indicating) through F27 (spontaneous requests).

The labeling section assessed the student's ability to vocally label reinforcers, objects, pictures, actions, body parts, by feature, function, or class, by indicating yes/no, and labeling missing or incorrect items. To assess these skills, the researcher presented directly to the student each task in that section, beginning with G1 (labels reinforcers) through G42 (spontaneous labeling). Exceptions were G7 (acquires novel labels without intensive training), G8 (labels items using a carrier phrase) G24 (labels two component with carrier phrase), G29 (uses carrier phrase when labeling nouns with verbs or adjectives), G31 (uses carrier phrases when using prepositions), G33 (uses carrier phrases

when using pronouns) G35 (labels three component + with carrier phrase), G40 (internal events and emotions), G41 (labels social interaction behavior), and G42 (spontaneous labeling). Student competency in these tasks was assessed by presenting the tasks to the teacher.

The intraverbal section assessed simple fill in the blank conversation skills up through complex skills such as answering novel questions, telling stories and engaging in spontaneous conversation. To assess these skills, the researcher presented directly to the student each task in that section, beginning with H1 (fill in words from songs) through H42 (tell stories). Exceptions were H1 (fill in words from songs) H39 (maintains a conversation with an adult or peer), H40 (answers novel questions), H41 (spontaneous conversation), and H42 (tell stories). Because these tasks primarily involve language skills used in the classroom or school environment, student competency in these tasks was assessed by presenting the task to the teacher. Item H3 (sign English words) was not applicable and was not presented.

The spontaneous vocalizations section assessed the range of the student's ability to spontaneously make simple speech sounds up through being able to spontaneously request, label and converse with others. The tasks listed in this section needed to be observed in the natural environment; therefore, the researcher first asked the teacher about each task in that section beginning with I1 (vocalize identifiable speech sounds) through I9 (spontaneous conversation).

The syntax and grammar section assessed a student's ability to use phrases and sentences according to correct syntax and grammar rules. Many of the tasks listed in this section needed to be observed in the natural environment; therefore, the researcher first

asked the teacher about each task in that section beginning with J1 (mean length of response) through J20 (label emotional state associated with a verbal response).

The section entitled “play/leisure skills” assessed the student’s ability to appropriately and independently play with toys or other leisure items as well as with peers. Many of the tasks listed in this section needed to be observed in the natural environment; therefore, the researcher first asked the teacher about each task in that section beginning with K1 (explores toys in the environment) through K10 (outdoor games and activities).

The section entitled “social interaction skills” assessed the student’s ability and tendency to interact with others, both physically and verbally. Many of the tasks listed in this section needed to be observed in the natural environment; therefore, the researcher first asked the teacher about each task in that section beginning with L1 (looks at others to start a social interaction) through L22 (maintains attention of others).

The section entitled “group instruction” included many tasks that needed to be observed in the natural environment; therefore, the researcher first asked the teacher each task in that section beginning with M1 (sit appropriately in small group) through M12 (learns new skills in group teaching format).

The classroom routines section contained many tasks that needed to be observed in the natural environment; therefore, the researcher first asked the teacher about each task in that section beginning with N1 (line up on request) through N10 (follows daily routines).

The academic portion of the ABLLS included sections on reading, math, writing, and spelling. To assess the reading skills, the researcher presented each item directly to

the student beginning with Q1 (receptive letters) through Q15 (read passages and answer comprehension questions). To assess the math skills, the researcher presented each item directly to the student beginning with R1 (rote counts with prompts) through R42 (labels zero/none). To assess the writing skills, the researcher presented each item directly to the student beginning with S1 (mark on paper) through S9 (print numbers). To assess the spelling skills, the researcher presented each item directly to the student beginning with T1 (match individual letters to letters on word card) through T6 (spell words in a written form). As with the other portions of this assessment, the researcher used the same assessment materials across all three participants. Materials were gathered at the discretion of the investigator from a variety of sources, including student workbooks, passages from children's books, and manipulatives commonly used in classrooms.

Nine sections of the ABLLS were not included in this study. The omitted sections were: visual performance, imitation, generalized responding, the self-help sections that include dressing, eating, grooming and toileting, and the fine and gross motor sections. These skill areas appear to be more relevant for children with autism or other developmental delays, so they were not included in the present study. It was assumed that typical second language learners do not need assessment or intervention in these areas.

Procedural Integrity

The assessment materials used for each student were consistent across all three participants, with the exception of the specific edible or tangible items that students chose for participating in the assessment. The order of the tasks presented was similar, but not exactly the same for each student, due to the availability of the second observer. The

second observer schedule was spread across all areas of the assessment, so that the second observer was observing for many different task areas of the assessment. For example, with student number 1, the second observer was scheduled to observe the labeling and intraverbal sections. With student number 2, the second observer was scheduled to observe the receptive and the reading sections. With student number 3, the second observer was scheduled to observe the math, writing, and reading sections. The principal investigator began each student assessment with the cooperation and reinforcer effectiveness section and then progressed forward through the other sections in the order that they are listed in the ABLLS. However, it was deemed impractical to not proceed with other areas of the assessment because the second observer was not available to observe the receptive section, for example. Under these circumstances, the investigator completed the other areas of the assessment and then went back to the area(s) that were not yet completed when the second observer was available. It was presumed by the principal investigator that the order of the tasks presented would not affect the outcome of the assessment. To ensure that all children were given all tasks within the assessment, specific tasks provided to both students and the teachers were guided by a task list that was checked off as each section of the ABLLS was completed (see Appendix B).

Some tasks in the ABLLS assessment were straightforward and had only one way to assess the skill, such as task C1 (responds to own name) where the question to be asked is “Will the student look at or come to a person when called by his name?” For other tasks, all the questions, words, objects or pictures that need to be asked or used are not defined, such as in task H27 (states item when told its functions, features, or class), where the criteria range up to 20 or more questions answered. For tasks such as these,

the researcher created a set list of questions, words or phrases, or in other tasks, objects to be used so that the procedures were the same across all three participants. These items (available from the researcher upon request) included a twenty-five page document used for recording lengthy responses and a large three-ring binder with pictures on pages, a bag of over 100 common items, and bags of pictures and/or other items as required to assess various skills.

Inter-rater Reliability

A second observer trained in scoring the ABLLS also completed items on the ABLLS simultaneously but independent of the researcher. Training for the second observer included attending a general training session offered by the author of the ABLLS, as well as some specific scoring practice with a seven year old regular education student. The second observer was present during the actual assessment sessions, but did not confer with the primary observer about data scoring. This occurred for at least 30% of the sessions with each student and at least 30% of the assessment items presented to each teacher. In the case of a student response, both observers recorded the response that reflected the student's level of skill as demonstrated by the student. In the case of a teacher response, the researcher presented the question followed by the choices of criteria and then recorded, along with the observer, the number that the teacher chose as the response. For example, the investigator read the question and then gave an example of the skill if necessary, followed by the choices of criteria along with the number that corresponds with that level of skill. The scores were then compared for reliability. Agreement was defined as both scorers having the exact same score level on the ABLLS (e.g., both observers must have recorded the same score of 0, 1, 2, 3, or 4 in order for an

agreement to be scored). Agreement was computed by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100. The second observer was present for 30% of the sessions. The range of agreement per session ranged from 87% to 100%, and the overall rate of agreement was 97%. It should be noted that agreement for teacher items was 100% for each session, likely because the numerical score was determined with the teacher prior to it being recorded.

Teacher Measures

A questionnaire was administered to teachers at the beginning of the study to gather specific information about the student, as well as teaching strategies or methods that were used for the particular student (see Appendix C). Once the ABLLS Protocol was completed and the data transferred to the grids, the results were shared orally with the teacher and a second copy of the ABLLS was scored and then given to the teacher to keep. A post-ABLLS questionnaire was then administered to gather data regarding the usefulness of the information gained from the ABLLS assessment, as well as to identify any reported changes in teaching strategies or methods as a result of viewing the assessment (see Appendix D).

A meeting was held with the parents of the three students and an interpreter, as needed, to explain the results of the assessment and answer any questions regarding the study.

ESOL Specialist and Guidance Counselor Measures

A questionnaire was administered to the district ESOL specialist and the guidance counselor after the completion of the assessments. The results of the assessments were reviewed by the researcher with the ESOL specialist and guidance counselor prior to the

questions being answered. The purpose of the questions (see Appendix E) was to assess the specialist's and the guidance counselor's opinions of the usefulness of the assessment information, possible teaching strategies that may be used as a result of the assessment, as well as to get their opinions on how the ABLLS assessment compared to other assessments typically used for English language learners.

Chapter Three

Results

Pre-ABLLS Assessment Teacher Surveys:

Table 1 shows the results of the pre-ABLLS teacher surveys. Two of the students had been in the classroom since the beginning of the school year, and one student (Charles) arrived six weeks after school began. The particular strategies ESL strategies reported varied: two teachers reported using peer tutoring (defined as having the student sit next to a peer for academic assistance as opposed to a formal peer tutoring program), two reported that they modified the curriculum (for example, fewer spelling words and books at lower reading levels), two reported the use of visual aides or strategies (for example, the use of items, demonstrations and examples during teaching). Other reported strategies included the use of labeling cards on items in the environment (putting the word “door” on the door, for example), the use of picture/word cards as flash cards, the use of books that are in both Spanish and English with audio tapes, the use of manipulatives for mathematics, extra time on the computer to use a program called “Earobics” (“Earobics” is a program intended to develop phonological awareness through the presentation of phonics activities), and the use of Language Master cards (Language Master is a program in which the student sees the written letter or word and also hears it to review letters, letter sounds and/or words).

The information about specific language skills that was provided to the teacher upon the student entering the class was similar for all three students. No formal

Table 1
Pre-ABLIS Assessment Teacher Survey Results

Question	Ms. Harrington (Nathan)	Ms. Stewart (James)	Ms. Ramsey (Charles)
Length of time student in class	Since 8/11/03 (six weeks)	Since 8/11/03 (eight weeks)	Since 8/18/03 (six weeks)
Teacher certification/training in ESL strategies	One college course (not certified)	Certified in ESOL strategies	60 hours at university level/not certified
ESOL instructional strategies used currently	Visual strategies, written labeling of items, picture/word cards, Spanish/English books with audio tapes	Peer tutoring, modified curriculum, manipulatives for math, “Earobics” computer program, “Language Master” cards	Peer tutoring, modified curriculum, visual strategies
Information that was provided on specific language skills upon student’s entry into class	From parents: previous education, no other information provided by school	None	None
Formal assessments given to student	Accelerated Reader, classroom reading and math assessments, math inventory test at beginning of school year, DAR (Diagnostic Assessment of Reading), written writing assessments	DIBELS (Dynamic Indicators of Early Literacy Skills), Fox in the Box	DAR (Diagnostic Assessment of Reading), STAR
Assessments same as for all students?	Yes	Yes	Yes
Is student below grade level—if yes, what subjects	Below grade level in reading and with any subject when it required reading	Below grade level in reading and with any subject when it required reading, also below grade level in math and writing	Below grade level in reading and with any subject when it required reading
Information teacher would like to have in order to provide effective instruction	What type of learner student is (visual, hands-on), through what senses he learns best	Proficiency of skills in his native language	Information on reading including phonics skills

Table 1 (con't)
Pre-ABLIS Assessment Teacher Survey Results

Question	Ms. Harrington (Nathan)	Ms. Stewart (James)	Ms. Ramsey (Charles)
Student's strengths in terms of language skills	Following directions, imitating others, labeling	Imitating others, following directions, requesting is "ok"	Good conversation skills with other students, follows simple directions, imitates others
Student's weaknesses in terms of language skills	Requesting, conversations, reading and writing	Conversation skills, unsure of labeling	Multi-step directions, short responses to questions, needs to improve vocabulary
Specific skills most important to learn at this time	Improve fluency to verbally express himself	Letter recognition, letter sounds, reading, basic math facts	More sophisticated responses to questions, following multi-step directions

information (based on assessments or otherwise) was provided to the teachers. However, one teacher obtained some information from the student's parents regarding his academic history in Columbia, including that he was repeating the 4th grade.

The formal assessments given to students included: The DAR (Diagnostic Assessment of Reading) and the computerized STAR test for Charles, the DIBELS (Dynamic Indicators of Early Literacy Skills) for James, and regular classroom assessments such as those normally given for reading, math and writing, as well as Accelerated Reader tests for Nathan. Two tests had not yet been administered, but were reported as upcoming: the Fox in the Box for James, and the DAR for Nathan. All three teachers reported that these same assessments are given to all students in their class, with the exception of those students who have an academic improvement plan being the only ones who receive the DAR test.

According to teacher reports, all three students were below grade level in reading. Charles (the fifth grade student) had an overall reading level of second grade, Nathan (the fourth grade student) had an overall reading level of first grade, and James (the second grade student) was a beginning reader who had not yet mastered letter recognition or letter sounds. He was also below grade level in math. All three teachers reported that the problems with reading caused difficulty with progress in other subject areas, and two teachers (Ms. Hamilton and Ms. Ramsey) reported that math skills were on grade level except when reading was required, such as with word problems.

The type of information the teachers wanted to know about these students varied: Ms. Stewart, reported wanting to know the student's skill levels in his native language (for all academic subjects), Ms. Ramsey reported wanting a breakdown of skills in areas such as phonics and reading, and Ms. Harrington wanted to know what type of learner the student was, for example, was he a visual learner, or a hands-on learner, as well as to know through what senses he would learn best.

All three teachers reported that the students' strengths included following directions and imitating others. Other strengths reported included good social (conversation) skills with peers (Charles), labeling skills (Nathan), and requesting skills (reported as "OK") for James. Weaknesses reported included requesting and conversation skills as well as reading and writing in English (Nathan); weak conversation skills and possible labeling problems (James); following multi-step directions, poor vocabulary and short responses to questions (conversation skills) for Charles.

The specific skills that the teachers identified as being most important for the student to learn at this time included: improving fluency with verbal expression (Nathan),

improving letter recognition, letter sounds, reading skills, and basic math skills (James), and developing more sophisticated responses to questions and following multi-step directions (Charles).

Student Measures

Figure 1 shows a summary of the results of the ABLLS assessment for Nathan (refer to Appendix F for ABLLS form). In the area of cooperation and reinforcer effectiveness, this student met the highest criteria for all the skills (100%). In the area of receptive language, he met full criteria for 41 skills (79%) and partial criteria for 11 skills (21%). In the vocal imitation area, he met full criteria for five skills (56%), partial criteria for two skills (22%), and failed to meet the minimum criteria for two skills (22%). In the requesting area, the student met full criteria for three skills (11%), partial criteria for sixteen skills (59%), and failed to meet the minimum criteria for eight skills (30%). In the labeling area, the student met full criteria for 14 skills (33%), partial criteria for 19 skills (45%), and failed to meet the minimum criteria for eight skills (19%). In the intraverbal area, the student met full criteria for eight skills (19%), partial criteria for thirty skills (71%), and failed to meet the minimum criteria for three skills (7%). In the area of spontaneous vocalizations, this student met full criteria for one skill (11%), partial criteria for three skills (33%), and failed to meet the minimum criteria for five skills (55%). Under the syntax and grammar area, the student met full criteria for two skills (10%), partial criteria for six skills (30%), and failed to meet the minimum requirements for twelve skills (60%). In the play and leisure area, the student met the full criteria for five skills (50%), met partial criteria for one skill (10%), and failed to meet the minimum criteria for four skills (40%). In the area of social interaction, the student met full criteria

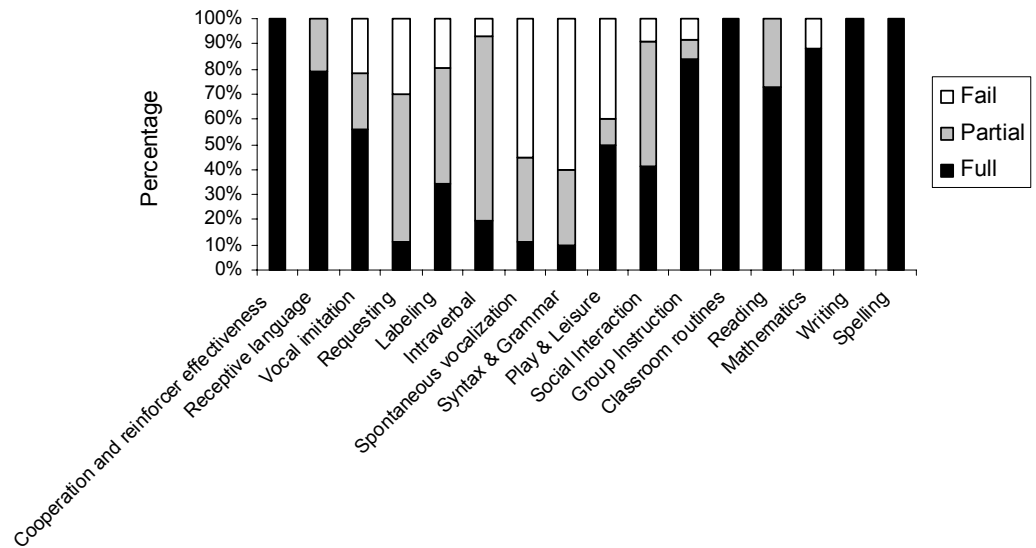


Figure 1. Nathan's percentage of full, partial, failed criteria across performance sections

for nine skills (41%), met partial criteria for eleven skills (50%), and failed to meet the minimum criteria for two skills (9%). In the group instruction area, the student met full criteria for ten skills (83%), partial criteria for one skill (8%), and failed to meet the minimum criteria for one skill (8%). In the classroom routines area, the student met full criteria for every skill (100%). In the reading area, the student met full criteria for eleven skills (73%), and partial criteria for four skills (27%). In the mathematics area, the student met full criteria for thirty-seven skills (88%) and failed to meet the minimum requirement for five skills (12%). In the writing area, he met full criteria for all the skills (100%). In the spelling area, he also met full criteria for all the skills (100%).

Figure 2 shows a summary of the results of the ABLLS assessment for James (refer to Appendix G for ABLLS form). In the area of cooperation and reinforcer

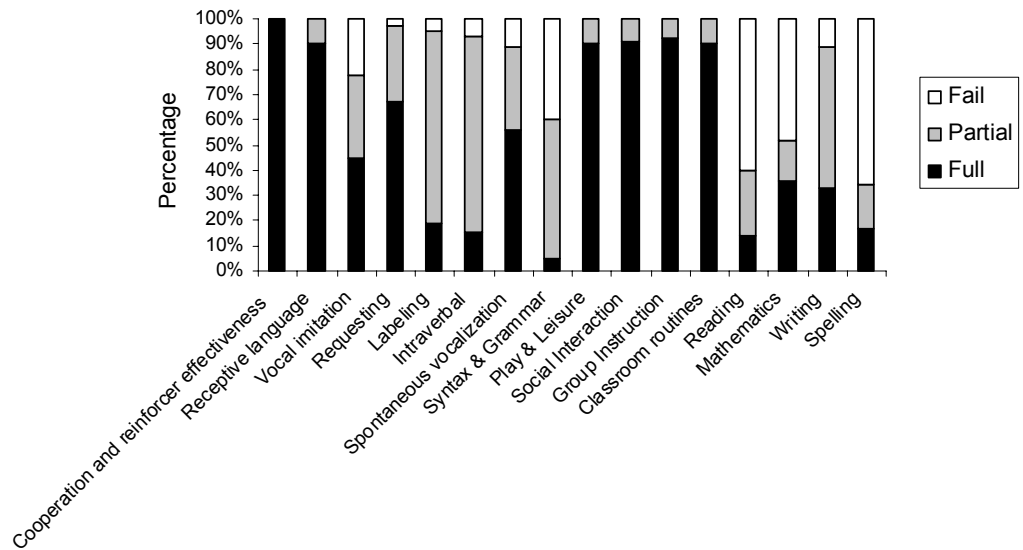


Figure 2. James' percentage of full, partial, failed criteria across performance sections.

effectiveness, the student met the highest criteria for all the skills (100%). In the area of receptive language, the student met full criteria for forty-seven skills (90%) and partial criteria for five skills (10%). In the vocal imitation area, he met full criteria for four skills (44%), partial criteria for three skills (33%), and failed to meet the minimum criteria for two skills (22%). In the requesting area, he met full criteria for eighteen skills (67%), partial criteria for eight skills (30%), and failed to meet the minimum criteria for one skill (3%). In the labeling area, the student met full criteria for eight skills (19%), partial criteria for thirty-two skills (76%), and failed to meet the minimum criteria for two skills (5%). In the intraverbal area, he met full criteria for six skills (15%), partial criteria for thirty-two skills (76%), and failed to meet the minimum criteria for three skills (7%). In the area of spontaneous vocalizations, this student met full criteria for five skills (56%), partial criteria for three skills (33%), and failed to meet the minimum criteria for one skill (11%). Under the syntax and grammar area, he met full criteria for

one skill, partial criteria for eleven skills (55%), and failed to meet the minimum requirements for eight skills (40%). In the play and leisure area, the student met the full criteria for nine skills (90%), and met partial criteria for one skill (10%). In the area of social interaction, he met full criteria for twenty skills (91%), and met partial criteria for two skills (9%). In the group instruction area, the student met full criteria for eleven skills (92%), and partial criteria for one skill (8%). In the classroom routines area, he met full criteria for nine skills (90%) and met partial criteria for one skill (10%). In the reading area, the student met full criteria for two skills (14%), partial criteria for four skills (27%), and failed to meet the minimum criteria for nine skills (60%). In the mathematics area, the student met full criteria for fifteen skills (36%), met partial criteria for seven skills (17%), and failed to meet the minimum criteria for twenty skills (48%). In the writing area, he met full criteria for three skills (33%), partial criteria for five skills (56%), and failed to meet the minimum criteria for one skill (11%). In the spelling area, he met full criteria for one skill (17%), partial criteria for one skill (17%), and failed to meet the minimum criteria for four skills (67%).

Figure 3 shows a summary of the results of the ABLLS assessment for Charles (refer to Appendix H for ABLLS form). In the area of cooperation and reinforcer effectiveness, he met full criteria for all the skills (100%). In the area of receptive language, the student met full criteria for forty-six skills (88%), and partial criteria for six skills (12%). In the vocal imitation area, he met full criteria for seven skills (78%), and partial criteria for two skills (22%). In the requesting area, he met full criteria for thirteen skills (48%), partial criteria for ten skills (37%), and failed to meet the minimum criteria for four skills (15%). In the labeling area, the student met full criteria for fifteen

skills (36%), partial criteria for twenty-five skills (60%), and failed to meet the minimum criteria for two skills (5%). In the intraverbal area, the student met full criteria for ten skills (24%), partial criteria for thirty skills (71%), and failed to meet the minimum criteria for one skill (2%). In the area of spontaneous vocalizations, this student met full criteria for four skills (44%), and met partial criteria for five skills (56%). Under the syntax and grammar area, the student met full criteria for six skills (30%), partial criteria for ten skills (50%), and failed to meet the minimum criteria for four skills (20%). In the play and leisure area, the student met the full criteria for all the skills (100%). In the area of social interaction, the student met full criteria for twenty skills (91%), and met partial criteria for two skills (9%). In the group instruction area, the student met full criteria for all the skills (100%). In the classroom routines area, the student met full criteria for nine skills (90%) and met partial criteria for one skill (10%). In the reading area, the student met full criteria for fourteen skills (93%), and partial criteria for one skill (7%). In the

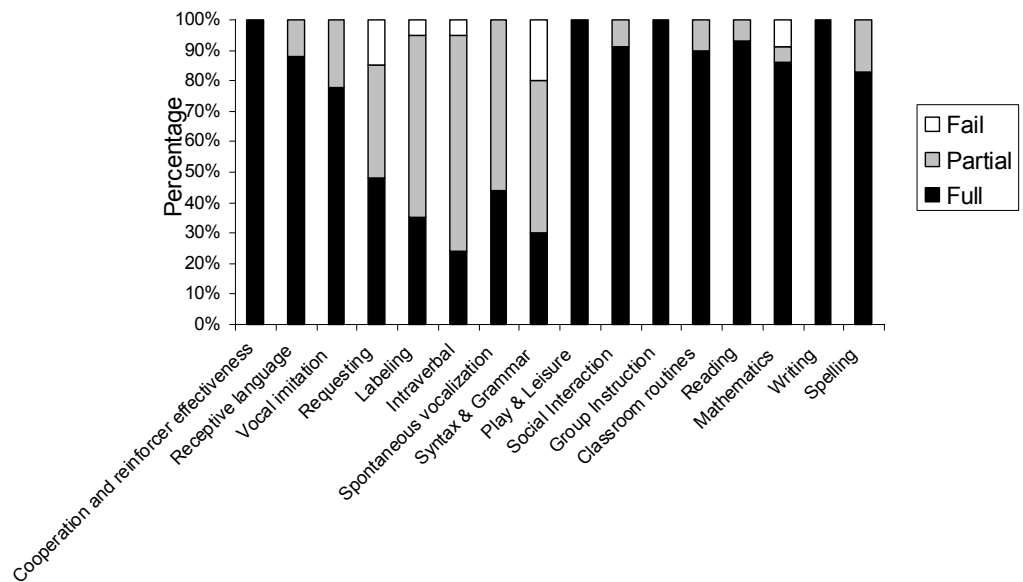


Figure 3. Charles' percentage of full, partial, failed criteria across performance sections.

mathematics area, the student met full criteria for thirty-six skills (86%), partial criteria for two skills (5%), and failed to meet the minimum criteria for four skills (10%). In the writing area, he met full criteria for all the skills (100%). In the spelling area, he met full criteria for five skills (83%), and partial criteria for one skill (17%).

The amount of time to complete the assessment for each student was: Nathan: twelve hours; James: ten hours, fifty-five minutes; Charles: ten hours, fifty minutes. The sessions with the individual students averaged approximately one hour. The time to conduct assessment items with the teachers was approximately one hour total per teacher.

Post ABLLS Assessment Teacher Survey

The results of the Post ABLLS Assessment Teacher Survey are shown in Table 2. When asked if any of the specific skill areas were useful in terms of providing assessment information, two teachers (Ms. Hamilton and Ms. Stewart) stated that they viewed the entire assessment as valuable, but identified some areas as being more useful than others; all three teachers stated that the labeling section was useful; Ms. Hamilton and Ms. Ramsey found the intraverbal section useful; Ms. Hamilton and Ms. Stewart found the academic sections (reading, math, writing and spelling) useful; Ms. Stewart found the syntax and grammar section useful; Ms. Hamilton stated that the social interaction section was very useful, and Ms. Hamilton stated that the sections listed on the first page were especially interesting in the way that the receptive skills, vocal imitation skills, requesting, labeling and intraverbal all related to one another in that they seemed to build upon one another.

When asked what specific areas of the ABLLS they did not find useful, Ms. Hamilton stated that the play and leisure section may not be useful; Ms. Ramsey stated

that the play and leisure section, as well as the social interaction section were not useful; she also stated that the writing and spelling sections were too basic to be generally useful.

Two teachers (Ms. Hamilton and Ms. Ramsey) stated that the results of the ABLLS were consistent with their existing knowledge of their students' skills and the assessment did not provide them with any new information. Ms. Stewart noted that the ABLLS gave her more insight into what the student could do and stated that she was not aware of his specific requesting skills.

When asked if they learned from the ABLLS of any skills that the student did not have, that they previously thought the student did have, all three teachers stated that they thought their students would have done better with the labeling skills. Ms. Ramsey stated that she also thought conversation skills would have been better.

The next question asked teachers what specific ESOL strategies and/or teaching strategies they believed would be best to teach this student needed skills, based on the information provided in the ABLLS. Ms. Ramsey stated that she would use more visual strategies, more pictures, more manipulatives, formal and informal peer tutoring, and flashcards that would focus on weak skills as pointed out in the ABLLS. Ms. Stewart stated that she would likely use the same strategies as before, but would target more of the weaknesses pointed out in the ABLLS. She also stated that she would focus more on labeling by using printed words on items in the classroom and pictures with English and Spanish words on them. Ms. Harrington stated that she would continue with lots of repetition and practice with language skills, use manipulatives for math, and interactive programs on the computer. She also stated that she would try to increase the

Table 2
Post ABLLS Assessment Teacher Survey Results

Question	Ms. Harrington (Nathan)	Ms. Stewart (James)	Ms. Ramsey (Charles)
Specific areas of the ABLLS that they find useful in terms of assessment	Receptive, vocal imitation, requesting, labeling, intraverbals, social interaction, academic sections (reading math, writing and spelling)	Stated that all are useful, but especially the labeling, syntax and grammar, reading and math	Labeling and conversation (intraverbals), reading
Specific areas of the ABLLS that they find not useful in terms of assessment	Play and leisure	None	Play and leisure, social interaction, writing and spelling because too basic
Did ABLLS provide new information regarding skills that student had that they were not aware of prior to the assessment	No	Yes. Specifics of requesting she did not know prior	No. She felt that he knew more than he demonstrated in class
Did ABLLS provide new information regarding skills that student did not have that they thought he did prior to the assessment	Yes- thought that labeling skills were better	Yes- thought that labeling skills were better	Yes- thought that labeling and intraverbal skills were better
Based on information in ABLLS assessment, what ESOL strategies or teaching strategies would be best to teach this student	Continue with repetition, practice, math manipulatives, interactive programs on the computer, small group instruction to try to increase talking	Same strategies but more targeted toward weak areas such as labeling, Use Language Master, more written labeling of things around the room	More visual strategies, pictures, manipulatives, peer tutoring (both structured and unstructured), flash cards based on weaknesses from the ABLLS (phonics for example)
Comments on the ABLLS as an assessment tool for ESOL students/value for teachers and impact on instructional strategies	It does have value; shows how basic some of the skill needs are and good to track progress	Has value because it is so specific. It would affect strategies because teaching would be modified based on the info from assessment	Definitely useful— will now pay more attention to areas of weakness. Some assessment questions hard to answer because the classroom doesn't allow time/resources to assess
Probability that they will continue to use ABLLS to track progress with this student	Moderate because it's time consuming and one on one	Moderate because more assistance would be needed to understand how to administer it	High
Probability that they would use the ABLLS for other ESOL students	Moderate because it's time consuming and one on one	Low. Would like the information, but may not have time to complete it	Moderate, because of the time required

opportunities for the student to work in small groups so that the chances for interactions would be greater.

When asked about the probability that they would continue to use the ABLLS assessment to track progress for this student, two teachers (Ms. Hamilton and Ms. Stewart) selected “moderate”, Ms. Hamilton stating because of the amount of time involved to do it and Ms. Stewart because she would need more information to know how to administer it. Ms. Ramsey stated that the probability would be “high”, but did not make any other comments immediately following that statement.

When asked about the probability that they would use the ABLLS assessment for other ESOL students, two teachers (Ms. Hamilton and Ms. Ramsey) stated “moderate”, both noting time constraints. Ms. Stewart selected “low” because she said she did not feel she would have the time or resources to complete it.

Guidance Counselor Measures

The results of the Guidance Counselor post ABLLS survey are shown in Table 3. In comparing the ABLLS assessment to other assessments typically given to ESOL students, Mrs. Walker stated that the ABLLS was a much more detailed assessment than the typical classroom assessments given. (She was referring to the Diagnostic Assessment of Reading [DAR], the Fox in the Box, and other standardized tests given to all students. She did not consider the IDEA test, which is given when students are tested for ESOL eligibility, as this is not shared with the teacher or used in the classroom).

When asked how the ABLLS assessment compared to other assessments in terms of being more or less useful to teachers, she stated that the ABLLS appeared to be extremely detailed, but that all of these details may not be needed (she did not expound

further on this comment). She also stated that the skills in the ABLLS appear to build on one another, for example, labeling skills and their relation to intraverbal skills. She added that teachers may need to go down to lower levels of language instruction than they are accustomed to. She stated that teachers at the elementary level probably do not address such basic skills once students are at a grade where they should already have those skills.

In terms of particular areas of the ABLLS that may be more important for teachers to know about, she stated that the requests, labeling, and intraverbal sections may be helpful to teachers. In her experience, students do not just “pick up” more complex statements such as, “That’s a pretty green plant”, and may need direct teaching to talk in more complex sentences.

When asked if she believed that the information from the ABLLS would possibly lead to different or specific teaching strategies, she stated that she was unsure. Because the ABLLS is so in-depth, and would take so long to administer, she thought that it would be more useful to have researchers administer the ABLLS to many second language learners at various ages to see if certain trends in deficits exist that would then point to particular teaching strategies for ESOL students in general. Last, she stated that it appeared to her that many times adults accept short responses from ESOL students because they are happy to get any responses, but that this assessment shows teachers the need to teach basic skills, especially with older students.

ESOL Specialist Measure

The results of the ESOL Specialist post ABLLS survey are also shown in Table 3. In comparing the ABLLS assessment to other assessments typically given to ESOL students, Mrs. Anderson stated that the items are very similar to those given on the IDEA

Table 3
Post ABLLS Assessment Guidance Counselor and ESOL Specialist Survey Results

Question	Guidance Counselor	ESOL Specialist
How does the ABLLS compare to other assessments typically given to ESOL students	More detailed compared to regular classroom assessments such as DAR (Diagnostic Assessment of Reading), Fox in the Box	As compared to the IDEA eligibility test, the items are similar, but the time to give the ABLLS is much longer; scoring is different, liked the graphic display in ABLLS
How does ABLLS compare to typical assessments in terms of being more or less useful to teachers	This tool is extremely detailed; may not need all the information, but useful in the sense that it would tell teachers to go back to teach basic skills even with older students	Teachers don't participate in IDEA testing and the results aren't given to them. This test (The ABLLS) is more explicit and may help with diagnostics and instruction)
Particular areas of the ABLLS that they see as more important for teachers to know about	Requests, labeling, then building to intraverbals, because they don't just "pick up" these skills;	Play and leisure, social interaction, requests, and labeling to build vocabulary, higher level skills such as syntax and grammar and conversation are important, but may need to be taught later, reading and math may not need to be included here, writing and spelling may or may not be important depending on the level of the student
Would information in ABLLS possibly lead to different or specific teaching strategies, and if so, what	May not lead to different strategies, so in-depth that it likely takes too long to administer, but it may be useful to know results of this assessment with many second language learners of various ages	Because this assessment is so comprehensive it tells the teacher what skills are lacking. It's not so much a matter of strategies, this tells them what skills to teach and how to plan for ESOL students
Comments on the ABLLS as an assessment tool for ESOL students/value for teachers and impact on instructional strategies	It does have value; shows how basic some skill needs are and good to track progress	Has value because it is so specific. It would affect strategies because teaching would be modified based on the info from assessment

test, but the time needed to administer the ABLLS is much greater. The average IDEA test takes approximately 25 minutes to administer, she stated. She also noted that the scoring is different, that she liked the graphic display of data, and that the ABLLS was very comprehensive.

When asked how the ABLLS assessment compared to other assessments in terms of being more or less useful to teachers, she stated that the ABLLS was much more explicit and that the teachers do not participate or get the results of the IDEA test. (She noted that as a teacher she used to use the IDEA as a diagnostic tool, but that this is not currently being done for reasons that she was unsure of.)

In terms of particular areas of the ABLLS that may be more important for teachers to know about, she stated that she thought that the play and leisure sections might be important to identify individual trends with children like Nathan, who was very shy. She also mentioned the requesting, labeling, conversation (intraverbal), syntax and grammar, (but not until skills are more developed) sections as being important for teachers. She added that three of the academic sections (reading, writing, and spelling) appeared to be limited in that they may not be appropriate for students on different grade levels. She commented that overall, reading was an area of great concern for her because approximately 80% of 10th grade ESOL students in the district are currently reading at very low levels, as measured by the FCAT (Florida Comprehensive Achievement Test). She felt that the math section should be omitted from this type of a language assessment because it could be tested in other ways.

When asked if she believed that the information from the ABLLS would possibly lead to different or specific teaching strategies, she stated that the ABLLS assessment

appeared to be very appropriate to identify what skills the student is lacking so that the teacher can better plan for instruction.

Chapter Four

Discussion

The overall results of this study show that the ABLLS may be used to assess the skills of typically developing children with language deficits in a second language. Further, they suggest that assessing the language skills of second language learners according to functional categories such as those contained in the ABLLS may be useful in providing teachers with additional information about the skills of those students. However, comments made by teachers and by other participants suggest that the amount of time required to conduct the ABLLS protocol would make it less likely to be used by teachers for monitoring progress, or by other professionals who typically assess ESOL students. The fact that teachers stated concerns regarding the amount of time required to administer the ABLLS is a limitation to the utility of this assessment (even modified as it was) and appears to be a common limitation with many behavioral approaches or strategies (Axelrod, 1996). Areas or sections of the ABLLS that teachers and other participants noted as useful varied, so it is difficult to draw conclusions from their verbal reports regarding how the current assessment could be modified further to create a more realistic assessment for school settings. However, the following suggestions might be potential ways to make this assessment less cumbersome and more realistic for school environments: Nine sections of The ABLLS were omitted for the present study, and it is likely that some additional entire sections as well as many other individual tasks could be eliminated. For example, the cooperation and reinforcer effectiveness section is an area

where all three students met 100% of the criteria. Although it may have some usefulness in facilitating the identification of potential reinforcers, this could likely be done through a simple reinforcer assessment, if a teacher chose to assess this. Another section that may not be necessary for this population is the play and leisure section. Even though one student failed to meet minimum criteria for three of these skills, (the other two met 100% of the criteria) it is likely that a teacher could informally rather than formally assess whether or not a student needs to increase certain play behaviors. The social interaction section may also not be needed, as some items are not necessarily appropriate for typically developing students (L1: Appropriate when near peers or siblings and L2: Tolerates/responds appropriately to positive touches by peers or siblings). Some items are redundant, because they can be found elsewhere in the assessment (L5: Listener/receptive, L20: Asks for information). It is interesting to note, however, that Nathan had many areas of weakness in this section, which his teacher attributed to him being shy. Also, two adult participants, Ms. Hamilton (teacher) and Ms. Anderson, (ESOL specialist) reported that this area was important to assess.

The group instruction section may not be appropriate for this population because it assesses a student's ability to respond and learn during group instruction and it appears from the data that these typically developing students don't usually have deficits in this area. Nathan was the only student who had more than one weakness in this area, but this appeared to be attributed to weak intraverbal skills rather than his ability to raise his hand to answer questions. The other student, James, got less than full criteria for one of the items because he tended to talk too much during large group instruction.

The classroom routines section is another area that may not be necessary to include. All three students met full criteria for most of the skills in these sections. The few areas of weakness appeared to be related to a student's academic ability, tendency to talk too much with a peer, or shyness. The academic sections of The ABLLS (reading, math, writing, and spelling) also might prove expendable for two reasons: First, the teachers all do other assessments in these areas and it does not appear that these particular assessments yield new or different information. Second, the level of assessment for these areas is very basic and may only be appropriate for students who are beginning in school as opposed to in higher grades. This is supported by the data for Nathan and Charles, the fourth and fifth graders, respectively, who met full criteria for most of these sections.

Based on the information collected in this study, it appears there are several sections of the ABLLS that are redundant with existing school assessments. Therefore, it might be wise to suggest that only those sections that are unique and do not appear to be covered by other school assessments be included in school-based assessments of second language learners. Specifically, the most important sections appear to be receptive language, vocal imitation, requests, labeling, intraverbals, and some parts of the social interaction section. It is also possible that tasks with extensive criteria, such as H28, where the highest level of criteria involves answering at least 50 yes/no questions, could be assessed with a small sampling of these types of questions. A more extensive list could be provided separately to guide instruction; this would allow for a much shorter assessment of this skill and still allow for the detail and comprehensiveness provided by the ABLLS. The separate guide for instruction could be linked directly to particular verbal operants and suggest specific ways to teach those particular skills.

One other important consideration in adapting this assessment for second-language learners concerns the issue of latency to respond. One student, Nathan, frequently had long latencies (15 -20 seconds) prior to both receptive and expressive responses. This led the principal investigator to question correct responses (for receptive skills) and to conclude that whether receptively or expressively, long latencies may indicate weakness in language skills, even though the results recorded may look similar to those of a student who did not exhibit long latencies in responding.

Although broad generalizations about the language characteristics of the children should be avoided due to the limited sample size, it is interesting to note some of the similarities in student data. Receptive skills were much higher than any of the expressive skills (requests, labeling and intraverbal) for all three students. Interestingly, James, the youngest of the participants, had the strongest requesting repertoire, although receptive skills were quite similar across students. It appeared that James' other expressive skills (labeling and intraverbals) were slightly lower than the other two students. Two of the students (Nathan and James) had similar weaknesses in vocal imitation skills, related to imitating words or numbers of longer duration. Labeling and intraverbal skills were weak in all three students, although Charles was the most skilled of the three. It did appear that the labeling skills were related to the intraverbal skills, in that a student with a weak labeling repertoire would be likely to also have a weak intraverbal repertoire. This pattern may occur because conversational skills are often dependent on one's ability to label the things they are talking about.

Syntax and grammar was an area of significant weakness for all three students. This information might suggest that these skills should be taught after basic skills such as

requesting, labeling, and conversation are further developed. Only Nathan had significant weaknesses in the areas of play and leisure, social interaction, group instruction, and classroom routines, likely because his tendency to talk, in general, and interact with others, was limited. He also had the fewest skills in both the requesting and spontaneous vocalizations areas.

The youngest student, James, had weaknesses in all the academic areas, whereas the other two students had very few areas of weakness for those sections. One trend noted was in the area of reading. All three students showed deficits with phonics skills. None of the three students could label all letter sounds, yet two of them (Nathan and Charles) could read many words. One possibility is that these students were instructed to read using a “whole-word” approach versus a phonics approach. This trend may have some significance in helping to explain why so many second language learners continue to read below grade level even after they are determined to be proficient with English. It would also be interesting to know more about the relationship between language development such as requesting, labeling and intraverbals and reading skills. In general, it may be that many second language learners in regular education classrooms are working on skills that focus heavily on academics that are far too advanced for their present level of language skills. Looking at how typically developing English speaking children develop these skills may give insight into what these students should learn first. For example, a typical four or five year old has usually acquired an extensive receptive and expressive repertoire prior to learning how to read.

It was interesting that all three teachers stated in the post interview that they thought that their students were better at labeling. This may suggest that teachers assume

that second language learners have adequate labeling skills and therefore do not provide instruction for these skills. It also may suggest that second language learners need to spend more time in this particular area if other areas such as intraverbals and syntax and grammar are to develop.

The effects of the ABLLS results on teachers' choices of instructional strategies did not appear striking; in fact, most teachers reported the use of general ESOL strategies, which were largely unrelated to the data available from the assessment. However, it is possible that the results of the assessment might allow them to target specific skills (labeling skills, for example) that might otherwise go unaddressed. One possible explanation for this lack of effect on instructional strategies could be that teachers were not given enough information about the assessment in general, including its purpose, and possible teaching strategies that might coincide with the various skill areas. This might have been in part because of the limited time spent with each teacher due to their schedule constraints and the fact that the ABLLS is an in-depth assessment that may take significant time to comprehend and become familiar with. It is also possible that teachers were given too much information in the brief time (approximately one hour) spent reviewing the ABLLS and answering interview questions.

Another possible explanation is that most teachers lack background or training in teaching strategies that may be indicated by a functional assessment such as the ABLLS and that are more commonly used with children with language delays and/or other developmental disabilities. For example, a teacher who has never been exposed to teaching strategies such as discrete trial training (providing an antecedent and a consequence for some student behavior), errorless teaching (which involves providing

prompts and then fading them as the skill is acquired) contriving motivations (such as having certain items missing during a task or otherwise manipulating the delivery and availability of reinforcers), is probably not likely to think of these strategies, much less engage in them, as a result of viewing the ABLLS assessment. This may suggest that if certain strategies such as those listed above are indicated and proven effective with second language learners, they may need to be taught to teachers. An example of potential deficits in teacher skills was illustrated by one of the teachers during a discussion (post ABLLS) about the student's weaknesses in labeling skills. The teacher stated that to teach the student labeling, she would put more written word cards around the room. Since this was a student who could not yet read, and the weaknesses we were discussing were actually in verbal labeling, it suggested to the principal investigator that teachers may need additional information or training to understand what the different verbal operants are and how they might be taught. It would have been interesting to see if the teachers were receptive to trying some different teaching strategies if training had been offered as a part of this study.

One way that the present study was limited is that it did not explore prescriptive possibilities that might result from using the ABLLS to guide instruction. For example, it would be interesting to know if the ABLLS would have any potential impact on the number of learn units occurring in a classroom, or the general frequency of active student responding. The following are some general suggestions of possible teaching strategies that might be used as a result of conducting the ABLLS assessment, based on strategies often used with students with developmental disabilities or language delays. One example would be to give direct and frequent, if possible, practice of those skills noted as

weaknesses. For example, if receptive skills are weak, a teacher could have the student practice those receptive skills using an errorless approach that involves prompting and then fading prompts until the skill is occurring independently. If the student's requesting repertoire is weak, the teacher might set up conditions whereby the student is prompted to request the needed item or activity. An example of this would be having the teacher look for motivations as they occur (getting a drink, sharpening a pencil) and then use a vocal prompt (vocal imitation) to get the student to ask for the item or activity. Another possible method would be to give the student most, but not all of the items needed for a task so that the student then needs to ask for a particular item. If the student needed to work on labeling skills, this could be done throughout the day with items in the immediate environment and could also be taught in sessions with peers using items or pictures. Weaknesses in the intraverbal area could also likely be targeted through peer tutoring and in the natural environment as those particular opportunities arise. However, as stated before, the ABLLS data may suggest that teachers should establish strong labeling skills prior to working on intraverbal skills. Again, an errorless approach using prompting and fading of vocal prompts may be an efficient way to teach these skills. Because most of the skills to be taught are at a basic learner level, it should be possible to have peers provide some of the instruction.

Again, it is important to temper all conclusions drawn from this study with acknowledgement of the limitations imposed by using such a small sample size. Other methodological limitations should also be noted. Namely, all three teachers were relatively inexperienced with respect to the number of second language learners they had taught. Including teachers with more experience in general and with more experience

teaching second language learners may have yielded different results. Also, including more teachers with certification in teaching ESOL (only one of the three teachers was certified) may also yield different results. It would be interesting for future research to address the issue of what type of teacher is most likely to benefit from access to ABLLS data. One might find that teachers more experienced in ESOL strategies might find the information more useful for refining existing strategies and individualizing them for different student needs.

In addition to limitations with the study's design, it is also important to consider the limitations of the ABLLS tool itself. One striking limitation is that there is no empirical research to date that validates the ABLLS as an assessment tool. Even though it covers many skills, the authors acknowledge that it does not include assessment of all the skills necessary to teach language. Also, the tasks are offered in a somewhat developmental sequence, but these are only guidelines in terms of what skills to teach. It does not provide age norms, rather, it is a criterion referenced assessment that may identify where to begin teaching and what skills to teach (Partington & Sundberg, 1998).

Another consideration is the inherent subjectivity in data collection when one administers the ABLLS. The present study assessed 337 skills for each student. As described earlier, some tasks in the ABLLS assessment were straightforward and had only one way to assess the skill, such as task C1 (responds to own name) where the question to be asked is "Will the student look at or come to a person when called by his name?" For other tasks, all the questions, words, objects or pictures that needed to be asked or used were not defined, such as in task H27 (states item when told its functions, features, or class), where the criteria range up to 20 or more questions answered. Since

many parts of the assessment are compiled by the person doing the assessment, it should be noted that the questions, materials and objects used vary from person to person. The extent to which this affects the assessment results has yet to be researched. In addition, the way in which one assesses receptive skills may also vary and could have an effect on the results of the assessment. For example, in an array of two or three pictures or objects, the student may choose the right response because they know the other item(s) or picture(s), or because they have guessed. It would appear important to adhere to some procedure such as repeating the presentation multiple times with varied objects. Also, in the present study, and with the administration of the ABLLS in general, many of the skills are assessed by asking those who know the student whether or not the skill has been learned or demonstrated. In the case of parents answering questions or in the case of the present study, teachers, it should be noted that the verbal report may or may not be accurate. Also, a score of zero in a particular skill area (given because the teacher has not observed a skill or does not think the student has acquired the skill) would not necessarily mean that the student has not acquired the skill. Because the teacher would likely be the person to conduct some similar type of assessment, if it were developed, it would be important for the teacher to try to assess the skills in the natural environment and to leave that area of the assessment blank (rather than scoring a zero) until such time as the skill is observed.

One limitation with regard to interpreting the results of the assessment is the level of skill that can be assessed with the ABLLS. Because the assessment was developed with atypical children in mind, the skills assessed are very basic. In fact, a typical kindergarten or first grade child should be able to meet full criteria for most tasks. When

reviewing the results of the ABLLS, especially for children in older grades, adults need to keep this basic skill level in mind. Another limitation is related to the requirements for meeting the highest criteria for a skill. For some objectives, students met full criteria even though there were some weaknesses or errors observed for that particular skill. An example of this occurred with Charles, for task C32. The task was to follow an instruction to do a simple action when presented with several objects. Examples given were: sleeping, writing, tapping, cutting, rolling. This student was able to meet the full criteria because he could do five correctly without prompts, but still showed some weaknesses with the skill (he couldn't demonstrate "rolling" or "tapping"). It may be necessary for teachers to make notations in the assessment or to not credit full criteria in situations such as these.

Recommendations for further research might be completing the ABLLS assessment on typically developing students of various ages, and on second language learners from a variety of backgrounds and languages. It would be interesting to know, for example, how skills develop for students with very few skills in English or very little previous education in their native language. As the guidance counselor, Ms. Walker, suggested, it may be beneficial to gather ABLLS assessment data on a variety of ESOL children to see if certain trends exist that may suggest general teaching strategies for second language learners. Another possibility might be to assess the effect of teaching one of the verbal operants (labeling, for example) on the acquisition of other verbal operants. In addition, it may be interesting to use the ABLLS (or a modified version of it) to assess baseline skills of second language learners and then compare some traditional ESOL teaching strategies to those more commonly used in the verbal behavior literature.

The ABLLS could then be used to track acquisition of skills under the different conditions.

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Appendices

Appendix A

**Assessment of Basic Language and Learning Skills
Skills Tracking System**

Student: _____		Assessor _____		Date _____		Color Code _____					
A11 <input type="checkbox"/>		B21 <input type="checkbox"/>		C52 <input type="checkbox"/>		G42 <input type="checkbox"/>		H42 <input type="checkbox"/>		I19 <input type="checkbox"/>	
A10 <input type="checkbox"/>		B20 <input type="checkbox"/>		C51 <input type="checkbox"/>		G41 <input type="checkbox"/>		H41 <input type="checkbox"/>		I18 <input type="checkbox"/>	
A9 <input type="checkbox"/>		B19 <input type="checkbox"/>		C50 <input type="checkbox"/>		G40 <input type="checkbox"/>		H40 <input type="checkbox"/>		I17 <input type="checkbox"/>	
A8 <input type="checkbox"/>		B18 <input type="checkbox"/>		C49 <input type="checkbox"/>		G39 <input type="checkbox"/>		H39 <input type="checkbox"/>		I16 <input type="checkbox"/>	
A7 <input type="checkbox"/>		B17 <input type="checkbox"/>		C48 <input type="checkbox"/>		G38 <input type="checkbox"/>		H38 <input type="checkbox"/>		I15 <input type="checkbox"/>	
A6 <input type="checkbox"/>		B16 <input type="checkbox"/>		C47 <input type="checkbox"/>		G37 <input type="checkbox"/>		H37 <input type="checkbox"/>		I14 <input type="checkbox"/>	
A5 <input type="checkbox"/>		B15 <input type="checkbox"/>		C46 <input type="checkbox"/>		G36 <input type="checkbox"/>		H36 <input type="checkbox"/>		I13 <input type="checkbox"/>	
A4 <input type="checkbox"/>		B14 <input type="checkbox"/>		C45 <input type="checkbox"/>		G35 <input type="checkbox"/>		H35 <input type="checkbox"/>		I12 <input type="checkbox"/>	
A3 <input type="checkbox"/>		B13 <input type="checkbox"/>		C44 <input type="checkbox"/>		G34 <input type="checkbox"/>		H34 <input type="checkbox"/>		I11 <input type="checkbox"/>	
A2 <input type="checkbox"/>		B12 <input type="checkbox"/>		C43 <input type="checkbox"/>		G33 <input type="checkbox"/>		H33 <input type="checkbox"/>		I10 <input type="checkbox"/>	
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		B9 <input type="checkbox"/>		C40 <input type="checkbox"/>		G30 <input type="checkbox"/>		H30 <input type="checkbox"/>			
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		B7 <input type="checkbox"/>		C38 <input type="checkbox"/>		G28 <input type="checkbox"/>		H28 <input type="checkbox"/>			
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		B4 <input type="checkbox"/>		C35 <input type="checkbox"/>		G25 <input type="checkbox"/>		H25 <input type="checkbox"/>			
		B3 <input type="checkbox"/>		C34 <input type="checkbox"/>		G24 <input type="checkbox"/>		H24 <input type="checkbox"/>			
		B2 <input type="checkbox"/>		C33 <input type="checkbox"/>		G23 <input type="checkbox"/>		H23 <input type="checkbox"/>			
		B1 <input type="checkbox"/>		C32 <input type="checkbox"/>		G22 <input type="checkbox"/>		H22 <input type="checkbox"/>			
				C31 <input type="checkbox"/>		G21 <input type="checkbox"/>		H21 <input type="checkbox"/>			
				C30 <input type="checkbox"/>		G20 <input type="checkbox"/>		H20 <input type="checkbox"/>			
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				C21 <input type="checkbox"/>		G11 <input type="checkbox"/>		H11 <input type="checkbox"/>			
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				C12 <input type="checkbox"/>		G2 <input type="checkbox"/>		H2 <input type="checkbox"/>			
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				F4 <input type="checkbox"/>							
				F3 <input type="checkbox"/>							
				F2 <input type="checkbox"/>							
				F1 <input type="checkbox"/>							

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Appendix A (con't)

Assessment of Basic Language and Learning Skills Skills Tracking System

Student: _____

Assessor: _____ Date: _____

Color Code: _____

	J Syntax and Grammar	K Play and Leisure	L Social Interaction	M Group Instruction	N Classroom Routines	P Generalized Responding	Q Reading	R Math
J20	<input type="checkbox"/>							
J19	<input type="checkbox"/>							
J18	<input type="checkbox"/>							
J17	<input type="checkbox"/>							
J16	<input type="checkbox"/>							
J15	<input type="checkbox"/>							
J14	<input type="checkbox"/>							
J13	<input type="checkbox"/>							
J12	<input type="checkbox"/>							
J11	<input type="checkbox"/>							
J10	<input type="checkbox"/>							
J8	<input type="checkbox"/>							
J7	<input type="checkbox"/>							
J6	<input type="checkbox"/>							
J4	<input type="checkbox"/>							
J3	<input type="checkbox"/>							
J2	<input type="checkbox"/>							
J1	<input type="checkbox"/>							
L22	<input type="checkbox"/>		<input type="checkbox"/>					
L21	<input type="checkbox"/>		<input type="checkbox"/>					
L20	<input type="checkbox"/>		<input type="checkbox"/>					
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L17	<input type="checkbox"/>		<input type="checkbox"/>					
L16	<input type="checkbox"/>		<input type="checkbox"/>					
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L11	<input type="checkbox"/>		<input type="checkbox"/>					
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L6	<input type="checkbox"/>		<input type="checkbox"/>					
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L2	<input type="checkbox"/>		<input type="checkbox"/>					
L1	<input type="checkbox"/>		<input type="checkbox"/>					
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M10	<input type="checkbox"/>			<input type="checkbox"/>				
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M8	<input type="checkbox"/>			<input type="checkbox"/>				
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R3	<input type="checkbox"/>							<input type="checkbox"/>
R2	<input type="checkbox"/>							<input type="checkbox"/>
R1	<input type="checkbox"/>							<input type="checkbox"/>

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Appendix A (con't)

Assessment of Basic Language and Learning Skills
Skills Tracking System

Student: _____
 Assessor: _____ Date: _____
 Color Code:

S Writing	T Spelling	U Dressing	V Eating	W Grooming	X Tolerating	Y Gross Motor	Z Fine Motor
S1	T1	U1	V1	W1	X1	Y1	Z1
S2	T2	U2	V2	W2	X2	Y2	Z2
S3	T3	U3	V3	W3	X3	Y3	Z3
S4	T4	U4	V4	W4	X4	Y4	Z4
S5	T5	U5	V5	W5	X5	Y5	Z5
S6	T6	U6	V6	W6	X6	Y6	Z6
S7	T7	U7	V7	W7	X7	Y7	Z7
S8	T8	U8	V8	W8	X8	Y8	Z8
S9	T9	U9	V9	W9	X9	Y9	Z9
S10	T10	U10	V10	W10	X10	Y10	Z10
S11	T11	U11	V11	W11	X11	Y11	Z11
S12	T12	U12	V12	W12	X12	Y12	Z12
S13	T13	U13	V13	W13	X13	Y13	Z13
S14	T14	U14	V14	W14	X14	Y14	Z14
S15	T15	U15	V15	W15	X15	Y15	Z15
S16	T16	U16	V16	W16	X16	Y16	Z16
S17	T17	U17	V17	W17	X17	Y17	Z17
S18	T18	U18	V18	W18	X18	Y18	Z18
S19	T19	U19	V19	W19	X19	Y19	Z19
S20	T20	U20	V20	W20	X20	Y20	Z20
S21	T21	U21	V21	W21	X21	Y21	Z21
S22	T22	U22	V22	W22	X22	Y22	Z22
S23	T23	U23	V23	W23	X23	Y23	Z23
S24	T24	U24	V24	W24	X24	Y24	Z24
S25	T25	U25	V25	W25	X25	Y25	Z25
S26	T26	U26	V26	W26	X26	Y26	Z26
S27	T27	U27	V27	W27	X27	Y27	Z27
S28	T28	U28	V28	W28	X28	Y28	Z28
S29	T29	U29	V29	W29	X29	Y29	Z29
S30	T30	U30	V30	W30	X30	Y30	Z30
S31	T31	U31	V31	W31	X31	Y31	Z31
S32	T32	U32	V32	W32	X32	Y32	Z32
S33	T33	U33	V33	W33	X33	Y33	Z33
S34	T34	U34	V34	W34	X34	Y34	Z34
S35	T35	U35	V35	W35	X35	Y35	Z35
S36	T36	U36	V36	W36	X36	Y36	Z36
S37	T37	U37	V37	W37	X37	Y37	Z37
S38	T38	U38	V38	W38	X38	Y38	Z38
S39	T39	U39	V39	W39	X39	Y39	Z39
S40	T40	U40	V40	W40	X40	Y40	Z40
S41	T41	U41	V41	W41	X41	Y41	Z41
S42	T42	U42	V42	W42	X42	Y42	Z42
S43	T43	U43	V43	W43	X43	Y43	Z43
S44	T44	U44	V44	W44	X44	Y44	Z44
S45	T45	U45	V45	W45	X45	Y45	Z45
S46	T46	U46	V46	W46	X46	Y46	Z46
S47	T47	U47	V47	W47	X47	Y47	Z47
S48	T48	U48	V48	W48	X48	Y48	Z48
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S50	T50	U50	V50	W50	X50	Y50	Z50
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S52	T52	U52	V52	W52	X52	Y52	Z52
S53	T53	U53	V53	W53	X53	Y53	Z53
S54	T54	U54	V54	W54	X54	Y54	Z54
S55	T55	U55	V55	W55	X55	Y55	Z55
S56	T56	U56	V56	W56	X56	Y56	Z56
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S60	T60	U60	V60	W60	X60	Y60	Z60
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S62	T62	U62	V62	W62	X62	Y62	Z62
S63	T63	U63	V63	W63	X63	Y63	Z63
S64	T64	U64	V64	W64	X64	Y64	Z64
S65	T65	U65	V65	W65	X65	Y65	Z65
S66	T66	U66	V66	W66	X66	Y66	Z66
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S72	T72	U72	V72	W72	X72	Y72	Z72
S73	T73	U73	V73	W73	X73	Y73	Z73
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S77	T77	U77	V77	W77	X77	Y77	Z77
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S79	T79	U79	V79	W79	X79	Y79	Z79
S80	T80	U80	V80	W80	X80	Y80	Z80
S81	T81	U81	V81	W81	X81	Y81	Z81
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S83	T83	U83	V83	W83	X83	Y83	Z83
S84	T84	U84	V84	W84	X84	Y84	Z84
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S88	T88	U88	V88	W88	X88	Y88	Z88
S89	T89	U89	V89	W89	X89	Y89	Z89
S90	T90	U90	V90	W90	X90	Y90	Z90
S91	T91	U91	V91	W91	X91	Y91	Z91
S92	T92	U92	V92	W92	X92	Y92	Z92
S93	T93	U93	V93	W93	X93	Y93	Z93
S94	T94	U94	V94	W94	X94	Y94	Z94
S95	T95	U95	V95	W95	X95	Y95	Z95
S96	T96	U96	V96	W96	X96	Y96	Z96
S97	T97	U97	V97	W97	X97	Y97	Z97
S98	T98	U98	V98	W98	X98	Y98	Z98
S99	T99	U99	V99	W99	X99	Y99	Z99
S100	T100	U100	V100	W100	X100	Y100	Z100

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Appendix B
Task Completion List for ABLLS Assessment
Tasks Presented Directly to Student

Student Name: _____ **Date(s):** _____

Task	Task	Task	Task	Task
A1	C41	G34	Q5	R36
A2	C42	G36	Q6	R37
A3	C43	G37	Q7	R38
A4	C44	G38	R22	R39
A5	C45	G39	R23	R40
A7	C46	H2	R24	R41
A8	C47	H4	R25	R42
A10	C48	H5	R26	S1
A11	C49	H6	Q8	S2
C1	C50	H7	Q9	S3
C3	C51	H8	Q10	S4
C4	C52	H9	Q11	S5
C5	E1	H10	Q12	S6
C6	E2	H11	Q13	S7
C9	E3	H12	Q14	S8
C10	E4	H13	Q15	S9
C11	E5	H14	R1	T1
C12	E6	H15	R2	T2
C13	E7	H16	R3	T3
C14	G1	H17	R4	T4
C15	G2	H18	R5	T5
C16	G3	H19	R6	T6
C17	G4	H20	R7	
C18	G5	H21	R8	
C19	G6	H22	R9	
C20	G9	H23	R10	
C21	G10	H24	R11	
C22	G11	H25	R12	
C23	G12	H26	R13	
C24	G13	H27	R14	
C25	G14	H28	R15	
C26	G15	H29	R16	
C27	G16	H30	R17	
C28	G17	H31	R18	
C29	G18	H32	R19	
C30	G19	H33	R20	
C31	G20	H34	R21	
C32	G21	H35	R27	
C33	G22	H36	R28	
C34	G23	H37	R29	
C35	G25	H38	R30	
C36	G26	H42	R31	
C37	G27	Q1	R32	
C38	G28	Q2	R33	
C39	G30	Q3	R34	
C40	G32	Q4	R35	

Appendix B (Con't)
Tasks Presented to Teacher

Teacher name: _____ Student name _____ Date(s) _____

Task	Task	Task	Task
A6	G41	K8	N6
A9	G42	K9	N7
C2	H1	K10	N8
C7	H39	L1	N9
C8	H40	L2	N10
E8	H41	L3	
E9	I1	L4	
F1	I2	L5	
F2	I3	L6	
F3	I4	L7	
F4	I5	L8	
F5	I6	L9	
F6	I7	L10	
F7	I8	L11	
F8	I9	L12	
F9	J1	L13	
F10	J2	L14	
F11	J3	L15	
F12	J4	L16	
F13	J5	L17	
F14	J6	L18	
F15	J7	L19	
F16	J8	L20	
F17	J9	L21	
F18	J10	L22	
F19	J11	M1	
F20	J12	M2	
F21	J13	M3	
F22	J14	M4	
F23	J15	M5	
F24	J16	M6	
F25	J17	M7	
F26	J18	M8	
F27	J19	M9	
G7	J20	M10	
G8	K1	M11	
G24	K2	M12	
G29	K3	N1	
G31	K4	N2	
G33	K5	N3	
G35	K6	N4	
G40	K7	N5	

Appendix C

Pre-ABLLS Assessment Teacher Survey

Teacher's name: _____

Student's name: _____

How long have you had this student in your class?

Have you received training in ESOL strategies? If so, please describe when, and where, as well as the duration or number of courses.

Which ESOL instructional strategies do you use with this student?

What information about specific language skills was provided to you when this student entered your classroom?

Appendix C (con't)

What specific formal assessments have you completed on this student? (For example, Fox in the Box, DAR (Diagnostic Assessment of Reading), DIBELS (Dynamic Indicators of Early Literacy Skills), Brigance, IRI (Informal Reading Inventory), computerized STAR test, or any others)

Do you do these same assessments on all students in your regular education class? If no, please explain.

Is this student on grade level in all academic areas (as determined by standard assessments listed above)? If no, please specify which subjects are below grade level.

What information would you like to know about this student in order to provide more effective instruction?

Appendix C (con't)

What are this student's strengths in terms of language skills? (for example, can the student ask for things they want, label things in the environment, converse with others, imitate others, follow directions)

What are this student's weaknesses in terms of language skills? (For example, the student doesn't ask for things they want, doesn't label things in the environment, doesn't converse with others, doesn't imitate others, doesn't follow directions)

What specific skills would you say are most important for this student to learn at this time?

Appendix D

Post ABLLS Assessment Teacher Survey

Teacher's name: _____

Student's name: _____

Do you find any of the specific skill areas of the ABLLS (A-T) useful in terms of providing you with useful assessment information? If yes, what skill specific areas do you find useful?

What specific skill areas of the ABLLS (A-T) do you find NOT useful in terms of providing you with useful assessment information?

Based on the information provided from the ABLLS, did the ABLLS provide you with any new information regarding specific skills that the student has that you were not aware of? If yes, please describe.

Appendix D (con't)

Based on the information provided from the ABLLS, did the ABLLS provide you with any new information regarding specific skills that the student does NOT have, (that you previously thought they did)? If yes, please describe.

Based on the information provided in the ABLLS, what specific ESOL strategies and/or teaching strategies do you believe would be the best to teach this student needed skills?

Please comment on The ABLLS as an assessment tool for ESOL students. Please give specific information as to why you think it does or does not have value for teachers and/or as to how it may or may not affect instructional strategies used for ESOL students.

What is the probability that you will continue to use the ABLLS assessment to track progress on this student? Please choose one: high, moderate, low

What is the probability that you will use the ABLLS for other ESOL students? Please choose one: high, moderate, or low

Appendix E
ESOL Specialist and Guidance Counselor Post ABLLS Survey

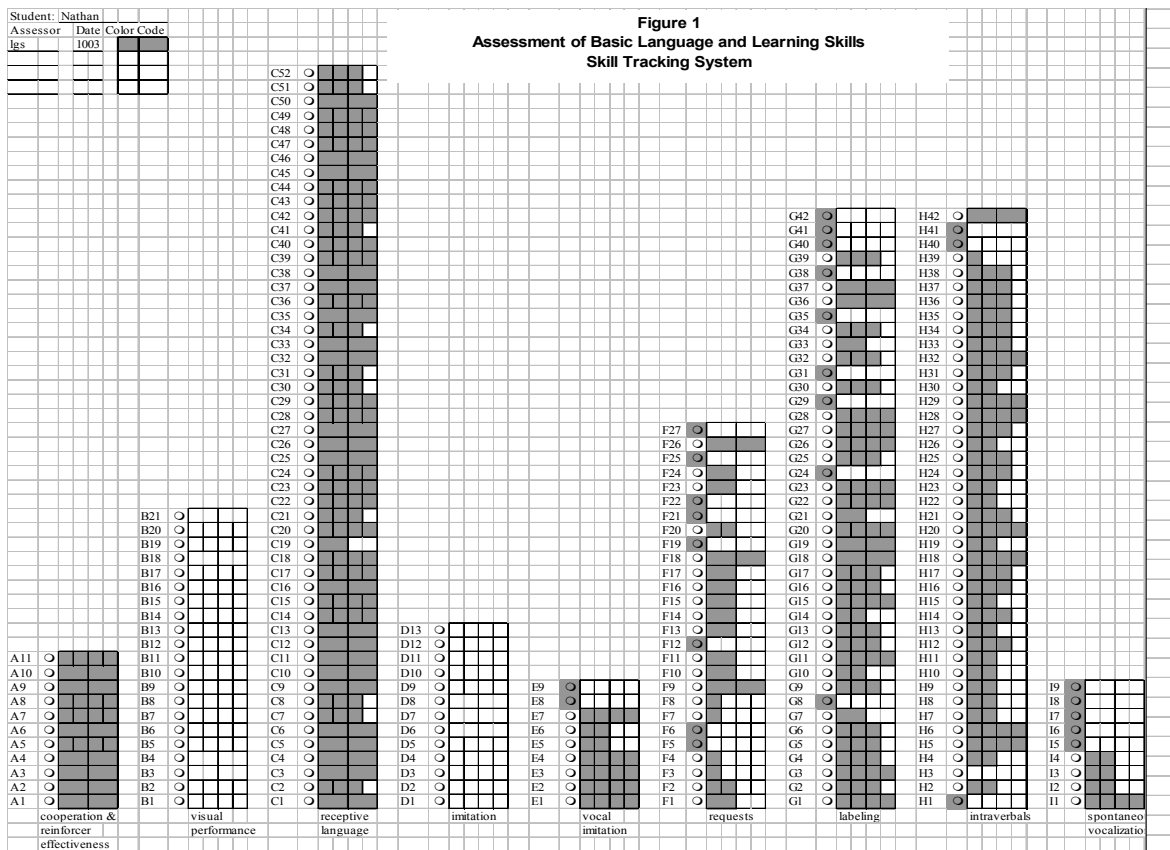
After reviewing the ABLLS assessments on the three students, how does the ABLLS compare to other assessments typically given to ESOL students?

How does the ABLLS assessment compare in terms of being more or less useful to teachers than the information that is typically provided through other assessments?

Are there particular areas of the ABLLS that you see as being more important for teachers to know about?

Do you believe that this information would possibly lead to different or specific teaching strategies, and if so, what?

Appendix F



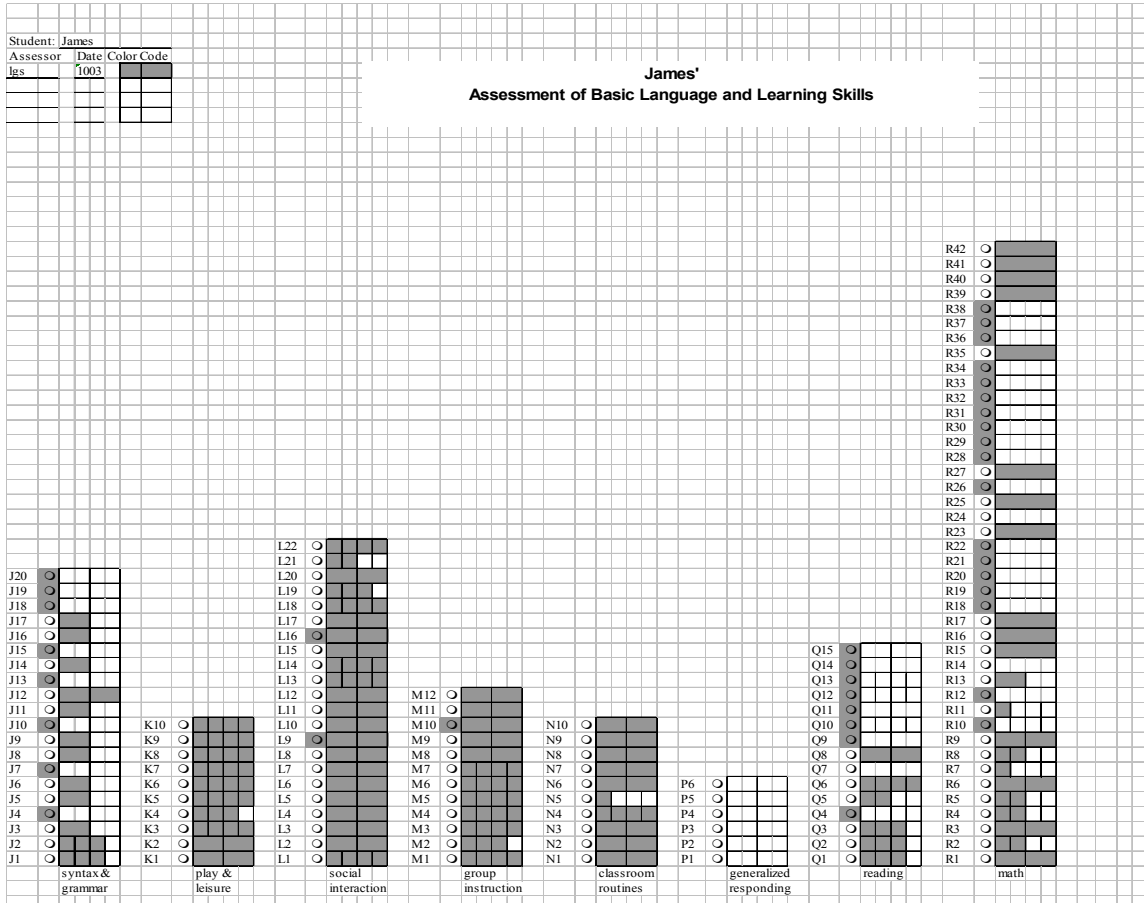
Appendix F (Continued)

Student: Nathan		Nathan's Assessment of Basic Language and Learning Skills	
Assessor: les	Date: 7/003		
	Color Code		
Detailed description of the assessment grid follows			

Appendix G

Student: James		Assessor: lgs		Date: 1003	Color Code:	James'		
Assessment of Basic Language and Learning Skills								
						C52 ○		
						C51 ○		
						C50 ○		
						C49 ○		
						C48 ○		
						C47 ○		
						C46 ○		
						C45 ○		
						C44 ○		
						C43 ○		
						C42 ○		
						C41 ○		
						C40 ○		
						C39 ○		
						C38 ○		
						C37 ○		
						C36 ○		
						C35 ○		
						C34 ○		
						C33 ○		
						C32 ○		
						C31 ○		
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						C29 ○		
						C28 ○		
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A11 ○								
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A8 ○								
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A6 ○								
A5 ○								
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						H42 ○		
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						H2 ○		
						H1 ○		
						I19 ○		
						I18 ○		
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						I13 ○		
						I12 ○		
						I11 ○		
cooperation & reinforcer effectiveness	visual performance	receptive language	imitation	vocal imitation	requests	labeling	intraverbals	spontaneous vocalizations

Appendix G (continued)



Appendix H

