SCHOOL-WIDE READING ASSESSMENT IN A MONTESSORI PROGRAM

by

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DEDICATION

This paper is dedicated to my father, James C. Stewart, who has instilled a value for education and life-long learning in me. He has always had faith that I could do whatever I set out to accomplish.

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ABSTRACT

This Educational Position Paper focuses on the design of a classroom-based reading assessment system for Wilmington Montessori School that provides: 1) evidence of children's progress across the developmental milestones of reading, 2) proactive information about children at risk of later reading difficulties, 3) a framework for teachers to monitor children's progress against the developmental milestones of reading 4) for the collection of information across the school community to evaluate the overall success of the school in supporting children's reading growth, and 5) for the school to hold to the principles of the child-centered Montessori philosophy. Teachers use many forms of formal and informal classroom-based reading assessments, and effective reading teachers use such assessments in an ongoing formative manner to inform daily instruction. Teachers' beliefs about assessment influence their use and interpretation of classroom-based assessments and are often counter to recommended best practices. A survey of teachers at Wilmington Montessori School indicates that while teachers have an interest in learning more about classroom based- reading assessment, they are unsure about the use of such assessments in a Montessori classroom, even though the Montessori Method supports the concept of the use of classroom-based reading assessment in the child-centered Montessori Classroom. A school-wide classroom-based reading assessment plan provides a framework for observing and collecting information to document children's growth as readers. Further, a school-wide reading assessment plan reflects clearly agreed upon goals for literacy, a common set of classroom-based assessment tools to

track children's progress towards these goals, and a collaborative school environment supporting professional growth. The developmental stages of reading and the New Standards for Reading and Writing (1999) provide a framework for common goals for reading at Wilmington Montessori School. Tools for screening, progress monitoring, diagnosis, and program evaluation are proposed for Wilmington Montessori School. Recommendations are made for the specific use of assessments from preschool through the upper elementary years and for professional opportunities for teachers to develop their skills in using and interpreting reading assessments.

SCHOOL-WIDE READING ASSESSMENT AND MONTESSORI
METHODOLOGY

Throughout the past decade, studies of effective reading instruction have found school-wide and classroom-level practices that correlate with children's reading achievement. One such finding is that schools demonstrating higher reading achievement systematically use classroom-based assessment information as a part of a school-wide conversation to inform program decisions, to communicate with parents, and to develop coherence across the school program (Mosenthal, Lipson, Sortino, Russ, & Mekkelsen, 2002; Taylor & Critchley, 2002; Taylor, Pressley, & Pearson, 2000, 2002; Walpole, Justice, & Invernizzi, 2004). A related body of research, focusing on classroom practices of effective teachers, finds that formal and informal assessments are important aspects of these classrooms because they allow teachers to better meet the individual needs of the child (Morrow, Tracey, Woo, & Pressley, 1999; Pressley, 2001, 2002; Pressley, Allington, Wharton-McDonald, Block, & Morrow, 2001; Wharton-McDonald, Pressley, & Hampston, 1998).

In my tenure as Head of the Wilmington Montessori School, my staff and I have worked to develop consistency, coherence, and continuity in what is taught in reading while maintaining the teacher's autonomy to meet the individual needs of children in the classroom. As a result, the school now uses Guided Reading (Fountas & Pinnell, 1996) as the primary method for teaching elementary reading and moves to literature circles as children become more fluent readers. A systematic approach to spelling and phonics through teacher mini-lessons and classroom manipulative work is based on *Words Their Way: Word Study for Phonics, Vocabulary, and Spelling*

Instruction (Bear, Invernizzi, Templeton, & Johnston, 2003) and the Montessori language materials. A reading continuum (Hill, 2001) supports the teachers in following the developmental stages of the child. Teachers match the materials— Montessori language materials, books, phonics instruction, and comprehension strategies—to each child's developmental and individual needs.

While Wilmington Montessori has a school-wide approach to teaching reading, it has not considered a school-wide assessment system. From my perspective as Head of School, I believe that an assessment system might support the goal of having more consistency, coherence, and continuity in meeting each child's needs. First, such a system would allow teachers to monitor each stage of a child's development, thereby informing instructional decisions for individual children while providing consistent literacy goals across the program (Mosenthal, Lipson, Torncello, Russ, & Mekkelsen, 2004). Second, consistent assessment data would provide a basis for clear reporting about each child's strengths and challenges to parents (Paris, Paris, & Carpenter, 2002). Finally, when appropriate to aggregate data across students, a classroom-based assessment model could be used to inform programmatic decisions for the school as a whole (Mosenthal, et al. 2002; Taylor, Pressley, et al., 2002; Walpole, et al., 2004). These Executive Position Papers focus on developing a reading assessment system that will support the pedagogical stance of the Wilmington Montessori School, provide reliable and valid information so teachers can match instructional strategies to the child's needs, communicate with parents, and evaluate program strengths and weaknesses across and within program levels.

Increasingly researchers are finding that classroom-based assessments are an effective and important part of being a successful reading teacher. Effective

teachers constantly monitor each child's reading skills and provide instructional scaffolding to help the child move to the next stage. This same information is the foundation for communicating with parents about the child's progress (Morrow, et al., 1999; Pressley, 2001, 2002; Pressley, Wharton-McDonald, Raphael, Bogner, & Roehrig, 2002; Wharton-McDonald, et al., 1998). In addition, students in classrooms that use classroom-based reading assessments have greater gains in achievement than those in classrooms that do not focus on classroom-based assessments (Meisels, S.J., Atkins-Burnett, S., Xue, Y., Bickel, D. D., Son, S.H., & Nicholson, J., 2003; Ross, 2004; Stecker, Fuchs, & Fuchs, 2005). Classroom-based assessments, when used effectively, have helped identify children at risk for early reading difficulties. In addition, they can guide instructional decisions so that intensive services can be avoided (Baker & Smith, 2001; Walpole, et al., 2004).

In addition to the research on how individual teachers use classroom-based reading assessments, studies have consistently found that schools demonstrating higher reading achievement systematically use classroom-based assessment information to provide diagnostic information for children at risk of reading failure, inform program decisions, communicate with parents, and develop coherence across the school program (Mosenthal, et al., 2002; Taylor & Critchley, 2002; Taylor, Pearson, Clark, & Walpole, 2000, 2002; Taylor, Pressley, et al., 2000, 2002). Research also indicates that effective schools use a variety of classroom assessments, both formal and informal, to collect school-wide data about reading for program evaluation. The teachers in such schools demonstrate a clear understanding of the reading goals and agree about classroom assessments. Within the consistency and continuity created by common goals and assessments, this research suggests that the

teachers must have autonomy to make instructional decisions when meeting the needs of individual children. In these schools, assessments support the teacher and child in understanding both the child's progress and challenges in learning to read (Mosenthal, et al.2002; Mosenthal, et al., 2004; Taylor, Pearson, et al., 2000, 2002; Taylor, Pressley, et al., 2000, 2002; Walpole, et al., 2004).

Clearly, reading assessment is an important aspect of the classroom and educational program in a school, including Montessori schools. This paper reviews specific features of the research so that a Montessori School can develop a model for an effective system of classroom-based reading assessment. These features are teachers and their use of assessments, goals for reading that should be monitored in an assessment system, and aspects of the Montessori philosophy that may affect the implementation in a Montessori school.

First, research indicates that teachers' knowledge of and beliefs about assessment will influence their use of classroom assessments (Aschbacher, 1993; Shepard, 2000b). This research will be reviewed to identify the formal and informal classroom-based assessments used by teachers, the goals for their use, the knowledge base needed to use them effectively, and the possible influence of teachers' pedagogical beliefs on the effective use of classroom assessments (Meisels & Piker, 2001; Paris, 2003; Paris & Hoffman, 2004).

Second, the research on the effective use of classroom-based assessments indicates that it is important for schools to develop a common understanding of the various stages of children's reading development and to use this information to frame the reading goals for the school (Au, 1994; Hiebert & Davinroy, 1993; Mosenthal, et al 2002; Paris et al., 1992; Valencia & Place, 1994). Therefore, the research will be

reviewed to understand both the stages of children's development as readers and the literature's suggestions for goals for reading instruction (Chall, 1983; Ehri, 1991; New Standards Primary Literacy Committee, 1999; New Standards Speaking and Listening Committee, 2001; Snow, Burns & Griffin, 1998; Spear-Swerling & Sternberg, 1996).

Because the Wilmington Montessori School is founded on Maria Montessori's philosophy of education principles, it is important to understand features of this philosophy as they relate to implementing a school-wide reading assessment system. These include her thoughts regarding children as self-motivated, her stage theory illustrated through the planes of development and sensitive periods, her understanding of the development of writing and reading, and her view of the role of the teacher as observer.

Teachers and Their Use of Classroom-Based Assessments in Reading

Teachers create or control the majority of assessments used in classrooms (Paris, et al., 2002; Stiggins, 2001). These assessments fall into two large categories: informal and formal assessments. Informal assessments do not have prescribed rules for scoring and administration and have not undergone scrutiny for reliability and validity. They include teacher-developed assessments and authentic or performance-based assessments developed from the classroom instruction. Some informal assessments may be published in journals and adopted by a classroom teacher. Formal assessments have a set format for administration and provide standardized scores, allowing comparison of the assessed students with a sample group of students who had already taken the assessment (Castillo, 2006). A distinction of this latter category is that they are controlled by the teacher and embedded in the curriculum unlike the

traditional standardized assessments that are administered on a schedule controlled by administrators or policymakers (Paris, et al., 2002).

Teachers and schools can consider many types of informal and formal classroom-based assessment tools. Teacher-developed informal assessments include anecdotal records, observations, portfolios, checklists, informal reading inventories, running records, work samples, journals, written summaries, conferences, oral and written retellings, and other informal tools that teachers may acquire from the internet, journals, and each other (Bauer, 1999; Hodges, 1997; Johnston, Guice, Baker, Malone, & Michelson, 1995; Paris & Hoffman, 2004; Paris, et al., 2002; Roemer, 1999). Meisels and Piker (2001) collected information from Web sites, list serves, literature searches, published reviews of assessments, and newsletters, finding 89 forms of non-commercial classroom assessments measuring 13 literacy skills and 133 sub-skills for teachers in K-3 classrooms. In a study of commercially-produced reading tests, Pearson, Sensale, Vyas, and Kim (1999) found that there were 148 tests with 468 subtests available to teachers. Interestingly, studies suggest that teachers use many different tools to assess reading, preferring assessments they design or performance-based assessments to commercially-produced assessments. In fact, observations, anecdotal records, work samples, and informal reading inventories are consistently cited by teachers as primary assessment tools (Hodges, 1992; Paris & Hoffman, 2004; Paris, et al., 2002; Roemer, 1999). Commercially prepared assessments used by teachers consist primarily of materials that come with a basal reader (Paris, et al., 2002).

A primary use of classroom assessments is summative, providing information for the preparation of report cards, preparing for parent conferences, and

providing information for referral processes. The primary source of data for these purposes comes from teacher observations, portfolios, individual reading inventories, and work samples. Teachers report that informal classroom assessments are better at reflecting the "whole child" than are formal standardized assessments. In addition, many teachers believe that teacher-made and performance assessments better enlighten their instructional decisions; consequently, they impact student learning more than standardized assessments do (Baker & Hall, 1995; Hodges, 1992; Paris & Hoffman, 2004; Paris, et al., 2002; Roemer, 1999; Stiggins, 1991, 2001).

Parental reports and referral processes can have important long-range implications for a child, thus raising the issue of the validity and reliability of teachers' judgments derived from classroom-based assessments. It should be noted, however, that studies indicate that teacher judgments about children's reading achievement based on classroom assessments can reliably discriminate between developmentally appropriate levels and identify children at risk for reading difficulties. In other words, the data from classroom-based assessments often correlates with performance on standardized assessments. In a three-year study of kindergarten through second grade teachers and 136 children in New York, Hodges (1992, 1997) investigated the correlation of teachers' judgments of student progress—based on alternative classroom assessments including anecdotal records, observation checklists, work sample portfolios and work pages from the basal reading series—with standardized testing data and found that teachers' classifications of students as above average, average or below average correlated significantly with their performance on a standardized achievement test.

As part of a long-range study of teachers' use of classroom assessments in a non-graded elementary school, Baker and Hall (1995) found that assessments—such as Concepts of Print (Clay, 1979), measures of oral reading fluency, and retellings—discriminated between reading skills of children in first, second and third grades. In addition, this study found that these assessments also yielded results that differentiated between children who were receiving special needs services and those in the regular classroom. Similar results were found in a study of the Work Sampling System (Meisels, Bickel, Nicholson, Xue, & Atkins-Burnett, 2001; Meisels, Liaw, Dorfman, & Nelson, 1995). The Work Sampling Systems is a structured system of portfolio use, checklists, and summary reports collected by teachers as a part of their regular instruction.

Teachers in these studies received considerable training on the use of classroom-based assessments and agreed on the goals that were being monitored through the classroom-based assessments (Baker & Hall, 1995; Hodges, 1992, 1997; Meisels, et al., 2001; Meisels, et al., 1995). Hodges (1992, 1997) found that when there were differences in the teachers' ranking and the child's placement on the standardized test, the teachers were more likely to rank a child below their tested level. She gives several explanations for this discrepancy: (a) teachers tended to have high expectations for those children who typically ranked above national averages in reading, and (b) children who were ranked below level often were judged as immature and/or were discipline problems in the classroom. These results prompt the caution that teachers using classroom-based assessment for high stakes decisions, such as referral procedures, must be aware of the potential bias of confusing academic achievement and discipline issues (Hodges, 1992, 1997).

Parents are primary stakeholders when a school relies on classroom assessments as a basis for parent reporting and for reporting on the school-wide performance of the program. Therefore, it is important to consider how parents experience reporting based on classroom assessments. Many schools that focus on classroom-based assessment summarize the information for parents through a combination of systems, which may include narrative reports, parent conferences, and checklist formats. Parents in such schools report that they learn more about their children's progress through formats based on classroom assessments than through more standardized assessment reports (Diffily, 1994; Meisels, Xue, Bickel, Nicholson, & Atkins-Burnett, 2001; Shepard & Bliem, 1993). These studies also report that parents have confidence in the knowledge that the classroom teacher has about their child's progress when a teacher uses classroom-based assessment data as a foundation for communication. However, parents expressed some loss of understanding of their child's ongoing progress between progress reporting times when work samples were kept in the classroom and not sent home regularly because these parents were looking for specific information to reassure them of their child's progress (Diffily, 1994). Specifically, they wanted to know how their child was doing in relation to other children in the same grade, how they related to grade-level expectations, how they could help their child at home, and in some cases, how their child's progress in this school would translate if he left to attend a different school (Diffily, 1994; Shepard & Bliem, 1993). Meisels, Xue, Nicholson, and Atkins-Burnett (2001) found that the message sent by teachers regarding the value of alternative assessments and progress reporting with the availability for face-to-face communications positively affected parents' perceptions of classroom assessments and narrative reporting.

In summary, teachers use a wide variety of classroom assessments, including informal teacher-made assessments and formal commercial classroom assessment tools. Teachers report that they use these tools as data sources to document children's progress for report cards, parent conferences and referrals for extra services. Studies show that teachers' decisions about a child's achievement based on their classroom assessments correlate to standardized achievement tests. However teachers need to be aware of their own biases based on children's behavior in the classroom. Finally, parents in schools using such assessments feel that they are well informed about their child's progress when a teacher uses classroom-based assessments in conferences.

The Impact of Classroom-Based Assessments on Instruction

Collections of classroom-based assessments are important tools for teachers when reviewing a child's summative progress. However, researchers have found that successful reading teachers use classroom-based assessments, both formal and informal, as a part of their daily instructional process (Pressley, 2001, 2002; Pressley, et al., 2001; Pressley, Rankin, & Yokoi, 1996; Pressley et al., 2001; Taylor & Critchley, 2002; Taylor, Pearson et al., 2000, 2002; Taylor, Pressley, et al., 2000, 2002). Using classroom assessments in a formative manner has a greater potential to impact teaching and learning than do the summative uses of classroom assessments (Johnston & Rogers, 2001; Paris, 2002a; Shepard, 2000b; Stiggins, 1991, 2001; Tierney, 2000; Valencia, 2000).

In the final comments in his book, *Literacy Instruction That Works: The Case for Balanced Teaching*, Michael Pressley (2002) addresses assessments in the classrooms of excellent teachers.

Excellent teachers are always informally assessing their students, monitoring where each student is and what each student needs. The excellent teacher acts on that monitoring, providing appropriate instruction or direction to each and every student in the room (p. 355).

Pressley's comments refer to a series of observations conducted as a part of studies attempting to define effective first-grade teaching (Pressley, et al., 2001; Pressley, Wharton-McDonald, Allington, Block, & Morrow, 1998; Wharton-McDonald, et al., 1998). These studies report that effective teachers had confidence in their knowledge about children and the children's reading development and their own ability to know when a child was on track as a reader. In effect, these teachers were implementing assessment to provide instruction on the edge of what a child can do independently, or in the child's zone of proximal development, as described by Vygotsky (Johnston & Costello, 2005; Paris, 2002a; Shepard, 2000a; Shepard, 2005; Stiggins, 1991, 2001; Tierney, 1998; Valencia, 1997). Indeed, formative assessment models seem to support the cognitive and constructivist views of learning that have informed instructional practices for some time (Johnston & Costello, 2005; Shepard, 2000; Stiggins, 1991, 2001). However, as discussed earlier, when surveyed about the uses of classroom-based assessments, most teachers seem to use them primarily to make summative judgments about children's progress rather than for day-to-day instructional decision making. Indeed, the previously cited studies of first grade classrooms found that few teachers used assessments in an embedded way to inform instructional decisions. In fact, according to these researchers they observed few effective reading teachers (Pressley, 2002; Pressley, et al., 1998; Pressley, et al., 2001)

One explanation may be that education is in the midst of a paradigm shift from a focus on the summative use to a more formative view of assessment as a result of the changes in the theoretical lenses influencing education over the last century.

Lorrie Shepard (2000b) describes the current period as a transition from the belief that instruction and assessment have separate roles in the classroom to a future where classroom assessment is woven into teaching and is integral to learning. She views this transition time as one where teachers continue to hold on to past practices grounded in earlier theories of learning, while exploring new practices grounded in more current theories and research. They do this through a combination of classroom-based assessment and external assessments in their classrooms.   The teacher's beliefs about assessment influence where that teacher's practice is in relation to this transition. These beliefs are a complicated web of their own experiences in schools and cultural expectations (Aschbacher, 1993; Bliem & Davinroy, 1997; Johnston, et al., 1995; Johnston & Rogers, 2001; Shepard, 1997, 2000a; Stiggins, 1991, 2001). In her report "*The Role of Classroom Assessment in Teaching and Learning"*, Shepard (2000b) addresses the challenge that arises when changing belief systems:

> Belief systems of teachers, parents, and policy makers are not exact reproductions of formal theories. They are developed through personal experience and from popular cultural beliefs. Nonetheless, formal theories often influence implicit theories held and acted upon by these various groups; and because it is difficult to articulate or confront formal theories once they have become a part of the popular culture, their influence may be potent but invisible long after they are abandoned by theorists (p. 4)."

Research in schools where teachers are learning to use classroom-based assessment to inform instruction indicates that there are implementation challenges presented by teachers' beliefs about the purposes of assessments and the work needed to effectively use classroom-based assessments (Aschbacher, 1993; Baker & Hall, 1995; Bauer, 1999; Bliem & Davinroy, 1997; Hiebert & Davinroy, 1993; Johnston, et al., 1995; Shepard, 1997; Smith, Baker, & Oudeans, 2001). In particular, researchers

working closely with classroom teachers find that the teachers' beliefs and practices, even those using more current instructional practices, may not match the beliefs and practices of researchers when it comes the role classroom assessment (Aschbacher, 1993; Bliem & Davinroy, 1997; Shepard, 1997, 2000a, 2000b). Contrasting the findings of these studies with statements on classroom assessment found in the position statements of national organizations and reports may serve to clarify the challenges expected in a school seeking to develop a classroom-based, school-wide reading assessment system (International Reading Association 2000; National Association for the Education of Young Children 1998; Snow, et al., 1998).

Much of the research on teacher beliefs about classroom-based assessment comes from the Center for Research on Evaluation, Standards, and Student Testing (CRESST) where researchers worked with teachers in Colorado on implementing performance assessments in various instructional areas. Heibert and Davinroy (1993) focused on the implementation of a common core of classroom-based assessments related to the goals for reading in the classrooms of 14 third-grade teachers. The researchers were closely involved with the schools they were working in, providing support to the teachers throughout the year and documenting their work through transcripts of weekly teacher meetings and classroom observations. In each school, the teachers appeared to have a more progressive model for instruction than they did for assessment (Shepard, 1997). The CRESST research combined with that of other researchers working closely with teachers on assessment will provide a comparison of teachers' beliefs and practices with the goals of effective teachers as described by the International Reading Association in their position paper *Excellent reading teachers:*

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A position statement of the International Reading Association, (International Reading Association, 2000)

The International Reading Association's standards state that effective teachers are constantly observing children as they work (International Reading Association, 2000). Such teachers use their knowledge of literacy development and standards, combined with knowledge gained from assessment, to determine the next steps for a child as a learner. However, studies indicate that many teachers find it difficult to embed assessment in their classroom work and even more of a challenge to reflect on it to guide instructional decisions. In a review of the literature on the impact of classroom assessment on instruction, Bauer, (1999) found only a vague link between assessment and instruction in the classrooms studied. While teachers reported knowing students better and gaining confidence in parent reporting about children's progress, they did not clearly address the ways they changed their instructional practices as a result of assessments. Analysis of transcripts from the weekly meetings of teachers implementing classroom-based assessments indicates that teachers felt the assessments gave them concrete information for parent conferences and for grouping children (Bliem & Davinroy, 1997; Hiebert & Davinroy, 1993). However, they had what Bliem and Davinroy (1997) refer to as "pre/post test mentality." The teachers' comments indicated that they saw performance assessments as something that interrupted instructional time rather than as a complement to their instruction. Other studies confirm that, when schools first implement classroom-based assessment, teachers may see assessment as separate from instruction because they are designing specific tasks that they stop and administer rather than designing instructional activities that may also serve as assessment opportunities (Au, 1994;

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Bliem & Davinroy, 1997; Shepard, 1997; Valencia & Place, 1994). In addition, in many of these schools, teachers continued to teach the content of the curriculum to all the students regardless of the information that they gained about the child's needs from the assessments. In a study of teachers' approaches to assessment, Gipps (1994) describes these teachers as evidence gathers. In other words, they collected information from students' classroom work, which they reflected on and used primarily to inform summative evaluative situations such as the writing report cards rather than using the information for daily reflection on instruction. The teachers in these studies seem to continue to work from a model that has instruction and assessment acting as separate functions in the classroom rather than from the more integrated model of effective teachers put forth by IRA (International Reading Association, 2000; Morrow, et al., 1999; Paris, 2002a; Pressley, 2002; Shepard, 2000a, 2000b; Stiggins, 1991, 2001).

The International Reading Association (2000) describes excellent teachers as ones who share discussions about children's learning with children in a self-evaluation process increasing the child's cognitive awareness and motivating the child. This self-evaluative interaction is one of the primary assets of classroom-based or formative assessment to improve achievement in the classroom (Stiggins, 1991, 2001). Using classroom assessments supports the concept of a collaborative learning community with many opportunities for the child to reach the goals of the assessments, unlike the more traditional view of assessment as a one-time evaluation at the end of a unit of instruction (Shepard, 2000a, 2000b; Stiggins, 1991, 2001). However, some teachers appear to be concerned that sharing assessment information with children who are not performing at grade level will lessen their motivation

(Hiebert & Davinroy, 1993; Johnston, et al., 1995). Aschbacher (1993) describes an "assessment anxiety" in teachers, implying that assessment means being judged or judging. In a study of the assessment practices of 25 elementary teachers, Johnston and Costello (1995) found that teachers either viewed assessment as a way to determine what children could do or a way to determine what children could not do. Those who viewed assessment with a deficit model tended to use labels such as "grade levels," "dyslexic," and "reading disabled" to describe children. They also were less apt to use assessments as self-evaluation tools with children. In contrast, teachers who saw assessments as informing them about what children can do were more likely to view assessments as something to share with children to help them take their next steps as learners.

Quality classroom-based reading assessment is flexible, so it can meet the individual needs and levels of the child (International Reading Association, 2000; Paris, 2002a; Valencia, 1997). Put another way, teachers need to be able to pick and choose the appropriate assessments for individual children according to their instructional goals as well as the child's developmental stage as a reader. However, the traditional model of assessment as something that must be fair, equitable, and given to all children at the same time seems to pervade many practices in the classroom. For example, Bliem and Davinroy (1997) found that teachers felt that the running records they were using had to be given to all students at the same time. Thus, running records became a tool for grouping children and measuring achievement. Despite the urging of the researchers, it took a full year before the teachers began to use running records more frequently with children who were having more difficulty with reading and less frequently with others. In addition, the teachers

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did not feel comfortable with the flexibility of the running record. They spent much time as a group discussing how to do the running records the "right way," how to score miscues and self-corrections, and how to standardize the administration of running records across classrooms. However, these teachers did not seem to see the connection between what they could learn from children's miscues and their own instructional decisions. Similarly, Johnston, et al. (1995) found that teachers in a literature-based classroom without a basal system struggled to find ways to replace the traditional basal assessments. As they worked with less traditional means of assessing children, they seemed hindered by the concept of what could count as assessment and the need for standardization of assessments. A related issue for the teachers in the CRESST Studies (Bliem & Davinroy, 1997; Hiebert & Davinroy, 1993) was the concept of classroom-based assessments having multiple uses. For these teachers, each assessment had one purpose. Running records measured fluency, but not meaning making. Written summaries measured specific literal recall of events in a story but not higher-level evaluative thinking. Clearly, the value of classroom assessments in providing individual instructional guidance for children is dependent on the teacher's comfort level with the concept of equity in assessment being more about each child getting what he needs than about everyone needing the same kinds of assessments.

Teachers who effectively use classroom-based reading assessments have an understanding of the goals of literacy instruction and the way these goals are reflected in the assessments they use in the classroom (Au, 1994; Hiebert, Valencia, & Afflerbach, 1994; IRA, 2000; Paris, et al., 2002; Valencia, 1997). However, teachers seem to be insecure about identifying the goals of assessments, especially if they are

teaching without a basal reading program with structured assessment. Studies indicate that teachers are not sure that they are assessing the right things and want guidance about what they should be looking for in children's work (Johnston, et al., 1995). Johnston and Costello (1995) note that this may be because teachers relied on external testing to validate their work for so many years. In a study of teachers using performance assessments, Aschbacher (1993) found that when asked to identify the goals of an activity, teachers, instead, focused on the activity. When the teachers did seem to be aware of the goals of an assessment activity, they were usually so internalized that it was difficult for the teacher to put them into words. However, knowing the goals for assessment activities is essential to matching assessments to children at various stages of development. Unfortunately, research indicates that teachers have a difficult time discerning the reading goals that they are observing in less formal embedded classroom-based activities.

Finally, time and record keeping are two areas that are functional in nature and affect the use of classroom-based assessments. Repeatedly, researchers studying the implementation of classroom assessments refer to the teacher's concerns about the time it takes to administer classroom assessments, especially individual assessments (Aschbacher, 1993; Bliem & Davinroy, 1997; Johnston, et al., 1995; Shepard, 1997). If classroom-based assessments are to be used effectively, teachers must be helped to learn ways to gather assessment information easily and effectively during the busy school day. The more they see the connection between assessments that inform instruction, the more they will view assessments not as an interruption to their instructional practices but as an integral part of instruction.

Record keeping is an important aspect of classroom-based assessment as teachers learn to carefully listen, observe, and record what they see children doing (Valencia, 1997). In her description of the styles of teachers, Gipps (1994) refers to teachers who use classroom assessment to guide instruction as systematic planners. In other words, they plan specifically for classroom assessment, identifying the tasks and activities which inform the goals of literacy in their classrooms. They use a variety of techniques to assess and record what they are observing, learning not only through questioning and discussions with students but also through more deliberate assessments such as running records. Gipps contrasts this teacher to the intuitive assessor who rejects recorded assessment as too formal and structured. An intuitive assessor does not feel that assessment is about the whole child. As the title implies, intuitive assessors use their intuition as they make instructional decisions with little record keeping for reflection. They rely heavily on their memory and the stories of the classroom to articulate children's progress. Not surprisingly, teachers' beliefs about assessment and teaching and learning seem to influence the style of assessment that teachers use in the classroom: intuitive, evidence gatherer (referred to earlier) or systematic planner. It should be noted that the teachers in effective classrooms seem to most closely resemble Gipp's description of the systematic planner (Mosenthal, et al.2002; Pressley, 2002; Taylor, Pearson et al., 2000, 2002; Taylor, Pressley et al., 2000, 2002; Valencia, 1997).

The research reviewed indicates a dichotomy exists between what teachers may practice in regards to classroom-based assessments and what the research indicates are best practices in assessment. The challenge is developing the knowledge of teachers about the seamless use of assessment to inform reading

instruction in the classroom to implement assessment practices supporting the theories of learning that guide instructional practice today. Stiggins (2001) states that, as a result of the separation of assessment and instruction that dominated much of classroom practice throughout most of the past century, teachers have had little training in what makes good day-to-day practices in assessment. He states, "It is as if someone somewhere in the distant past decided that teachers would teach and they would need to know nothing about accurate assessment" (Stiggins, 2001, p. 5).

Given this review of the research, there appear to be three key factors to supporting teachers in the effective use of classroom-based assessments, both as summative and formative evaluation tools. First, researchers working closely with teachers consistently note that teachers need extensive time to work together collecting data from their classroom assessments and making decisions about ways to use the data in classroom instruction, for an individual student, or for the school program as whole. This conversation is supported by leadership that emphasizes a professional, collaborative environment that supports classroom-based assessments for decision making and communication (Aschbacher, 1993; Baker & Smith, 2001; Calfee & Hiebert, 1991; Gaustad, 1996; Johnston & Rogers, 2001; Mosenthal, et al., 2004; Paris, et al., 2002; Salinger, 2001; Shepard, 1997, 2000b; Smith, et al., 2001; Stiggins, 1991; Taylor, Pressley, et al. 2000, 2002; Taylor, Pearson, Peterson, & Rodriguez, 2005). Second, commonly agreed upon goals for literacy provide a foundation for a common understanding of the assessment data, the kinds of assessments used, the instructional decisions, parental communications, and professional development needed to understand instructional strategies related to the goals (Aschbacher, 1993; Au, 1994; Gaustad, 1996; Gipps, 1994; Hiebert & Davinroy,

1993; Hiebert, et al., 1994; Mosenthal, et al.2002; Paris, et al., 2002; Shepard, 2000b; Smith, et al., 2001; Stiggins, 2001; Taylor, Pressley et al., 2000, 2002; Taylor, et al., 2005; Walpole, et al., 2004). Third, teachers need to know about assessments that match the school's reading goals. As discussed earlier, there is a wide selection of both formal and informal assessment tools available to teachers. Deciding which assessments are the most useful is time consuming for teachers who manage many day-to-day classroom concerns. Hence, successful schools have identified common sets of assessments that are agreed upon by the teachers in the school community. In addition these schools have alternative assessment tools that support the formative nature of assessment in a strong literacy-focused classroom (Au, 1994; Mosenthal, et al.2002; Paris, et al., 2002; Valencia & Place, 1994; Walpole, et al., 2004).

Now, the discussion will turn to research and resources that help to define the goals of literacy to develop a school-wide, classroom-based reading assessment system. The paper will close with a discussion of the Montessori educational method comparing and contrasting some of the key principles of Montessori with classroom-based reading assessment and the goals for literacy. The issue of developing a bank of assessments for teachers will be addressed in the third position paper.

Literacy Development: What should be assessed?

In order for classroom-based assessment to be a successful tool not only for the teacher's decision making in the classroom and communication to parents but also for program evaluation (Calfee & Hiebert, 1991; Salinger, 2001; Shepard, 2000a; Stiggins, 2001; Valencia, 2000), it is important to set clear reading goals. This common understanding builds construct validity in a school-wide, classroom-based assessment system (Calfee & Hiebert, 1991; Salinger, 2001) that Salinger identifies as

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a key factor in the credibility of this system. Construct validity, as described by

Salinger, includes the teachers' understanding of the important goals of literacy, their

ability to match assessments to those goals, and their ability to talk about these goals

with parents. For classroom-based assessment to be successful for program

evaluations as well as for instructional decisions in a Montessori school teachers need

clarity about goals and outcomes for children's learning (Roemer, 1999). A review of

the current studies of reading and national standards will be valuable in defining the

appropriate goals and outcomes.

Resources such as the New Standards Primary Literacy Committee

(1999), the National Reading Panel (2000), and the Committee for the Prevention of

Reading Difficulties in Young Children (Snow, et al., 1998) inform educators about

the goals for reading instruction. While the goals of each group were slightly different

(setting standards and indicators, identifying best instructional strategies, and

determining the indicators of reading difficulties), each study draws on a wide body of

research in literacy, converging to form a picture of literacy instruction. All three

studies maintain that phonemic awareness, systematic phonics, fluency, vocabulary

and reading comprehension are important to the ultimate goal of reading for meaning.

Interwoven within each of these works is an understanding that motivation plays an an

important role in reading success (Snow, et al., 1998).

The broad categories of the New Standards Committee's goals for literacy

(developing a working knowledge of the print-sound code, getting meaning from

reading, and developing reading habits) will be used as a frame of reference for this

position paper. The work of this committee was chosen because of the nationally

developed standards that can be used in Montessori Schools in various states. The Co-

directors of the project, Lauren Resnick and Marc Tucker, describe the twenty-one

committee participants as representatives of the various viewpoints within the reading

community who came together to focus on what children needed to know and be able

to do rather than on a specific ideology. The standards connected to the work of the

National Research Council, with five members serving on the Committee for the

Prevention of Reading Difficulties in Young Children. In addition, the New Standards

Committee's work is important to the present project because they tie the behaviors of

the standards to the text levels as well as grade levels. Many Montessori Schools do

not use a traditional basal approach to reading. The connection to book levels and the

description of the corresponding text at those levels provides clear benchmarks for

Montessori teachers. Finally, the committee has provided numerous examples of

student work exemplifying the standards as well as video discs of children at the

various stages of development. This latter resource provides professional

development opportunities and supports conversations among teachers as they build a

common understanding of each goal.

To create a complete picture of reading development through the work of

the New Standards Committee, I reviewed both the *Speaking and Listening for

Preschool through Third Grade* (New Standards Speaking and Listening Committee,

2001), and *Reading and Writing Grade by Grade* (New Standards Primary Literacy.

Committee, 1999) both of which provide standards for kindergarten to third grade.

The ultimate goals for reading are found in the *Standards for Reading and Writing*.

Much of the foundational knowledge that leads to these standards is found in *Speaking

and Listening for Preschool through Third Grade*. The *Speaking and Listening

Standards* include three areas: Habits, Kinds of Talk and Resulting Genres, and

Language Use and Conventions. Each area is broken into components. Habits of Talk include talking a lot, talking to one's self, conversing at length on a topic, and discussing books. "Kinds of Talk and Resulting Genres" includes the components of narrative, explaining and seeking information, getting things done, and producing and responding to performances. Language Use and Conventions includes rules of interaction, word play and grammatical awareness, vocabulary and word choice. *The Reading and Writing Standards* include three areas related to reading: Print Sound Code, Getting the Meaning, and Reading Habits, which also have several components that will be explored and connected with the foundation in the *Listening and Speaking Standards*. The combination of the two standards informs the continuum of the standards related to reading across the preschool and elementary years found in many Montessori Schools.

   The New Standards in Reading and Writing creates a framework for reading instruction goals across a Montessori School. However, research indicates that there are several stages that children move through from the time of birth that further define a child's expected growth in reading (Chall, 1983; Ehri, 1991; Juel, 1991; Spear-Swerling & Sternberg, 1996). These stage theories are particularly developed as related to the standard for print-sound code and for the development of accuracy and fluency both of which are important to later reading comprehension (Spear-Swerling & Sternberg, 1996). Juel (1991) states that:

> Stage models are based upon the idea that there are qualitative differences in how children approach print at different times (or stages) in their development. In each stage a different strategy or process may be dominant in identifying words not immediately recognized. Qualitative rather than quantitative, changes are viewed as leading to progress in reading. (p. 768)

The research on stage models informs the qualitative differences that should be monitored by the classroom teacher as a child moves to the goal of proficiency with the print-sound code around age eight and the goals of accuracy and fluency at age nine. Teachers need to be aware of these finer stages of development within the larger goals of the New Standards so that they can track children's progress and match instructional strategies to support them.

An important aspect of classroom-based assessment is to help teachers recognize when a child may not be progressing as a reader. This awareness is not intended to "label" children, but to allow for the matching of different instructional strategies to that child's strengths and challenges so that reading failure may be prevented. Research shows that if precursors such as delays in the development of phonemic awareness are recognized, they can be remediated through focused instruction, thereby preventing reading failure for many children (Compton, 1997; Rathvon, 2004; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996; Torgesen, 1998). This is the time to make adjustments to instruction so that the child will be successful (Adams, 1990; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996). Spear-Swerling and Sternberg (1996. p. 250) state, "…teachers can help children to become good readers by being sensitive to individual differences, by understanding how these differences affect reading acquisition, and, to whatever extent possible, by addressing these differences instructionally."

In their book *Off Track: When Poor Readers Become Learning Disabled*, Spear-Swerling and Sternberg (1996) address the places where a child may deviate from the normal progression of reading development, creating an alternate "track" of development that poor readers may follow. Spear-Swerling and Sternberg point out

that three things can happen when a child gets off the track of normal reading development: the child can make progress on the alternative track; the child cannot make any progress at all; or the child can move back to the typical developmental track if provided with the right instruction. Research shows that the primary road blocks affecting reading progress lie in the development of the alphabetic principle, later development of comprehension, and motivation to read—which may be a result of struggles in the other identified areas (Rathvon, 2004; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996). In addition, the Committee on the Prevention of Reading Difficulties in Young Children (Snow, et al., 1998) identified child-based, family-based, and school-based factors that may place a child at risk of reading difficulties. The Spear-Swerling and Sternberg model, based on the stage theory of Ehri (1991), provides a picture of the development of the normal reader and the child who is off track, which will inform the discussion that follows. Understanding the normal progression of reading development and factors that may lead to later reading failure is important for the development of a school-wide reading classroom-based assessment system that will prevent children experiencing reading failure.

The following discussion will merge the *New Standards for Reading* (understanding the print-sound code, getting meaning, and reading habits) with the foundations in the *New Standards for Listening and Speaking* as a foundation for the literacy goals in a school-wide classroom-based reading assessment system. Each standard is clarified in a table following the description of the standard. The discussion will be further informed by the stage theories of reading development (Chall, 1983; Ehri, 1991; Juel, 1991; Spear-Swerling & Sternberg, 1996), creating a more complete picture of the progression towards the standards as identified in the

New Standards for Reading and Writing. Understanding and recognizing the risk factors that have been identified as predictors of reading failure will complete the knowledge needed for teachers to monitor the early development of reading through classroom-based assessments, informing instruction and possibly preventing future reading failure (Rathvon, 2004; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996). Combining the goals of the New Standards, the developmental stages of reading, and research on the indicators of future reading failure (Snow, 1998), will guide the choices for classroom-based assessments related to each of the three goals of the New Standards.

Print-Sound Code

The first reading standard in the *New Standards for Reading and Writing* addresses the development of the print-sound code, including the following components: phonemic awareness, knowledge of letters and sounds, and automatic reading of words in developmentally appropriate materials. This standard's goals are for the child to develop automaticity in the ability to recognize words by the end of second grade, a foundation for the ability of the child to focus on reading for meaning in increasingly difficult text over the school years. This standard focuses on the child's development of phonemic awareness and use of her or his orthographic knowledge, which research shows to be important to fluent reading (Adams, 1990). The foundational knowledge for this understanding lies in the development of phonological awareness and the alphabetic principle, including letter knowledge and sounds in the *Standards for Speaking and Listening*. Combining the two sets of New Standards creates a more complete picture of the development of the print-sound code leading to automaticity from preschool to third grade.

The New Standards state that preschool children show development of phonological and language awareness when they can listen for rhythm and rhyme in stories and songs, play with alliteration and word substitution, listen for and identify the beginning, middle, or last sound in a word, begin blending word parts, build recognition of letter names and shapes, and understand that print is words written down. In kindergarten and first grade, children develop their understanding of phonemic awareness so that by the end of first grade they can produce rhyming words, isolate initial consonants, segment the onset and rime in single syllable words, segment individual sounds in single syllable words, and blend onsets and rimes and individual sounds to form words. The knowledge of letters and their sounds should be firm by the end of kindergarten, with use of the knowledge of letter sounds (phonics) to figure out words, beginning in kindergarten carrying through to early second grade. Clearly, the development of reading does not end at second grade. However, this is the age at which children are expected to have mastered the print-sound code (New Standards Primary Literacy Committee, 1999). The next phases of fluency, accuracy and self-correcting, are more closely aligned to the standards on getting meaning which will be discussed later.

Table 1.1 illustrates the goals of the Print Sound Code in the *New Standards for Reading and Writing.*

Table 1.1 **New Standards in Reading for Print-Sound Code (New Standards Primary Literacy Committee, 1999; New Standards Listening and Speaking Committee 2000)**

Phonological Awareness	Phonemic Awareness		
Preschool	**Kindergarten**	**First Grade**	**Second Grade**
• listen for and play with rhythm of language • recognize and enjoy rhymes • play with language through songs, alliteration, and word substitution • listen for and identify the first, middle or last sound or word in a string of sounds or words • listen for and identify the missing sound or word in a string of sounds or words • try oral blending of familiar word parts	• produce rhyming words and recognize pairs of rhyming words • isolate initial consonants in single-syllable words • segment onset and rime in single-syllable words • segment individual sounds in single-syllable words by saying each sound aloud • blend onsets and rimes to form words • blend separately spoken phonemes making meaningful words	• demonstrate by the end of the year all of the skills for Kindergarten. • separate the sounds by saying each sound aloud • blend separately spoken phonemes to make a meaningful word.	• identify the number of syllables in a word
Knowledge of Letters and Sounds			
• build letter recognition	• recognize and name most letters • recognize and say common sounds of most letters • write letters that go with a spoken sound • use letter/sound knowledge to write phonetically; (CV, CVC, CCVC words) representing consonant sounds individually	• know regular letter sound correspondences	
Reading Words			
• transition from speech to print (for example, giving labels for pictures, dictating stories, beginning to use letters and words)	• use letter-sound knowledge to figure out simple CVC words • read simple texts with familiar letter-sound correspondences and high frequency words • read about 20 high-frequency words by sight	• use knowledge of regular letter sound correspondences to recognize regularly spelled one- and two-syllable words • use onsets and rimes to create new words that include blends and digraphs • recognize 150 high frequency words	• read regularly spelled one- and two-syllable words automatically • recognize or figure out most irregularly spelled words and patterns such as diphthongs, special vowel spellings and common word endings

Developmental Stages within the Print-Sound Code Standard

From birth to second grade, there are several developmental stages which a teacher must understand to guide instructional decisions, communicate clearly with parents about progress, and recognize when a child may need more intense instruction or other interventions. Chall (1983) describes the period from birth to age 6 as a broad stage of pre-reading during which the child becomes aware of books, of print, and of the meaning of print. The next stage, from ages 6 to age 7 (or midway through second grade corresponding to the New Standards Print-Sound Code development) is focused on initial reading where Chall describes children as "glued to print," relying on their knowledge of letters and letter sounds to read words. Overall, from birth to age 8, children grow from a contextually based understanding of reading, relying on picture and other symbolic cues to recognizing familiar words, to one that becomes more phonetically cue-based as they begin to learn that words are made of sounds, that letters represent those sounds, and that letters form words.

Ages 3-5 Years (Preschool). The first stage of prereading, between the ages of 2 and 5 years, is described by both Ehri (1991) and Spear-Swerling and Sternberg (1996) as the visual cue stage. During this stage, children rely on the environmental context and visual cues to read words. Typically, they do not yet know letter names and sounds and cannot use the few letters they may know to help them in recognizing a word. They use the visual context of the word (a sign, label, or other familiar visual) to help them read the word. These visuals may include the shape of the word or the pattern of letters in the word. However, they apply these rules to all words with that shape or pattern. Hence, if their rule for "dinosaur" is that it is a long word, they will refer to any long word as dinosaur. In this stage, a child may know a

word in the context of an advertisement, but not know the same word out of that context. It is also a time when children begin to develop a basic phonological awareness, an appreciation of the sound and structure of oral language, separate from meaning (Snow, et al., 1998). Typically children develop an understanding of rhyme and alliteration during the visual cue stage (Chard & Dickson, 1999).

Classroom-based assessments of preschool children in this stage can be based on the teacher's observations within the context of classroom activities as well as on individual activities designed by the teacher or more formal preschool assessments. Compton (1997) offers several suggestions for classroom assessments of children at this stage. Such assessments should focus on the child's ability to recognize common signs and logos in or out of the context of the sign or package. Children in the visual cue stage will recognize many words in context. Compton also suggests that teachers assess whether the child can recognize any high frequency sight words. Finally, teachers should assess the child's knowledge of letter names and sounds. This can be done through matching tasks, letter recognition and letter sound tasks. Children in the visual stage of reading will know few words out of context, have little or no sight vocabulary, and know some letter names and sounds.

While Spear-Swerling and Sternberg (1996) suggest that children who may have a future reading disability and typically developing children appear very similar at this stage, Compton (1997) suggests that, even at this stage, some children will show difficulty with phonological awareness activities. While not all children with phonological awareness difficulties in the preschool years will go on to be weak readers (Snow, et al., 1998), preschool teachers may want to track the development of preschool children's ability to apply rhyme and alliteration. Since oral language

development is fundamental to later reading comprehension, assessment of preschool children should include measures of oral language development, including their expressive and receptive vocabulary and their understanding of syntax and semantics (Snow, et al., 1998; Torgesen, 1998, 2002).

In addition to the early indicators of reading failure identified through this discussion of stage theories, The Committee for the Prevention of Reading Difficulties (Snow, et al., 1998) identifies several risk factors that may impact the child's progress; if recognized early, some can be addressed to prevent significant reading difficulties. These include hearing impairment, language impairment, and severe cognitive deficiencies. Most particularly, early language impairment is a significant indicator of early reading deficits. The Committee for the Prevention of Reading Difficulties states that 40-75% of children with early language impairment will develop later reading difficulties. Even children who appear to overcome their language difficulties during preschool remain at risk for later reading difficulties.

Ages 5-6 Years (Kindergarten to First Grade). The next prereading stage is phonetic-cue reading usually occurring in children between the age of 5 and 6 years or kindergarten to first grade (Ehri, 1991; Juel, 1991; Spear-Swerling & Sternberg, 1996). During this stage, children use both context and some knowledge of letter sounds to identify words. Children in this stage have developed partial or full letter-sound knowledge, alphabetical insight, can use partial phonetic cues combined with context to recognize words, and have basic phonological awareness including rhyming, alliteration, and onset and rime awareness. Ehri (1991) states that phonetic-cue readers rely on the first and sometimes the last letters of words in combination with the context to read. They may actually guess words from the first letter

regardless of the context, based on words that they have frequently seen. Children at this stage will begin to develop an understanding of phonemic awareness, that words can be divided into individual phonemes (Snow, et al., 1998).

Compton (1997) suggests that children in the phonetic-cue stage should now be able to recognize common words that appear on logos and signs without the context of the signs. They should also recognize all of the letters and most of the sounds associated with them in addition to some high-frequency words found in text. However, children in this stage may not discern the difference between words with similar letter patterns such as hot and hat. Phonetic-cue stage readers should be able to perform phonemic awareness tasks including identifying and producing rhymes (cat/bat), oddity tasks (identifying which word does not rhyme, i.e. cat/bat/hit), blending syllables and phonemes (mon-key, f-u-n) , syllable splitting (di-no-saur), phonemic segmentation (/r/ /u/ /n/), and the ability to replace sounds in words to make new words (/s/un becomes /f/un). Compton (1997) suggests that in addition to assessments of phonemic awareness, letter knowledge and sounds, and sight words, assessments at this stage include the use of nonwords. Nonwords will not be visually familiar to the child and hence require the child to use phonics skills that are not yet developed. Most phonetic-cue readers will guess at these words based on the first letter.

Spear-Swerling and Sternberg (1996) identify the first stage where a child may go off track as the non-alphabetic reader. This child does not make the transition from the visual-cue stage to the alphabetic stage because he does not develop an understanding of the alphabetical principle and early phonological reading skills. The child continues to rely on context for reading much as the visual-cue reader does. As

a result, the child has a limited ability to recognize new words and displays poor use of comprehension strategies. These children will demonstrate limited knowledge of letter sounds and will struggle with the basic phonemic awareness tasks of rhyme and oddity (Compton, 1997). Invented spelling measures given in kindergarten and first grade are strong indicators of growth in phonological awareness and letter-sound knowledge and hence future reading success. Not surprisingly, children with reading disabilities tend to be poor spellers. In fact, the pattern of poor spelling continues after the reading problem has been corrected (Rathvon, 2004). While children who do not develop phonological and phonemic awareness are at significant risk for later reading failure, direct instruction can increase a child's ability in this area (Adams, 1990; Compton, 1997; Rathvon, 2004; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996). Therefore, a fundamental component of classroom assessment for children at this stage should be a screening of phonemic awareness.

Ages 6 to 7 (First to Second Grade). Chall (1983) calls this time period the initial reading stage in which the child develops an understanding of letter-sound relationships, and decoding becomes an important strategy for figuring out words. At this stage because of the reader's reliance on the relationships between letters and sounds, other researchers call this stage the spelling-sound stage (Juel, 1991) or the alphabetic phase (Ehri, 1991). Spear-Swerling and Sternberg (1996) call it the controlled word recognition stage. During this stage, children move from phonological reading, where they apply grapheme-phoneme rules in a sound by sound decoding style, to a second stage of more sophisticated word reading, where word patterns and spellings are stored in memory allowing more fluent reading to develop (Juel, 1991). While the child is using more sophisticated knowledge of phonetic and

orthographic cues in her reading, she is not yet reading with automaticity. The child in this stage has a full knowledge of letter sounds, an advanced knowledge of phonological awareness and the alphabetic principle but may still rely on context when figuring out a new word (Spear-Swerling & Sternberg, 1996).

Children at the controlled word recognition stage should be able to perform tasks of phonological and phonemic awareness, automatically recognize letter names and sounds, and have an expanding sight word vocabulary. Compton (1997) suggests that assessments of phonetically regular and irregular words differentiate between readers who are in the phonetic-cue stage and those who have moved to the controlled word stage. Children in the phonetic-cue stage will read both lists of words, relying on their knowledge of familiar words beginning with the same letter as the word in the list regardless of whether it is a phonetically regular or irregular word. However, children in the controlled word recognition stage will read the phonetically regular words correctly and will be able to recognize many high-frequency irregular words. However, they do not yet have enough reading background to recognize low-frequency phonetically irregular words. In addition, children in the controlled word recognition stage should be able to use their knowledge of letters, sounds, and beginning spelling patterns to read lists of nonsense words that children in previous stages were not able to read.

The step from phonetic-cue reader to controlled word recognition is the second stage where Spear-Swerling and Sternberg (1996) note that readers can go off track. They call this the compensatory reader stage. The compensatory reader has a better grasp of the phonetic cues and word recognition than does a non-alphabetic reader but is not an accurate reader. Compensatory readers rely on sight word

knowledge and contextual cues to compensate for weak decoding skills. The concern for these children is that word recognition requires so much attention that they are not able to focus on the ultimate goal of understanding what they read. Spear-Swerling and Sternberg point out that it is common for children in the early stages of reading to read like a compensatory reader; however, they move from that stage in a few months while others will be stuck in this stage. Compton (1997) emphasizes that knowledge of phonemic awareness is again a fundamental signal of a child who will become a compensatory reader, stating that it is the lack of solid phonemic awareness that hinders the children from using their knowledge of the alphabetic principle as an effective reader. These children will do poorly on assessments of more challenging phonemic awareness tasks of segmentation (sun is /sss/ - /uuu/ - /nnn/) and deletion (sun without the s is /uuu/ - /nnn/).

Compensatory readers have a slower growth of reading vocabulary due to the inability to use word recognition strategies and spelling patterns to efficiently recognize words. Compton (1997) suggests teachers may use similar tasks to assess both compensatory readers and phonetic-cue readers. However, the compensatory reader will lack the phonological awareness skills that the on-track phonetic-cue reader will have. The children will also show very little growth in the use of strategic word recognition strategies. In most other aspects of reading, the compensatory reader will present very much like a phonetic-cue reader, demonstrating little difference in the ability to read phonetically regular and irregular words, using the first or last letter and the frequency of seeing a word to guess at new words encountered. In other words, they lack a general ability to systematically recognize words through decoding.

Getting the Meaning – Fluency, accuracy, self-monitoring and self-correction

The second standard in the *New Standards for Reading and Writing*, "Getting Meaning", encompasses accuracy, fluency, self-monitoring, self-correction, and comprehension. The standard will be addressed in two sections, the first related to the development of fluency, accuracy, self-monitoring and self-correction and the second to the development of comprehension strategies. Again, combining the New *Standards for Speaking and Listening* with the *New Standards for Reading and Writing* creates a more complete picture of the benchmarks for children from preschool through third grade. Here the development of the understanding of semantics (what a word means), syntax (parts of speech and grammatical rules), morphology (meaning and how word parts combine to change meaning), and pragmatics (how a word is used) in the *New Standards for Speaking and Listening* provides a foundation for the development of the sub-topics for the "Getting Meaning" standard. The child who has a firm understanding of the print-sound code begins to combine that with the knowledge of semantics, syntax, morphology, and pragmatics of language whose foundation begins in the preschool years. As readers, children begin developing fluency, accuracy, and skill in self-correction as they read (Adams, 1990; Clay, 1992) and this fluency and accuracy frees the child to focus on comprehension. The *New Standards for Reading and Writing* considers the use of the print-sound code to be completely developed by the end of second grade, so that by the end of third grade, reading words should be an automatic process for children.

Because children in the preschool and kindergarten years lay the foundation for this stage of fluency and automaticity as they play with language, *The New Standards for Speaking and Listening* states that preschool children will play with words and their word meanings, experiment with unconventional uses of words,

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recognize and enjoy metaphorical language, play with sentences, and recognize when word order is mixed up. Preschoolers also use language to sort relationships among words within a knowledge domain (such as, shapes can be circles, triangles, or squares). They learn words daily through conversation and listening to books read to them and express interest in words and their meanings. They recognize that many things can have more than one name. Preschool children will have a vocabulary of nouns, verbs, adjectives and adverbs in their conversations and use language to categorize and group objects or pictures. These skills provide a foundation for understanding semantics, syntax, and morphology that allows the development of fluency and accuracy in reading as well as setting the foundation for vocabulary development that is addressed in the standard for Reading Habits. These skills continue to grow in sophistication over the elementary years.

First graders build fluency and accuracy reading books at developmentally appropriate reading levels with appropriate intonation, pauses and emphasis. Their ability to apply these skills of fluency and accuracy continue to develop as they encounter increasingly difficult text. Using this knowledge in a systematic way, they know if a word sounds right given the spelling, whether it makes sense in context, and when a sentence does not make sense. These skills continue to develop in sophistication so that by second grade, it is expected that children will be reading developmentally appropriate materials with accuracy and fluency on their own. By this time, the standards expect that children's self-monitoring strategies are being used flexibly and almost invisibly so that, as they move towards increasingly difficult text in the third grade, they are able to self-monitor for meaning, notice when words do not make sense, and use the text to help make sense and get meaning for new words.

Table 1.2 illustrates the developmental goals of the New Standards for Accuracy, Fluency and Self-Correcting.

Table 1.2   New Standards for Getting the Meaning (New Standards Primary Literacy Committee, 1999; New Standards Listening and Speaking Committee 2000)

Listening and Speaking	Reading Accuracy and Fluency.			
Preschool	**Kindergarten**	**First Grade**	**Second Grade**	**Third Grade**
• play with words and word meanings • recognize and enjoy metaphorical language • sort relationships among words within a knowledge domain (shapes are circles, triangles and squares) • learn words daily through conversations • recognize that things can have more than one name • use language to categorize and group objects • developing an understanding of semantics, syntax and morphology • have a vocabulary of nouns, verbs, adjectives, and adverbs • play with sentences • recognize when word order is mixed up	• read unfamiliar level B books that have been previewed for them • attend to words in sequence and getting most of them correct when reading level B books • reread a favorite story recreating the words of the text with fluent intonation and phrasing • showing through statements and pointing that they understand the print controls what is said	• read unfamiliar level I books that have been previewed with 90 percent or better accuracy of word recognition • reading aloud with confidence although they may occasionally stop to figure out a passage • independently read aloud Level I books that have been previewed using intonation, pauses and emphasis • use punctuation cues to guide meaning and fluency	• independently read unfamiliar level L books with 90 percent or better accuracy of word recognition • independently read aloud unfamiliar Level L books that they have previewed silently using intonation, pauses and emphasis • use punctuation cues to guide meaning and fluent reading	• independently read unfamiliar Level O books with 90 percent or better accuracy of word recognition • independently read aloud unfamiliar Level O books that they have previewed silently using intonation, pauses and emphasis • use the cues of punctuation to guide meaning and fluent reading • use pacing and intonation to convey meaning • easily read words with irregularly spelled suffixes
	Reading Self-Monitoring and Self-Correcting Strategies			
	When rereading familiar books they self-monitor and correct to determine if: • they are on the correct page • the word they are saying is the one they are pointing to • what they read makes sense When listening to stories they: • ask why a character might do something • say when they don't understand something	• notice when words sound right, given their spelling • notice whether words make sense in context • notice when sentences don't make sense Solve reading problems and self-correct by: • using syntax and word-meaning clues • comparing pronounced sounds to printed letters • using context clues • deriving words by analogy	• self-monitoring as in first grade column should be an established habit • know when they don't understand a paragraph and search for clarification clues within the text • examine the relationship between earlier and later parts of a text and figure out how they make sense together.	• use self-monitoring strategies when reading • notice when sentences or paragraphs do not make sense • use syntax to figure out meanings of new words • infer word meaning from roots, prefixes and suffixes, and context. • analyze the relations across parts of text • question the author and use text to guide answers

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The development of fluency and accuracy corresponds to Chall's stage of

ungluing from print (age 7-8), in which the child develops automaticity in word

recognition by using all of the cuing systems to support reading. In the Spear-

Swerling and Sternberg model, the child is moving from controlled-word recognition,

described earlier in the standard for the print-sound code, to automatic word

recognition. A key factor in this transition (usually mid-way through second grade) is

the development of enough knowledge of spelling patterns in words, combined with

phonological knowledge, to read words more fluently and automatically (Ehri, 1991;

Spear-Swerling & Sternberg, 1996). The child who is an automatic reader can use this

knowledge along with an understanding of language to monitor his own reading and

self-correct as appropriate to get meaning. The automatic reader has the ability to

quickly read multi-syllabic and nonwords when compared to children in the

controlled-reader stage whose experience with spelling patterns is limited. Children in

automatic-reader stage will use the skill of chunking as a consistent strategy to

approach longer new words as compared to the controlled reader (Compton, 1997).

Spear-Swerling (1996) refers to the child who goes off track between the

stage of controlled reader and automatic reader as the non-automatic reader. These

children recognize words accurately but are not automatic and fluent in their reading

because they do not use all of the strategies for word recognition in a synchronized

way. Hence, the effort to recognize words hinders their resources for comprehending

what they are reading. In assessing a non-automatic reader, teachers should focus on the speed of response when reading lists of words or words in context. If given enough time, many non-automatic readers will read the word accurately. However, it is the lack of speed that hinders their progress and ability to devote mental energy to comprehension (Compton, 1997). Non-automatic readers lack the ability to read multi-syllabic words through chunking; therefore, non-automatic readers need to practice reading text fluently and accurately. This requires that the level of text be carefully matched to their skills. Compton (1997) defines this as text where the child reads at a rate of 100 words per minute with less than 5% errors.   Non-automatic readers who are not recognized by their teachers may become frustrated and unmotivated to pursue reading, further compounding the problem (Spear-Swerling & Sternberg, 1996).

Getting Meaning – Comprehension

Comprehension is a second focus of the standard related to Getting Meaning. Once again, the development of the child's growth in reading comprehension begins in the *Speaking and Listening Standards* where the use of talk—for telling stories and talking about events, persuading, informing, entertaining, presenting a topic or point of view to others, negotiating with others, evaluating information or events,—is an important foundation for reading comprehension. The development of a child's oral language and the ability to repeat sentences, recall a brief story, and her understanding of narrative in kindergarten is particularly related to the development of comprehension (Snow, et al., 1998). Clearly, the understanding of narrative and genre provides a foundation for the development of reading comprehension. Research indicates that there are two areas of growth that can be

tracked in the narratives of young children. The first is the child's use of story grammar (including characters, events, cause and effect). The second is the child's use of cohesion (using words to tie the parts of a story together such as first, second, etc.) (van Kleeck, 1998). Children grow from telling the simple narratives of the preschooler, focusing on several events and people, to the more sophisticated narrative of third graders who can both tell their own stories and retell stories they have heard from others, using a rich choice of words and vocabulary that develops the details and increases the complexity and length of their stories.

The *New Standards for Reading and Writing* for kindergartners and first graders states that children will be able to retell or reenact stories, share stories through art work, make predictions, and use knowledge from their own lives to help make sense of what they read. By the end of first grade, they can summarize, tell about the story using their own words, make predictions, answer simple comprehension questions, discuss the characters and motives, and talk about simple causes and effects in the text. By second grade children are able to recognize and talk about text structures, combine information across texts, make inferences from the text, write summaries about the book or the main point of the book, and trace characters across several episodes or series of books. By third grade the child should be able to write about and discuss themes across texts, cite important details, discuss plot, setting, and character motivation, make inferences, analyze the author's style and choice of words, use the structure of informational text to retrieve information, and analyze the causes, motivations, sequences and results of events. Table 1.3 illustrates the New Standards goals for Getting Meaning related to Reading Comprehension.

Table 1.3   New Standards for Getting Meaning – Continued (New Standards Primary Literacy Committee, 1999; New Standards Listening and Speaking Committee 2000)

Listening and Speaking	Reading Comprehension			
Preschool	**Kindergarten**	**First Grade**	**Second Grade**	**Third Grade**
• tell stories and talk about events • use language to persuade, inform, entertain • present at topic or point of view to others • negotiate with others • repeat sentences • recall a brief story • know that words and print covey meaning • when read to, use the text to predict what might happen next • discuss character motivation When telling Narratives: • tells simple narratives with several events and people • recount knowledge gained through observation • orient listener by giving some information about people, setting, place and time • child uses simple words to sequence and tie parts of story together • describe and evaluate information or events • Have a clear ending	**With level B books:** • give evidence that they are following the meaning of what they are reading through retelling When stories are read aloud: • retell the story in own words getting the events in correct sequence • respond to simple questions about the book • create artwork or written responses that show comprehension • use knowledge from their own experience to make sense of text • make predictions based on illustrations or text	**With Level I Books:** • retell the story • summarize the book • describe in their own words what new information they gained from the text • respond to simple questions about the book When stories are read aloud: • extend the story • make predictions and say why • talk about motives of characters • describe causes and effects of events	**With Level L Books:** • demonstrate comprehension of a variety of genres • demonstrate the skills from first grade both orally and in writing • recognize and be able to talk about organizing structures • combine information from two different parts of the text • infer cause-and effect relationships not explicitly stated • compare the observations of the author to their own observations when reading nonfiction • discuss how, why and what-if questions about nonfiction texts When stories are read aloud: • discuss or write about the themes of the book • trace characters and plots across multiple episodes • relate later parts of a story to earlier parts	**With Level O Books:** • demonstrate all skills from second grade • capture meaning from figurative language • cite important details • compare one text to another text • discuss author's choice of words • relate story to real life • explain motives of characters • discuss plot and setting When reading informational text: • use structure to retrieve information • analyze sequences, causes, motivations, and results of events • understand the concepts and relationships described • use reasoning, experiential background and text to examine arguments • describe in their own words information gained from a nonfiction text • relate new knowledge to prior knowledge • follow written directions

Developmental Stage Theories and Comprehension

Although children begin developing comprehension skills and strategies in preschool, applying the comprehension strategies as a reader becomes more sophisticated after the early stages of focusing on the print-sound code of reading. As stated earlier, this is the stage that Chall (1983) called "ungluing from print." Chall writes that during Reading for Learning (the time between ages 8 and 14) readers develop sophistication in their ability to use comprehension strategies, use prior knowledge to better understand and make sense of text, read a variety of genres and understand their text structure, and use reading as a tool for acquiring knowledge. Spear-Swerling and Sternberg (1996) name this stage strategic reading. They emphasize that the transition from automatic reading to strategic reading depends on the development of automatic word recognition, the child's own increasing metacognitive development, and the demands of the text that will encourage the child to grow in her development of strategic reading. The transition to strategic reading is often seamless and quick for a normal reader. However, many children experience a slump in fourth grade when even normally progressing readers seem to regress in their reading skills as the demands of the text may become more difficult (Snow, et al., 1998; Spear-Swerling & Sternberg, 1996).

Spear-Swerling & Sternberg (1996) describe the child who goes off track between automatic reading and strategic reading is as the delayed reader. While these readers have developed automatic word recognition, they have done it with more difficulty than normally developing readers. As a result, they have missed the opportunities their peers have had to practice comprehension strategies, causing them to be delayed in the development of reading comprehension. Delayed readers can

acquire new comprehension strategies when they are provided with text that will allow them to strategically apply the strategies they are learning. However, these children are often in a classroom where the text level used for instruction exceeds the level appropriate for them to practice new comprehension strategies. Further, their teachers often do not focus on these strategies because they assume that if the children are reading the words in the text, then they comprehend the text. In short, the instructional focus in these classrooms has moved on to supporting the more normally developed readers and is not suitable for the building of the skills needed by delayed readers.

Reading Habits

Reading Habits include reading widely, discussing books, and expanding vocabulary. In other words, this standard emphasizes the need for children to read widely across a variety of genres, acquire background knowledge, and develop a rich vocabulary to help them to construct meaning. It includes reading habits developed by reading independently, being read to, and having assisted or guided reading instructional opportunities. Discussing books involves talking to other people about books. The *New Standards for Reading and Writing* refers to this as "accountable talk" or talk that responds to what others in the group say and refers specifically to the relevant parts of the text. These are meaningful conversations about books supporting children to probe, question, and hold each other accountable for their thinking as related to a text. Because vocabulary develops from reading widely, it is found in the standard of Reading Habits versus the standard for "Getting the Meaning." The New Standards Committee (1999) recognizes, as does the National Reading Panel (2000), that a growing vocabulary is crucial to the child's ability to comprehend text.

Reading Widely

Reading Widely is marked by a growth in the amount of reading that a child completes. For example, younger children read a short book or two each day; first graders read four or more books a day and listen to two to four texts a day; third graders read approximately 30 chapter books in a year and listen to at least one chapter read aloud each day. In kindergarten and first grade, the standard focuses on the variety of reading that children may do independently or the books they ask to have read to them. Their choices are expected to be varied; however, they may choose to reread books that they especially enjoy or want to explore in more depth. By third grade, children are expected to choose a variety of genres in their independent reading as well as to explore specific genres or authors in depth. They reread favorite books to gain a deeper understanding of the author's message and craft. They share books and their own writing with each other to explore ideas.

Discussing Books

Discussing Books find its roots in the *New Standards for Speaking and Listening* where preschool children demonstrate the ability to listen to a story and understand concepts of print, including the beginning and end of a book, holding a book, and tracking text in preschool. By kindergarten the concepts of print should be well developed with children knowing how a book is held, turning pages appropriately, and tracking text. Reading behaviors between first and third grade reflect a growing variety of genres read independently and an appreciation of favorite authors, styles, and genres. Throughout this period, children should have increasingly challenging books read aloud to them. They should be able to listen to and discuss text that is more difficult than what they can read independently or with assistance.

Discussing Books includes children sharing thoughts and points of view about books with others, backing up their remarks with the words in the text, discussing and defending their remarks, making inferences, discovering new meanings for words, and collaborating with others to develop meaning. Children's reading behaviors grow as they listen to and discuss more sophisticated text than they can read independently. The preschool years begin with standards addressing concepts of print (Clay, 1992), the ability to make predictions, and the ability to use books to answer questions. Kindergarten and first grade children develop more sophistication in their explanations and talk related to books as they compare and contrast across books, make predictions with explanations, talk about motives of characters, retell, discuss cause and effect, and ask each other questions to clarify thoughts. By second and third grade children should be able to converse about appropriate grade level reading with increasing sophistication. In many ways, the conversations about books reflects the kind of talk that adults might have in a book club focusing on such things as the author's craft, referring to the text to clarify ideas shared, relating the story to the readers' lives, demonstrating an understanding of figurative language, comparing text for ideas across and within texts, understanding the structure of different genres, and being able to discuss information gained from reading informational text with others to complete projects. This discussion happens within the context of the growing sophistication of a child's listening and speaking skills. Thus by third grade, readers can demonstrate the ability to listen to the ideas of others, relate their own ideas to them, and disagree with arguments drawn from the text or their own experience.

Vocabulary

The last standard within Reading Habits addresses vocabulary development. The use of language by the preschooler lays the foundation for vocabulary development as a reader. Preschoolers add new words daily to their oral vocabulary, allowing them to use language to categorize objects and pictures, recognize that things may have more than one name, and increase their use of verbs, adjectives and adverbs. In kindergarten and first grade, children continue to build their speaking vocabularies demonstrating the understanding of relationships between categories and words; varying word choice to the audience; learning new words from their reading; understanding word families; recognizing the multiple meanings of words; and increasing their use of verbs, adjectives, and adverbs. In second and third grade, children focus on word play in their speaking vocabularies by understanding alliteration and playing with multiple meanings of words in their conversations. A reliable predictor of early reading difficulties is the child's inability to name objects when shown a picture of them, also known as confrontational naming. Studies also indicate that the speed of naming, known as rapid serial naming speed, also correlates with concurrent and future reading ability (Snow, et al., 1998).

During the first to third grade years, children's reading vocabulary builds as they listen to books and read independently. Children grow from a teacher-directed focus on new words in the kindergarten and first grade years to independence, allowing them to recognize when they do not recognize a word's meaning, and then use strategies in combination to determine the meaning, and hence develop a self-sustaining growth of vocabulary through reading. By third grade, children should use their knowledge of the meanings of prefixes, suffixes and root words combined with their understanding of synonyms and antonyms to determine the meanings of new

words in the context of their reading. Table 1.4 illustrates the development of the skills related to the goals of reading widely in the *New Standards for Reading and Writing*.

Table 1.4   New Standards in Reading for Reading Habits (New Standards Primary Literacy Committee, 1999; New Standards Listening and Speaking Committee 2000)

Listening and Speaking	Reading widely/Reading Behaviors	Independent and Assisted Reading/ Being Read To		Reading widely/Literature
Preschool	**Kindergarten**	**First Grade**	**Second Grade**	**Third Grade**
• listen to a story • understand the concepts of print (beginning and end of a book, how to hold a book, and tracking of text) • know the front-to-back progression of a book and the left-to right progression of print • recite familiar refrains from books that have been heard many times • seeks or provide information by observing; looking at books; or asking teachers, parents, and peers	• choose reading as a way to enjoy free time • ask for books to be read aloud • listen to one or two books each day in school • discuss books with teacher guidance • hear one or two books read aloud at home • reread or read along two to four familiar books a day • engage with a range of genres • hold books right side up and turn pages correctly • follow text with finger pointing to words as read • pay attention to what the words they read are saying	• read four or more books every day independently or with assistance • discuss at least one of these books with another student or group • read some favorite books many times, gaining deeper comprehension • read their own writing and sometimes that of classmates • read functional messages in classroom • hear two to four books or other texts read aloud daily • listen to and discuss every day at least one book or chapter that is more difficult than what they can read independently or with assistance	• read one or two short books or long chapters every day discussing what they read with peers • read good children's literature every day • read multiple books by same author and discuss differences and similarities • reread favorite books gaining deeper comprehension and knowledge of writing craft • read wide variety of genres • read their own writing and writing of their classmates • read functional and instructional messages • voluntarily read to each other • have worthwhile literature read to them daily • listen to and discuss daily at least one book or chapter that is more difficult than what they can read independently • hear texts read from a variety of genres • use reading strategies modeled by adults	In addition to the goals for second grade with increasingly challenging literature third graders will focus on the qualities of literature by: • reading 30 chapter books a year, independently or with assistance • regularly participating in discussions of literature with peers or adults • discussing underlying themes or messages in fiction • reading and responding to a wide variety of genres • identifying and discussing recurring themes across texts • evaluating literacy merit • participate in peer talk about selecting books • examining reasons for character actions • accounting for situation and motive • recognizing genre features • note and talk about author's craft

Table 1.4   Continued

Listening/Speaking	Reading - Discussing Books			
Preschool	**Kindergarten**	**First Grade**	**Second Grade**	**Third Grade**
• initiate and sustain a conversation with comments or questions • recognize the topic of conversation and make topic-relevant responses • recognize invitations to converse • listen to others and avoid "talking-over." • gather around a book and pay attention to the reader • pose and answer specific questions about the text • discuss character motivation • identify a favorite book and tell why they like it • know the rules for polite interactions	• demonstrate the skills from comprehension standards • give reactions to the book with backup reasons • listen carefully to each other • relate their contributions to what others have said • ask each other to clarify things they say • use newly learned vocabulary	• demonstrate the skills from comprehension standards • compare two books by the same author • talk about several books on the same theme • refer explicitly to parts of the text when presenting or defending a claim • politely disagree when appropriate • ask others questions that seek elaboration and justification • attempt to explain why their interpretation of a books is valid	• demonstrate skills from comprehension standards • recognize genre features and compare works by different authors in same genre • discuss recurring themes across works • paraphrase or summarize what another speaker has said and check for whether the speaker accepts paraphrasing • sometimes challenge a speaker on whether facts are accurate, including reference to the text • sometimes challenge another speaker on logic or inference • ask other speakers to provide supporting information or details • politely correct someone who paraphrases or interprets their ideas incorrectly	• demonstrate skills from comprehension standards and second grade discussing books • note and talk about author's craft: word choice, beginnings and endings, plot, character development • use comparisons and analogies to explain ideas • refer to knowledge shared in discussions • use information that is accurate, accessible and relevant • restate their own ideas with greater clarity when a listener indicates non-comprehension • ask other students questions asking them to support arguments • indicate when ideas need further explanation

Table 1.4   Continued

Listening/Speaking	Reading Vocabulary			
Preschool	**Kindergarten**	**First Grade**	**Second Grade**	**Third Grade**
- learn new words daily in conversation and from books read aloud - request or provide explanations of word meanings - add words to familiar knowledge domains - sort relationships among words in knowledge domains - add new domains from subjects and topics they are studying - show an interest in words an word meanings - recognize that things may have more than one name - categorize objects or pictures telling why they go together - increase vocabulary of verbs, adjectives and adverbs to increase word choice - use some abstract words and understand that these words differ from concrete things, places or people - use verbs referring to cognition, communication and emotions	- learn new words every day from talk and books read aloud - notice words that they don't know when they are read to and talked with and guess what the words mean from how they are used - talk about words and word meanings as they are encountered in books and conversation - show an interest in collecting words and playing with ones they like	- learn new words every day from reading and talk - make sense of new words from how the words are used - refine sense of what new words mean as they encounter them again - notice and show interest in understanding unfamiliar words in text that are read to them - talk about the meaning of new words encountered in independent and assisted reading - know how to talk about what nouns mean in terms of function, features, and category	- learn new words every day from reading and talk - recognize when they don't know what a word means and use a variety of strategies for making sense of how it is used in the passage they are reading - talk about the meaning of some new words encountered in reading - notice and show interest in understanding unfamiliar words - know how to talk about what nouns mean in terms of function, features, and category	- learn words from daily reading - recognize when word meaning is unknown using various strategies to figure it out - know meanings of roots, prefixes, suffixes - talk about the meaning of most new words encountered - notice and show interest in unfamiliar words - know how to talk about what nouns mean in terms of function, features, and category - know how to talk about verbs as "action words" - talk about words as they relate to other words: synonyms, antonyms, or more precise words

Developmental Stages of Reading Habits

The development of reading habits begins during the infant-to-preschool years. In her model of early literacy development, van Kleeck (1998) identifies many areas of development that occur in children who are growing up in print-rich homes where they are read to often. From the very beginning, children grow from an understanding that books are enjoyable and that they get attention when reading with an adult, to a more sophisticated understanding that print has meaning, a story is consistent, and that they can converse about books in interesting ways. Their vocabulary includes words about books, such as author and illustrator, as well as new vocabulary because they have been read to and talked about words. Put another way, a child who does not grow up in a literacy-rich home or preschool experience comes to school without this knowledge and is at a disadvantage in early reading instruction (Snow, et al., 1998; van Kleeck, 1998).

A second group of children at risk for the development of weak Reading Habits is children who may or may not come from literature-rich preschool experiences, but who do not develop the skills required to understand the print-sound code and get meaning from reading. These children who do not move to the stage of fluent and automatic reading will not have the opportunity to read widely to develop vocabulary and skills for discussing books (Spear-Swerling & Sternberg, 1996). The frustrations encountered in learning to read lowers these children's motivation, the amount of practice they get reading, and the adults' expectations of their ability to read and participate in discussions of books. Clearly, motivation is a major factor impacting the development of reading habits for any child who struggles with the

initial stages of learning to read (Snow, et al., 1998; Spear-Swerling & Sternberg, 1996).

Summary of Risk Factors Related to Reading

Research shows that the time period from birth to age 9 lays the foundation for a child's future reading success. The preceding description of the stages of development defines the qualitative differences among children at the various stages of development. This information will be used to frame the choices of classroom-based assessments selected to monitor growth. These assessments should monitor the child's development as appropriate across the areas of print-sound code including phonemic awareness, automaticity, and phonics through the second grade after which these skills should be independently used to support reading for meaning. The skills of getting meaning including accuracy, fluency, self-monitoring and self-correction and comprehension of text should be monitored for increasing sophistication in relation to increasing text difficulty. Finally, reading habits includes independent reading preferences and skills for communicating about text with other readers. These skills should be monitored for increasing sophistication over the elementary years. Research shows that within each of these standards, children pass through several developmental stages. In addition, the research has identified specific predictive indicators that result in a child not progressing normally through these stages. These indicators further inform the choices of assessments in a school-wide assessment model.

In the preschool years, the child's development of phonological awareness should be closely observed. The ability to play with sound through rhyme and alliteration is an important precursor to the later development of phonemic awareness

(Snow, et al., 1998). Children who have difficulty in activities using phonological awareness skills should be monitored more attentively than other children. Additional areas that preschool teachers will want to observe include children's ability to read environmental print vs. the same print out of context, their knowledge of letters and sounds, and basic concepts of print such as directionality, how to hold a book, and the concept of a word in print. It must be remembered that these skills may not be fully predictive as screening tools until children reach kindergarten (Rathvon, 2004). However, observations and assessments of these areas in the preschool classroom will inform teachers about where children are in the developmental continuum (Compton, 1997).

The development of expressive and receptive language vocabulary is an important foundation for future reading and impacts a child's growth in the standard for comprehension and reading habits. The components of oral language (semantics, morphology, syntax, and pragmatics) lay the foundation for the development of accuracy, fluency, and self-monitoring strategies that result in comprehension. Typical assessments of oral language involve listening comprehension, oral retelling activities, and expressive vocabulary (Rathvon, 2004). Studies indicate that kindergarten children's ability to repeat sentences or retell a brief story is a reliable predictor of future reading comprehension. Expressive vocabulary is measured through confrontational naming tasks in which a child is shown pictures of objects and is asked to name them. Studies indicate that naming vocabulary is a reliable predictor of future reading ability (Snow, et al., 1998).

As children enter kindergarten and first grade, several factors become predictive of later reading success. Phonological and phonemic awareness knowledge

is an early indicator of reading success but not necessarily a predictor of reading failure. Children who score low in phonological awareness may become good readers because they will develop these skills. However, children who do not develop these skills will not be successful future readers (Snow, et al., 1998). Consequently, it is important to know which children are weak in phonemic and phonological awareness to better match instruction to their needs. However, it is important that teachers understand the developmental stages of phonological awareness as some tasks will have better predictive validity at some stages than others. For example, many children have mastered rhyme by kindergarten, but knowledge of rhyme in kindergarten is not as strong a predictor of future reading success as syllable measures are (Rathvon, 2004).

The ability of a child to name the letters in random order and to rapidly name random letters or digits is a strong predictor of future reading success (Rathvon, 2004; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996). Research indicates that rapid naming may be related to the later development of automaticity in reading, much as phonological awareness is a predictor of decoding ability. It appears that children who are weak in both phonological awareness and naming speed have a "double deficit" and are at a higher risk for significant reading deficits in both decoding and comprehension than are children who are not weak in both areas (Rathvon, 2004).

Concepts of print appear to have a moderate predictive value (Snow, et al., 1998). Concepts of print include such things as book orientation; knowledge of the difference between print and pictures; print directionality; pointing to words as they are read; knowledge of letters, words, and sentences; and understanding letter and word order. While the predictive value of concepts of print is questionable, it is

agreed that the development of the concept of word is an important developmental step for children (Rathvon, 2004).

Single word reading helps to inform the stage that a child is in and becomes a predictor of reading success during first grade (Compton, 1997; Torgesen, 1998). As outlined in the earlier discussion on stage theories, children move from relying on identifying individual phonemes to reading words, to chunking and blending spelling patterns, to reading sight words and then reading by analogy, and applying spelling patterns in known words to unknown words. Teachers can observe these stages through assessments of single word reading. In addition, pseudoword reading (the reading of nonsense words that conform to spelling rules but are not real words) is a strong predictor of a child's ability to read real words both for normal and poor readers (Rathvon, 2004).

Reading fluently in context is an important indicator of future reading ability. Fluent reading allows readers to focus on meaning as they read (Rathvon, 2004). Because children who do not develop fluency in reading may not be motivated to read, this becomes a "double deficit" as fluency develops with more reading. The goal of fluency assessments is to differentiate the children who read accurately but not fluently from those who read accurately and fluently. The former are at risk of becoming the non-automatic readers described by Spear-Swerling and Sternberg (1996). Thus, reading fluency should be monitored throughout the elementary years to differentiate children who have learned accurate decoding strategies from those who do not read automatically.

Both the *New Standards for Reading and Writing* and the *New Standards for Listening and Speaking* provide a framework for children's growth in reading from

the preschool years through third grade. This framework identifies understanding the print-sound code, including phonemic awareness, letter recognition and reading words; getting meaning including comprehension, fluency, accuracy, self-monitoring and self-correction; and reading habits including vocabulary development, reading widely, and discussing books as the primary goals of reading instruction. Professional collaboration and conversation about students' work as related to these goals is fundamental to developing a common understanding of these goals within and across program levels.

<div align="center">The Montessori Approach to Educating Children</div>

The Montessori approach to education is based on Maria Montessori's work in the early 1900s. Her observations of children led to the development of an educational approach that is the basis of many Montessori Schools—public, private, and parochial –across the world. Montessori developed her approach to education during the same time period that Piaget was developing his developmental stage theory, Vygotsky was focusing on the socio-cultural nature of learning, and Dewey was studying constructivism (Crain, 2000; Mooney, 2000). Like other child-centered approaches to education, the Montessori philosophy emphasizes building children's positive attitudes and feelings towards learning as the primary outcomes of education with the ultimate goal being an adult who is better prepared to contribute to the world community (Crain, 2003). These goals are reflected by the American Montessori Society in *The Authentic American Montessori School* (Rambusch & Stoops, 1992), which states:

> The goals of a Montessori education are to produce students who are moral beings, confident and competent learners, independent and autonomous, intrinsically motivated, academically prepared, socially

responsible, free within limits, spiritually aware, able to handle external authority, citizens of the world and stewards of the planet."

It is beyond this paper's scope to provide an in depth analysis of the Montessori philosophy; rather it will explore some of the basic tenets of the philosophy which inform the teaching of reading at Wilmington Montessori School and their relationship to the research on teacher beliefs, stages of reading development, and the New Standards for Reading and Writing.

Paula Polk Lillard (1996, p. 4) identifies three essential tenets that Montessori identified as essential to her educational philosophy. First, Montessori created a theory of human development based on a series of four six-year planes of development in contrast to linear models of development. Each plane begins with a three-year period of growth in new skills with a subsequent three-year period of consolidation of this growth by the child. The first plane is from birth to age 6, the second from 6 to 12, the third from 12 to 18 and the final plane from 18 to 24. Unlike the prevailing thinking of her time, Montessori believed that children's minds were very different from adults minds. Effective education would be designed to support the way the child's brain worked rather than the way the adult's brain worked (Chattin-McNichols, 1998; P. P. Lillard, 1996; Standing, 1962). Paula Polk Lillard (1996, p. 42) explains that, for Montessori, the difference between adults' and children's minds determined how they interact with the environment. Lillard states, "Adults work to change the environment; children use the environment to change themselves." Therefore, the design of education and the classroom environment needed to change over time to support the developing work of the child (Chattin-McNichols, 1998; P. P. Lillard, 1996; Montessori, 1964, 1965; Standing, 1962).

Second, possibly influenced by her studies of anthropology, Montessori believed that humans had universal tendencies towards certain actions in relation to their environment, and these actions influenced the development of intelligence. These tendencies include desires to explore and to make order of one's explorations, to learn with one's hands and manipulate objects, to repeat actions to perfect them, to develop language and with growth, to think abstractly and to use the imagination to solve problems. She felt that schools needed to provide an environment that focused on the development of these tendencies in the first plane of development, shifting in the second plane to support the child's changing focus on them. Fundamental to these basic tendencies is connection between the hand and mind; Montessori believed this connection was what made learning unique for humans. It is the ability to move things that allows for people to try out their abstract ideas, imagine solutions to problems, and refine their ideas through repetition (Chattin-McNichols, 1998; A. S. Lillard, 2005; P. P. Lillard, 1996; Rambusch, 1998).

A third principle of Montessori's philosophy is the concept of universal sensitive periods of growth, although the development of the sensitivity may vary from culture to culture. For example, all children have a sensitive period for language between birth and age six; however, the language that develops will be determined by each child's culture. Within each sensitive period, children focus through materials in the environment; on the perfection of an inner developmental need. Montessori understood that these inner drives were related to the future development of the child as a complete person. Without an environment to support a particular sensitive period, according to Montessori, the opportunity for its development may be lost. During the first plane of development, the sensitive periods include walking, concern for details,

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need for order, development of language, use of hands, attention to music, and focus on the senses for learning. The development of so many sensitivities in the first plane of development led Montessori to see this period as one of great growth for the self-development of children. In the second plane of development, Montessori observed that children moved from their own self-development to a wider exploration of and need to understand how and why things work in the world. She spoke of the desire of children to begin with the whole picture and move to the parts, to use their growing abilities of abstraction and imagination, their interest in classification of things, and the development of a focus on moral issues to better understand their relationship to the larger world (Chattin-McNichols, 1998; Crain, 2000; P. P. Lillard, 1996; Montessori, 1965, 1967; Standing, 1962).

Montessori believed that children's interests are driven by the particular sensitive period they are developing. She observed that children concentrated for long periods of time on tasks that supported their individual developmental needs as determined by the sensitive period. During the elementary years, children's interests become more personal and focused on understanding the larger world beyond the classroom. Chattin-McNichols (1998, p. 131) states that:

> One of the central ideas in Montessori is that the school must adapt to the developmental level – the readiness, the mode of learning, the interests – of the child, not the child to the school. That is, curriculum must be placed in sequence according to the abilities and interests of the child; teaching methods, too, must be governed by the child's needs and abilities, not by considerations of efficiency.

Children as Self-Motivated Learners

These basic principles of the Montessori approach see the child as a self-motivated learner. The goal of the classroom is to nurture children's intrinsic

motivation for learning, guiding them towards self-discipline and independence. Therefore, children are empowered to choose learning activities that support their developmental interests (Chattin-McNichols, 1998; A. S. Lillard, 2005; P. P. Lillard, 1996; Rambusch, 1998; Standing, 1962). In addition, Montessori encouraged the socio-culture nature of learning through her belief that children learn best when working with children of other age groups. Multi-age classrooms support a unique social community where children are expected to support each other both with community problems and academic challenges. Children are expected to make mistakes and encouraged to use materials or peers' support to find solutions to mistakes. In fact, Montessori saw that significant learning happened when children figured out their own solutions to problems, both socially and academically. She sought to facilitate this learning by providing materials with a control for error so that children know when they have successfully accomplished a task without needing the teacher's reinforcement (Chattin-McNichols, 1998; Crain, 2000; A. S. Lillard, 2005; Rambusch, 1998; Standing, 1962). Clearly, the classroom environment is fundamental to the Montessori philosophy because it supports the child's innate desire for learning.

Montessori's belief in the intrinsic motivation of children as learners also impacts the teacher's role in the Montessori classroom. Teachers respect children's readiness for learning, using observations as a basis for supporting their individual next steps as learners (Chattin-McNichols, 1998; P. P. Lillard, 1996; Montessori, 1964, 1965; Standing, 1962). Teachers meet the developmental needs of the children by using their observations to support changes in the classroom environment. They also use their observations to determine when a child is ready to have her attention

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drawn to certain materials and areas of the classroom. Montessori referred to this role

of the teacher as a "link" to the environment. This link is usually provided through

brief individual or small group lessons that introduce material to a child for later

exploration. Montessori described a delicate balance between teaching children and

teaching the materials, regardless of the child's needs, as similar to the issue of

teaching children versus teaching a set curriculum in more traditional educational

models (A. S. Lillard, 2005; P. P. Lillard, 1996; Montessori, 1964, 1965, 1967;

Rambusch, 1998). This balance is perhaps best described by E.M Standing (1962, p.

310) when he writes that, "the right path for the teacher to take – the golden mean –

lies, not in giving no instruction at all, but in giving just enough – no more – the

'indispensable minimum, the perfect dose'." The whole art of being a Montessori

directress, one might almost say, lies in knowing when to intervene and when not to."

Montessori's Approach and Reading

Reading is a fundamental aspect of preparing children to be "socially

responsible citizens of the world and stewards of the planet" (Rambusch & Stoops,

1992). This importance is reflected in Montessori's writing. As previously discussed,

Maria Montessori observed a sensitive period for language in children from birth to

age 6, calling this the period of the absorbent mind because the child seems to absorb

language from the environment (Montessori, 1967, 1995; Standing, 1962). In her

writings, she further divided this period of development, referring to the unconscious

development of oral language from birth to about age 3 and the conscious

development of language in the form of writing and later reading from 3 to 6 (Crain,

2000).

As a physician, Montessori was very interested in the research on the development of language and its relationship to the development of the brain. In her book, *The Absorbent Mind* (Montessori, 1995, pp. 122-123), she described her observations of children's language during the years from birth to 3: beginning with the children's attention to the language around him, progressing to the production of syllables at about 6 months, and the production of words at a year. At this point Montessori observed that children became aware that language had a purpose and their use of words became intentional. As children increase their exploration of words, they begin to develop an understanding of syntax or grammar that Montessori believed was complete at about age 2. As with each sensitive period, the children's environment was crucial to oral language development. Because she thought that children needed both adult and peer models to support them in the development of language, Montessori underscored the importance of models of correct language for children; therefore, adults must use correct pronunciations, terms, and grammar to support the children in their development of language.

Montessori observed that children grew from their development of oral language to an interest in written language between the ages of 3 and 6 years. She identified two sensitive periods within this time; the first is a sensitive period for writing from about 3.5 years to 4.5 years of age and the second for reading from 4.5 years to 5 years. When Montessori was writing about her approach in the first half of the twentieth century, the primary view of reading and writing was that reading preceded writing and that children were not ready to learn to read until they were approximately 6.5 years old (Hiebert & Raphael, 1998). Montessori was criticized for pushing children to read and write at what were considered developmentally

inappropriate times. However, she believed that waiting until age 6 to begin to teach

children to read made teaching reading more difficult because children were moving

out of the sensitive periods for sensorial interests and language (Chattin-McNichols,

1998; Crain, 2000; Montessori, 1964; Standing, 1962). Montessori (1964)

emphasized that she was providing opportunities and materials for children because

her observations showed that they had an interest in writing and reading, that writing

preceded their interest in reading, and that children were given lessons related to these

materials only when they showed an interest in them. Because the materials focus on

the children's sensorial approach to learning emphasizing the connection between the

hand and the mind, movement emphasizing the shapes of letters and vocalization of

letter sounds were and are central elements of the materials in the Montessori 3-6

classroom. Montessori thought that children of 6 or 7 would not learn to read

successfully with the same materials because they would have passed this sensitive

stage for movement, touch, and sound.

Montessori refers to several stages, from writing to reading, in children's

development and she observed that children could learn to write fairly quickly but that

reading required a longer period of time. She described writing as translating the oral

sounds into signs through the natural learning style of the child, the movement of the

hand. But reading is more abstract requiring not only translating the signs to oral

thought but also understanding the ideas intended by the writer (Montessori, 1964).

Montessori observed that reading and writing developed simultaneously

stating:

> Begin the teaching of reading as you begin the teaching of writing.
> The child enunciates letters as he writes them. He associates the sound
> with its relative sign through both a visual and tactile mode. He
> associates the sound with its sign when he writes. But when he sees

and recognizes, he reads; and when he traces, he writes. In his mind he receives as one, two acts, which later will separate into reading and writing. By teaching them contemporaneously, or by their fusion, we place the child before a new form of language without determining which of the acts constituting it should be most prevalent (Montessori, 1964, p. 281).

The progression of materials in the Montessori preschool classroom supports the development of what Montessori felt were underlying skills to writing and reading and the more direct connections between letters and sounds. Not surprisingly, these materials are still a part of Montessori classrooms today. For example, she wrote at length in the Montessori Method (Montessori, 1964) about the preparation that children needed to develop the fine motor skills for writing. She used metal insets or shapes that children traced and colored to develop these skills. Considering letter names less important to later reading and writing than letter sounds, Montessori developed sand paper letters which children traced as they said the letter sound. As children began to learn the sounds of letters, they could begin to create words and messages for others, yet many were not ready to use a pencil to create those messages. So, she provided younger children in the ages 3-6 classrooms with the moveable alphabet to construct messages without having to physically write the letters. This alphabet uses blue for the consonants and red for the vowels, providing a tool for later phonemic awareness activities. Montessori felt that this preparation for writing helped children develop the ability to write more quickly and perfectly than if the children were left to discover writing as they discover speech. Consistent with her thought that teachers should observe and not interfere with children while they work, Montessori encouraged teachers not to correct children's spelling but to use their observations to develop later lessons with the moveable alphabet and sandpaper letters (Montessori, 1964).

Montessori observed that most children in this environment began to write at about the age of 4 years. At this time, Montessori observed that they became interested in reading the messages of others. Having laid a foundation for reading words through the work with the sandpaper letters and moveable alphabet, she believed that reading happened spontaneously beginning with single words and later sentences. Teachers were encouraged to label objects in the environment and write messages to children each day to support the spontaneous development of reading.

Montessori believed that reading was not just the pronunciation of words, but also being able to get meaning from the words. Once children read the messages out loud, she focused on the silent reading of words. In her writings, she described lessons in which children were given word cards to label objects in bags. Later children worked with command cards reading a printed message and doing what the message said such as "close the door" (Montessori, 1964, 1965).

At the time of Montessori's work, there were a limited number of books for children to read. Montessori understood that although children may technically read the words in a book, children also needed to have appropriate content to support their understanding of the text. She asked children to retell a story to demonstrate their understanding (Montessori, 1964). Without the variety of texts that teachers have today, she postponed introducing books to children for their own reading, preferring to use the labeling activities and command cards to build children's reading skills. In her Advanced Montessori Method II (Montessori, 1965), she speaks of sets of books she developed to support children's early reading development. Montessori understood that teachers should continually model the reading of good literature. Her

writings refer often to the necessity of reading to children and of talking about the books they read each day.

Montessori believed that the child would "explode into reading" around the age of 5 if these kinds of materials and activities were available in a literature-rich environment. Children would enter the elementary classrooms ready to use their reading skills to further explore the world and expand their imagination (Chattin-McNichols, 1998; A. S. Lillard, 2005; Rambusch, 1998; Seldin & Epstein, 2003). As a result, Montessori gave less attention in her writings to the development of reading in 6-12 year olds. Instead, she felt that children in the second plane of development were developing sensitivity for the construction of language and the relationships between words. The traditional Montessori language materials for this time period focused mostly on the development of grammar, word meanings, and morphology with reading being used as a tool for learning through the cultural studies (Standing, 1962).

Assessment and Montessori Reading

For Montessori, the purpose of education was the self-development of individuals to their human potential. Contrary to the dominant theories of the time, informed by behaviorists' philosophy and a push for efficiency in education (A. S. Lillard, 2005; Shepard, 2000b), Montessori did not believe that tests imposed from outside the classroom would improve children's learning. Teachers needed to know each child in order to help each one develop as an individual (Crain, 2003). This happened within the classroom, through the teacher's observations (Montessori, 1964, 1965, 1967).

Teachers' observations continue to be a primary form of assessment in Montessori classrooms (Roemer, 1999). Lessons in a Montessori classroom are based on a three-period lesson sequence modeled after the work of Dr. Edouard Sequin, who Montessori studied intensively. Assessment through observation is built into these lessons. In the first period of the lesson, a teacher presents a concept, perhaps the letters /b/ and /f/ with the sandpaper letters. The teacher then asks the children to "show /b/" or "show /f/" to demonstrate that they know the letter that matches the sound. In the third period of the lesson, the teacher then points to each letter, asking the children to tell her the sound that the letter makes. It is in this third period that the teacher can observe if the children understood the lesson. Children then use the various materials they have been introduced to during independent work time in the classroom. Teachers are not to interfere with children's work at this time, but to focus on observing them. They use these observations to provide later lessons addressing any observed errors (P. P. Lillard, 1996; Rambusch, 1998; Standing, 1962).

Montessori provides some guidance to teachers about what to observe in children during the sensitive period for language development. These suggestions focus on the child's development of oral language and signal that a child is ready to begin writing and then reading. Montessori also put forth some thoughts about reading comprehension.

Montessori understood that a child's oral language development was the foundation of all later language growth. Most children in the early Montessori schools came to the school between the ages of 2 and 3; therefore, the early stages of children's development of oral language were in the home environment. As with all learning during the first plane of development, Montessori considered the environment

a primary factor in children's language development. When children arrived in school, she felt it was important for teachers to focus on children's pronunciations of words and their use of grammar in order to avoid later reading problems. Consistent with her thought about sensitive periods, she observed that it was easier to correct the problems when children were between 3 and 6, than when the children were older. She saw that some children with language delays never learned to read and write if steps were not taken at this time to correct their language. Montessori also encouraged teachers to watch for children with hearing or other developmental concerns that placed the child at a greater risk for oral language delays (Montessori, 1964, 1965).

Montessori identified indicators of children's readiness to write and read. Writing readiness included filling in metal insets with up and down strokes that are easy and flowing, making the forms of the letters in the air and saying their sounds, and starting to spell words aloud—for example, "c-a-t spells cat" without using the moveable alphabet. Montessori expected that children who do these things would begin to write on their own. However, if they did not begin to write on their own within a week or so, the teacher was to show them how because they were ready to begin writing. Consistent with the thought that writing precedes reading, she felt that children were ready for reading single words when the child wrote words and that the child was ready to read sentences when the child was composing sentences (Montessori, 1964, 1965).

Since interpreting the message was the ultimate goal of reading, Montessori felt that teachers needed proof that children understood their reading. She believed that the ultimate goal was for children to read silently with understanding.

She also acknowledged the dilemma of knowing what was going on in children's mind when they read and offered some suggestions to teachers to make comprehension more observable. She suggested, for example, that the teacher ask the children to read command cards which required that an action be performed. Another method mentioned previously was oral retelling. Montessori (1965) observed three basic levels of narrative retelling performance: children who could retell the whole story with ease, children who could not retell the whole story but filled in gaps for other children, and children who were not yet able to retell the story.

Parallels: Montessori Philosophy and Current Knowledge

Montessori's educational method is focused on a philosophy of the child as a self-motivated learner. While Montessori viewed reading as an important aspect of children's development as a learner, this was only one aspect of a complete child-centered educational method. Her focus on reading may have been more completely developed had it been the sole focus of her work. Since Montessori's time, many researchers have focused on understanding how children learn to read. There are parallels between Montessori's thoughts about reading development, the child as a self-motivated learner, and the role of the teacher as an observer, and the current research on reading development and classroom-based assessments. Therefore, a discussion of the connections between Montessori's early observations of children and the current knowledge of reading development and assessment will further inform the implementation of a classroom-based school-wide assessment in a Montessori school. There are also areas where Montessori's thoughts may be inconsistent with current thinking, thereby creating challenges in implementing a classroom-based, school-wide reading assessment system.

First, Montessori saw a significant connection between the development of oral language and the future development of literacy. She observed that children who missed steps in their oral language development—— including the pronunciation of words, the development of syntax, and vocabulary growth—would have later reading problems. Research today verifies this relationship; confirming that oral language development has a significant long-term impact on future reading ability (see Snow, Burns, & Griffin, 1998 for a review of this research). Children who have early oral language delays, which are corrected, may still be at risk for later reading problems with fluency, accuracy, and comprehension. Phonological awareness, developed as a component of oral language during the preschool years and kindergarten years, is an important indicator of future reading success (Adams, 1990; Compton, 1997; Rathvon, 2004; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996; Torgesen, 1998, 2002). The current emphasis on tracking children's oral language development and improved understanding of that development should inform the Montessori teachers' observations allowing them to proactively intervene with children who show delays.

Second, Montessori observed children's interest in written language between 3 and 6. She saw that children's interest in literacy helped them develop skills preparing them for later writing and reading. In addition, she understood that writing preceded reading developmentally and that the two are closely connected (Montessori, 1964). In particular, Montessori described the pronunciation of sounds, as children worked with the moveable alphabet to spell words and later as they wrote, as important precursors to the development of recognizing sounds as they read words. This interest in and the relationship between writing and reading between the ages of 3

and 6 has been further described in the literature on emergent literacy and the developmental stage theories of reading informing Montessori teachers' observations of children at this time (Adams, 1990; Ehri, 1991; Ehri & Roberts, 2006; Hiebert & Raphael, 1998; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996; Whitehurst & Lonigan, 2003).

The development of children's reading beyond 6 is not emphasized in Montessori's writing. Montessori (1964; 1965) implies that children will be readers by the time they enter the first year of school if they have an environment that supports their early interest in literacy prior to school entry. The elementary years are focused on using the skill of reading to learn about the larger world. Research clearly supports the impact of literacy rich preschool programs on a child's reading development in kindergarten and first grade (Snow, et al., 1998). However, even if children in the early Montessori Children's Houses were reading, current research indicates that significant work continues with the reading process between 6 and 12. It is during this time that children develop fluency, accuracy, and automaticity. In addition, they develop metacognitive and comprehension strategies within the context of more difficult text (Adams, 1990; Chall, 1983; Clay, 1992; New Standards Primary Literacy Committee, 1999; Spear-Swerling & Sternberg, 1996). Montessori teachers need to be aware of the continued development of reading strategies between 6 and 12 to ensure that children will be fluent readers.

In terms of classroom reading, it is particularly interesting to note tension in Montessori's writing between allowing children to develop at their own pace and her emphasis on the need for children to develop some specific areas during their sensitive period for language (Montessori, 1964). Montessori (Standing, 1962)

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believed that if a child does not develop certain skills during this time, teachers will experience difficulty, and may even find it impossible, to teach the same skills in later elementary years to that child. However, Montessori's writings seem to contradict her concept of a sensitive period when she states that "it sometimes happens that certain children, not having spontaneously presented themselves for these lessons, are left in peace, and do not know how to read or write (Montessori, 1964, p. 302)." Perhaps Montessori was responding to pressure from those who felt that the early teaching of reading skills was not developmentally appropriate. She does not address when these children learn to read or if they learn to read easily at a later time.

Since, according to Montessori, all children pass through the same sensitive periods, including those for writing and reading, one would expect that a child in a language-rich environment would eventually show an interest in the language materials in the classroom. Current research confirms that specific skills, such as phonological awareness, are developing in these years. The lack of these skills is a predictor of possible reading failure, and these skills can be taught to children during the preschool and kindergarten years to prevent later reading failure (Adams, 1990; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996; Torgesen, 1998, 2002). Perhaps children who do not show an interest in the language materials between the ages of 3 and 6 are the children whom Montessori teachers should be most concerned about. While Montessori teachers do not want to "push" children beyond their developmental interests, these children may not be developing the early phonological skills that will allow them to become successful readers later. Teachers may need to create a "link" to the environment for these children during this sensitive period for language. Therefore, knowledge of the goals for literacy and classroom-

based reading assessments of these early reading skills will provide important instructional information for these children's teachers.

Montessori's (Chattin-McNichols, 1998; A. S. Lillard, 2005; P. P. Lillard, 1996; Montessori, 1964, 1965, 1967, 1995; Rambusch & Stoops, 1992; Standing, 1962) focus on teachers as observers of children is consistent with the best practices of reading teachers as identified by the International Reading Association and the research on effective teaching (International Reading Association, 2000; Pressley, 2002; Pressley, et al., 2001; Pressley, et al., 1998; Wharton-McDonald, et al., 1998). Effective teachers are constantly informally assessing their students, monitoring their needs, and providing appropriate individual instruction to meet those needs. Montessori believed that assessment is properly placed in the classroom. This thinking is supported by researchers who have focused their study on the impact of formative classroom-based assessment on teaching and learning in classrooms versus the impact of external summative assessments (Johnston & Rogers, 2001; Paris, 2002b; Shepard, 2000a, 2000b; Stiggins, 1991, 2001; Tierney, 2000; Valencia, 2000).

Successful observation that impacts learning requires systematic record keeping so teachers can plan for individual needs of children (Gipps, 1994; Valencia, 1997). Using the simplest record keeping system possible, Montessori advised teachers to keep track of the materials that children used and the lessons that had been provided. It is through this record keeping that teachers determine the next steps for the child in the classroom. However, Montessori did not want teachers to become so absorbed in record keeping that they were not focusing on the work of observation (Lillard, 1996). This balance between record keeping and observation may encourage some Montessori teachers to act more as intuitive assessors (Gipps, 1994), relying on

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their memory rather on than written records of children's learning. It is important that Montessori teachers develop effective ways of tracking their observations of children's progress, connecting them to the goals for literacy learning, allowing them to make sound decisions about instruction, and communicating about children's learning with parents and other stakeholders (Johnston & Costello, 2005; Paris, 2002a; Shepard, 2000a, 2005; Stiggins, 1991, 2001; Tierney, 1998; Valencia, 1997).

In summary, Montessori teachers will find much support for Montessori's thinking about the relationship of oral language to future reading ability, the interests of young children in writing and reading, and the connection between writing and reading development in the current research. Furthermore, they will find support for the philosophical view that assessment that most impacts children's learning happens through observation and record keeping in the classroom. They also will find gaps that current research has addressed, including the development of reading after the age 6 and the identification of specific indicators of future reading failure. Knowing about indicators may assist teachers struggling with the issue of whether a child with some delays will develop these skills with time or will need intervention. The challenge will be learning to understand what to observe, how to use classroom assessment to clarify those observations, and how to communicate clearly about children's learning to parents and other stakeholders.

Closing Comments

This paper reviewed research on classroom-based reading assessment to inform the development of a school-wide reading assessment system in a Montessori School. A review of the research indicates that teachers use many forms of formal and informal assessments in their classrooms. The primary uses of these assessments are

for summative evaluative purposes such as report card preparation, parent conferences, or preparing for meetings for support services for a child (Baker & Hall, 1995; Hodges, 1992; Paris & Hoffman, 2004; Paris, et al., 2002; Roemer, 1999; Stiggins, 1991, 2001). However, research indicates that effective reading teachers use assessments in a formative manner guiding their day-to-day instructional decisions for individual children (Pressley, 2001, 2002; Pressley, et al., 2001; Pressley, et al., 1996; Pressley et al., 2001; Taylor & Critchley, 2002; Taylor, Pearson, et al., 2000, 2002; Taylor, Pressley et al., 2000, 2002).

This raises the issue of how to support teachers in their use of classroom-based reading assessments to improve instruction for individual children and to inform school-wide decisions regarding reading instruction. The research indicates that many teachers hold traditional beliefs about assessment that influence their use and interpretation of classroom-based assessments (Aschbacher, 1993; Bliem & Davinroy, 1997; Johnston, et al., 1995; Johnston & Rogers, 2001; Shepard, 1997, 2000a; Stiggins, 1991, 2001). These beliefs are often counter to the recommended best practices of researchers and organizations such as the International Reading Association which recommend that assessment be embedded in instructional practices in classrooms, be flexible to meet the individual needs of the children in the classroom, and include students in a process of self-reflection (International Reading Association, 2000). Research indicates that schools that have successfully implemented school-wide, classroom-based assessments have helped teachers to effectively use classroom-based assessments by having clear school-wide goals for literacy, a common set of classroom-based assessment tools to track children's progress towards these goals, and a collaborative school environment supporting

professional growth with the use of classroom-based assessments (Au, 1994; Hiebert & Davinroy, 1993; Mosenthal, et al.2002; Paris et al., 1992; Valencia & Place, 1994).

This paper proposed goals for reading instruction in a Montessori school based on the *New Standards for Reading and Writing* (1999) and the *New Standards for Listening and Speaking* (2001). These standards were chosen because of their emphasis on the goals of reading as established by the National Reading Panel (2000) and the work of the Committee for the Prevention of Reading Difficulties in Young Children (Snow, et al., 1998). A review of the stage theory of Chall (1983), Ehri (1991), and Spear-Swerling and Sternberg (1996) further enhanced the discussion of children's development towards the goals of these standards.

Finally, this paper reviewed the principles of the Montessori educational method by identifying several parallels to the current research on effective classroom-based reading assessment and instruction. These parallels provide a connection for Montessori teachers as they implement a school-wide reading assessment system. First, Montessori wrote about the importance of oral language development to later reading success. Second, Montessori observed a connection between writing and reading in the early childhood years and described various stages in children's early development in these areas. The early childhood benchmarks identified in this paper (Tables 1.1, 1.2, 1.3, and 1.4) should enhance the ability of the Montessori teacher to track children's progress in these areas. Third, Montessori emphasized the role of teachers as observers of children, thereby providing a philosophical match for the role of the teacher in the use of classroom-based reading assessments.

There are several challenges which will need to be addressed in a school-wide reading assessment system in a Montessori school. First, Montessori did not

provide significant guidance regarding the development of reading beyond the early childhood years. Secondly, she did not address ways to help a child who may not be learning to read in the early childhood years. Third, she did not emphasize the need to record one's observations. Current research on effective teaching indicates that such record keeping is fundamental for classroom-based assessment for those who want to impact student learning (Gipps, 1994; Taylor, Pearson, et al., 2000, 2002; Valencia & Au, 1997).

READING ASSESSMENT AT WILMINGTON MONTESSORI SCHOOL

The teachers and administration at Wilmington Montessori School are working to develop consistency, continuity, and coherence in reading instruction by integrating the best practices in reading within the context of the Montessori educational model. Many children attend Wilmington Montessori from preschool through the sixth grade, so the staff has an opportunity to impact literacy development at critical stages in children's lives. The school uses a reading continuum to maintain consistency and continuity in tracking children's progress across the program levels. However, there is no school-wide process for teachers to monitor children's progress to confirm their placement on the continuum, inform instructional decisions, evaluate the reading program over time, or collect information to inform parents about their children's progress in reading. Research indicates that effective schools have classroom-based, school-wide reading assessment systems that support teachers (Mosenthal, et al., 2002; Mosenthal, et al., 2004; Taylor, Pearson, et al., 2000, 2002; Taylor, Pressley, et al., 2000, 2002; Walpole, et al., 2004). Such a system at Wilmington Montessori School will need to 1) be consistent with the school's Montessori philosophy, 2) provide reliable and valid information so teachers can match instructional strategies to the child's needs, 3) support clear communication with parents, and 4) allow for program evaluation.

The development of a classroom-based, school-wide assessment system at Montessori School will need to consider the context of the school community and Maria Montessori's educational principles (see Educational Position Paper I for a description of these principles) within which the teachers and administrators at the school are addressing reading instruction. In other words, successfully implementing

such a reading assessment system requires an understanding of this school community. Kame'enui, Simmons, and Coyne (2000) address this issue in their research of the school-wide reading improvement model (SRIM) used with Oregon schools. They describe schools as "host environments" stating "...it is necessary to take into account the distinctive combination of multiple contexts that exist within an individual school and customize interventions to provide the best fit with each unique school environment" (Kame'enui, Simmons, and Coyne, 2000, p.2). Kame'enui and Simmons (1998) identify six contexts to consider in their discussion of SRIM: school setting, classroom environments, teacher knowledge, available materials, task content (the goals for reading), and learners.

This paper addresses these contexts at Wilmington Montessori School, to identify the strengths and challenges in creating a classroom-based, school-wide reading assessment system. First, using an historical overview of the last six years of the school's work on reading, I will address five of these contexts: school setting, materials available, classroom environments, learners, and teacher knowledge.

Second, I will focus on the context of teacher knowledge. I expect that the teachers' effective implementation of assessments matched to the goals of reading development (see Educational Position Paper I, Tables 1.1, 1.2, 1.3, and 1.4) will affect student learning. The research summarized in Educational Position Paper I indicates that many teachers already use a variety of formal and informal classroom-based assessments for summative and formative evaluation. In addition, this literature suggests that teachers' pedagogical stance influences both their understanding of the goals for reading and their use classroom-based assessments. Therefore, the following tools were used to gather information on Wilmington Montessori School's teachers'

pedagogical stance, the assessments currently in use to assess children's reading performance in classrooms, and the goals for reading as identified in the continuum used at the school:

Survey**.** I designed and analyzed the data from a survey I developed to gather information on the teachers' beliefs and on the kinds of assessments currently used at Wilmington Montessori School.

Albums. Teachers' preparation for the use of reading assessments begins during their Montessori training. During this training, teachers develop albums as classroom resources. I reviewed teachers' language albums for evidence of the instruction they received during their Montessori training on reading assessment because I needed to better understand the teachers' knowledge base.

Reading Continuum. Finally, over the past several years, Wilmington Montessori School staff has developed a reading continuum (Hill, 2001) for two reasons: to help teachers match children's developmental stages as readers with instructional strategies and to inform communication with parents at conferences. I evaluated the reading continuum goals against the stage theories for reading development (Chall, 1983; Compton, 1997; Ehri, 1991; Spear-Swerling & Sternberg, 1996), the work of the New Standards Committees (New Standards Primary Literacy Committee, 1999; New Standards Speaking and Listening Committee, 2001), and the recommendations from the National Research Council (Snow, et al., 1998).

Wilmington Montessori School: An Historical View

School Setting

When visitors enter Wilmington Montessori, a forty-one-year-old school in the north Wilmington suburb of Arden, they are immediately struck with the warmth, friendliness and focus on children. The floor-to-ceiling windows of the lobby look out to the twenty five acres of woods and play areas surrounding the building. They can see children enjoying the outdoors, whether sledding in the winter or exploring the woods and stream during the spring. Proceeding down the hallways towards the classrooms, visitors notice the bright and open spaces with large windows, bringing the outside inside. The classrooms are organized as typical Montessori classrooms with materials on shelves, providing easy access for the children, lots of open floor space for the younger children, with tables added to the work spaces for the older children. Whether observing a toddler room or the 9-12 year olds rooms, visitors notice the actualization of Montessori's philosophy as children work around the classrooms with various materials and on individual or small group activities while the teacher serves as a facilitator.

During the past ten years, the school has been in transition: enrollment has grown, physical space has increased; a new Head of School, the writer of this Executive Position Paper, has replaced the founding Head of School, and there are new program directors for the Early Childhood and Elementary Programs. This transition time gave the school an opportunity to reevaluate its mission and to reconsider what it means to be a Montessori school. The results of this work are apparent in the core values of Montessori's thinking that appear in the mission statement:

Wilmington Montessori School is a collaborative learning community rooted in Montessori principles, inspiring the joyful discovery of self and a passion for learning and independent thinking. We empower children to be knowledgeable and responsible contributors to the global community.

With a background as a principal, instructional leader, and reading specialist, I came to the school six years ago focused on how to empower children with reading skills. My observations revealed great variation among the preschool, kindergarten, and elementary teachers in the ways they taught reading, the observations they made of children as readers, their professional growth in this area, and the materials they used to teach reading. I noted some specific issues: little direct teaching of reading, including strategy modeling by adults; little understanding of the need to match reading materials to the child's developmental needs; and little tracking of children's progress towards commonly agreed upon reading goals.

Basically, there was little consistency, continuity or coherence to teaching reading (beyond the use of Montessori materials) across age levels or within age-level programs. While teacher autonomy to meet the individual needs of children is a basic value of the Montessori philosophy, teachers need commonly held agreements about instructional goals to ensure that children reach those goals. This focus on continuity, consistency, and coherence in teaching reading was and continues to be important for several reasons: 1) parents were unclear about the reading progress of their children, 2) teachers were unclear about the school's agreed upon goals for literacy 3) children who struggled to learn to read were not being identified early, and 4) there was a lack of consistency across program levels and within program levels to support children on the path to mature reading. Perhaps because of my background as a principal in public elementary schools, my energies have been focused primarily on the work of teachers of 6-9 year olds, with some extensions down to the preschool teachers and up

to the teachers of 9-12 year olds. As a non-Montessori-trained Head of School, the work of the Montessori-trained education directors has been important in building credibility among the teachers. This work has been supported actively by the Elementary Program Director and the Reading Resource Teacher. The extension of this work to the preschool years received less active support from the Early Childhood Director. With the recent transition of the Early Childhood Director, it is expected this work will continue to develop at the preschool level.

The Materials

As a principal, I worked with teachers on Fountas' and Pinnel's guided reading approach as a way to provide instruction in reading strategies while meeting the developmental needs of children through different text levels. The focus on matching materials (in this case books and text level) with children's developmental reading stage complements the Montessori philosophy of matching materials to children's needs. Therefore, rather than purchasing specific program materials, the school purchased a common set of resources and professional materials for teachers to use, discuss, and explore. These materials included the Fountas and Pinnell book *Guided Reading: Good First Teaching for All Children* (Fountas & Pinnell, 1996), *Interactive Writing; How Language and Literacy Come Together, K-2* (McCarrier, Pinnell, & Fountas, 2000), and *Matching Books to Readers: Using Leveled Books in Graded Reading K-2* (Fountas & Pinnell, 1999). In addition, *Words Their Way: Word Study for Phonics, Vocabulary and Spelling Instruction* (Bear, et al., 2000) was provided to guide teachers in the systematic instruction of spelling and phonics. These resources offer a common framework for reading instruction across the three kindergarten and four 6-9 year olds' classrooms. The companion book *Guiding*

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Readers and Writers; Grades 3-6, Teaching Comprehension, Genre, and Content Literacy (Fountas & Pinnell, 2001) was purchased for the teachers of the 6-9 year olds and the teachers of the 9-12 year olds to support the work with children from 3rd grade to 6th grade. Teachers had opportunities to attend workshops on guided reading and Montessori educators using this approach were invited to the school community to provide guidance. Teachers had time in the weekly schedule to meet across program levels to discuss their work.

Teachers needed materials to implement guided reading in their classrooms. An initial assessment revealed that the teachers relied on literature sets and the Open Court Literature Series. In the preschool and kindergarten, the phonetic "Bob" books were the only reading material that connected children to phonetically-driven text. To correct this, a school-wide literacy center was developed with kits and big books for the younger children and leveled books and literature sets for the older children. Teachers of all age groups ordered fiction and non-fiction books to support children's phonetic development. Second, the school acquired a set of common resources across classrooms (such as listening centers) for the preschool through 6-9 year olds classrooms. The increase in reading materials school-wide allowed the teachers to match children with materials supporting their developmental reading stage.

Curriculum Overviews (Appendix A). The Elementary Education Director and a small group of teachers reviewed the State of Delaware Standards in Language Arts, the Montessori albums, and the teachers' classroom practices to develop curriculum overview documents of the kindergarten, lower elementary program (6-9 year olds) and the upper elementary curriculum (9-12 year olds). These documents

are now shared with parents at the annual curriculum night as well as during parent workshops on reading instruction. The process of writing these overviews supported the development of a common language among teachers, identified instructional materials needed in the classrooms, and encouraged discussions about teaching reading among teachers and with parents.

The Reading Continuum. While state standards provided guidance for the development of the curriculum overview documents and increased awareness among the teachers about the state's expectations for children as readers, they did not provide direction regarding ways to support children's development towards these goals. Because the challenge in a Montessori School is to provide a format that supports children in their individual development as readers, the grade-level format of the State of Delaware's Performance Indicators did not seem to meet this goal. However, a model based on the continuum of reading development seemed to mesh well with the Montessori philosophy of children as individual learners.

The teachers at Wilmington Montessori School have used a reading continuum, developed by Bonnie Campbell Hill and teachers in Washington State (Hill, 2001), for approximately five years to track children's progress as readers. Teachers were introduced to the reading continuum as a way to track children's progress while maintaining the developmental nature of the Montessori classroom because the continuum provided a common language for all teachers to "follow the child." Hill (2001, p. 3) states that the reading continuum is "based on current research about literacy acquisition and reflects a child-centered, constructivist, developmental philosophy of teaching…. student learning should impact your decisions about curriculum, instruction, assessment, and evaluation." The continuum is laid out in

developmental stages (pre-conventional, emerging, developing, beginning, expanding, bridging, fluent, and proficient readers) rather than grade level steps, supporting the multi-age focus of the Montessori classroom. In addition, Hill has developed the reading continuum to be flexible so that schools can adapt it as appropriate to local standards and other criteria teachers feel may be important. A disc comes with the continuum, allowing teachers to adapt it to align with their state's standards (or in this case, Montessori philosophy). It also provides information about children's reading development.

When the continuum was first introduced, some teachers used it as a tool to track children's progress. During the next year, the staff (from toddler teachers to upper elementary teachers) used the weekly after-school meeting time to connect the reading continuum more directly to instructional practices in the classroom. They created one page for each developmental stage; these pages included columns for the characteristics of children, the strategies children use, the goals of instruction and instructional activities for children, and the characteristics of text that support children at each stage with examples of books with the appropriate characteristics. Teachers also added some characteristics which they felt were missing from the original continuum. During that year some teachers used the continuum overview during parent conferences. In the third year, the reading continuum became part of the progress report for parents, making it a required document. Teachers now highlight the children's reading behaviors that demonstrate their observations using the corresponding narrative to elaborate on the child's progress and goals. [The continuum will be reviewed later in this paper, focusing on matching it to the New Standards for Reading and Writing (New Standards Primary Literacy Committee,

1999) literacy goals and to the stage theories of reading development (Chall, 1983; Ehri, 1991; Spear-Swerling & Sternberg, 1996)].

The Classrooms: Reading Instruction at Wilmington Montessori School.

      Three-to Six-Year Old. From the youngest ages, the Montessori classroom emphasizes language and books. Materials are designed to match the preschool child's sensitive periods for language and sensorial learning (See Educational Position Paper 1 for a discussion of sensitive periods)—combining movement, vocalization, and support for the development of fine motor skills. The Wilmington Montessori preschool teachers expand on these foundational Montessori Materials with other materials supporting the development of language skills. Teachers choose materials that address language goals, simultaneously supporting the independent child's work through control of error. In addition, materials emphasize the relationship of movement to learning, a fundamental principle of the Montessori Method.

      The Montessori materials in the preschool and kindergarten classrooms provide for the development of vocabulary, classification, and phonological and phonemic awareness. The phonological and phonemic awareness materials teach children beginning and ending sounds in words, sound blending, and making words. Nomenclature, matching, classification, and sequencing activities with objects and picture cards help children develop their expressive and receptive vocabulary and sequence events. Children move through a progression of materials designed to scaffold them to higher levels of phonemic awareness, phonics, classification, and sequencing. They find objects that begin or end with different sounds by playing games like I Spy. Teachers use sandpaper letters to introduce children to the letter sounds and shapes.   Children work with their hands on materials to sort objects by the

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initial consonant sound in words, final consonants, and later by the short or long vowel pattern in words. When appropriate, the children work with materials that emphasize consonant phonograms; finally, they work with vowel combinations. The moveable alphabet allows children to create words and change the initial, ending, or middle sounds to make new words. Children also can create sentences with the moveable alphabet if they have not yet begun to write with pencil and paper. It is not expected that all children will move through all of these materials; the materials to support reading are available to the children in the preschool classroom and are presented to children when they express an interest or when teachers see a readiness for the materials.

While Montessori believed that children would "explode" into reading by the end of the early childhood program, there are some children at Wilmington Montessori who do not experience this explosion. Some have speech or language difficulties already identified in the early childhood classrooms. Others will begin to read in their first year in the lower elementary (6-9 year old) classrooms. A third group may continue to struggle to learn to read. The teachers have been working with the school reading resource teacher to enhance their understanding about the early indicators of reading failure. As a result, one area of focus has been on phonological awareness. The preschool and kindergarten teachers have developed a tool to track children's phonological awareness. In addition, they have collected a variety of phonological awareness activities for daily work with children.

Children are read to daily. Montessori emphasizes (Montessori, 1967) modeling the correct pronunciation of words and reading aloud with intonation. Teachers focus children on how the story relates to them or to a topic or problem

being studied in the classroom. Reading nooks have selections of books previously read aloud or related to a topic of interest for the children. The teachers at Wilmington Montessori provide various opportunities for realistic pretend play, including such materials as flannel figures and puppets, building areas, and doll houses in the classroom environment.

Elementary Classrooms (6-9 year olds – lower elementary and 9-12 year olds – upper elementary). Montessori observed this period of development (6 to 12 years) to be a sensitive period for imagination in children. By this, she meant that children could think more abstractly and imagine things beyond themselves; this leads to a desire to know about the larger world and to understand why things are as they are. As discussed previously, Montessori expected children to leave the early childhood classrooms prepared with reading skills for this larger exploration of the world. In language, she observed that the elementary child was interested in the function and meanings of words. Seeking to help children understand the role of language from an historical and cultural perspective, Montessori teachers introduce "The Story of Communication and Signs" providing a framework for this interest (Lillard, 1996). The teachers also make individual lessons and provide materials on the grammatical functions of words, word meanings, and etymology. Materials such as these are available to children in the classrooms at Wilmington Montessori as well.

As the developmental stages of reading indicate (Chall, 1983; Ehri, 1991; Spear-Swerling & Sternberg, 1996), the many facets of reading continue to require instruction in the elementary years. The teachers in the lower elementary classrooms also recognize that children come to them at various stages in their reading and writing development. Some children have, in fact, "exploded into reading"; they are

able to read words accurately and fluently, while others are still developing their decoding skills. Multi-age classrooms require teachers to understand the development of reading across a three-to-five-year span by providing instructional support in flexible groupings according to children's needs.

In the lower elementary classrooms, the children spend a block of time each day focused on instructional activities related specifically to reading and writing, including word study (phonics and/or phonemic awareness), independent reading, teachers reading aloud, guided reading, journal writing, writer's workshop, and handwriting. Guided reading groups, where children are matched with text to support their developing abilities to use decoding strategies, begin with phonetic readers for children who are having difficulty internalizing the sounds. Children work with increasingly sophisticated text in guided reading groups through most of their first and second years in the lower elementary rooms. Typically third year students are ready for more independent reading and move to a guided literature circle format. Based on their observations of children's needs, the lower elementary teachers provide specific lessons in phonics and decoding strategies. Materials for independent work supporting these lessons are available on classroom shelves; not surprisingly, this work is referred to as "shelf work" by Montessori teachers. The shelf work continues to emphasize the relationship of movement to learning through activities such as word play games rather than through worksheets. While this work varies from classroom to classroom, the sequence of these activities typically follows the structure of development outlined by Bear, Invernizzi, Templeton, and Johnston (2000) in *Words Their Way: Word Study for Phonics, Vocabulary and Spelling Instruction*.

The connection of writing and reading continues to be emphasized in the lower elementary classrooms. For beginning readers, writing continues to be part of the emergent literacy process, leading children to understanding sounds in words and their relationship to reading. Invented spelling is encouraged, and teachers use children's writing to determine which spelling patterns should be focused on in individual and small group lessons. As children develop fluency and accuracy as readers, writing becomes a way to reflect on their reading and to communicate new knowledge resulting from their reading. Children regularly respond to their reading by writing about the story elements, giving their opinions about a text, or communicating knowledge through a project in the cultural curriculum. In addition to writing, children demonstrate their reading comprehension using a variety of independent projects with peers such as reader's theatre, book talks, and art work.

When children move to the upper elementary classrooms, reading instruction becomes embedded in the cultural curriculum as they read to explore essential ideas such as, "what it means to be human." Through literature circles, children read a variety of books that help them to explore such concepts. Scientific and cultural explorations of the essential ideas require children to read non-fiction and to communicate what they have learned through projects and presentations. Recently, the upper elementary teachers have recognized the need to more directly support 9-12 year-olds with word study focusing on word parts, vocabulary development, and reading comprehension strategies. Changes in the program will include more direct small group instruction to support children as they learn to integrate these skills to become proficient readers.

A reading resource teacher works with small groups of children referred to her by classroom teachers and the education director. This teacher meets with the classroom teachers to discuss the child, assess the child further, and make recommendations to parents if she feels the child needs services beyond the scope of the school. All formal educational evaluations are completed by outside professionals. Periodic reviews of children's progress occur throughout the year, most regularly at the middle of the year and end of year. Adding a classroom-based, school-wide assessment system will refine the process of identifying children and allow for proactive intervention and clear communications with parents about the child's progress and the possible need for further support beyond the school's program.

The Learners

Enrollment during this six year period has varied from 360 children to 430 children, with about fifty percent in the early childhood program and fifty percent in the elementary program. During the 2005-2006 school year, 407 children were enrolled. Eighteen percent of the children were of a minority background. Children from African American (5%), Hispanic (3%), and Asian (9%) backgrounds comprise the minority groups represented in the school. There were 187 girls and 220 boys.

The sixth grade graduating class has varied from 12 to 21 children during this time period. Graduation trends show that approximately fifty percent of the graduating class each year plans to attend public school, and another fifty percent plans to attend another local independent school. The children who are going on to public schools have attended charter school programs, enrolled in advanced placement programs, or been accepted into the International Baccalaureate in the Brandywine School District.

The school does not collect socio-economic data from the families; however, approximately 10% of the families receive financial aide for the elementary program. The school provides up to fifty percent of the tuition for these families. The school accepts state funds through the purchase-of-care program which, combined with a school contribution for assistance, has supported preschool children's attendance.

Children come to Wilmington Montessori School as early as six months of age. About half of the graduating class started during the toddler or preschool years, and the other half entered in kindergarten or first grade. The school does not screen children who have been attending the school between the preschool years and elementary years as some independent schools do. In addition, children do not take a standardized exam upon admission to the elementary program. These policies have resulted in a varied student population with a range of support needs. Fortunately, most children's needs can be met within the flexible Montessori classroom environment. However, some children who have been in the school since their toddler years may require the support of specialists who are not available at Wilmington Montessori School. The families are counseled to move to other independent schools or perhaps to public schools that may be better prepared to support the child's needs.

Because of the diverse learning needs of the students at Wilmington Montessori School, approximately seventy-five percent of the elementary teachers have attended the School's Attuned Training, based on the work of Dr. Mel Levine, with the goal being to have the entire staff trained over the next two years. This training gives teachers tools to better understand a child's strengths and challenges and to make appropriate adaptations to the classroom environment to better meet their

needs.   Proactively recognizing children's needs continues to be a priority of the entire school. Recently, the school has experienced attrition during the three-year cycle of the lower elementary years between first and third grade. Many parents are concerned that specific learning needs are recognized in the elementary grades rather than during preschool or kindergarten. Often, this concern is related to the child's development as a reader.

Currently, the school lacks an informed process for collecting information across classrooms and programs to effectively evaluate the overall focus of reading instruction in the school. In addition, the school has not tracked the data from the annual administration of the Educational Records Bureau's Comprehensive Testing Program (CTP 4) to all children in third through sixth grades. One goal of a classroom-based, school-wide reading assessment system will be to develop a format for collecting and organizing data to better understand the effectiveness of reading instruction across the school. In addition, the use of routine screening tools should allow teachers to proactively intervene in the early childhood program so that children who show indicators for later reading failure receive the instruction they need. Lastly, such a system would allow the teachers to monitor students' progress in a consistent manner, allowing for clearer communication with parents about their children's progress.

The Teachers

Wilmington Montessori teachers bring varied experiences to their work, including those who come to the classroom with little or no formal college coursework in education to teachers with masters degrees in education.   Sixty-five percent of the elementary teachers (K-6th grade) are state certified. Thirty percent of the early

childhood teachers have degrees in early childhood education. The elementary teachers' teaching experience varies from one to fifteen years; the early childhood teachers' teaching experience varies from five to twenty years.

All lead teachers must complete Montessori training. This training consists of a series of eight to twelve weeks of course work over two summers, with a year of internship in the classroom of a certified teacher between the two summer sessions. Teachers learn about Montessori philosophy and other developmental philosophies, including Piaget and Vygotsky. They learn to use the Montessori materials and ways to set up their environments to support children's development within each stage. Further, the teachers develop their understanding of sensitive periods and planes of development. Most training centers tie the Montessori concepts to more recent research in education, adding current information on teaching and learning to the program.

In addition to Montessori training, teachers complete the weeklong Responsive Classroom Institute from the Northeast Foundation for Children during the first three years at the school. While Montessori training focuses on the philosophical understanding of the importance of the social curriculum in the classroom, it does not always provide concrete strategies for teachers to use in developing a community of learners. The Responsive Classroom training does provide these strategies and has provided a consistent approach to the social curriculum in the school.

As discussed earlier, it is a goal of the school to better meet the diverse learning needs of the students by having all the elementary (and, when available, preschool teachers) complete the School's Attuned Training developed by Dr. Mel

Levine. This training at the school in the summer of 2005 allowed a core of teachers to complete this work. A child-study team structured around this training is functioning during the present school year. Again, this work has given teachers common tools and language to address children's needs proactively, to communicate with parents, and to communicate with each other across programs about each child's strengths and challenges.

Over the six years covered by this historical perspective, the staff has changed, and the new teachers' bring a strong knowledge of reading. The ongoing professional development support, sharing among the teachers about teaching reading, using continuums to track children's progress, supporting a resource teacher focused on reading, and increasing the materials available for teaching reading all serve to support the growth of teachers in this area.

The teachers' use of classroom-based assessments, pedagogical beliefs about assessment and the goals for literacy at Wilmington Montessori School

Research shows that the pedagogical perspective, knowledge about the goals of literacy, and teachers' belief systems impact how the teachers will implement an assessment system in their classrooms (Aschbacher, 1993; Au, 1994; Bauer, 1999; Bliem & Davinroy, 1997; Shepard, 1997; Valencia & Au, 1997). To understand the knowledge base and belief systems of the Wilmington Montessori teachers, I focused on understanding how teachers' assessment practices reflect the practices of excellent teachers as identified by the International Reading Association (International Reading Association, 2000). These standards were chosen because they are based on research of effective teaching and they support the Montessori child-centered approach to

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teaching and assessment. The International Reading Association states that excellent teachers constantly observe children as they work:

- using their knowledge of literacy standards, combined with knowledge gained from assessment, to set instructional goals for individual children
- holding discussions with children about their learning through a self-evaluation process
- varying classroom-based assessments to meet the instructional needs of individual children
- understanding the goals of literacy and how they are reflected in the assessments they use in the classroom.

Second, research indicates that while the teachers' pedagogical belief system may be progressive, they often maintain a more traditional view of assessment, which impacts implementing classroom-based assessments as outlined in the International Reading Association's Standards (Aschbacher, 1993; Bauer, 1999; Bliem & Davinroy, 1997; Shepard, 1997). Therefore, I sought to understand the Wilmington Montessori School teachers' beliefs regarding classroom assessment that may challenge or support the development of a classroom-based, school-wide reading assessment system, based on the International Reading Associations Standards for excellence.

To do this, I conducted a study to address the following questions about reading assessment at Wilmington Montessori School: 1) What preparation do Wilmington Montessori teachers receive in Montessori training to support their use of formal and informal classroom-based reading assessments? 2) Which formal and informal reading assessments are used by teachers? 3) What do Wilmington

Montessori School teachers know regarding the goals of reading instruction for the age level they teach? 4) For what purposes are assessments used? 5) What beliefs do Wilmington Montessori teachers hold about reading assessment that may impact the development of a classroom-based, school-wide reading assessment system? 6) Are teachers confident in their ability to recognize the developmental benchmarks and indicators for reading problems in relation to the goals for reading? 7) Do the continuums used at Wilmington Montessori reflect the goals of reading as identified in the *New Standards for Reading* (See Educational Position Paper 1)?

To address these questions, I reviewed the Montessori language albums created by teachers during their training programs, administered and analyzed data from a survey administered to teachers, and completed a comparison of the continuums used at the school with the goals for reading as outlined by the New Standards for Reading and the stage theories discussed in Educational Position Paper I.

Methods

Albums. During their training, teachers complete a series of separate albums focused on the mathematics, language, and cultural curriculums. I reviewed the language albums from four of the five training centers attended by Wilmington Montessori teachers in the past seven years, so I could understand what was taught about reading assessment during their respective programs. Teachers developed these albums while attending the Montessori Institute for Teacher Training (MITE) in Delaware (level 3-6 training), the Center for Montessori Teacher Education (CMTE) in New York State (level 9-12 training), the Princeton Center for Teacher Education (PCTE) in New Jersey (level 3-6, 6-9 and 9-12 training), and the Boulder Center for

Teacher Education (BCTE) in Colorado (6-9 training). The album from the fifth site, the Institute for Advanced Montessori Studies in Maryland, was unavailable at the time of this review because the teacher was involved in the completion of her training.

Montessori training emphasizes the role of observation as a part of each three-period lesson with Montessori language materials. Therefore, I structured the review by reading each album seeking evidence of articles provided to the teachers, notes taken by the teacher, articles about reading assessment, and samples of the assessment tools described in the literature. (See Charts 3.1, 3.2, and 3.3 in EPP 1 which identifies the assessments that meet the National Reading Panel goals.) Since Montessori emphasized the teachers' role as an observer in the classroom, I also looked for evidence of checklists identifying the benchmarks for reading development (See Chart 1.1, 1.2, 1.3, and 1.4 in EPP 1) that might help guide teachers as they observed children's progress as readers. Table 2.1 reflects the organization of this album review and the assessment-related evidence in each of the program albums.

Table 2.1   Evidence of Assessment Tools in Training Albums

	Print Sound Code	Accuracy/ Fluency	Self- Monitoring	Comprehension	Reading Widely	Vocabulary
MITE 3-6	language development time-line Yopp Singer Test of Phonological Awareness				Concepts of Print	
CMTE 9-12		IRI	IRI	Cloze Assessment		
PCTE 3-6	language development time-line	oral language development observations				
PCTE 6-9			comment anecdotal notes	comment on cloze	interests/ Attitude surveys reading logs	
PCTE 9-12						
BCTE 6-9						

Survey. I distributed a voluntary survey (Appendix B) requiring about twenty minutes to complete to the teachers near the close of the 2005-2006 school year. I developed the survey following the guidelines for survey construction as suggested by James Cox (1996) in his book *Your Opinion Please: How to Build the Best Questionnaires in the Field of Education.* Cox suggests a multi-step process beginning with the establishment of guiding questions to focus the development of the specific survey questions or statements. This is followed by developing the survey items related to the guiding questions. Finally, the researcher conducts an alignment check of the survey items against the guiding questions. During the alignment check, items that are not relevant to the questions are eliminated and items are added for questions which may not have been addressed.

The guiding questions for the survey were drawn from the initial study questions including: 1) What formal and informal classroom-based reading assessments are used by teachers? 2) What do teachers know regarding the goals of reading instruction for the age level they teach? 3) For what purposes are assessments used? 4) What beliefs do Wilmington Montessori teachers hold about reading assessment that may impact the development of a classroom-based, school wide reading assessment system? 5) Are teachers confident in their ability to recognize the developmental benchmarks and indicators for reading problems in relation to the goals for reading? The survey items related to teachers' beliefs about assessment required further development of guiding questions, drawing from the review of the research in Executive Position Paper 1, which identified areas where teachers' beliefs were in conflict with the practices identified by the International Reading Association's Standards. With this research in mind, I wanted to learn more about the following guiding questions related to teachers' beliefs and practices, 1) Do teachers feel that classroom-based assessment matches with the Montessori Philosophy? 2) Do teachers believe that assessment can be embedded into daily instruction? 3) Do teachers believe that it is beneficial to involve students in self-evaluation? 4) Do teachers believe that assessment can be flexible and interactive between a teacher and child? 5) Do teachers make time for reflection about assessment data?

The survey was administered to nine preschool and kindergarten teachers representing the early childhood (3-6 year old) program, six teachers of lower elementary (6-9 year olds), and four teachers of the upper elementary (9-12 year olds). The purpose of the survey was to increase my understanding of the community of teachers who will be involved in the implementation of a classroom-based, school-

wide reading assessment system. I administered the survey close to the end of the school year only to those teachers who would be returning to the school the following fall. The survey was distributed to each teacher via his or her mailbox. I directed the teachers to return the survey to an office assistant who tracked returns of the survey and made follow-up requests. This process helped to assure the anonymous participation of the teachers. The survey was returned by 89 percent of the early childhood teachers and 100 percent of the elementary teachers.

One confounding factor in this survey process is that I am the Head of the School where these teachers teach. Seidman (1998) addresses this issue as it relates to an interviewing process stating:

> In any hierarchical school system, no matter how small, in which a principal has hiring and firing power and control over other working conditions, a teacher being interviewed by the principal may not feel free to talk openly. That is especially the case when the teachers know that the interviewer has an investment in the program. The issue in such cases is not whether the principal can achieve enough distance from the subject to allow her to explore fully, but rather whether the teachers feel secure in that exploration. If they do not, the outcomes of such interviews are not likely to be productive. (p. 35)

This quote is particularly relevant in this case. As the Head of School, I have the ultimate authority in the school community; moreover, I have a known investment in reading within the school community. While I believe that there is an open and honest relationship between the teachers and me, I must always be aware that our interactions will be affected by these factors. In this case, the survey was clearly voluntary and structured to maintain as much confidentiality as possible within such a small sample size. In addition, the survey began with the explanation that the purpose was to support the completion of my doctoral program and to benefit the school's work with reading instruction.

Survey Sections. The survey was composed of three sections. The first section focused on which formal and informal assessments were being used at Wilmington Montessori. I gave teachers a list of formal and informal assessments and asked them to check the ones they were using, to identify their purpose in using each assessment by checking the appropriate reason (e.g., parent reporting, progress monitoring, inform instruction), and to describe how often each assessment was used by checking the appropriate frequency (e.g., weekly, periodically). The assessments listed came from those described in the literature (see Table 3.1 in Executive Position Paper 3 identifying assessments that meet the goals of the National Reading Panel). Many Montessori teachers use a checklist of classroom materials as they observe children; therefore, an additional item related to these checklists was added to the list. After a review of the responses and brief interviews with teachers, I discovered that some teachers were unclear about the format for communicating how often they used each assessment and their purposes for using each assessment. Therefore, the data reported in Tables 2.2 and 2.3 summarizes the percentage of teachers reporting that they use each assessment. Later questions in the survey addressed the primary reasons that teachers use assessment in their classroom.

The second section of the survey addressed teachers' understanding of what areas of reading should be measured at each stage of children's development. I drew these areas of importance from those identified in the research and described in Education Position Paper I. Teachers were provided with a list of these reading skills and asked to identify each in terms of monitoring children's development at their program level. They were identified as 1) not important, 2) somewhat important, 3)

important, or 4) very important. For the purposes of reporting (see Table 2.4), the data was grouped to reflect high importance versus low importance (Cox, 1996).

I designed the final section of the survey to better understand the following aspects of the initial study questions: 1) For what purposes are assessments used? 2) What beliefs do Wilmington Montessori teachers hold about reading assessment that may impact the development of a classroom-based school wide reading assessment system? 3) Are teachers confident in their ability to recognize the developmental benchmarks and indicators for reading problems in relation to the goals for reading? As I discussed previously, the guiding question regarding teacher beliefs focused on teacher's beliefs and practices related to the following: 1) matching classroom-based assessment with the Montessori philosophy, 2) embedding assessment in daily instruction, 3) involving students in self-evaluation, 4) using flexible and interactive assessment between the teacher and child, and 5) reflecting and assessing.

Teachers were asked to respond to each statement by indicating their level of agreement rating them from 1 (Strongly Agree) to 5 (Strongly Disagree). The data was analyzed and presented by grouping the responses (Cox, 1996) as agreement (1 or 2), neutral (3), and disagreement (4 or 5). Where appropriate, I analyzed the data across program levels (early childhood, lower elementary, and upper elementary).

Continuum Comparison. Teachers at Wilmington Montessori School rely on Hill's (2001) one-page Reading Continuum overview for two purposes: to prepare for parent conferences, and to monitor children's progress towards goals for reading. Therefore, it is important to know that the goals on the continuum reflect the goals as established in the research. I compared the continuum as presented by Hill with reading benchmarks identified in the research (Tables 1.1, 1.2, 1.3, and 1.4 in Educational Position Paper I). Research indicates that phonemic awareness, systematic phonics, fluency, vocabulary, reading comprehension, and motivation are important to the development of strategic readers (New Standards Primary Literacy Committee, 1999; New Standards Speaking and Listening Committee, 2001; National Institute of Child Health and Human Development, 2000; Snow, et al., 1998). Based on this research, the New Standards Committee on Reading and Writing (New Standards Primary Literacy Committee, 1999) identifies three main standards with benchmarks in sub-categories related to each area. These include Print-Sound Code (phonological awareness, phonemic awareness, knowledge of letters and sounds, and reading words), Getting Meaning (accuracy and fluency, self-monitoring and self-correcting, and reading comprehension), and Reading Habits (reading widely, discussing books, and vocabulary). Descriptors of grade level benchmarks associated with these standards can be found in the tables in Educational Position Paper I.

A table was created to clearly compare the continuum with the tables in Educational Position Paper I. This table combines the developmental stages of the Hill continuum with the benchmark categories from the New Standards. The benchmarks within the table are from the Hill reading continuum currently used at

Wilmington Montessori School. They have been matched to the New Standards categories for Print-Sound Code, Comprehension, and Reading Widely; thus, the reader can identify areas that the Hill Reading continuum addresses and areas where there are gaps. The identification of these gaps will inform the later recommendations regarding the continuums used at the school.

I needed to make two decisions to complete this comparison. First the New Standards Benchmarks are grade level benchmarks while Hill offers a range of ages for each stage of development. For the purposes of this comparison, I matched the grade level of the New Standards benchmarks with the mid-age level for the developmental stage on the Hill continuum. For example, according to Hill, Emerging Readers span ages 4 to 6 years with a mid-point of 5 years. The typical five-year old is in kindergarten, so the emerging reader was compared with the New Standards benchmarks for kindergarten. Second, both the New Standards Committee and Hill match their benchmarks to reading levels. The New Standards Committee identifies an end point level for each grade level while Hill defines a range of levels for each stage of development. The endpoint level of the New Standards for the grade level matching each continuum stage is bolded.

Findings

To better understand the Wilmington Montessori teachers' knowledge base and beliefs regarding reading assessment, I reviewed training albums, administered a survey to the teachers, and completed a comparison of the Hill (2001) reading continuum with the goals for reading identified by the New Standards Primary Literacy Committee (1999). The purpose of this study was to address the following questions:

1) What preparations do Wilmington Montessori teachers receive in Montessori training to support their use of formal and informal classroom-based reading assessments?

2) Which formal and informal reading assessments are used by Wilmington Montessori teachers?

3) What is the knowledge of teachers regarding the goals of reading instruction for the age level they teach?

4) For what purposes are the assessments used?

5) What beliefs do Wilmington Montessori teachers hold about reading assessment that may impact the development of a classroom-based school wide reading assessment system?

6) Are teachers confident in their ability to recognize the developmental benchmarks and indicators for reading problems in relation to the goals for reading?

7) Do the continuums currently used at Wilmington Montessori reflect the goals of reading as identified in the *New Standards for Reading*?

I will now address the findings in relation to each of these questions.

What preparation do Wilmington Montessori teachers receive in Montessori training to support their use of formal and informal classroom-based reading assessments? The album review and survey served as the data sources related to this question. Each album consisted primarily of lessons related to the Montessori materials for language for the age level covered. The early childhood albums focused on the development of phonemic awareness and phonics with the

moveable alphabet, sand paper letters, and a sequential series of lessons with hands-on materials focusing on beginning with initial sounds, then ending sounds, then rhyming, and finally word families. Vocabulary and comprehension activities include work with nomenclature cards and matching activities, classification activities and sequencing activities. The lower elementary albums focus on the grammar materials, and the upper elementary albums emphasized grammar materials, study of the etymology of words, and literature circles.

As might be expected, there is a focus within each lesson on observations of children. For example, in the Princeton album (ages 3-6 training), each lesson has an observation page completed by the teacher focusing on why she or he thought the child was ready for this lesson, the response of the child to the lesson, and next steps for instruction. The albums also included records of observations and reflections of three children's oral language development for children at various ages. However, there was no specific evidence in any of the albums regarding guidance on how to collect, organize, and use these observations to match these observations to reading benchmarks. In general, there was little evidence of guidance regarding benchmarks of children's growth as readers. Both the PCTE and MITE albums included a developmental time line of language development from birth to age 4. The MITE album had the charts from the National Research Council (Snow, et al., 1998) listing benchmarks for the child in preschool, k, first, second, and third grades.

There was no evidence of any focus on the assessments recommended by the National Reading Panel (See Executive Position Paper 1, Tables 3.1, 3.2, and 3.3) in the album from PCTE, Boulder, or from CMTE. The PCTE lower elementary album had one page listing items that might be included in a portfolio including cloze

assessments, anecdotal notes, interests and attitude surveys, and reading logs; however, there were no details about the suggested items in the album. The MITE early childhood album included an article on the Yopp-Singer Test of Phoneme Awareness and the Concepts about Print Checklists.

In summary, there is little evidence of any preparation in classroom-based reading assessment in Wilmington Montessori School teachers' language albums. This conclusion is further supported by the teachers' responses to a survey question regarding their preparation for classroom-based assessment. Three-fourths of the teachers indicated disagreement with the statement: "My Montessori training center emphasized classroom assessments in reading." As a result, one can expect that classroom-based assessment in reading—based on an understanding of the goals for reading as established by the National Reading Panel (National Institute of Child Health and Human Development, 2000), the National Research Committee (Snow, et al., 1998), and standards such as the New Standards for Reading and Writing (New Standards Primary Literacy Committee, 1999)—was not emphasized in the Montessori training programs that Wilmington Montessori teachers attend.

What formal and informal classroom-based reading assessments are used by teachers? While teachers across the program levels reported using various informal classroom-based assessments for reading, they used few of the formal published assessments listed (Tables 2.2 and 2.3). All teachers reported that they use anecdotal records and mental observations of students. Three-fourths of the teachers reported using recorded observations of students, reading journals or response logs, student portfolios, teacher-made assessments, and work samples. (The school has recently encouraged student portfolios across all program levels. which may explain

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the emphasis on this form of assessment.) Rubrics and cloze assessments were used by fewer than one fourth of the teachers returning the survey.

Teachers reported using few formal published assessments (Table 2.3). Ninety percent of the elementary teachers reported consistent use of the *Developmental Reading Assessment (DRA)* (Beaver & Carter, 2003). Although no training has been provided, the *DRA* kits were purchased for all elementary classrooms over the last two years, giving teachers easy access to this tool. The *DIBELS* (Kaminski, Good, Smith, & Dill, 2003) assessment has been used primarily by the reading resource teacher when a child is referred. During the year prior to this survey, she screened all of the kindergarten children and children in the lower elementary classrooms to determine which children should be referred for extra assistance. Teachers did not report using *DIBELS* themselves; however, several commented that the assessment data from the reading resource teacher sometimes informed their instructional practices. Two preschool teachers reported using a published normed assessment of phonological awareness; most teachers reported using a personally developed informal assessment tool. Twelve of the assessments in the survey were not specifically available in the school and were not used in any classroom of the respondents. These included the *Observation Survey of Early Literacy, The Names Test, Degrees of Reading Power, Gray Oral Reading Test, Early Reading Diagnostic Assessment, Motivation to Read Profile, Comprehensive Reading Achievement, Bader Reading and Language Inventory, Reading Inventory for the classroom, Fox in a Box, Curriculum-Based Measurement* and *Test of Language Development.*

As one would expect, some variations in the use of assessments occurs across program levels. These variations seem to reflect both the developmental needs of the children and the demands for accountability for student learning at the different levels. Specifically, early childhood teachers report that they use the staff-created assessment of phonological awareness and checklists of Montessori Materials. There was little or no use of these tools at the elementary levels. The lower elementary teachers report using the greatest variety of informal assessments (15 of the tools are use by 75% of the teachers) and the only consistent use of a published normed assessment (*DRA*). This increase in the variety and number of teachers using assessment tools may be due to the emphasis on reading by both parents and teachers during these years. A variety of the assessments used primarily by both the lower and upper elementary teachers focus on reading connected texts. This focus on connected text would be expected for the developmental stage of these children. Teachers report an emphasis on the use of oral retellings, *Words Their Way Spelling Inventories*, the use of published informal assessments from professional journals, written retellings, running records, reading conferences, and reading logs across the elementary levels.

The teachers report that they use a variety of informal assessment tools. However, there is little consistency and continuity within or across programs regarding which tools are used and the way they might be used. All teachers report that their primary tool for assessing children is observation. Teachers also report using anecdotal records although most teachers also stated that they do not have a procedure for organizing and evaluating these records. There is limited use of published assessments at Wilmington Montessori School. Having a repertoire of formal assessments would verify and direct teachers' observations of children,

particularly of struggling readers. Consistent use of published normed assessments (see chart in Executive Position Paper 1 identifying assessments which meet the goals of the National Reading Panel) should allow for more reliable screening of children leading to proactive instructional intervention to prevent later reading problems.

Table 2.2   Percentage of teachers at each program level reporting use of informal assessments

Informal Assessments	3-6 Year Old Teachers N=8	Elementary 6-9 Teachers N=6	Elementary 9-12 Teachers N=4	Across All Program Levels N=18
Anecdotal Records	100%	100%	100%	100%
Checklist of Reading Skills	88%	100%	0%	72%
Checklists of Montessori Materials	100%	50%	25%	78%
Classroom Reading Logs	38%	83%	50%	56%
Cloze Assessments	0%	17%	0%	6%
Mental Observations	100%	100%	100%	100%
Oral Retellings	38%	100%	75%	39%
Published Assessments	38%	100%	75%	61%
Published Informal Reading Inventory	0%	67%	50%	33%
Reading Conferences	13%	83%	75%	50%
Reading Logs	75%	100%	100%	89%
Recorded Observations	100%	100%	50%	89%
Rubrics	0%	67%	25%	28%
Running Records	50%	100%	25%	61%
Student Portfolios	86%	100%	50%	83%
Teacher Made Assessments	75%	83%	50%	78%
WMS Phonological Awareness Assess	100%	17%	0%	50%
Words Their Way Spelling	13%	100%	100%	61%
Work Samples	88%	100%	100%	95%
Written Retellings	25%	100%	50%	56%

Table 2.3   Percentage of Teachers at each program level reporting use of formal assessments

Formal Assessments	3-6 Year Old Teachers N=8	Elementary 6-9 Teachers N=6	Elementary 9-12 Teachers N=4	Across All Program Levels N=18
Basic Reading Inventory	0%	0%	25%	5%
Book Selection	13%	0%	50%	17%
Comprehensive Test of Phonological Processing	13%	33%	0%	17%
Developmental Reading Assessment	0%	100%	75%	53%
DIBELS	38%	33%	0%	28%
Elementary Reading Attitude Survey	0%	0%	50%	11%
Preschool Test of Phonological Print Processing	25%	0%	0%	11%
San Diego Quick Assessment	0%	16%	0%	5%
Seeing Stars Sight Words	0%	16%	0%	5%
Story Construction from a Picture Book	25%	0%	0%	0%
Think Alouds	25%	0%	50%	23%
Yopp Singer Test of Phoneme Segmentation	0%	16%	0%	5%

What is the knowledge of teachers regarding the goals of reading instruction for the age level they teach? Research has identified developmental stages in children's reading (Chall, 1983; Compton, 1997; Ehri, 1991; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996). Some areas are more important to monitor in the early childhood program and others more important for the lower or upper elementary program. For example, oral language development and phonological awareness should be emphasized in the early childhood program. Phonemic awareness, decoding skills, and letter recognition should receive increased emphasis for assessment in the

kindergarten year and the lower elementary program but these skills should be well developed by the end of second grade. The development of accuracy, fluency, self-monitoring and self-correcting strategies should get attention in the lower elementary program while the upper elementary teachers should have an increased emphasis on reading comprehension (See Table 1.1 Summarizing the New Standards for Print Sound Code and Table 1.2 New Standards for Getting Meaning found in Educational Position Paper 1).

Research has also identified oral language development, vocabulary development, phonological and phonemic awareness, knowledge of letter names, rapid letter naming, concepts of print, single word reading, and reading fluently as important indicators of possible reading challenges (Compton, 1997; Rathvon, 2004; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996; Torgesen, 1998, 2002). Because these indicators change developmentally in their ability to predict possible later reading failure, it is important that teachers know which of these predictors are most relevant to the age they teach.

Wilmington Montessori School teachers need to understand the progression of reading development to guide their choices of classroom-based assessments and to know when a child may be at risk. Studies indicate that teachers are not sure that they are assessing the right things and want guidance about what they should be looking for in children's work (Aschbacher, 1993; Johnston & Costello, 2005; Johnston, et al., 1995). Therefore, the second section of the survey asked teachers to rank the importance of assessing various skills at their program level. The list of skills was drawn from the New Standards Goals for reading (see Tables 1.1 Print Sound Code, 1.2 Fluency and Accuracy, 1.3 Getting the Meaning, and 1.4

Reading Habits in Education Position Paper 1) and the research on predictors of later

reading failure listed previously. Table 2.4 summarizes the results of this section.

Table 2.4 **Wilmington Montessori School Teacher's ratings of the importance of assessing various reading skills within program levels**

	3-6 Year Old Teachers N=8		Elementary 6-9 Teachers N=6		Elementary 9-12 Teachers N=4	
	High	Low	High	Low	High	Low
Print Sound Code						
Letter Knowledge	100%	0%	66%	33%	0%	100%
Letter Sounds	100%	0%	83%	17%	0%	100%
Oral Language Vocabulary	100%	0%	100%	0%	75%	25%
Oral Language Syntax	86%	14%	100%	0%	75%	25%
Oral Language Semantics	86%	14%	100%	0%	75%	25%
Phonological Awareness	100%	0%	100%	0%	25%	75%
Phonemic Awareness	100%	0%	100%	0%	25%	75%
Reading Words/ Decoding	75%	25%	100%	0%	75%	25%
Getting Meaning						
Rapid Auto Naming of Letters and Words	63%	38%	100%	0%	0%	100%
Reading Comprehension	38%	63%	100%	0%	100%	0%
Written Narrative Retellings	13%	88%	83%	17%	50%	50%
Fluency	50%	50%	100%	0%	75%	25%
Listening Comprehension	100%	0%	100%	0%	100%	0%
Correcting and Self-monitoring strategies	71%	29%	100%	0%	100%	0%
Reading Habits						
Concepts about Print	88%	12%	100%	0%	0%	100%
Oral Narrative Retellings	100%	0%	100%	0%	50%	50%
Ability to Discuss Books	100%	0%	66%	33%	100%	0%
Amount of Reading	75%	25%	50%	50%	75%	25%
Reading Attitude	100%	0%	83%	17%	100%	0%
Reading Vocabulary	50%	50%	100%	0%	100%	0%
Choices of Literature and Genres	38%	63%	66%	33%	75%	25%

The responses indicate that teachers at each level place importance on skills that are appropriate for the instructional level they teach. However, it is interesting to note that teachers also identified skills as important which may not be developmentally appropriate for their instructional level (see Tables 1.1 Print Sound Code, 1.2 Fluency and Accuracy, 1.3 Getting the Meaning, and 1.4 Reading Habits in Education Position Paper 1). The early childhood teachers report a high level of importance for reading words, decoding and self-monitoring strategies even though one would expect these skills to have less emphasis in the preschool classrooms and have more importance in the kindergarten, first, and second grades. One explanation for this may be the focus on the early development of reading skills in the Montessori preschool classroom. The upper elementary teachers continue to emphasize oral language, reading words, and decoding skills at their level. In contrast with the earlier discovery regarding the preschool classrooms, this continued emphasis on decoding skills and reading words by upper elementary teachers may result from children entering this level still needing support in these areas. The lower elementary teachers indicated that it is important to assess a wide spectrum of reading skills at their level. This may be due to the movement through several developmental stages for reading between the ages of 6 and 9 (Chall, 1983; Compton, 1997; Ehri, 1991; Spear-Swerling & Sternberg, 1996). Further questioning is needed to see if the lower elementary teachers are choosing assessments that appropriately match the developmental stages of the children across this age span.

Consistent with the research on reading development (see Table 1.1 Print Sound Code in Educational Position Paper 1), the early childhood and lower elementary teachers felt that phonological awareness, phonemic awareness, rapid auto

naming of words, concepts about print, and oral narrative retellings were important to assess at their levels. Teachers of these two age groups also felt that letter names and letter sounds were important, although a smaller percentage of lower elementary teachers report these as important skills for their level. Teachers across the elementary program placed a higher importance on assessing reading vocabulary, choices of literature and genres, reading comprehension, written narrative retellings, fluency, and reading vocabulary than did the early childhood teachers. This increased focus on comprehension-related skills matches the increased focus on the development of these skills in the New Standards (See Tables 1.3 Getting Meaning and Tables 1.4 Reading Habits in Educational Position Paper 1). The high value placed on reading in Montessori classrooms was reflected by teachers across all program levels; teachers reported a high level of importance for reading attitude, ability to discuss books, and the amount of reading children were doing. Clarification of what to track and consistent ways of tracking these important indicators of reading habits may be beneficial.

In summary, when asked to identify skill areas to assess at their program level, teachers at all program levels identified some skills that may be more appropriately assessed at an earlier or later level. Development of a school-wide reading assessment system should assist teachers in understanding the developmental indicators of reading failure and provide them with ways to monitor for these indicators. Such a system may reduce the emphasis of the upper elementary teachers on decoding and word reading skills because children who need assistance would be proactively identified and no longer require support with these skills at this level. A classroom-based school-wide reading assessment system should also clarify the

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assessment focus of the lower elementary teachers as they work to meet the needs of children across the broad developmental span of 6-to-9-year old readers.

What do teachers view as the purpose of classroom-based reading assessments? Across all program levels (Table 2.5), teachers report that they use classroom assessment data to inform the writing of progress reports, prepare for parent conferences, and make referrals to the resource room.

Table 2.5   Reported Uses of Assessment Information

Purposes of Classroom Assessments across programs (N=18)	Agree	Neutral	Disagree
A primary reason for classroom assessment is to inform my daily instructional decisions.	89%	11%	0%
I use collections of classroom assessment information to inform the writing of progress reports.	89%	11%	0%
I use collections of classroom assessment information to prepare for parent conferences.	89%	11%	0%
I use collections of classroom assessment information to make referrals to the Resource Room.	78%	17%	6%
A primary reason for assessment is to compare children's progress with other children.	5%	39%	56%
A primary purpose of classroom assessment is to tell me what a child can do.	72%	22%	6%
A primary purpose of classroom reading assessment is to tell me what a child cannot do.	56%	28%	17%
A primary purpose of classroom reading assessment is for grouping children for guided reading.	33%	39%	28%
I adjust the pacing of curriculum according to the information from the reading assessment of a child.	61%	33%	6%
Classroom reading assessment provides evidence of student learning.	67%	22%	11%

The last five rows of Table 2.5 reflect questions related to ways that teachers may use classroom reading assessment to inform classroom instructional decisions. There is a high level of agreement across all the respondents that the primary purpose of classroom assessment is to tell teachers what a child can do. Elementary teachers were more likely to agree that classroom assessment is useful for grouping children for guided reading, adjusting the pace of the curriculum, giving evidence of student learning, and informing the teacher about what a child does not know. The variations in emphasis on the purpose of assessment between the early childhood teachers and the elementary teachers may be due to the increased emphasis on reading achievement and flexible grouping for instruction at the elementary level. In addition, teachers' beliefs about the developmental nature of children's reading in the early childhood program as compared to increased expectations for their development in the elementary years might also influence the thinking of early childhood and elementary teachers about the uses of assessment. The following discussion focuses on survey responses that further clarify teachers' beliefs about classroom assessment and the current status of how teachers use formative classroom-based reading assessment at Wilmington Montessori School.

What beliefs do Wilmington Montessori School teachers hold about classroom-based reading assessment? Research indicates that teachers often maintain a more traditional view of assessment even when they are progressive in their instructional practices. This view impacts the implementation of classroom-based assessments as outlined in the International Reading Association's Standards for effective teachers of reading (Aschbacher, 1993; Bauer, 1999; Bliem & Davinroy, 1997; Shepard, 1997). The survey included the following questions regarding

teachers' beliefs about classroom-based reading assessment at Wilmington Montessori School: 1) Do teachers feel that classroom-based assessment matches with the Montessori Philosophy? 2) Do teachers believe that assessment can be embedded in daily instruction? 3) Do teachers believe that it is beneficial to involve students in self-evaluation? 4) Do teachers believe that assessment can be flexible and interactive between a teacher and child? 5) Do teachers make time for reflection about assessment data?

Beliefs about classroom-based assessment and Montessori philosophy (see Table 2.6).

Table 2.6   Teacher's views about classroom-based assessment and Montessori philosophy

	Early Childhood 3-6 Teachers N=8			Elementary 6-9 Teachers N=6			Elementary 9-12 Teachers N=4		
	Agree	Neutral	Disagree	Agree	Neutral	Disagree	Agree	Neutral	Disagree
Systematic classroom reading assessment conflicts with Montessori philosophy.	38%	50%	13%	0%	17%	83%	25%	25%	50%
I would like more professional development opportunities to understand classroom assessments in reading.	63%	25%	13%	100%	0%	0%	75%	25%	0%
My Montessori training center emphasized classroom assessments in reading.	0%	38%	63%	33%	0%	66%	50%	0%	50%
Collections of classroom assessments could be used to evaluate the reading program in the school.	0%	75%	25%	33%	50%	17%	50%	25%	25%
Classroom assessment helps me to understand the whole child.	50%	38%	13%	66%	33%	0%	75%	25%	0%

As discussed in Education Position Paper 1, Maria Montessori relied heavily on observation as the only tool for assessment in the classroom and was adamant in her view that standardized testing and level exams were inappropriately used by administrators and politicians (A. S. Lillard, 2005; Standing, 1962). A classroom-based reading assessment system is based on children's needs, and most assessment tools require individual administration and observation of children. However, Montessori teachers may believe that assessment, especially assessment that may rely on a published normed tool, is not supported by the Montessori philosophy. One question on the survey (Appendix B) was designed to address this by asking teachers to give their level of agreement with the statement "systematic classroom based assessment conflicts with Montessori philosophy." While approximately half of the respondents indicated disagreement with this statement, approximately half of them were neutral or in agreement with the statement. Early childhood teachers were more likely to agree or respond neutrally (88 percent) to this statement. Seventy percent of the elementary teachers disagreed with the statement, and twenty percent were neutral. Half of the early childhood teachers also seem less certain that classroom-based reading assessment helps them to understand the whole child; in contrast, seventy percent of the elementary teachers responded positively to this statement. Although some early childhood teachers question the fit of classroom-based assessment with the Montessori philosophy, it is a positive sign that ninety-four percent of the respondents indicated that they would like professional development opportunities to learn more about classroom-based reading assessment. In addition, two-thirds of the teachers felt that classroom-based assessment helps them to

understand the whole child. In general, it appears that teachers are willing to consider how classroom-based assessments might inform their work in a Montessori classroom.

Assessment should be embedded in and inform instruction (see Table 2.7).

Table 2.7   Embedding Assessment in daily instruction

N=18	Agree	Neutral	Disagree
I base my daily instructional decisions primarily on my observations of children.	89%	6%	6%
Assessment is a separate activity from instruction.	33%	11%	56%
Children should be assessed only on information they have had lessons on.	11%	17%	72%

Research indicates that teachers who hold traditional beliefs about assessment view it as separate from instruction and have a difficult time connecting their instructional decisions to their observations of children (Au, 1994; Bauer, 1999; Bliem & Davinroy, 1997; Shepard, 1997; Valencia & Place, 1994). Three questions focused on Wilmington Montessori School teachers' beliefs about the connection between assessment and instruction. The teachers indicated a strong level of agreement with the statement "I base my daily instructional decisions on my observations of children." Given the connection between observations and teacher decision making in Montessori's writings (Montessori, 1964; 1965; 1967; 1995), one might expect this to be a strong point for Montessori teachers. Further probing of this response is needed to determine if teachers can verbalize the connection between their observations and their decisions in the classroom.

When asked to respond to the statement "assessment is a separate activity from instruction," teachers of early childhood and lower elementary children were

more likely to agree with this statement than were the upper elementary teachers who all reported disagreement with this statement. The response of the early childhood and lower elementary teachers is interesting, given that observational assessment is embedded in all the Montessori lessons and reported as the primary classroom-based assessment method by all teachers. These teachers may be viewing assessment in a more traditional way: as the administration of a published assessment that is separate from the classroom work. Open-ended comments regarding their concerns about classroom-based assessment confirm this hypothesis. Several preschool teachers and four lower elementary teachers commented that they have very little time to administer assessments, and three noted that they felt it would take time from Montessori lessons.

Research shows that many teachers who do not view assessment as integrated with instruction believe that assessment takes time from instructional goals (Au, 1994; Bliem & Davinroy, 1997; Shepard, 1997; Valencia & Place, 1994). It appears that the teachers in the early childhood and lower elementary classrooms may have this concern. This could provide one explanation for the earlier survey result indicating that most preschool teachers did not see classroom-based assessment as fitting with the Montessori philosophy. It seems reasonable that teachers who do not view assessment as embedded in instruction would be less likely to view classroom-based assessment as fitting with the Montessori philosophy. A classroom-based, school-wide reading assessment system that supports instructional decision making, screens children for indicators of reading difficulty, and provides information for program evaluation would require a combination of informal and formal published classroom based assessments. Teachers may need assistance in understanding that

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standardized classroom-based assessments used for screening purposes can also be tools for teaching and learning.

Teachers should involve students in self-evaluation (see Table 2.8).

Table 2.8   Teacher's views about self-esteem and involving children in classroom based assessment

	Early Childhood 3-6 Teachers N=7			Elementary 6-9 Teachers N=6			Elementary 9-12 Teachers N=4		
	Agree	Neutral	Disagree	Agree	Neutral	Disagree	Agree	Neutral	Disagree
Sharing assessment information with a child can motivate the child.	0%	50%	50%	66%	33%	0%	75%	25%	0%
Assessment labels children.	25%	63%	13%	0%	50%	50%	50%	0%	50%
Sharing assessment information with a child is damaging to self-esteem.	25%	75%	0%	0%	50%	50%	0%	0%	100%

Studies show that some teachers feel that sharing assessment information with children will reduce their self-esteem, causing children to be less motivated (Aschbacher, 1993; Hiebert & Davinroy, 1993; Johnston & Costello, 2005; Johnston, et al., 1995). However, current thinking supports children being involved in a self-evaluative process within a collaborative learning community (Shepard, 2000a, 2000b; Stiggins, 1991, 2001). The survey asked Wilmington Montessori School teachers to state their level of agreement with the following statements:

1. Sharing assessment information with a child can be motivating to the child.

2. Assessment labels children.

3. Sharing assessment information with a child is damaging to their self-esteem.

The responses to these statements do not provide clear indications of agreement or disagreement among the teachers. There is a higher level of agreement among the elementary teachers than among the early childhood teachers that assessment can be motivating to a child. Across the program, teachers seem to be unsure about their thinking related to the statement "assessment labels a child." Elementary teachers tend to disagree that sharing assessment data was damaging to a child's self-esteem while the preschool teachers were neutral or disagreed with this statement indicating uncertainty about the benefits of sharing assessments with children. The response to these survey questions indicates that many Wilmington Montessori teachers' beliefs about assessment and its role in self-evaluation are consistent with the research in this area. It should be noted, however, that discussions related to the use of portfolios in the school have addressed the need for children to be involved in self-reflection. The focus on classroom-based reading assessments across the school may assist teachers to see that these tools can also help children develop their awareness of their own progress as a reader.

Assessment should be flexible and interactive between the teacher and student to meet the needs of the child (see Table 2.9).

Table 2.9   Teachers' comfort with flexible use of classroom-based assessment

	Early Childhood 3-6 Teachers N=7			Elementary 6-9 Teachers N=6			Elementary 9-12 Teachers N=4		
	Agree	Neutral	Disagree	Agree	Neutral	Disagree	Agree	Neutral	Disagree
I am most comfortable with classroom assessment tools that have set directions for administration.	0%	50%	50%	33%	66%	0%	50%	50%	0%
I use assessments more often with children who are struggling as readers.	25%	50%	25%	66%	33%	0%	100%	0%	0%
The same classroom assessments should be given to all children in an age group.	25%	25%	50%	17%	17%	66%	0%	25%	75%

Effective teachers pick and choose assessments to meet the needs of individual children. However, the traditional model of assessment, in which all children are administered the same assessment at the same time, still influences the thinking of many teachers about the role of assessment in the classroom (Bliem & Davinroy, 1997; Hiebert & Davinroy, 1993; Johnston, et al., 1995). Seven survey statements were related to understanding teachers' comfort with the flexible use of assessment tools. Teachers' responses indicate that across all of the program levels they feel that classroom-based assessments should allow them to interact with children and that assessment tools have multiple purposes. In addition, they use multiple

assessment tools and believe assessments should be chosen to meet the developmental needs of a child.

In general the survey responses indicate that Wilmington Montessori School teachers believe classroom-based assessments can be flexible according to children's developmental needs and interactive in nature. This view is balanced by some teachers who may still hold some traditional views about equity and fairness of assessments, as illustrated by Table 2.9. The early childhood teachers report less comfort with assessments that have set directions while the elementary teachers seem to prefer such assessment tools. Survey comments by the lower elementary teachers indicate that these teachers have a desire to "learn to give assessments accurately." One-third of the teachers across the program levels were unsure or believed that the same classroom assessments should be given to all children in an age level. The responses to this statement are unclear. Depending on the purpose for the assessment, one might want to administer some assessments to all children in a given age level. In addition, teachers may have been thinking about the role of assessment in program evaluation rather than the role of classroom-based assessment as an instructional tool. However, the implementation of a school-wide reading assessment system should help to increase teacher's understanding of the purposes for different assessments helping them to become more comfortable with the flexibility they can have in administering the assessments.

Teachers find reflection on assessment to be challenging (see Table 2.10).

Table 2.10   Teacher Reflection on Assessments

	Early Childhood 3-6 Teachers N=8			Elementary 6-9 Teachers N=6			Elementary 9-12 Teachers N=4		
	Agree	Neutral	Disagree	Agree	Neutral	Disagree	Agree	Neutral	Disagree
I have a system for recording my observations of children while reading.	50%	25%	25%	50%	33%	17%	75%	0%	25%
I plan for assessment just as I plan daily instructional activities.	13%	25%	63%	33%	50%	17%	50%	25%	25%
I make a regular time to reflect on the reading assessment data that I gather.	0%	38%	63%	50%	17%	33%	25%	50%	25%
I share student work and reading assessments with other teachers (besides co-teacher).	13%	63%	25%	33%	17%	50%	50%	25%	25%

Reflection is fundamental to the success of a classroom-based reading assessment system in a Montessori classroom that will support instructional decision making, clearer reporting to parents, and program evaluation. Reflection on assessment requires time and documentation, observation notes, portfolios, formal assessment results, etc. Studies show that time and record keeping are major challenges to classroom teachers when implementing classroom-based assessments (Aschbacher, 1993; Bliem & Davinroy, 1997; Gipps, 1994; Johnston, et al., 1995; Shepard, 1997; Valencia, 1997). Survey responses indicate that Wilmington Montessori School teachers are no different. The open-ended responses had a consistent theme related to the need for time to use classroom-based assessments effectively. Approximately half of the teachers reported having a system for recording

observations of children while reading. However, only one-third of the teachers agreed that they plan for assessment opportunities as they plan their lessons for the day. A similar number of teachers (primarily elementary teachers) responded that they make a regular time to reflect on reading assessment data or that they share their reflections with other teachers. The effective use of a classroom-based assessment system will depend on the ability of the teachers and administration to make time for reflection and conversation about assessment a priority in the daily life of the school community.

Are teachers confident in their ability to recognize the developmental benchmarks and indicators for reading problems in relation to the goals for reading? (See Table 2.11).

Five survey questions were designed to determine the confidence level of the teachers regarding their knowledge of the developmental benchmarks for reading. The school has been using a reading continuum (Hill, 2001) for approximately five years and is is included in the progress report to parents. It seemed likely that teachers would choose assessments or focus their observations of children towards the goals on the continuum. This was confirmed with eighty percent of the teachers agreeing that their assessments help them to match children with their stage on the continuum, while the remaining teachers were neutral. Seventy percent of the teachers reported feeling confident in their ability to know when a child is making appropriate progress as a reader; the remaining group of teachers felt neutral about this area. However, only fifty percent of the teachers reported confidence in their understanding of the developmental benchmarks and in their ability to recognize the early indicators of reading problems for children in their age level. The responses to the survey suggest

that teachers at Wilmington Montessori School are confident about their ability to track children who are progressing in a normal manner across the school's continuum; however, there is less confidence in their understanding of the early indicators of reading problems.

Table 2.11 Teachers' confidence in the benchmarks for reading and evaluation of assessments

	Early Childhood 3-6 Teachers N=7			Elementary 6-9 Teachers N=6			Elementary 9-12 Teachers N=4		
	Agree	Neutral	Disagree	Agree	Neutral	Disagree	Agree	Neutral	Disagree
Reading assessment in my classroom informs the progress that children are making towards the goals on the WMS continuum	63%	38%	0%	83%	17%	0%	100%	0%	0%
I am confident in my ability to know when a child is making appropriate progress as a reader.	75%	25%	0%	66%	33%	0%	75%	25%	0%
I am confident in my understanding of the developmental benchmarks for reading at the program level I teach.	63%	38%	0%	33%	66%	0%	75%	25%	0%
I am selective about the work samples that are collected to demonstrate progress.	63%	38%	0%	50%	50%	0%	75%	0%	25%
I am confident that I know and can recognize the early indicators of reading problems for children in my age level.	50%	50%	0%	33%	66%	0%	75%	25%	0%

Do the continuums used at Wilmington Montessori reflect the goals of reading as identified in the New Standards for Reading (see Table 2.12)? The reading continuum has provided a structure for monitoring children's reading development. In the earlier review of the teachers' survey responses, the data indicate that teachers rely

on the continuum to monitor children's progress. This consistent use of the continuum provides a foundation for developing a classroom-based, school-wide reading assessment system. However, the teachers and administrators have never developed a mutual understanding of the benchmarks, have not cross-referenced the benchmarks with state or national reading standards, and have not determined what evidence might be collected to support that a child is meeting the benchmarks.

Several concerns were identified regarding using the reading continuum (Hill, 2001) to effectively monitor children's progress in a school-wide reading assessment system. First, a review of the Pre-Conventional (Preschool), Emerging Reader (Kindergarten), and the Developing Reader (First Grade) columns of the continuum reflects gaps in the identification of benchmarks for the Print-Sound Code. Research clearly indicates that this is an important period for the development of phonological and phonemic awareness, both of which can be indicators of future reading failure (Adams, 1990; Rathvon, 2004; Snow, et al., 1998). However, the continuum currently used at Wilmington Montessori School has few if any benchmarks for these key areas of early reading development.

Second, while the continuum reflects a developmental focus towards increasing sophistication in the use of comprehension skills, the New Standards (New Standards Primary Literacy Committee, 1999) emphasizes oral language development and listening skills as well. Although these skills are precursors to later comprehension, the Hill Continuum has no benchmarks (other than one reference to rhyming and playing with words in the Emerging Reader stage) to guide teachers in monitoring development in these areas. In addition the continuum lacks clear benchmark descriptors for fluency and accuracy, important foundations for

comprehension. The Hill continuum does not benchmark these skills until the Beginning Reader (Second Grade) by using the very general benchmark of "increasing fluency and expression when reading aloud." Current research provides benchmarks for the level of book and level of accuracy at each grade level (New Standards Primary Literacy Committee, 1999).

Third, the descriptors for reading comprehension on the Hill Continuum do not consistently build across the developmental levels. Some levels emphasize several comprehension strategies while others emphasize few strategies. The benchmarks for older readers seem to strongly emphasize reference materials rather than increasingly sophisticated comprehension monitoring strategies.

Fourth, there are no benchmarks for vocabulary development prior to the Expanding Reader (Third Grade) on the continuums. Research indicates that expressive and receptive vocabulary development in the early childhood years provides an important foundation for reading comprehension and comprehension monitoring (New Standards Primary Literacy Committee, 1999; Snow, et. al., 1998). Further, children's vocabulary increases as a result of reading. Teachers need a clear understanding of the early language benchmarks related to vocabulary development as well as later to expectations for children's vocabulary development.

Table 2.12   Hill Reading Continuum Formatted to Match New Standards for Reading

Characteristics of **Preconventional Readers 3-5 Years** **Preschool/**Kindergarten **Fountas and Pinnel – Level A**	Characteristics of **Emerging Readers 4-6 years** **Kindergarten/**1st grade **Fountas and Pinnel – Levels** A**, B,** C, D
Print Sound Code **Phonological Awareness** **Knowledge of Letters and Sounds** • knows some letter names **Reading Words** • shows interest in reading signs, labels, and logos (environmental print)	**Print Sound Code** **Phonemic Awareness** • rhymes and plays with words **Knowledge of Letters and Sounds** • knows most letter names and letter sounds **Reading Words** • begins to read signs, labels, logos (environmental print) • recognizes some names and words in context
Comprehension **Precursors to accuracy and fluency** **Precursors to Self-Monitoring and Self-Correcting** **Oral Language Precursors to Reading Comprehension**	**Comprehension** **Accuracy and Fluency** **Reading Self-Monitoring and Self-Correcting Strategies** **Reading Comprehension** • makes meaningful predictions with guidance • uses illustrations to tell stories
Reading Habits **Precursors to Reading Widely** • begins to choose reading materials (e.g., books, magazines, and charts) and has favorites • holds book and turns pages correctly • shows beginning/end of book or story • participates in group reading (books, rhymes, poems, and songs **Discussing Books:** • listens and responds to literature • comments on illustrations in books **Vocabulary**	**Reading Habits** **Reads Widely** • memorizes pattern books, poems, familiar books • demonstrates eagerness to read, pretends to read • reads top to bottom, left to right, front to back • develops knowledge and appreciation for different texts • participates in reading of familiar books and poems **Discussing Books:** • connects books read aloud to own experiences with guidance **Vocabulary**

Table 2.12 Continued

Characteristics of Developing Readers 5-7 years Kindergarten/**1st Grade** **Fountas and Pinnel – Level** E, F, G, H, **I**	Characteristics of Beginning Readers 6-8 years 1st Grade/**2nd Grade** **Fountas and Pinnel – Level** H, I, J, K, **L**
Print Sound Code **Phonemic Awareness** **Knowledge of Letters and Sounds** • knows most letter sounds and letter clusters **Reading Words** • recognizes simple words • uses growing awareness of sound segments (e.g., phonemes, syllables, rhymes) to read words	**Print Sound Code** **Phonemic Awareness** **Knowledge of Letter Sounds** **Reading Words** • recognizes word endings, common contractions, and many high frequency words.
Comprehension **Accuracy and Fluency** **Reading Self-Monitoring and Self-Correcting** • relies on illustrations and print • uses finger-print-voice matching **Reading Comprehension** • retells main event or idea in literature • begins to make meaningful predictions	**Comprehension** **Accuracy and Fluency** • uses basic punctuation when reading orally • increasing fluency and expression when reading aloud **Reading Self-Monitoring and Self-Correcting** • uses meaning cues (context), sentence cures (grammar), letter sounds and patterns (phonics) • begins to Self-correct • identifies own reading behaviors with guidance **Reading Comprehension** • retell beginning, middle and end with guidance • read and follow simple written directions with guidance. • continuing development of comprehension strategies (e.g. predicting, inferencing)
Reading Habits **Reads Widely** • reads simple pattern books • begins to read independently for short periods (5–10 minutes) • identifies titles and authors in literature • sees self as reader • read their own writing **Discussing Books** • explains why literature is liked/disliked during class discussions with guidance • discusses favorite reading material with others • participates in guided literature discussions **Vocabulary**	**Reading Habits** **Reads Widely** • reads early-reader books • identifies basic genres • read wide variety of genres • chooses reading materials independently • reads independently for 15 minutes **Discussing Books** • learns and shares information from reading • discuss characters and story events with guidance **Vocabulary**

Table 2.12 Continued

Characteristics of Expanding Readers 7-9 years 2nd grade/**3rd Grade** **Fountas and Pinnel Levels – L, M, N, O**	Characteristics of Bridging Readers – 8-10 years 3rd Grade/**4th Grade** **Fountas and Pinnel Levels – O,P,Q,R**
Comprehension	**Comprehension**
Accuracy and Fluency	**Accuracy and Fluency**
• begins to read aloud fluently • uses word structure cures (e.g. root words, prefixes, suffixes, word chunks) when encountering unknown words	• read aloud with expression.
Reading Self-Monitoring and Self-Correcting	**Reading Self-monitoring and Self-correcting**
	Reading Comprehension –
• self-corrects for meaning • uses reading strategies appropriately depending on text and purpose • identifies own reading strategies and sets goals with guidance • identifies text organizers (Index, Table context, etc)	• uses resources (e.g., encyclopedias, CD-ROMs, and nonfiction texts) to locate and sort information with guidance. • gathers information by using the table of contents, captions, index, and glossary (text organizers) with guidance. • gathers and uses information from graphs, charts, tables, and maps with guidance. • demonstrates understanding of the difference between fact and opinion. • follows multi-step written directions independently.
Reading Comprehension –	
• follows written directions • summarizes and retells story events in sequential order • compares and contrasts story characters and events • reads "between the lines" with guidance	
Reading Habits	**Reading Habits**
Reads Widely	**Reads Widely**
• reads easy chapter books • reads silently for 15-30 minutes • chooses to read and finishes various materials at appropriate level	• reads medium level chapter books. • chooses reading materials at appropriate level. • expands knowledge of different genres (e.g., realistic fiction, historical fiction, and fantasy).
Discussing Books	**Discussing Books**
• responds to and makes personal connections with facts, characters, and situations in literature	• discusses setting, plot, characters, and point of view (literary elements) with guidance. • responds to issues and ideas in literature as well as facts or story events. • makes connections to other authors, books, and perspectives. • participates in small group literature discussions with guidance. • uses reasons and examples to support ideas and opinions with guidance
Vocabulary	**Vocabulary**
• increases vocabulary by using context cues	• increases vocabulary by using context cues, other reading strategies, and resources

In summary, there are clear gaps between the recommendations of the New Standards Committee on Reading and Writing (1999), the New Standards Committee on Speaking and Listening (2001) and the continuum based on Hill's (2001) in use at Wilmington Montessori School. These gaps include lacks of emphasis on phonological and phonemic awareness, as well as a lack of early emphasis on comprehension, accuracy and fluency, and vocabulary development. In other words, a review of the benchmarks for comprehension indicates a lack of developmental consistency across the levels on the continuum. Finally, the benchmarks on the continuum may not be specific enough to allow teachers to have a common interpretation of their meaning across classrooms and program levels.

Implications of the findings for the development of a classroom-based school wide reading assessment system at Wilmington Montessori School

This paper explored the contexts within which a classroom-based, school-wide reading assessment system would be implemented at Wilmington Montessori School. The discussion led to an identification of the strengths and challenges for the school in the development of such a system. Through an historical overview of the last six years, I addressed the school setting, materials available, classroom environments, learners, and teacher preparation. Changes in the school's leadership and an increase in enrollment have given the staff an opportunity to redefine the mission of the school and to focus on specific areas such as reading instruction. The focus of this work has been on the development of consistency, continuity, and coherence across and within the program levels from preschool to the upper elementary program. The staff has established the use of a reading continuum to track children's progress, developed curriculum overviews to enhance parent

communication, and acquired materials to support a balanced approach to reading instruction. They have developed their knowledge about the teaching of reading by attending conferences or workshops and by establishing professional time in the school day to focus on reading instruction. As a result, their knowledge base about reading instruction has increased.

Approximately 400 children from six months to twelve years old are served in multi-age classrooms. Because the school does not screen children with standardized assessments and because many children begin in the early childhood years, there is a wide range of learners in the school community. The teachers have worked to better understand and meet the individual needs of children through School's Attuned training. The teachers recognize that even with early childhood materials that emphasize letters and sounds, the connection of writing to reading, and a literature-rich preschool environment, many children do not "explode" into reading by the age of six as described by Maria Montessori. Often these same children continue to struggle in their early elementary years and the teachers search for strategies to meet their needs so that they will become successful readers. The developmental nature of the Montessori philosophy may cause teachers to delay direct teaching of some skills to these children. A school-wide reading assessment system may help the teachers to better match instruction to the needs of these children in a proactive manner. It may also assist them in more clearly communicating to parents about the goals for reading and their children's progress.

Research indicates that teachers' pedagogical stance, knowledge of assessments, and understanding of the goals for reading affect the success of a school-wide reading assessment system. Therefore, the second aspect of this study was to get

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a clear view of teachers' knowledge about assessment and the goals for reading and their beliefs about reading assessment. I focused on the following questions drawn from the research review in Educational Position Paper 1:

1) What preparations do Wilmington Montessori teachers receive in Montessori training to support their use of formal and informal classroom-based reading assessments?

2) Which formal and informal reading assessments are used by teachers?

3) What is the knowledge of teachers regarding the goals of reading instruction for the age level they teach?

4) For what purposes are assessments used?

5) What beliefs do Wilmington Montessori teachers have about reading assessment that may impact the development of a classroom-based school wide reading assessment system?

6) Are teachers confident in their ability to recognize the developmental benchmarks and indicators for reading problems in relation to the goals for reading?

7) Do the continuums used at Wilmington Montessori School reflect the goals of reading as identified in the *New Standards for Reading*?

I reviewed teachers' Montessori language albums, administered a survey and compared the continuum used in the school with the benchmarks of *the New Standards for Reading and Writing* (New Standards Primary Literacy Committee, 1999) in order to address these questions. What follows is a summary of the strengths and challenges in the implementation of a classroom-based school-wide reading assessment system at Wilmington Montessori School.

Reponses to the survey indicate that the early childhood teachers are less likely than the elementary teachers are to view classroom-based assessment as compatible with the Montessori philosophy. One explanation for the difference between the views of the early childhood teachers and the elementary teachers is that the preschool teachers are also more likely to view the child as a developing reader, whereas the elementary teachers feel more accountable for specific goals for the children as readers. It is expected that the seven-year-old will be reading; it is not expected that all five-year-olds will be reading. Therefore, the elementary teachers feel more responsible for tracking a child's progress as they prepare for progress reports and address concerns with a child's development as a reader. Indeed, the elementary teachers responded that they had used more forms of informal and formal classroom-based assessment of reading. This exploration of assessment tools may increase their understanding of how these tools help them to observe children.

The Montessori method emphasizes the role of the teacher as observer and the connection between those observations and teacher's instructional decisions in the classroom (Chattin-McNichols, 1998; Crain, 2000; A. S. Lillard, 2005; P. P. Lillard, 1996; Montessori, 1964, 1965, 1967, 1995; Rambusch, 1998). Montessori (1964, 1965) did not believe that standardized testing methods being developed at the time were beneficial to understanding the child or that they would impact the child's learning. Research shows that many classroom teachers hold similar beliefs (Paris & Hoffman, 2004; Roemer, 1999). It is possible that teachers who do not see a match between classroom-based reading assessment, which is embedded in the daily life of the classroom much as the Montessori philosophy implies, and Montessori philosophy are regarding all assessment as the more traditional standardized model. Shepard

(2000) describes the current time in educational assessment as a period of transition from a traditional model of assessment to one that is embedded in the daily life of the classroom. It is likely that Montessori teachers, who probably experienced traditional models of assessment in their own school experience, are experiencing this same shift. Indeed, as will be discussed in Educational Position Paper Three, there are many ways of structuring observations of children so that they inform Montessori teachers about children's progress towards the goals of reading. Almost all of the tools for classroom-based reading assessment involve one-to-one interactions between the teacher and individual children. As the teachers at Wilmington Montessori School explore various informal and formal models of classroom-based assessments of reading, I expect that they will see a greater connection between the goals of a classroom-based reading assessment and the Montessori Method.

Wilmington Montessori School teachers are interested and motivated to learn more about classroom-based reading assessment. Although the teachers may not believe there is a relationship between the Montessori Method and classroom-based reading assessment, all but one of the survey respondents was interested in professional opportunities to learn more about classroom-based assessment. In addition, a majority of the teachers indicated that classroom-based reading assessment may help them to better understand the whole child. This supports the research that indicates that teachers require significant time to discuss the goals for reading, to explore assessment tools, and to discuss individual children's results if a school-wide reading assessment system is to impact student learning (Aschbacher, 1993; Paris, et al., 2002; Taylor, et al., 2005). This strength of interest and desire to learn more will provide support for using professional development time to address this work. As the

teachers participate in conversations about classroom-based reading assessment tools and the goals for reading, it is expected that they will better understand how commonly agreed upon tools can inform their observations of children and enhance their ability to make instructional decisions that meet the individual needs of children and that clarify communications with parents.

Although the review of the albums provided little evidence of a focus on classroom-based reading assessments in Montessori training programs, Wilmington Montessori teachers do report using informal assessment tools. *The Developmental Reading Assessment* (Beaver & Carter, 2003) is the only formal published assessment school consistently used by classroom teachers. The *DIBELS* (Kaminski, et al., 2003) is currently used by the reading resource teacher. All teachers report the use of observation of children and anecdotal records as primary assessment methods. Since some teachers are already familiar with anecdotal records, the *DRA*, and the *DIBELS*, these tools should be considered for assessments in a school-wide reading assessment system.

Teachers report that they use classroom-based reading assessment for both formative and summative evaluation purposes. All classroom-based reading assessment is related to progress monitoring within the classroom with little focus on screening assessments or program evaluation. An effective school-wide assessment system will include tools for screening and program evaluation as well as progress monitoring (Baker & Hall, 1995; Fuchs, 2002; Snow, et al., 1998; Taylor, Pearson, et al., 2000, 2002; Walpole, et al., 2004). The teachers and administrators at Wilmington Montessori School will need to identify assessments for screening and program

evaluation, establish expectations for their use, and determine processes for collecting data across the school.

While teachers report that they believe assessment should be embedded in instruction, teachers seem to be concerned that classroom-based reading assessments take away instructional time. This is consistent with the research on teachers' beliefs about assessments (Au, 1994; Hiebert & Davinroy, 1993; Shepard, 1997; Valencia & Place, 1994). Wilmington Montessori teachers may view more formal structured assessments, such as the DRA, as traditional; they may not see such tools as useful as both an instructional and assessment tool. However, the open-ended comments of teachers reflect a desire by the elementary teachers to learn how to manage the balance of instructional time and time for assessment. Indeed, these teachers may actually be viewing these assessments as pre-and post-test tools that demonstrate children's progress. While they can serve this purpose, many of these same tools can also be used to document children's progress and confirm or cause a teacher to question their daily observations of children, thereby informing instructional practices.

Research also shows that teachers have difficulty with the relationship between informal assessment tools such as summary writing and retellings that can be used for instruction as well as assessment. For example, the CRESST researchers found that teachers taught summary writing and then administered a summary writing "task" rather than seeing the daily work of the children as assessment data (Bliem & Davinroy, 1997; Hiebert & Davinroy, 1993; Shepard, 1997). Currently most Wilmington Montessori teachers report that they do not plan for assessment opportunities as they do instruction; this seems to contradict the thought that assessment is embedded in instruction. If classroom-based assessment is to inform

instruction, teachers will need to increase their focus on thinking about assessment opportunities within their lessons. Put another way, professional development related to commonly agreed upon formal and informal assessment tools at Wilmington Montessori School will need to include helping teachers understand the multiple uses for these assessments as well as their connection to teaching and learning in the daily life of the classroom.

Research shows that the successful use of classroom observations and anecdotal records along with other methods of classroom assessment will depend on teachers' understandings of both the benchmarks for reading development and common goals for literacy at Wilmington Montessori School (Au, 1994; Bliem & Davinroy, 1997; Paris et al., 1992; Paris, et al., 2002; Shepard, 2000; Snow, et al., 1998; Walpole, et al., 2004). Wilmington Montessori teachers reported that they focus on the goals of the school's reading continuum to track children's normal development as readers and feel confident in their knowledge of the benchmarks of normal reading development. However, these teachers felt less confident about their understanding of the developmental predictors of reading difficulty. The school needs to consider professional opportunities that will increase teachers' knowledge of these predictors, so classroom instruction can address the needs of each child.

A comparison of the reading continuum to the more current work of the New Standards Committees (New Standards Primary Literacy Committee, 1999; New Standards Speaking and Listening Committee, 2001) identified gaps related to the goals for reading as identified by the standards. These gaps call for a revision of the currently used continuum. Doing this revision would provide a foundation for teachers' professional conversations about the goals for reading and benchmarks at

each developmental stage. Teachers' experience with classroom-based reading assessments should further inform modifications to the reading continuum.

Developing independence as a learner, including the ability to self-reflect, is a fundamental aspect of the Montessori philosophy. Research shows that students' reflection on classroom-based assessment and their understanding of their goals as readers is a key aspect to the development of this independence (Stiggins, 1991, 1997, 2001; Shepard 2000a). The teachers' responses to questions regarding their beliefs about involving children in self-reflection about classroom-based assessment imply varying levels of comfort because they worry about the effect of such sharing on the self-esteem and motivation of children. However, research shows that classroom-based assessment tools that make a child's progress clear to him help with setting personal goals and with reflection on his growth as a reader. This should be important parts of a school-wide reading assessment system at Wilmington Montessori School. Professional development opportunities will need to focus on the involvement of children in their own reflection about their progress as readers by using classroom-based assessment tools, including portfolio collections and more specific tools, such as the DRA or DIBELS.

Wilmington Montessori teachers report that they do not set aside a regular time to reflect on reading assessment data or to share the information with other teachers. The research shows that teachers in schools with school-wide assessment systems spend time talking about what they are learning about children as readers from their collections of formal and informal classroom-based assessments. These conversations create their commonly held agreements about the goals for literacy and about the strengths and weaknesses in their program. In addition, they help the

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teachers think about the best approach for a child, and identify their own goals for their personal learning about the teaching of reading (Mosenthal, et al., 2002; Mosenthal, et al., 2004; Taylor, Pearson, et al., 2000, 2002; Taylor, Pressley, et al., 2000, 2002; Walpole, et al., 2004). Teachers and administrators at the Wilmington Montessori School will need to consider how to use their weekly common planning time across classrooms and weekly after school meetings to support this conversation.

Finally, in her study of teachers' styles of assessment, Gipps (1994) describes teachers as intuitive assessors, evidence gatherers, or systematic assessors. The Wilmington Montessori teachers' survey responses indicate that they may be working from a combination of the characteristics of evidence gatherers and intuitive assessors. Evidence gatherers collect information from students' classroom work primarily to prepare progress reports; they see assessment as separate from instruction in the classroom. Intuitive assessors use their intuition, do little record keeping, and rely heavily on their memory to articulate student progress. The classroom-based reading assessment system should help Wilmington Montessori teachers develop the skills of the systematic assessor—planning specifically for classroom assessment, identifying the tasks and activities which inform the goals of literacy, recording what they are observing, learning through questioning and discussion with students, involving students in self-reflection, and using formal and informal assessment both as instructional and assessment opportunities.

DEVELOPMENT OF A SCHOOL-WIDE ASSESSMENT SYSTEM FOR WILMINGTON MONTESSORI SCHOOL

Reading is crucial both for the success of a child in the Montessori elementary classroom and for children's independence as adults. While many children do develop into competent readers, too many children continue to struggle and may never become competent readers (Snow, et al., 1998). Because Montessori teachers have children in their classrooms for three years, and because many Montessori schools have children from 18 months or earlier until 12 years or more, Montessori teachers are able to observe a child's development during the important time span from birth to at least age 9 (Adams, 1990; Montessori, 1964, 1965, 1967, 1995; Snow, et al., 1998). Since current research confirms that early intervention can prevent later reading failure for children (Snow, et al., 1998), it is imperative that Montessori teachers be keenly aware of and have tools to monitor children's pre-reading and conventional reading development.

Like other teachers, Montessori teachers feel responsible for recognizing when a child may have gone "off track" (Spear-Swerling & Sternberg, 1996) and want to know how to assist the child to get back "on track." Many of these same teachers do not feel well prepared to use classroom-based reading assessment and would like more information to assist them in meeting the children's needs (Roemer, 1999). The survey of Wilmington Montessori teachers (Educational Position Paper 2) indicates that they, too, have received little training in the uses of classroom-based assessment. While these same teachers have questions about the relationship of classroom-based assessment to the Montessori philosophy of education, they are also interested in learning more about assessments that would help them better meet the needs of the children in their classrooms.

The American Montessori Society Position Paper on Learning and

Assessment supports the exploration of assessment and its role in Montessori schools.

> Assessment is an indispensable part of any educational process.
> Presuming it is intelligently designed and carefully conducted a system
> of assessment can both measure the effectiveness of an educational
> program and reveal growth and difficulties experienced by each
> student. The program thus becomes even more effective. (American
> Montessori Society, p. 1)

However, Montessori educators have not identified the components of an

"intelligently designed and carefully conducted" system of assessment that supports

the autonomy of the Montessori teacher, assists instructional decision making in the

classroom, informs program decisions, provides information to clearly communicate

with parents, and most importantly, ensures that children are making progress. A

systematic use of classroom-based reading assessment can both support the autonomy

of the Montessori teacher to meet the individual reading needs of children and allow a

school to ensure that it is making progress. This paper will consider the research on

effective classroom-based, school-wide reading assessment systems to identify the

features to be considered if such a system were developed for Wilmington Montessori

School. This model may be useful to other Montessori schools as they address similar

issues in their school communities.

Current research on schools that effectively teach reading can inform the

development of such a system for Montessori schools (Au, 1994; Hiebert & Davinroy,

1993; Hiebert & Raphael, 1998; Mosenthal, et al., 2002; Mosenthal, et al., 2004; Paris

et al., 1992; Pressley, 2002; Pressley, et al., 2002; Taylor, Pearson, et al., 2000, 2002;

Taylor, Pressley, et al., 2000, 2002; Valencia & Place, 1994; Walpole, et al., 2004).

First, the teachers in these schools have a clearly developed understanding of the

reading instruction goals within their program level and across program levels in the

school. This clear understanding of the reading goals supports the teachers' autonomy

to make informed choices about classroom-based assessments for various purposes.

Second, effective schools have established classroom-based assessment systems that

provide for screening, progress monitoring, diagnosis, and program evaluation. A list

of agreed upon informal and formal classroom-based assessments assists teachers with

choosing appropriate assessments to match their students' needs for each assessment

goal. Third, these schools have a collaborative school environment where teachers

learn from each other while developing their skills in using and interpreting

assessments. It is within this collaborative school climate that teachers reshape

traditional beliefs regarding assessment and develop the skills of effective assessors

(Aschbacher, 1993; Bliem & Davinroy, 1997; Johnston, et al., 1995; Johnston &

Rogers, 2001; Shepard, 1997, 2000a; Stiggins, 1991, 2001). In other words, they

learn to strategically embed assessment within the context of classroom instruction,

evaluate and interpret assessment data to inform instructional decisions, use

assessment tools flexibly and interactively with children, and include children in self-

reflection on their growth (Gipps, 1994; IRA 2000; Paris, et al., 2002; Salinger, 2001;

Shepard, 2000; Taylor, Pressley, et al. 2000, 2002; Taylor, et al., 2005; Valencia &

Au, 1997).

This paper will identify and explore the components of an effective

classroom-based assessment system, including tools for screening, progress

monitoring, diagnosis, and program evaluation that meet the guidelines of the National

Reading Panel (Fuchs, 2002; National Institute of Child Health and Human Development, 2000). The research on classroom-based assessment tools used by teachers for these purposes will be reviewed. Issues, such as validity and reliability, will be considered as schools use classroom assessment data school-wide to inform instructional and program decisions (Fuchs, 2002). Finally, this research, combined with the goals for reading, will provide the foundation for recommendations of assessments for various ages and purposes in the classroom.

I will then offer specific recommendations for the design of a classroom-based assessment system at Wilmington Montessori School. Specific suggestions will be made about assessments which might serve the needs of the Montessori teacher to (1) support the knowledge base of teachers regarding the developmental benchmarks for reading, (2) provide a structure to monitor children's progress and inform instructional decisions, (3) enable teachers to proactively recognize when a child may be off track, as described by Spear-Swerling and Sternberg (1996), (4) enhance communication about the strengths of the reading program to parents and other community members, and (5) hold to the Montessori philosophy principles.

Second, recommendations will be made to revise the reading continuum used by the school to include (1) the standards for reading recommended in the New Standards for Reading and Writing (New Standards Primary Literacy Committee, 1999), (2) indicators at each developmental stage to assist teachers with recognizing children who may be following an off-track developmental pattern (Spear-Swerling & Sternberg, 1996), and (3) specific suggestions for classroom-based assessments that could be used school-wide within and across programs levels to inform instruction,

assist with the early identification and prevention of children's delay in reading growth, and evaluate the school's reading program.

Finally, teachers learn to become strategic assessors (Gipps, 1994) within a collaborative professional learning environment.   Suggestions will be made to support the development of Wilmington Montessori teachers' skills in classroom-based reading assessment within the current structure of study groups, program level meetings, and interactions with the learning specialist in the school community.

Choosing Assessments to Inform Classroom-based, School-wide Assessment

Knowledge of the developmental stages of reading should inform the choice of assessments. If a child is not following the normal development of reading (either because she is not making progress or because he is growing at a faster pace than normal), then assessments need to be chosen that will match the child's reading development, not because they are the "grade-appropriate" assessments. Assessments should help the teacher identify the child's zone of proximal development, in which he/she is ready to grow as a reader. Assessments should also indicate what the child partially knows and can almost do with support (Compton, 1997; Johnston & Rogers, 2001; Paris, 2002; Salinger, 2001; Valencia, 1997).

Depending on the stage of development or concerns about progress, some children may need more assessment than other children. Growth during the early stages of reading development can move quickly with subtle changes in development. To better match instruction to their development, children at this age may need more frequent monitoring of their progress. More frequent monitoring of those children showing delays, in some cases weekly or monthly, may be needed to determine the

success of instructional interventions and inform future adaptations (Compton, 1997; Ehri, 1991; Paris, et al., 2002; Rathvon, 2004; Spear-Swerling & Sternberg, 1996).

The match between effective assessments leading to informed instruction can only be made by the teacher who lives day-to-day in the classroom with children, knows them well, and knows the stages of children's reading development well (Johnston & Rogers, 2001; Paris, 2002; Stiggins, 2001; Valencia, 1997). Snow, Burns and Griffin state:

> Effective instruction consists of responding to children's needs while building on their strengths. It depends on a sensitive and continual capacity for monitoring students' progress. This means that classroom teachers need a wide variety of assessment tools to verify that children are reaching goals, to identify children who need extra help, and to recognize when difficulties have been met and instruction should move on (1998, p. 336).

Effective schools have found that teachers meet this challenge more successfully when there is a common agreement about the purposes of classroom-based assessments and the types of assessments, both formal and informal, used across the school community. To this end, recommendations will be developed for each of the New Standard's reading goals (see Tables 1.1, 1.2, 1.3, 1.4 in Educational Position Paper 1) so teachers can create a school-wide, classroom-based assessment program that will be useful for instructional decision making, screening, progress monitoring, diagnosing reading problems, and programming decisions. Some of the assessments may be used across classrooms and age levels as appropriate on a regular basis, while others may be in the "bank" of resources for information about a child. It is hoped that these charts will prove useful to Montessori schools seeking to implement a school-wide, classroom-based assessment system based on the goals of the *New Standards for Reading and Writing*.

Recommended Assessments

Most Montessori teachers would agree with Tierney's (1998) principles for assessment 1) assessment should emerge from the classroom rather than be imposed upon it, 2) teachers are in the best position to know and learn about an individual's development, 3) assessment should help students to better understand themselves and formulate their own goals for learning, 4) assessment should support the diverse learning styles of children in classrooms, and 5) assessment should allow for following the development of a child over time. The heart of a Montessori approach is the role of the teacher as observer. However, like many teachers, the basis for observations often is intuitive and implicit (Calfee & Hiebert, 1991). Therefore, Montessori educators need coherent and consistently used classroom-based models for gathering and communicating information about children's learning if they are to maintain credibility in their ability to communicate about children's progress (Damore, 2004).

Evaluations, conclusions about the stage of a child's development or the needs of a child for instruction (Gaustad, 1996), should be informed by several forms of assessment and observations that, when combined, form a complete picture of the child's areas of strength and challenges. When several observations across time and assessments converge, it is more likely that the teacher will be making a valid decision about the instructional needs and the progress of a child (Calfee & Hiebert, 1991; Johnston & Rogers, 2001; Paris, 2002; Paris, et al., 2002; Salinger, 2001; Valencia, 1997). Recognizing this need for several forms of assessments to accomplish multiple goals, the following recommendations will address both informal and formal classroom-based assessments. Formal classroom assessments follow a prescribed format, which must be followed, for their use and scoring to maintain reliability.

Many are standardized commercial or published assessments designed to be individually administered within classrooms allowing the teacher to observe the child as he or she reads. The use of norms is particularly relevant for early identification of children at risk for later reading failure. In contrast, informal assessment guidelines encourage teachers to interact with the child to learn more about the strategies the child is using and confusing while reading. These assessments require the teacher to make decisions about the direction of the assessment based on the performance of the child. Thus, many informal assessments may be based in the context of instructional activities. Of course, a combination of both formal and informal assessments will create a more complete picture of the child (Castillo, 2006; Johnston & Rogers, 2001; McKenna & Stahl, 2003; Torgesen, 1998). Because reliability and validity are important assessment characteristics, I provide a discussion of them in the following section.

Reliability and Validity

Reliability and validity are fundamental assessment concepts. Reliability refers to the consistency and dependability of an assessment. Fuchs (2002) identifies three forms of reliability when selecting assessments for instructional decisions: alternate form reliability, test-retest reliability, and internal consistency reliability. Alternate form reliability means that one form of an assessment produces scores that correspond to another form of the same assessment. Test-retest reliability is the degree that scores on one testing occasion correspond to the scores on the same assessment administered at another time. Internal consistency is the ability of assessment items to measure the same thing. For example, in a test of phonemic awareness, the items in the assessment all measure the same aspect of phonemic

awareness.   For recommendation purposes, reliability has been defined as the general

dependability of an assessment to produce similar results under similar conditions

(Gaustad, 1996; McKenna & Stahl, 2003). The degree of reliability needed in an

assessment tool will vary according to the purpose of the assessment, as will be

discussed later.

Validity is the ability of an assessment to measure what it says it

measures. There are various kinds of validity: content validity, construct validity,

predictive validity, and concurrent validity. Content validity is the match between an

assessment and curriculum content.   Construct validity is the ability of an assessment

to measure a construct, such as overall reading ability.   For example, an assessment

with high construct validity would accurately differentiate children with advanced

reading ability from children with average or low reading ability when compared with

other measures of reading ability. Predictive validity is the ability of the assessment to

predict future performance consistently. Concurrent validity means a score on one

assessment is similar to an assessment that measures the same content in the same

time period. The type of validity and the degree of validity that is important for a

given assessment is related to the purpose of the assessment (Fuchs, 2002; McKenna

& Stahl, 2003).

The intended use of the assessment tool should determine various factors

related to reliability and validity (Fuchs, 2002). The recommended assessments

include suggestions for screening children for early indicators of reading delays,

monitoring progress to contribute to instructional decision making, diagnosing

children who may not be making progress, and deciding program outcomes. In the

discussion that follows, I address the general characteristics of assessments for these uses and for the relationships of validity and reliability.

Screening Assessments

Screening assessments are brief assessments focusing on the critical reading skills that predict future reading growth and development. Screening assessments must have a combination of reliability and validity. In particular, they need to have strong construct, content, and predictive validity (Fuchs, 2002). This combination of validity factors allows for screening assessments to measure the various risk factors discussed earlier (content validity) with the ability to differentiate children at risk from those not at risk (construct validity), and to predict children who may be at risk for reading failure (predictive validity). Screening assessments should be used to determine the first steps in instructional interventions to support a child's successful development of reading skills. They are not used to classify children or to recommend children for further evaluation until several adjustments have been made in the classroom instructional focus. However, they do alert a teacher to the need to adjust instruction and to monitor the progress of certain children more closely (Rathvon, 2004; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996).

An important factor in determining the accuracy of screening assessments is the ability of the assessment to predict future reading achievement (Rathvon, 2004; Snow, et al., 1998; Torgesen, 2002). Rathvon (2004) cautions that screening assessments should be reviewed for information on the number of false positives, or the number of children who were identified as being at risk but who did not develop reading problems. In contrast, the false negative rate reflects the number of children who were not identified as being at risk, but who became poor readers. Clearly

assessments with high false negative rates are not useful screening tools for identifying children at risk. At the same time, assessments with high false positive rates may cause a school to allocate resources to children who do not require assistance.

The predictive ability of an assessment is highly correlated with the cut-off score, the score used to classify a child as at risk of failure (Rathvon, 2004). Cut-off scores can be found in the research manual of screening assessments and through the development of local cut-off scores that reflect children at risk of reading failure in a particular school. Torgesen (1998) found that changing the cut-off score from the lowest 10% of children on a set of screening battery to the lowest 20% reduced the false negative rate from 42 percent to 8 percent. Hence, he suggests that the cut-off score should be set to maximize the number of children receiving intervention because many of these children will be below average readers, if not reading disabled. Standardized screening measures may include two indices of predictive validity drawn from the data on false positives and false negatives: the sensitivity index and the specificity index. The sensitivity index reflects how well the screening assessment determines which children are at risk. The specificity index indicates how well the assessment determines which children are not at risk. The overall accuracy reflects the proportion of children who are classified correctly into the risk groups. Each of these indexes should have a coefficient of .80 or better for an assessment to be a useful screening tool (Fuchs, 2002; Kame'enui, 2002; Rathvon, 2004).

The reliability of screening assessments and the predictive validity are influenced by the developmental stages of children and the timing of assessments. While many children enter kindergarten understanding phonological awareness and

other predictive skills, others develop this knowledge during the kindergarten year and become normally progressing readers. Thus, screening assessments used in preschool or prior to the beginning of kindergarten may have less predictive value than if they are used later into the kindergarten year or even in the first grade (Rathvon, 2004; Torgesen, 1998). While the predictive accuracy of screening tools increases the later they are used in the kindergarten year, Rathvon (2004) points out that this accuracy must be weighed against the overwhelming evidence of the importance of early intervention. It is recommended that screening begin by the fall or middle of the kindergarten year with a repeated screening mid-year and again at the beginning of first, second, and third grades (Rathvon, 2004; Snow, et al., 1998; Torgesen, 1998). This pattern allows for the gradual elimination of children making adequate progress. However, it assures that all children who may need assistance receive it early enough for it to prevent future reading failure.

The recommended screening assessments were chosen because they screen in the areas that research has shown are predictors of reading failure or success at various stages of development (Adams, 1990; Compton, 1997; Rathvon, 2004; Snow, et al., 1998; Torgesen, 1998, 2002). By nature, screening assessments tend to be formal, providing valid and reliable data regarding children who may be in need of further assistance. Therefore, with the exception of The Names Test (Cunningham, 1990), the assessments chosen are standardized published assessments. Most Montessori schools are able to monitor children beginning in the preschool years, allowing for the early screening of oral language development that is not possible in traditional school models where children enter the program in kindergarten. Currently, screening measures focus on the phonological processing skills leading to

skilled and fluent decoding; there are few screening measures for language deficits that may impact future reading comprehension (Gersten & Dimino, 2006). While many children will develop phonological awareness and phonemic awareness into the kindergarten year (Adams, 1990; Rathvon, 2004; Snow, et al., 1998; Torgesen, 1998, 2002), there is a greater opportunity for instruction to impact the child's development of these skills earlier in the Montessori environment. These considerations further informed the selection of the recommended screening assessments.

Progress Monitoring Assessments

Classroom-based progress monitoring assessments collect information on a regular basis (weekly, monthly) to assure that children are making adequate progress. Children start at different points when they enter their first school experience and progress at different rates. When a child makes progress similar to the progress of other children in the class, the child demonstrates that the environment can support his learning needs. If the child is not progressing, then alternative approaches within the classroom or in special services may be needed. Finally, if none of the children in a classroom or school are demonstrating growth, the school or teacher must address the quality of the reading instruction (Fuchs & Fuchs, 1999). For these reasons, progress monitoring assessments must be both reliable and valid, so that a teacher can depend on them for accurate information to allow for timely adjustments to instruction, thereby minimizing the loss of time for children already behind their peers. Again, content validity is important because these assessments monitor the child's progress towards the goals of the reading curriculum. Reliability is another important characteristic. Therefore, these instruments should have several alternative forms that can be repeated over time and that provide normative information to help

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teachers determine how much progress to expect a child to make (Fuchs, 2002; Kame'enui, 2002).

Progress monitoring assessments may be formal or informal. The choice depends to some extent on the goal of the progress monitoring. All children can benefit from assessments that are embedded in the classroom curriculum and instructional day providing formative assessment opportunities where teachers interact with children, modifying the assessments when appropriate to learn more about the strategies children are using, resulting in a better match of instruction to their needs (Gaustad, 1996; Shepard, 2000b; Paris 2001). As discussed earlier, these same formative assessments can be used to inform summative reports on a child's growth. While many of these assessments tend to be informal in nature, formal progress monitoring tools may be used several times during the year to confirm the teacher's observations through informal classroom-based assessments. Perhaps they can be used more frequently with children not demonstrating adequate progress. Therefore, the recommendations include both informal and formal progress monitoring tools across the three domains of the New Standards. In the discussion that follows, I first focus on informal embedded assessments and then the choices of more formal assessments for tracking progress.

Teachers can choose from a wide variety of informal progress-monitoring tools (Harp, 2000; McKenna & Stahl, 2003; Meisels & Piker, 2001; Paris & Hoffman, 2004; Paris, et al., 2002; Valencia, 1997). Recommended informal assessments include running records (Clay, 2002), Individual Reading Inventories (IRI's), Focused Anecdotal Records (Boyd-Batstone, 2004), Story Construction from a Picture Book (van Kraayenoord & Paris, 1996), Think Alouds (Wade, 1990), Retellings (Paris,

2003), Narrative Comprehension of Picture Books (Paris, 2003; 2001), Cloze Assessments (McKenna & Stahl, 2003), Book Selection (Paris, 1998), Motivation to Read Profile (Gambrell, Palmer, Codling, & Marzzoni, 1996), Elementary Reading Attitude Survey (McKenna, 1990), summary writing, observation checklists, and classroom reading logs (Cooper, 1997; Harp, 2000; McKenna & Stahl, 2003). Classroom work samples can be a basis for much informal progress monitoring by providing data to document established reading goals (Paris, 2002; Valencia, 1997). Many of these assessments afford multiple opportunities for teachers to collect information across all three domains of the New Standards. They are also applicable across all age levels, allowing a teacher to focus on different aspects of the tool, depending on the developmental stage of the child. For example, in first grade, a teacher may use an IRI and focus mostly on the child's decoding strategies. Later in the year, she may focus on the reading of words found in the word lists. Towards the end of the year and into second grade, fluency and automaticity will become a focus, with an increasing emphasis on comprehension demonstrated through retellings, summaries, and questions. Instructionally-embedded progress monitoring assessment is perhaps the assessment most closely aligned with the curriculum, providing daily information to affect instruction for each child as defined by the National Association for the Education of Young Children and the International Reading Association in their position statements on assessment (International Reading Association, 2000; National Association for the Education of Young Children, 1997, 1998).

Construct and content validity are perhaps most important in the choices of these assessments. While many of these assessments have no formal statistics associated with them, construct and content validity are easier to evaluate when

teachers have a clear understanding of what they should be assessing at various stages of children's reading development, and they are able to match their choices of assessments to the goals for reading. A clear, common understanding across the school community about the reading goals and understanding of which assessments provide information about those goals is important to assess children's learning and related instructional decisions on a daily basis. Similarly, while there are few statistics related to the reliability of informal classroom assessments, their reliability increases if teachers collect multiple samples of children's reading behaviors. Any misjudgments made about a child's instructional needs can be adjusted through new observations from ongoing assessments and instruction. The reliability of classroom-based assessments increases when teachers use a consistent set of tools and when the results are collected and recorded at regular intervals. This tracking allows a teacher to see where there are multiple indicators of a child's strengths and weaknesses, allowing for more informed instructional decisions (Calfee & Hiebert, 1991; Gaustad, 1996; Paris, et al., 2002; Salinger, 2001; Valencia, 1997).

Formal progress monitoring assessments can be used to confirm the observations made through collecting regular instructionally embedded assessments. For children making typical progress, these assessments may be administered at strategic points during the year, such as mid-year and end-of-year. Of course, the skills being monitored will change as the child moves through the developmental stages of reading. Many of the recommended screening assessments can also serve as this type of progress-monitoring tool, thereby allowing a teacher to monitor progress and screen for children who may not have been identified as at risk earlier in the year.

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) is an example of such a tool (Kaminski, Good, Smith, & Dill, 2003).

Formal progress monitoring assessments used to track children at risk of reading failure should be used more consistently, perhaps weekly. They should assist teachers in their understanding of a child's progress towards the goals measured by the assessment and show them when to modify instruction so children can meet those goals (Fuchs & Fuchs, 1999; Kame'enui, 2002). Fuchs and Fuchs (1999) outline several considerations for in-class monitoring of children at risk. First, the measures must meet the standards of psychometric reliability and validity. Second, to accurately convey a child's growth, assessment tools must allow for equal scaling of achievement indicators over time. Progress should be graphed allowing for an evaluation of the scores in relation to the trajectory. If scores stray from the trajectory, the data needs to be valid and reliable enough to conclude that the instructional changes are or are not working. Third, the assessment must measure growth in the area of reading that is of concern. For example, if one is measuring growth in phonemic awareness, then the tool must be sensitive to such growth. Fourth, the assessments should present a detailed analysis of the child's performance that will inform the instructional decisions of the teacher. Fuchs and Fuchs (1999) point out that there is a conflict between the goal of independent measures and measures that inform instruction clearly. Global measures of reading need to allow for more specific analysis if the measure is going to provide diagnostic information that will impact instructional decisions. Last, the assessments must be feasible. They must be easy to use, score, and interpret if a teacher is going to use them regularly.

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Many informal assessment tools may not address the considerations outlined by Fuchs and Fuchs (1999). A common tool used by teachers is an Informal Reading Inventory. However, using an IRI as a progress monitoring assessment is affected by the comparison of children's performance over time on different texts, representing different reading levels. It is difficult to evaluate the data and interpret the growth of a child who reads a first grade text in the fall of first grade with 98% accuracy and good comprehension and a second grade text in the spring with 92% accuracy and lower comprehension (Paris, 2002). Recent work has begun to address this issue through a statistical procedure known as the Item Response Theory (Paris, 2002; Paris & Hoffman, 2004). However, this analysis is not yet accessible by schools. Other ways that Paris (2002) suggests teachers might compensate for this problem include administering the same passages in the fall and spring, much as in the curriculum-based measurement model (Fuchs, 1994; Fuchs & Fuchs, 1999) discussed later in this paper. A second suggestion is that the child's fluency and comprehension between the first reading passage and the second passage be compared. If the child can read at the same or higher level of fluency on a more difficult passage, then a teacher can assume that growth has occurred. These same concerns would apply to other tools such as the Developmental Reading Assessment (Beaver & Carter, 2003) using leveled texts to monitor progress.

A second form of progress monitoring to track a child's trajectory is curriculum-based measurement, a tool used extensively in the special education field. Recent research demonstrates that it is useful in the general education classroom (Fuchs, 1994; Fuchs & Fuchs, 1999; Fuchs, Fuchs, Hosp, & Hamlett, 2003; Paris, 2003). Using this format, teachers create 1-minute reading passages from typical end-

of-the-year material for the grade level being taught. Children are asked to read the passage, and teachers track the number of words read correctly. Since the texts for the assessments are developed from classroom materials, there is the possibility for multiple forms of the assessments, thereby setting up weekly tracking of progress towards reading materials tied closely to the classroom curriculum. There are three criteria that frame this model of assessment. First, the behaviors to be measured and the measurement method are consistent. Second the method is consistent over time, usually over the school year or longer. Third, the content reflects the desired year-end performance, with consistently difficult assessments of the reading curriculum.

Graphs help to track the trajectory of the child's progress and guide decisions. In the beginning of the year, a child will have a low score that should improve until mastery is shown at the end of the year or sooner. When used as initially intended—tracking the number of words a child reads correctly—curriculum-based measurement provides a global measure of reading that does little to help the teacher decide where a child's instruction should be adjusted. In its true form, it simply provides data to confirm that that child is making satisfactory progress. More recently, research has shown that this assessment method can also be used to gather diagnostic information to inform instruction including miscue analysis, graphing of accuracy and rate, or it can be used to gather retellings from the text (Fuchs & Fuchs, 1999; Fuchs, et al., 2003). Adaptations of curriculum-based measurement have been applied to other forms of assessment, such as tracking children's performance of cloze assessments and applying the method to performance assessment (Fuchs, 1994). In this case, teachers would determine the overall performance that would demonstrate growth and, using the same performance assessment several times in the school year,

track children's progress towards mastery on the performance assessment. Reliability and validity are achieved in curriculum-based measurements through repeated sampling, fixed recording, graphic displays of the data, and qualitative descriptions of performance (Fuchs & Fuchs, 1999). One disadvantage is the time required to use the curriculum-based measurement with all children on a weekly basis in a classroom setting. A second disadvantage is the lack of applicability to non-readers. Put another way, the system does not offer instructional information for children who are non-readers. This need may be addressed with other tools found in the Print-Sound Code recommendations that focus on the development of the precursor skills for reading, including phonemic awareness.

Classroom-based assessments need to serve many purposes for a classroom teacher with limited time. While in their true definition, progress monitoring assessments would do just that, monitor progress, they must also provide useful information about the reading strategies children use. If the data are graphed or organized in an effective manner, the teacher can track progress and see the child's areas of strength and areas of weakness, thus providing important information to develop the next instructional steps.

Diagnostic Assessments

Diagnostic assessments permit a more precise identification of problem areas for a child not making progress. These assessments, which provide information to plan instruction to meet a child's needs, provide a more detailed analysis of a child's difficulty at any time of the year. Many progress monitoring assessments, such as running records, individual reading inventories, and curriculum-based measurements (Fuchs, et al., 2003) assist a teacher with analysis of the errors that a

child is making. The goal is more informed instruction. Diagnostic tools must be both reliable and valid for more discriminating skills within the larger construct. For example, while phonemic awareness is a predictor of a child's future reading success, a diagnostic assessment needs to provide information about the specific aspects of phonemic awareness a child is struggling with so a teacher can focus on those areas. In addition, to be useful, diagnostic assessments must help teachers plan instruction differently so that children are more successful than if the teachers had not used the assessments (Fuchs, 2002; Kame'enui, 2002).

More detailed diagnostic assessment is needed for children who are not making satisfactory progress, regardless of adaptations made to the classroom instructional program. These children may be referred for special evaluations to determine a broader understanding of their cognitive skills and functioning. However, in schools where teachers effectively use screening, progress monitoring, and diagnostic assessments, the number of referrals for more intensive evaluations can be reduced, allowing resources to be focus on children for whom further information is most important.

Using Classroom-based Assessment Data for School-Wide Outcome Assessment

Public Montessori schools are often required to assess children with external standardized assessment tools that seem counter to the student-centered approach of their classrooms. Although many Montessori schools, including Wilmington Montessori School, are not required to demonstrate accountability to the state standards through annual administration of state assessments, they still face the challenge of being able to demonstrate children's progress in clear and measurable ways. Therefore, independent Montessori schools often use similar external

standardized assessment tools because the schools have a need to show prospective and current parents that their schools (which look very different from the traditional school they attended) will support their child's growth academically (Damore, 2004; Roemer, 1999). These assessments do little to help the teacher see the needs of individual children. However, a carefully designed system of classroom-based reading assessment can present an alternative to the use of standardized assessments in Montessori schools.

Classroom-based assessment in reading should be formative within the context of understanding the summative goals for reading, informing decisions about instruction that will support children reaching those goals (Paris, 2002; Snow, et al., 1998; Spear-Swerling & Sternberg, 1996). At the same time, classroom-based reading assessment can become summative when collected across classrooms to help the school understand the overall strengths and challenges of the school's children, to communicate to parents and other constituencies about the quality of a reading program, and to evaluate program decisions in the school (Baker & Hall, 1995; Baker & Smith, 2001; Fuchs, 2002; Walpole, et al., 2004). These needs require teachers to choose assessments across the school community that document growth in areas of concern and to learn to interpret the resulting data to make decisions (Snow, et al., 1998; Spear-Swerling & Sternberg, 1996).

Once decisions about which classroom-based assessments will be used, are made the staff needs to learn how to interpret the data. Traditionally, large-scale assessments have used national norms as a comparison for interpreting data. While national norms represent a broad spectrum of students, the children who attend a small, local Montessori school probably represent a specific segment of that

population. Therefore, Rathvon (2004) suggests that schools develop local norms to compare a child's performance with that of students from a specific educational setting.

Local norms represent a relevant comparison group within a specific school setting receiving a specific program. Schools that use local norms can link assessment and instructional information more closely to curriculum decisions. While Rathvon recommends obtaining the largest local sample possible (for example, if the schools in a district draw from a similar pool of children, the school would use district local norms), she suggests strategies for schools to develop their own local norms, with the warning that they can fluctuate if the sample size is small. Her guidelines suggest that a minimum of 20 students per grade are needed to develop local building-level norms. If percentile ranks are desired, then the sample should be 100 children. She recommends using means, medians, ranges, and standard deviations to summarize scores. In addition, Rathvon recommends developing local norms for fall, winter, and spring during the developmental years of kindergarten, first, and second grade. One caution is the importance of determining if the local norm performance is an acceptable performance in relation to the goals for instruction and performance at a given age. For example, if a child at the end of first grade reads 20 words per minute (WPM) and the local norm is 10 WPM, but the generally expected rate for children at the end of first grade is 40 WPM, there is a programmatic issue that should be reviewed by the school.

In addition to the development of local norms to inform program decisions, schools must determine benchmark scores for children. A benchmark is the minimum level of proficiency that a child must have in order to benefit from the next

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level of instruction (Rathvon, 2004). Benchmarks may be used in two ways to inform instruction in a school, especially a school using multi-age groupings. They can be used to make decisions about when a child is ready to move from one program level to the next. This might suggest that a benchmark for the end of each of the three-year program cycles (3-6 year olds, 6-9 year olds, and 9-12 year olds) is needed. The benchmarks can also be developed within the three-year cycles to track the developmental reading stages. Benchmark scores need to be set to show significant change from one benchmark to the next, demonstrating progress towards the goals of reading (Fuchs, 2002). Many of the recommended progress monitoring assessments (such as DIBELS, the Developmental Reading Assessment and the Degrees of Reading Power) offer benchmark information that a school can use when communicating with parents and other stakeholders about the progress of the children served.

In summary, there are four main purposes for assessment within the context of a classroom-based, school-wide assessment of a reading program. These include 1) screening assessments used as an early assessment of children's progress to determine which children may need extra instructional supports , 2) progress monitoring assessments that can be informal in nature and embedded within the context of instruction or more formal assessments that give a quick sample of specific reading skills, 3) diagnostic assessments that can be used when instructional variations do not seem to impact a child's performance because they allow for more detailed instructional planning, and 4) outcome assessments that help schools evaluate the overall effectiveness of the program. The choices of assessments for these various purposes should be determined by the child's developmental stage and the reading

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goals to be assessed. Tables 3.1, 3.2 and 3.3 summarize a variety of assessments that address the goals of the *New Standards for Reading and Writing* in the areas of Print-Sound Code, Getting Meaning, and Reading Habits.

The formal and informal assessments listed in the tables were chosen from several sources including the Institute for the Development of Educational Achievement's (IDEA) Assessment Committee Report: *An Analysis of Reading Assessment Instruments for K-3* (Kame'enui, 2002); the *Southwest Educational Development Laboratory database on assessment* (Southwest Educational Development Laboratory, 2000); the *Florida Center for Reading Research site for reading assessment* (Florida Center for Reading Research, 2003); and Natalie Rathvon's (2004) *Comprehensive review of educational assessments for kindergarten to second grade*. In addition to these resources, the Center for the Improvement of Early Reading Achievement's *An Analysis of Early Literacy Assessments Used for Instruction* (Meisels & Piker, 2001), *The Practical Guide to Reading Assessments*; *An Activity for the Partnership of Family in Education* (Kame'enui, Simmons, & Cornachione, 2001), and *The Handbook of Literacy Assessment and Evaluation* (Harp, 2000), served as resources about the recommended assessments. Each of these resources was developed to inform teachers and administrators about assessments in view of the guidelines related to No Child Left Behind and the work of the National Reading Council (Snow, et al., 1998). Before suggesting these assessments, the authors or researchers engaged in a rigorous review of each instrument, including evaluations of validity, reliability, and the usefulness of the tools for the stated purposes. Each source identified tools for screening, progress monitoring, and diagnosis. Further, each source describes the tools' appropriateness for data collection

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across a school community or for outcomes assessment. All the sources focused on assessments that inform teachers about children's progress in the five essential reading components identified by the National Reading Panel (2000): phonemic awareness, phonics, fluency, vocabulary and reading comprehension. The assessments chosen typically were recommended by two or more sources, indicating wider agreement on these tools' usefulness.

The recommended assessments were chosen because they measured at least one aspect of the developmental indicators for reading identified in the *New Standards for Reading and Writing* (New Standards Primary Literacy Committee, 1999). While few individual assessments span the age range of the typical Montessori school (from the 3 to 12 years old), I include assessments that address the developmental stages of reading across this age span. As a result, the assessments of the print-sound code are appropriate for children from 3 years to about 8 years and perhaps for older children who have not made typical reading progress. The assessments in the Getting Meaning and Reading Habits area span the entire age span from 3 years to 12 years, but their focus changes according to the child's developmental stage. In Table 3.1, I summarize the recommended assessments by the age group for intended purpose: screening, diagnostic, progress monitoring; and the skills assessed within the areas addressed by the New Standards in Reading and Writing (1999): print-sound code, getting meaning, and reading habits.

Table 3.1   Assessments for Print-Sound Code

Name of Assessment	Age/Montessori Program Level				Directions/ Norms				Uses			Print- Sound Code Domain Assessed								
												Oral Language								
	Preschool	Kindergarten	6-9 Year	9-12 Year	Standardized/Formal	Informal	Criterion Referenced	Norm Referenced	Screening	Progress Monitoring	Diagnosis	Vocabulary	Syntax	Semantics	Phonological Awareness	Phonemic Awareness	Letter Knowledge	Letter Sounds	Reading Words/ Decoding	Rapid Letter Naming
An Observation Survey of Early Literacy Achievement, Revised 2nd Edition (Clay, 2005)		X	X		X			X	X	X	X						X		X	
Bader Reading and Language Inventory – 5th Edition (Bader, 2005)	X	X	X		X		X		X		X		X	X	X	X	X	X		
Basic Reading Inventory, 9th ed. (Johns, 2005)	X	X	X	X	X					X					X	X	X		X	
Brigance K& 1 Screen II (Brigance, A., Glascoe, F., 2005)	X	X			X		X	X	X			X	X	X	X	X	X		X	
Comprehensive Test of Phonological Processing (Wagner, Torgesen & Rashotte, 1999)		X	X		X			X	X		X				X	X				X
Developmental Reading Assessment, K-3 – 2nd Edition (Beaver, 2006)		X	1/2/3			X	X			X					X		X		X	
Dynamic Indicators of Basic Early Literacy skills, 5th Edition	X	X	1/2		X		X		X	X					K/1	K/1	X		X	
Early Reading Diagnostic Assessment - Revised (Psychological Corporation, 2002)		X	1/2/3		X			X	X		X				K	1/2/3	K/1		1/2/3	2/3
Fox in a Box (CTB/McGraw-Hill, 2000)		X	1/2			X	X			X	X				X	X	X		X	

Table 3.1   Continued

Name of Assessment	Age/Montessori Program Level				Directions/ Norms				Uses			Print- Sound Code Domain Assessed								
												Oral Language								
	Preschool	Kindergarten	6-9 Year	9-12 Year	Standardized/Formal	Informal	Criterion Referenced	Norm Referenced	Screening	Progress Monitoring	Diagnosis	Vocabulary	Syntax	Semantics	Phonological Awareness	Phonemic Awareness	Letter Knowledge	Letter Sounds	Reading Words/ Decoding	Rapid Letter Naming
Get Got Go –(University of Minnesota, 2002)	X								X	X					X					
PALS – Prek and K (Invernizzi, M., Sullivan, A., Meier, J., Swank, L., 2004)	X	X			X			X	X	X					X	X	X	X	X	
Preschool Comprehensive Test of Phonological and Print Processing	X	X			X			X			X	X			X		X			
The Names Test: A Quick Assessment of Decoding Ability (Cunningham, 1990)		K	1/2/3	4	X				X		X								X	
Test of Language Development – Primary: 3rd Edition	X	X	1		X			X	X	X	X	X	X		X					
Yopp-Singer Test of Phoneme Segmentation		X	K/ 1			X	X		X	X						X				
Running Records					X					X									X	
Anecdotal Records	X	X	X	X	X					X		X	X	X	X	X	X	X	X	

This table includes screening, progress monitoring, and diagnostic assessments that support a teacher tracking the development of a child in reaching the goals of the standard for Print Sound Code. It is important to note that children should have achieved the goals of the Standard for Print Sound Code by the end of second grade. The addition of phonology and oral language development of vocabulary, syntax and semantic reflects the *Speaking and Listening Standards* as foundational skills in the preschool years for later development of the Print Sound Code.

Table 3.2   Assessments for Getting Meaning

Name of Assessment	Age/Montessori Program Level				Directions/ Norms				Uses				Getting Meaning Domain Assessed						
	Preschool	Kindergarten	6-9 Year	9-12 Year	Standardized/Formal	Informal	Criterion Referenced	Norm Referenced	Screening	Progress Monitoring	Diagnosis	Determining Instructional Level	Vocabulary	Narrative Retelling	Rapid Auto Naming Letters/Words	Accuracy	Fluency	Correcting and Self-Monitoring Strategies	Comprehension
Early Reading Diagnostic Assessment (Psychological Corporation, 2002)		X	1/2/3		X			X			X		2/3	K/1	2/3		1/2/3		1/2/3
Basic Reading Inventory, 9th ed. (Johns, 2005)		X	1/2/3	4/5/6						X		X				X	X	X	X
Bader Reading and Language Inventory – 5th Edition (Bader, 2005)	X	X	1/2/3	1/2/3	X			X	X	X	X	X				X		X	X
Comprehensive Test of Phonological Processing (Wagner, Torgesen & Rashotte, 1999)		X	X		X			X	X		X				X				
Curriculum-Based Measurement (Hasbrouck & Tindall, 1992)			X	X	X	X			X	X		X				X	X	X	X
Developmental Reading Assessment, K-3 – 2nd Edition (Beaver, 2006)		X	1/2/3	4/5/6		X	X			X		X				X	X	X	X
Degrees of Reading Power (Touchstone Applied Science Associates, 2002)			X	X	X		X			X		X							X
Fox in a Box (CTB/McGraw-Hill, 2000)		X	1/2		X			X	X	X			X			X	X	X	Listen

Table 3.2   Continued

Name of Assessment	Age/Montessori Program Level				Directions/ Norms				Uses				Getting Meaning Domain Assessed						
	Preschool	Kindergarten	6-9 Year	9-12 Year	Standardized/Formal	Informal	Criterion Referenced	Norm Referenced	Screening	Progress Monitoring	Diagnosis	Determining Instructional Level	Vocabulary	Narrative Retelling	Rapid Auto Naming Letters/Words	Accuracy	Fluency	Correcting and Self-Monitoring Strategies	Comprehension
Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001)			1/2/3	4/5/6	⨯			⨯		⨯	⨯	⨯				⨯	⨯	⨯	⨯
Dynamic Indicators of Basic Early Literacy skills, 5th Edition (Good &Kaminski, 2002)	⨯	⨯	1/2/3		⨯		⨯		⨯	⨯						⨯	⨯		⨯
Literacy: Helping Children Construct Meaning (Cooper & Au, 1997)			2/3			⨯												⨯	⨯
Reading Inventory for the Classroom (Flynt&Cooter, 1998)			1/2/	4/	⨯		⨯		⨯		⨯	⨯				⨯	⨯	⨯	⨯
Running Records		⨯	⨯	⨯		⨯				⨯	⨯	⨯				⨯	⨯	⨯	⨯
Story Construction from a Picture Book (Van Kraayenoord & Paris, 1996)		⨯	1			⨯				⨯				⨯				⨯	⨯
Think Alouds: Assessing Comprehension (Wade, 1990)			2/3		⨯					⨯								⨯	⨯
Scholastic Reading Inventory			⨯	⨯	⨯			⨯			⨯	⨯							⨯
Retellings	⨯	⨯	⨯	⨯	⨯									⨯					⨯
Cloze Assessments			⨯	⨯	⨯								⨯						⨯
Anecdotal Records	⨯	⨯	⨯	⨯		⨯				⨯			⨯	⨯		⨯	⨯	⨯	⨯

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Table 3.3   Assessments for Reading Habits

Name of Assessment	Age/Montessori Program Level				Directions/ Norms				Uses			Reading Habits Domain Assessed				
	Preschool	Kindergarten	6-9 Year	9-12 Year	Standardized/ Formal	Informal	Criterion Referenced	Norm Referenced	Screening	Progress Monitoring	Diagnosis	Concepts About Print	Reading widely/Attitude	Literature/ Genres	Discussing Books	Vocabulary
An Observation Survey of Early Literacy Achievement, Revised 2nd Edition (Clay, 2005)		X	X 1/2/3		X			X	X	X		X				
Bader Reading and Language Inventory – 5th Edition (Bader, 2005)	X	X	1/2/3	1/2/3	X			X	X	X			X	X		
Book Selection (Paris & VanKraayenoord, 1998)						X			X				X	X		
Comprehensive Reading Achievement (Flynt&Cooter, 1998)			1/2/3	4/5/6	X		X		X	X			X			
Early Reading Diagnostic Assessment (Psychological Corporation, 2002)		X	1/2/3		X			X			X	K/1				K/1/ 2/3
Developmental Reading Assessment, K-3 – 2nd Edition (Beaver, 2006)		X	1/2/3			X	X			X		X				X
Elementary Reading Attitude Survey (McKenna & Kear, 1990)					X	X			X	X			X			
Literacy: Helping Children Construct Meaning (Cooper & Au, 1997)			2/3			X							X			

Table 3.3   Continued

Name of Assessment	Age/Montessori Program Level				Directions/ Norms				Uses			Reading Habits Domain Assessed				
	Preschool	Kindergarten	6-9 Year	9-12 Year	Standardized/Formal	Informal	Criterion Referenced	Norm Referenced	Screening	Progress Monitoring	Diagnosis	Concepts About Print	Reading widely/Attitude	Literature/Genres	Discussing Books	Vocabulary
Motivation to Read Profile (Gambrell, Palmer, Codling, &Mazzoni 1996)													X			
Story Construction from a Picture Book (Van Kraayenoord & Paris, 1996)		X	1			X							X		X	
Classroom Reading Logs	X	X	X	X		X				X			X	X		
Anecdotal Records	X	X	X	X		X				X		X	X	X	X	X

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An Assessment Model for Wilmington Montessori School

I turn now to recommendations for a classroom-based reading assessment system at Wilmington Montessori School that will maintain the integrity of the student-centered principles of a Montessori school while providing evidence of students' reading development. The need for a common school-wide understanding of the goals for literacy is a repeated theme in the research on classroom-based school-wide assessment systems (Au, 1994; Baker and Hall, 1999; Baker and Smith, 2001; Guthrie, et al., 1994; Hoffman, et al., 1996; Paris, et al., 1992; Valencia & Place, 1994; Walpole, et al., 2004). This applies to Montessori schools as well (Damore, 2000: Roemer, 2004). Referring to her study of assessment in Montessori schools, Roemer (2004, p.40) states:

> I realized that schools could not evaluate outcomes or proceed with assessment until they were very firm about what student learner characteristics were important to them as a community – teachers, administration, parents, students, and community members.

Wilmington Montessori has defined the following outcomes for literacy instruction:

- Students will construct, examine, and extend the meaning of various kinds of texts.

- Students will organize and evaluate information to communicate with others.

- Students will use literacy knowledge to connect self to society and culture.

- Students will use written and oral communication appropriate for various purposes and audiences.

In addition to understanding these overall goals for literacy learning, teachers must understand the developmental milestones as children progress towards those goals (Salinger, 2001; Stiggins, 2001; Hiebert and Raphael, 1998). However,

having a list of goals and developmental milestones is insufficient. Teachers should have multiple ways to collect evidence of children's learning in relation to these goals and milestones. The results of the survey given to teachers at Wilmington Montessori (Educational Position Paper 2) indicate that they do not collect evidence of children's learning through the systematic use of informal and formal classroom-based assessments. Like many teachers (Paris, 2004; Roemer 1999, 2004), Wilmington Montessori teachers rely on their observations of children. However, they do not report having a structure for recording and reflecting on these observations. In many ways the teachers at Wilmington Montessori have the characteristics of the intuitive assessor, collecting observations that may or may not reflect children's progress towards the goals for reading (Gipps, 1994). A classroom-based reading assessment system at Wilmington Montessori School will provide clarity about the goals and developmental milestones for reading so that learning is visible to the child, teacher, and parents.

Salinger (2001, pp. 398, 399) illustrates the relationship between classroom assessment, the teacher's understanding of the constructs that assessment is measuring, and the teacher's ability to use classroom-based assessments to clearly communicate with parents and make instructional decisions:

> When teachers can talk about the constructs on which children are assessed, when parents can read about them, and when assessment documentation such as running record forms are referenced back to the constructs, parents understand more fully what their children are learning… The power rests in revealing a full picture of student's growth – including aspects of literacy learning that have not yet been mastered. If the underlying construct of a classroom-based assessment system is a developmental one, then measurement precision accrues from placing each student accurately on a developmental continuum so that his or her trajectory in literacy learning can be better understood and directed.

A classroom-based reading assessment system at Wilmington Montessori School will need to 1) furnish evidence of children's progress across the developmental milestones of reading and the school's overall goals of literacy learning, 2) provide proactive information about children who may be at risk of later reading difficulties, 3) offer a framework for teachers to grow in their understanding of the developmental milestones and the school's goals for literacy, and 4) provide for collecting data across the school community to help teachers evaluate the overall success of the school in supporting children's reading development.

Such a system must be designed from a thoughtful combination of formative informal and formal classroom reading assessments that allow for screening, progress monitoring, diagnosis, and program evaluation. Some assessment data will need to be gathered within a particular time frame under prescribed conditions, using the same tasks and materials for all participants. These assessments will include formal classroom-based assessment tools that will proactively screen and inform instructional decision making and contribute to program evaluation information for the school. Ongoing progress monitoring assessments are both formal and informal assessments that monitor a child's progress against developmental benchmarks, identify specific short-term instructional goals, and contribute to a teacher's knowledge about what a child is using and confusing when reading. Such assessments include running records, curriculum-based measurement, think alouds, interviews, collections of artifacts in a portfolio, and performance-based assessments.

I recommend that Wilmington Montessori School begin using such an assessment model in the preschool years. Because the students often begin attending the school during their toddler or preschool years, there is the opportunity to recognize

and proactively intervene for children who may experience difficulty with reading. First, current research on emergent literacy supports the idea that the preschool years are an important period for the development of early literacy skills, including phonological awareness and narrative understanding. Second, research shows that children whose phonological skills are developmentally delayed are at risk for later reading failure. Finally, phonological skills can be taught in the context of the classroom, thus preventing later reading failure (Snow, et al. 1998). Interestingly, this research seems to agree with Montessori's thoughts regarding sensitive periods; she identified the sensitive period for reading and writing between the ages of 4 and 5 years. Montessori observed that if a child did not develop a given skill during the sensitive period, it was much more difficult, if not impossible, to teach it later (Chattin-McNichols, 1998; Crain, 2000; P. P. Lillard, 1996; Montessori, 1965, 1967; Standing, 1962).

Like other teachers at other Montessori schools, teachers at Wilmington Montessori School find that some children do not "explode" into reading between the ages of 4 and 6 years. In a survey of Montessori schools, Kahn (1994) found that the most common solutions were to offer individual tutoring, hire a reading specialist at the school, or refer the family to other schools with more specialized programs in learning disabilities. Wilmington Montessori has implemented all of these interventions, yet it still does not seem to meet the learning needs of some children. However, research shows that most children can become successful readers in the context of the regular (or in this case Montessori) classroom environment.

> If we have learned anything from this effort, it is that effective teachers
> are able to craft a special mix of instructional ingredients for every
> child they work with. But it does mean that there is a common menu of
> materials, strategies, and environments from which effective teachers

make choice.…there is little evidence that children experiencing difficulties learning to read, even those with identifiable learning disabilities, need radically different sorts of supports than children at low risk, although they may need much more intensive support.… Excellent instruction is the best intervention for children who demonstrate problems in learning to read. (Snow, Burns and Griffin, 1998, pp. 2 & 3)

I believe that the following suggestions regarding the use of classroom-based reading assessments will assist teachers with identifying and better meeting the learning needs of all children within the Montessori classroom environment.

Suggested Assessments for Wilmington Montessori School

Screening and Program Evaluation Assessments. It is important to note the differences and similarities between classroom-based assessments that provide data for program evaluation and external standardized tests, such as the Educational Record Bureau (ERB) assessments administered at Wilmington Montessori School. The primary purpose of the ERB is program evaluation. The ERB is administered to grade-level groupings of children and does not affect ongoing instructional decisions for children. ERB's are administered within a given time frame and have a method for collecting data across the school community. Similarly, if some classroom-based assessments are to contribute to program evaluation, the school will need a schedule for their administration and a system to collect data across the program levels. However, carefully chosen classroom-based assessments should serve multiple purposes, including screening, periodic progress monitoring of all children, informing instructional decisions, and evaluating programs. Classroom-based assessments are administered individually within the context of the classroom so that the teacher can observe and interact with each child, thereby informing later instructional decisions for that child. I am hopeful that if it is done well, a system of on-demand, classroom-

based assessments may some day eliminate the need for external standardized testing at Wilmington Montessori School.

In addition to program evaluation, a second major use of classroom-based assessments will be to screen children as early as preschool to determine those who are at risk for reading failure. It is expected that the preschool teachers will be apprehensive about this suggestion. Survey results indicate that the preschool teachers question the fit of classroom-based reading assessment with the Montessori philosophy (see Educational Position Paper 2). They also report using fewer forms of classroom-based assessments in their classrooms. One reason for this may be a concern that assessments will be used to label and group children prematurely. However, experience with classroom-based assessments will help teachers understand that assessments should not be used to label a child, but to better understand each child's needs (Snow, et al, 1998; Spear-Swerling & Sternberg, 1996). All teachers have observed children they feel need further evaluation. Classroom-based assessments can offer specific guidance to the teacher to better meet the needs of these children in the classroom environment.

Preschool and Kindergarten Screening and Progress Monitoring Assessments

The Teacher Rating of Oral Language and Literacy (TROLL). TROLL is a rating scale of oral language and literacy development (Dickinson, McCabe, & Sprague, 2003) tied to the *New Standards for Listening and Speaking.* It is designed to assess the early language precursors to reading in 3-, 4-, and 5-year olds. While the TROLL assessment ties children's scores to specific instructional recommendations, it

can also serve to focus teachers' observations around the developmental milestones for reading. The assessment provides a format to analyze the scores across a classroom so that a teacher can identify common instructional needs for groups of children. Finally, the *TROLL* assessment can be used several times during the child's preschool experience, allowing a teacher to monitor a child's oral language development and to communicate clearly to parents about this development.

   Get it, Got it, Go (University of Minnesota, 2000). Get it Got it Go has been developed to assess individual growth and development indicators related to expressive communication, social interactions, cognition, adaptive behaviors, and motor skills in preschoolers. The assessments and recording systems to track children's progress are available on line for teachers. Currently in development, there are on-line   assessments for alliteration, rhyming, and picture naming available. These skills have been identified as important precursors to later reading development. *Get it, Got it, Go* allows teachers to develop local norms that can be useful to Wilmington Montessori School. This assessment tool provides an age appropriate way to assess early literacy skills prior to the use of *DIBELS* (Kaminski, 2003) in the kindergarten years.

   Concepts About Print (Clay, 2002). Concepts about Print can also focus teacher observations towards the developmental milestones. The assessment is a subset of the larger *Observation Survey of Early Literacy Achievement* (Clay, 2002). Individually administered, this addresses what children know about print and language including their understanding that letters make up words that words have first and last letters, and that words combine to make sentences. Many Montessori teachers already collect observations of these areas within the context of the classroom. Fortunately,

The Concepts about Print assessment provides norms to help teachers recognize when a child may need extra assistance in relation to peers in her age group. In addition, the assessment provides recording tools to monitor children's progress over time. During the second year of preschool, teachers should add other components of the *Observation Survey of Early Literacy Achievement* to their assessment profile, including letter identification, word tests, writing samples, and dictation tasks.

The combination of the *TROLL* and *Get Got and Go* administered two or three times a year, provides a structure for screening and monitoring progress of early literacy skills in the preschools at Wilmington Montessori School. *Concepts about Print* can provide an added tool to evaluate areas identified in the *TROLL* assessment.

Kindergarten, Lower and Upper Elementary Screening and Progress Monitoring Assessments

As children move into the kindergarten year, assessments of phonological and phonemic awareness become more predictive of future reading success or failure. The kindergarten and lower elementary teachers are familiar with (although they have not all administered them) the *DIBELS* (Kaminski, 2003) and the *Developmental Reading Assessment* (Beaver, 2003). This combination can provide a framework for screening and progress monitoring during the elementary years.

DIBELS (Kaminski, et al., 2003).   These assessments are a sequenced developmental series of brief assessments that are predictive of future reading success. One can submit the data from the assessment results to the computer-based scoring system, allowing a school to easily track children's progress. The benchmarks identify children who are at risk of future reading failure, distinguishing between those who

should be successful with classroom instructional modifications and those who may require individual instruction. Age-appropriate DIBELS assessments should be administered three times a year to all the children in the kindergarten and the lower elementary program. Children identified as at risk should be assessed weekly to monitor their progress and enhance instructional decisions.

Spelling Inventories. Children's developing knowledge of spelling patterns is closely connected to their development of decoding skills (Ehri & Roberts, 2006). Teachers at Wilmington Montessori have been administering the Words Their Way (Bear, et al., 2000) spelling inventories routinely several times a year. This easily administered assessment asks children to spell a list of ten words with increasingly challenging phonetic patterns. Charts help the teacher to analyze the children's results, placing them on a continuum for specific instruction to match their needs. It is recommended that teachers continue to use this assessment tool three times a year to track children's development.

The Developmental Reading Assessment (k-3) and (4-6). The *DRA* has been used by all of the lower and upper elementary teachers. This assessment is an extensive individually administered assessment that provides teachers with information about readers across a broad spectrum of the reading developmental milestones as identified by the New Standards Primary Literacy Committee (1999). The text levels can be converted to the Fountas and Pinnel leveling system that supports the guided reading instructional model used at Wilmington Montessori School. Using this system, teachers observe children reading fiction and non-fiction texts and use running records to record their reading behaviors. Because the child is

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timed, scores can be obtained for accuracy and fluency. Depending on the

developmental level of the child she either retells orally what she read or writes a

summary of the text. Teachers then place children on a continuum which identifies

children who need intervention and identifies their reading level as instructional,

independent, or advanced level. Instructional recommendations are tied to the

continuum. Benchmarks are provided to assist with identification of children who

may need further diagnosis or instructional modifications. The most recent version of

the assessment provides an assessment of word analysis to identify specific areas of

word analysis that a child may need to work on. Finally various data collection tools

are used to collect classroom and individual data and to graph that data to show

progress to parents. The recent version of the DRA2 has an online management

system which allows teachers and schools to track assessment data.

The Developmental Reading Assessment Word Analysis (Beaver, 2002).

The *DRA* provides a comprehensive set of assessment tasks measuring phonological

awareness, metalanguage, letter and word recognition, phonics, decoding,

substitutions and analogies, and structural analysis and syllabication. The assessments

are intended as a follow-up to the *DRA*-leveled text assessment to more closely

evaluate the phonological and phonemic awareness of children in kindergarten and the

beginning of first grade. The assessments can be used for first through fifth graders

who are not making typical progress with the leveled text version of the *DRA*. This

assessment provides data about children's decoding skills so that instruction can be

specifically designed to strengthen the child's weaknesses in specific areas.

The use of the *DIBELS* (Kaminski, 2003), *The Words Their Way

Spelling Inventory* (Bear, et al., 2000), and the *DRA* assessments (Beaver, 2002, 2003)

at the beginning, middle, and end of the school year allow Wilmington Montessori teachers to screen, monitor progress, and evaluate programmatic needs for children. Using the DRA and sharing assessment results across program levels creates a common lens for teachers to develop their knowledge of the benchmarks for reading development.

Informal Progress Monitoring and Classroom-Based Assessments

Informal progress monitoring and diagnostic assessments are dynamic and adaptable to the context of everyday classroom life. They provide a method for teachers to continually monitor a child's progress against the developmental milestones and to enhance instructional decisions. Effectively using and organizing data from these assessments will allow Wilmington Montessori teachers to move from intuitive assessment to assessment that makes learning visible to children, parents, and teachers. Calfee and Hiebert (1991) describe the role of teachers as "applied social scientists" searching for patterns, questioning what they mean, and focusing on shifts in performance over time in the classroom. They go on to say that teachers must keep in mind the "ultimate goals for the year, but equally important are the day-to-day and even moment to moment events" (Calfee & Hiebert, 1991, p. 291) that inform instruction on the edge of what a child can do independently (Johnston & Costello, 2005; Paris, 2002a; Shepard, 2000a; Shepard, 2005; Stiggins, 1991, 2001; Tierney, 1998; Valencia, 1997). Such assessment seems to be a natural for the Montessori classroom.

However, teachers at Wilmington Montessori School report little use of informal classroom-based assessment tools. It is expected that when teachers explore the various assessment tools that can be flexibly and easily used within the context of

the Montessori classroom, they will feel more confident about monitoring children's progress and meeting their instructional needs. Teachers will want to use some assessments more often, perhaps even weekly with children who are falling behind their peers, allowing them to proactively make instructional changes. These assessments also contribute information to make the learning of typical students observable. I will highlight several assessments which may be particularly useful to the teachers at Wilmington Montessori School.

Anecdotal Records. As discussed earlier, few teachers at Wilmington Montessori School report that they have an organized system for recording their observations of children; however, observation is listed as an assessment tool used by all teachers because observation is an integral part of a system of classroom-based assessment. However, observation is only valuable when it provides evidence that children are reaching the developmental milestones for reading or the overall goals for reading at Wilmington Montessori School. With this in mind, the teachers need to explore various methods of providing structure and organization to their observations by finding a method that works best in their individual classrooms. Teachers will find many suggestions for using and organizing anecdotal records (Harp, 2006; Hill, 2001; Johnston, 1997; Rhodes & Nathenson-Mejia, 1999; Tierney & Readance, 2000). I will address two such models.

STAIR (System for Teaching and Assessing Interactively and Reflectively). STAIR provides a format for teachers to record an observation of a child, hypothesize about what that observation is telling them about the child, plan for an instructional intervention, and to repeat the cycle of observation altering the hypothesis with new

information gained from observing the instructional intervention (Afflerbach, 1999). The simple recording process provides a way for teachers to reflect on and evaluate progress, enhancing communication to parents about a child's strengths and challenges.

Focused Anecdotal Record Assessment. Boyd-Batstone (2004) provides a strategic framework for teachers to observe and record information. Boyd-Batstone recommends that teachers plan to observe specific children each day so that all children have been observed each week. Second, he suggests that teachers should focus on developmental benchmarks of goals for reading during their observations. Finally, he provides specific suggestions to teachers regarding the evaluation of anecdotal records to give evidence of student learning.

Portfolios. The teachers at Wilmington Montessori report that they collect samples of children's work to monitor progress. Teachers collect such things as samples of children's writing in response to stories read aloud and silently, projects and book reports, summaries, and samples of children's emerging writing and spelling. Two years ago, the teachers focused on portfolios to collect work samples, providing a tool for student self-reflection, teacher reflection on children's progress, and for sharing with parents. At this point, these portfolios are still very teacher-driven collections of children's work because they do not yet reflect the richness of the overall goals for literacy.

Portfolios should be a joint collection of work by teachers and students, reflecting the student's growth. Projects on the development of portfolios consistently identify the need for teachers to be clear about the goals for reading, tying work samples and portfolio entries to those goals (Au, 1994; Hoffman, et al., 1996; Paris, et

al., 1992; Valencia & Place, 1994). The reading goals should also be clear to children. This clarity allows children to reflect on and add evidence of their growth to the portfolio. If done well, portfolios provide a foundation for conversations about children's learning between teachers and students, teachers and parents, students and parents, and between teachers reinforcing the collaborative learning community in a school (Johnston, 1997). The teachers at Wilmington Montessori should continue to explore the effective use of portfolios to document children's progress for parents, children's self-reflection, and their own instructional decision making. This exploration should include evaluating work samples that demonstrate the school's overall goals of literacy. Portfolios that are tied to the goals for literacy and are passed from program level to program level can create a valuable picture of children's development over time at Wilmington Montessori School (Johnston, 1997).

Preschool and Kindergarten Classroom Embedded Assessments

Preschool teachers need to collect observations of the precursors to reading, including phonological awareness and children's understanding of narrative. Interestingly, Montessori focused on narrative retelling as a tool to measure children's reading comprehension (Montessori, 1965). The following suggestions may help to structure their observations of these skills.

Story Construction from a Picture Book and Narrative Construction. Van Kraayenoord and Paris (1996) designed Story Construction from a Picture Book to give teachers a method to assess thinking skills of non-readers including meaning making, predicting, inferring and summarizing. Using wordless picture books or books with strong pictorial story lines and the words removed, this method can be adapted by classroom teachers to books of their choosing. A more recent study by

Paris and Paris (2006) indicates that when teachers use such methods with a uniform set of materials several times throughout a year, they can gather quantitative data that can be used to monitor children's progress in the domain of narrative comprehension. This study provides specific guidance regarding the scoring of picture walks and prompted comprehension questions. While the study was conducted with kindergarten through second grade children, Paris and Paris (2006) indicate that it can have applications to preschool classrooms. Wilmington Montessori preschool and kindergarten may find this a useful strategy to explore.

The Phonological Assessment of Reading (PAR). The PAR was developed by the Wilmington Montessori School preschool teachers to monitor the development of phonological awareness. The teachers researched the stages of phonological awareness and created an assessment tool that can be administered easily to children in the classroom setting. The tool assesses rhyming and alliteration, oral blending, phoneme isolation and identification, oral segmentation and phoneme manipulation.

Kindergarten, Lower and Upper Elementary Classroom Embedded Assessments

Elementary teachers will want to have tools for assessing children's development across the three major goals for reading identified by the New Standards for Reading and Writing: Print-Sound Code, Comprehension, and Reading Habits. Therefore, I have grouped the following suggestions for classroom-based assessments at this level into these categories.

Print Sound Code

Running Records. Running Records can be used regularly during the course of reading instruction in the Montessori classroom. Running records record the

errors that a child makes during oral reading and analyzes them to understand what strategies the child uses and confuses while reading. They can be done with any text in the classroom. With practice, teachers become adept at recording and coding children's errors. Montessori teachers will find that Running Records can be incorporated into guided reading groups or used with children during independent work times and silent reading.   McKenna and Stahl (2003) provide an overview of the coding system and error analysis for running records which will be useful to teachers.

The Names Test (Cunningham, 1990.   The Names Test and a recent modification of the Names Test (Dufflemeyer, Kruse, Merkely, & Fyfe, 1999) provides a quick phonics assessment for Montessori Elementary teachers. This diagnostic assessment, which takes about 15 minutes to administer, should be used flexibly to gain specific information about which phonics patterns children in kindergarten to sixth grade may not have mastered.

Curriculum Based Measurement (Fuchs & Fuchs 1999, Fuchs et al. 2003) The previous discussion of assessments that monitor progress includes a detailed description of curriculum-based measurement and the process for implementing such assessments in the classroom. This is a relatively easy assessment tool for tracking fluency and accuracy in a Montessori classroom. In addition, recent research (Fuchs, et al. 2003) suggests that it may have value as a diagnostic tool. This tool is one that Wilmington Montessori teachers could implement easily to consistently monitor the progress of children who are not meeting the developmental milestones for reading.

Comprehension

A basic principle of the Montessori classroom is an uninterrupted work cycle. Children become immersed in their work, and the teacher observes the child at

work. However, understanding children's reading comprehension and strategies requires conversation. Montessori believed that the ultimate goal of reading was for children to read silently with understanding. However, she also knew that it was important to make a child's comprehension of what they read observable (Montessori, 1965). Montessori teachers pride themselves on knowing their students socially, emotionally, and academically. There are many conversations and exchanges between teachers and children in our classrooms. However, I expect that if one were to observe these exchanges, many of them would be procedural and related to the completion of a task. In other words, Montessori teachers continue to need strategies that help them to better understand the processes children use and confuse when they read. It is important to understand that much can be learned about children's thinking within the context of daily classroom exchanges if those exchanges are to help to explore a student's understanding rather than guide them in completion of tasks (Calfee and Hiebert, 1991). The following are suggestions of ways that teachers can strengthen their ability to explore student's understanding.

Think Alouds (Johnston, 1997; Wade, 1990. Think alouds require children to share what they are doing while they read. Johnston (1997, p. 232-238) describes think alouds as a window into children's minds. He adds that think alouds will be most successful in classrooms where there is a level of trust between the teacher and child and where children are used to noticing how they do things. Both of these are characteristics of a Montessori classroom. Think alouds work best when children are in the actual process of reading. What children actually report that they do after reading and what they do when they are reading can be two different things. He suggests simple prompts, such as "what are you doing now?" that teachers might

use to encourage children to think aloud. Skillful use of think alouds can make rich information available about how children read, reread, make predictions, use visualization, and make connections to their own experience.

Interviews. Interviews provide another format for children to share what they think about while reading. Montessori teachers may find that interviews fit easily into their classroom because children typically work independently, allowing the teacher to focus on one student for a period of time. Johnston (1997) suggests three types of questions that are most useful for interviewing: descriptive, structural, and contrast questions. Descriptive questions such as "can you tell me what it is like for you to read at school?" put children into the role of a teacher and get them to start talking. Structural questions help teachers understand how students connect reading to other aspects of the classroom or curriculum, for example, "is it ok to write in literature circles?" Contrast questions include asking students to compare and contrast different genres, classroom activities, or perhaps specific books they have read. Teachers will find specific suggestions on interviews and think alouds in Johnston's (1997) book *Knowing Literacy: Constructive Literacy Assessment* and Rhodes and Shanklin's Book (1993) *Windows into Literacy: Assessing Learners K-8.* In addition, Mckenna and Stahl (2003) offer several structured interviews that teachers may find useful.

Retellings. In the context of a Montessori classroom, retellings can be another useful way to gain information about a child's comprehension of text. Written and oral retellings are part of the standardized *DRA* assessment recommended for screening at Wilmington Montessori. However, oral retellings can be embedded into the context of literature circles, book discussions, and specific one-on-one interactions

between a child and teacher. Teachers who use written and oral retellings learn to probe for understanding with questions such as "tell me more about" or "why do you think that happened?" Questions such as these help them gather more information about what a child understands during reading. Teachers need to seek specific evidence of the goals for reading from the reading continuum when they evaluate a retelling or written summary. For example, if a teacher is interested in children's understanding of story structure, she will look for evidence of inclusion of the story elements in the retelling (Johnston, 1997; Rhodes & Shanklin, 1993).

Performance Assessments. The concept of performance assessment is one that supports the integrated nature of the Montessori cultural curriculum. In addition, it may provide a way for teachers to collect evidence of children's progress towards the four major goals of literacy. Performance assessments are deliberate visible assessment activities that have the look and feel of good classroom instructional activities (Tierney & Readance, 2000). Guthrie, Van Meter, and Mitchell (1999) describe such assessments as small units of instruction for both students and teachers based in authentic literacy tasks. There are many challenges to be addressed when using performance assessment to monitor children's reading progress, including demands on teachers' time in the development and evaluation of such assessments; however, they may be a valuable contribution to assessment in a Montessori classroom. Specifically, Wilmington Montessori School teachers may want to explore Concept Oriented Reading Instruction (CORI) which is an integrated curriculum model and its application to the Montessori curriculum (Guthrie, et al., 1999). Fuchs' work Connecting Performance Assessment to Instruction (1994) provides a thorough

description of the possibilities and challenges related to the use of performance assessments as a tool to monitor children's progress.

Reading Habits

Reading habits encompasses discussing books, reading habits, and vocabulary. Many of the previous suggestions for monitoring reading comprehension will apply here as well. Reading attitude, interests, and motivation are intertwined with a child's reading success (Snow, et al., 1999). A primary goal of all Montessori classrooms is that children value reading as a way to understand themselves and the world around them. Children who experience difficulty learning to read eventually become unmotivated readers. Teachers can use various tools to better understand a child's interest and motivation to read using that knowledge to choose materials for that child.

Reading Logs. Reading logs are records that children keep of books read. They can provide useful insight into a child's interest, his choice of genres, and the level of difficulty of text that a child chooses to read.

Reading Attitude and Motivation Inventories. Mckenna and Stahl (2003) offer several useful reading attitude and motivation surveys that can be used with children from preschool to elementary years. The use of a reading attitude and motivation survey each fall would provide teachers with a picture of the child's changing interests and motivation over time.

In summary, I have provided a model of classroom-based, school-wide reading assessment for Wilmington Montessori School based on a combination of

formal and informal classroom-based assessments. Specific suggestions for assessments in each category are tied to the goals for reading as identified by the *New Standards for Reading and Writing* (1999) and to the research on effective schools which indicates that schools need tools for screening, progress monitoring, diagnosis, and program evaluation. The use of assessments at Wilmington Montessori School will evolve as teachers explore various assessment tools and discover which are the most useful to them in the Montessori classroom. It is hoped that the preceding discussion will provide a starting place for this work. I turn now to a discussion of a reading continuum model (Table 3.4) which incorporates these recommended assessments.

Continuum Revisions

The reading continuum (Hill, 2001) provides a frame of reference regarding reading developmental benchmarks for the teachers at Wilmington Montessori School. Teachers review the continuum when evaluating a child's reading progress in preparations for parent conferences and progress reports. However, a comparison of the continuum with the goals of reading identified in Educational Position Paper 1 (see Table 2.12 in Educational Position Paper 2) found significant gaps in the constructs reflected on the continuum and the most recent research on reading development. Second, the continuum does not include guidance for a teacher regarding the indicators of future reading difficulties at each developmental stage. Third, the continuum currently provides overlapping age ranges of three years for each stage of development. While these age ranges reflect the developmental nature of the Montessori classroom, they are subject to multiple interpretations, so it is difficult to monitor a child's progress across program levels. Fourth, while Hill (2001) provides

guidance for collecting assessment data related to the continuums in her book,

Developmental Continuums: A Framework for Literacy Instruction and Assessment,

the emphasis is on informal progress monitoring. There is little focus on screening,

diagnosis of a child's reading difficulties or program evaluation appropriate for each

developmental level.

To adapt the continuum to each school's needs, Hill (2001) encourages

schools to compare the continuum with state standards, their school's goals for

reading, and their own philosophical framework. Therefore, I have redesigned the

reading continuum (Table 3.4) to clarify monitoring children's progress by the

teachers. First, I restructured the continuum to include the constructs and benchmarks

for reading recommended in the *New Standards for Reading and Writing* and the *New*

Standards for Speaking and Listening (see Tables 1.1, 1.2, 1.3, and 1.4 in Educational

Position Paper 1). This blending of the New Standards with the continuum clarifies

developmental benchmarks leading to reading: print-sound code knowledge

(phonological and phonemic awareness, letter knowledge, and word reading), reading

comprehension (accuracy and fluency, self-monitoring and correction, and

comprehension strategy use), and reading habits (reading widely, discussing books,

and vocabulary). Since, the *New Standards for Reading and Writing* address reading

through grade three, I referred to the *New Standards Performance Standards* (2001) to

address the stages of the continuum for the 9 to 12 year old (fourth to sixth grade).

Second, I have added a section to each continuum stage to provide reading

difficulty indicators related to that stage. These indicators come from the

developmental model of the off-track reader described by Spear-Swerling and

Sternberg (1996), Compton's (1997) model of developmental assessment related to

the stages of the off-track reader, the research of the National Reading Council (Snow, et al., 1998), and Rathvon's (2004) summary of the research on early indicators of reading difficulty.

Third, I added suggestions for formal and informal classroom-based assessment tools which might be used to screen, monitor progress, diagnose, and provide program evaluation. These tools were identified earlier in Tables 3.1, 3.2, and 3.3 as well as the work of Compton (1997) whose article, "*Using a developmental model to assess children's word recognition*" describes various informal classroom based assessments for teachers to embed in the context of classroom instruction. Many of these assessments were described in detail in the previous discussion.

Fourth, I have added two benchmarking indicators: grade level benchmarks and book level benchmarks. This was done so that teachers can match the data about a child with a continuum stage. In order to add the grade level benchmarks, I matched the grade level of the New Standards benchmarks with the middle age level for the developmental stage on the Hill continuum. For example, according to Hill, emerging readers span ages 4 to 6 years with a mid-point of 5 years. The typical 5 year old is in kindergarten so the emerging reader was compared with the New Standards benchmarks for kindergarten. The benchmarks for reading levels are drawn from the Fountas and Pinnel (1999) system of leveling. These levels match the system used in the school's literacy center as well as the text leveling system of the New Standards. The New Standards Committee (1999) identifies an end point text level for each grade while Hill's continuum (2001) defines a range of levels for each stage of development. The endpoint level of the New Standards for the grade level matching each continuum stage is bolded; therefore, teachers should be able to

monitor progress towards age appropriate text levels and reading goals for a child with these additions.

The revisions in the continuum provide clearer guidance to teachers regarding the goals of literacy at each stage of development, understanding the descriptors of children who may be off-track in their development, and the identification of assessments which will match those goals. The work of teachers to identify instructional strategies related to each of these goals will need to be reviewed against the revised continuum.

Table 3.4 Revised Continuum - Preconventional Readers

Preconventional Reader Characteristics (3-5 Years) (Hill, 2001)
Visual Cue Readers (Spear-Swerling & Sternberg, 1996)
Preschool/Kindergarten   Fountas and Pinnel – Level **A**

Print Sound Code

Phonological Awareness

- Listens for and play with rhythm of language
- Recognizes and enjoy rhymes
- Plays with language through songs, alliteration, and word substitution
- Listens for and identify the first, middle, or last sound or word in a string of sounds or words
- Listens for and identify the missing sound or word in a string of sounds or word.
- Tries oral blending of unfamiliar word parts

Knowledge of Letters and Sounds:

- Knows some letter names and sounds

Reading Words:

- Uses memory of story
- Uses illustration clues
- Uses prior knowledge to construct meaning
- Uses knowledge of letter sounds and ability to connect those sounds
- Uses memory of sight words and environmental print
- Shows interests in reading signs, labels, and logos (environmental print)
- Recognizes own name in print

Comprehension:

Precursors to accuracy and fluency

- Is self-monitoring/ self-correcting
- Plays with words and word meanings
- Recognizes and enjoy metaphorical language
- Sorts relationships among words within a knowledge domain (shapes are circles, triangles and squares)
- Learns words daily through conversations
- Recognizes that things can have more than one name
- Uses language to categorize objects
- Develops an understanding of semantics, syntax, and morphology
- Has a vocabulary of nouns, verbs, adjectives, and adverbs.
- Plays with sentences
- Recognizes when word order is mixed up.

Oral Language Precursors to Comprehension

- Tells stories and talk about events
- Uses language to persuade, inform, entertain
- Presents at topic or point of view to others

- Discusses character motivation

When telling Narratives:

- Has a clear ending
- Tells simple narratives with several events and people
- Recounts knowledge gained through observation
- orients listener by giving some information about people, setting, place and time
- Uses simple words to sequence and tie parts of story together
- Describe and evaluate information or events

Reading Habits

Precursors to Reading a Lot

- Begins to choose reading materials (e.g., books, magazines, and charts) and has favorites
- Holds book and turns pages correctly
- Shows beginning/end of book or story.
- Listens and responds to literature
- Comments on illustrations in books.
- Participates in group reading (books, rhymes, poems, and songs)
- Recites familiar refrains from books

Precursors to Discussing Books

- Initiates and sustain a conversation with comments or questions
- Recognizes the topic of conversation and make topic-relevant responses
- Recognizes invitations to converse
- Listens to others and avoid "talking-over"
- Gathers around a book and pay attention to the reader
- Pose and answers specific questions about the text
- Discusses character motivation
- Identifies a favorite book and tell why they like it
- Knows the rules for polite interactions

Precursors to Reading Vocabulary

- Learns new words daily in conversation and from books read aloud
- Requests or provide explanations of word meanings
- Adds words to familiar knowledge domains
- Sorts relationships among words in knowledge domain
- Adds new domains from subjects and topics studied
- Recognizes that things may have more than one name
- Categorizes objects or pictures telling why they go

	together
• Negotiates with others	• Increases vocabulary of verbs, adjectives and adverbs
• Repeats sentences	• Uses some abstract words and understand that these words differ from concrete things, places or people
• Recalls a brief story	
• Knows that words and print covey meaning	• Uses verbs referring to cognition, communication and emotions
• Uses the text to predict what might happen when read to	
Indicators of Future Reading Concerns to Watch for in Preconventional Readers (Compton, 1997; Spear-Swerling & Sternberg, 1996)	**Classroom Based Assessment Tools** **S- Screening, P=Progress Monitoring,** **D= Diagnostic, E= Program Evaluation**
Oral Language Development **Precursors to the Print-Sound Code** • Phonological awareness • Use of rhyme and alliteration **Precursors to later comprehension of reading** • Understanding of narrative • Beginning, middle, end, characters • Cohesion – words that tie the story together **Precursors to later fluency and accuracy** • Expressive and receptive vocabulary • Categorizing and grouping words • Syntax (grammar) • Semantics (meaning) **Precursors to Discussing Books/Vocabulary** • Concepts of Print • Difficulty listening to and discussing increasingly challenging text	**Formal Assessments** • DIBELS – Initial sound Fluency (Kaminski, Good & Smith, 2003) **(S,P)** • Get Got Go (University of Minnesota, 2002) – Alliteration, Picture Naming, Rhyming **(S,P)** • Comprehensive Test of Phonological Processing (Wagner, Torgesen & Roshotte, 1999) **(S,D)** • Pals PreK (Invernizzi, M., Juel, C,, Meier, J., Swank, L., 2005) **(S,P)** Letter Naming, Decoding, Concepts about Print, Phonological Awareness • TROLL – (Dickinson, McCabe, & Spraque, 2003)**(S,P,E)** • The Names Test: A Quick Assessment of Decoding (Cunningham, 1990) **(S,D)** • Yopp Singer Test of Phoneme Segmentation **(S,P)** • Concepts about Print (Clay, 2002) **(S,P,D)** **Informal Assessments** • Confrontational Naming Tasks – Shown a picture and asked to name object **(P)** • Oral Narrative Retellings ((Paris & Paris, 2003) **(P)** • WMS Phonemic Awareness of Reading (PAR) **(P)** • Story Construction from a Picture Book (van Kraayenoord & Paris, 1996) **(P)** • Anecdotal Records of Children using Montessori language materials (Boyd-Batstone, 2004) **(P)** • Informal Assessments of print in context of common logos. Children should recognize words in the context. They should not recognize them out of context yet (Compton, 1997). **(P)** • Work Samples tied to goals for reading **(P)** • Classroom Reading Logs **(P)** • Listening comprehension

Table 3.4 continued – Revised Reading Continuum - Emerging Readers

Emerging Reader Characteristics 4-6 years	
Phonetic Cue Readers (Spear Swerling – Sternberg)	
Late Preschool/Kindergarten/1st grade	Fountas and Pinnel – Levels A, **B,** C, D
Print Sound Code	**When rereading familiar books they self-monitor and correct to determine if:**

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Print Sound Code

Phonemic Awareness

- Rhymes and plays with words
- Produces rhyming words and recognize pairs of rhyming words
- Recognizes words that don't rhyme—oddity tasks
- Isolates initial consonants in single-syllable words
- Segments onset and rime in single-syllable words
- Segments individual sounds in single-syllable words by saying each sound aloud (f-u-n)
- Segments multi-syllable words (di-no-saur)
- Blends onsets and rimes to form words(/s/un to /f/un)
- Blends separately spoken phoneme and syllables making meaningful words (mon-key, f-u-n)

Knowledge of Letters and Sounds:

- Knows most letter names and letter sounds
- Writes letters that go with a spoken sound
- Uses letter/sound knowledge to write phonetically; (CV, CVC, CCVC words) representing consonant sounds individually

Reading Words:

- Begins to read signs, labels, logos (environmental print) **without the context** of the sign
- Recognizes some names and words in context – about 20 high frequency words
- Relies heavily on memory, pictures, context, and selected letter cues to read text
- Tracks print with finger
- Identifies first sound, making an educated guess
- Uses letter-sound knowledge to figure out simple CVC words

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When rereading familiar books they self-monitor and correct to determine if:

- They are on the correct page
- The word they are saying is the one they are pointing to
- What they read makes sense

When listening to stories they:

- Ask why a character might do something
- Say when they don't understand something

Reading Comprehension

With level B books:

- Understands print is used to construct meaning
- Begins to make meaningful predictions based on illustrations or text
- Uses illustrations to tell stories
- Gives evidence that they are following the meaning of what they are reading through retelling

When stories are read aloud:

- Retells the story in own words and gets the events in correct sequence
- Responds to simple questions about the book
- Creates artwork or written responses that show comprehension
- Uses knowledge from their own experience to make sense of text

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Comprehension

Accuracy and Fluency

- Reads unfamiliar level B books that have been previewed for them.
- Attends to words in sequence and gets most of them correct when reading level B books
- Rereads a favorite story recreating the words of the text with fluent intonation
- Shows through statements and pointing that they understand the print controls what is said

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Reading Habits

Reading a Lot

- Memorizes pattern books, poems, familiar books
- Demonstrates eagerness to read, pretends to read
- Reads top to bottom, left to right, front to back
- Participates in reading of familiar books and poems
- Connects books read aloud to own experiences with guidance
- Develops knowledge and appreciation for different texts
- Asks for books to be read aloud
- Listens to one or two books each day in school
- Discusses books with teacher guidance
- Hears one or two books read aloud at home
- Rereads or reads along two to four familiar books a day
- Follows text with finger pointing to words as read
- Pays attention to what the words they read are saying

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</table>

Reading Self-Monitoring and Self-Correcting Strategies	Discussing Books
• Monitors comprehension (does it make sense?) • Uses context and illustration clues • Uses sight word knowledge and prior knowledge to construct meaning	• Demonstrates the skills from comprehension standards • Gives reactions to the book with backup reasons • Listens carefully to each other • Relates their contributions to what others have said • Asks each other tot clarify things they say **Reading Vocabulary** • Learns new words every day from talk and books read aloud • Notices words that they don't know when read to and talks with and guesses what the words mean from how they are used • Talks about words and word meanings when encountered in books and conversation • Shows an interest in collecting words and playing with ones they like • Uses newly learned vocabulary
Off-Track Reader **Non-Alphabetic Reader (Spear-Swerling Sternberg 1996)**	**Classroom Based Assessment Tools** **S- Screening, P=Progress Monitoring,** **D= Diagnostic, E= Program Evaluation**
Print Sound Code • Not developing understanding of alphabetic principle and phonemic awareness - that letters and sounds map onto each other in a systematic way. • Relies on context to read • Has limited knowledge of letter sounds • Struggles with rhyme and oddity • Has limited phonological reading skills • Still needs to context of logos to read familiar environmental print • Not knowing letter names is a significant predictor in K of future reading concerns • Invented spelling is still not readable (sounds do not begin to match what child says he/she wrote) • Narrative retellings do not reflect understanding of sequence and coherence **Children who have both phonological awareness and naming speed difficulties have a "double deficit" for future decoding and comprehension.**	**Formal Assessments** • DIBELS - Initial Sound Fluency, Letter Naming Fluency, Phoneme Segmentation, and Nonsense Word Fluency (Kaminski, Good, Smith, & Dill, 2003) **(S,P,E)** • Comprehensive Test of Phonological Processing (Wagner, Torgesen & Roshotte, 1999) - Rapid Letter Naming **(S,D)** • Get Got Go (University of Minnesota, 2002) – Alliteration, Picture Naming, Rhyming **(S,P)** • Pals PreK (Invernizzi, M., Juel, C,, Meier, J., Swank, L., 2005) **(S,P)** Letter Naming, Decoding, Concepts about Print, Phonological Awareness • The Names Test: A Quick Assessment of Decoding (Cunningham, 1990) **(S,D)** • Yopp Singer Test of Phoneme Segmentation **(S,P)** • TROLL – (Dickinson, McCabe, & Spraque, 2003)**(S,P,E)** • Concepts of Print Assessment – especially letter knowledge (both names and sounds) (Clay, 2002) **(S,P,D)** • Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)** **Informal Assessments** • PAR – WMS Phonemic Awareness Assessment **(P)** • Curriculum Based Measurement (Fuchs, 1999, 2003) **(P,D)** • Phonological Awareness – Syllable measures **(P)** • Confrontational Naming Tasks- Naming objects in pictures (Compton, 1997) **(P)** • Ability to repeat sentences (Compton, 1997) **(P)** • Oral Narrative Retellings (Paris & Paris, 2003) **(P)**

	- Story Construction from a Picture Book (van Kraayenoord & Paris, 1996) **(P)** - Anecdotal Records of Children using Montessori language materials (Boyd-Batstone, 2004) **(P)** - Informal Assessments of print in context of common logos. Children should recognize words in the context. They should recognize words out of context now (Compton, 1997). **(P)** - Reading Non-words – child will not be visually familiar with and will need to apply phonics – most readers at this stage will guess from first letter (Compton, 1997). **(P)** - Invented spelling Assessments – Words Their Way (Bear, 2000) **(P)** - Reading Logs **(P)** - Work Samples tied to goals for reading **(P)**

Table 3.4 continued – Revised Reading Continuum – Developing Readers

Developing Readers Characteristics (Hill, 2001) (**5-7 years**)
Controlled Word Recognition (Spear-Swerling & Sternberg, 1996)–(6-7 years)

Kindergarten/**1ˢᵗ Grade**	Fountas and Pinnel – Level E, F, G, H, **I**
<u>**Print Sound Code**</u> <u>**Phonemic Awareness**</u> • Demonstrates all of the skills for emerging readers • Separates the sounds by saying each sound aloud • Blends separately spoken phonemes to make a meaningful word <u>**Knowledge of Letters and Sounds:**</u> • Knows regular letter sound correspondences <u>**Reading Words:**</u> • Uses sight word knowledge • Uses chunking strategy with simple spelling patterns ("If I know bat, then this is flat.") • Blends letter sounds (/b/-/a/-/t/) • Uses knowledge of regular letter sound correspondences to recognize regularly spelled one- and two-syllable words • Uses onsets and rimes to create new words that include blends and diagraphs • Recognizes 150 high frequency words • Reads high frequency. phonetically regular words correctly	• Uses context clues • Derives new words by analogy to known words <u>**Reading Comprehension**</u> • Retells main event or idea in literature • Uses prior knowledge to construct meaning • Understands print is used to construct meaning • Begins to make meaningful predictions based on illustrations or text • Summarizes the book • Describes in their own words what new information they gained from text • Responds to simple questions about the book <u>**When stories are read aloud:**</u> • Extends the story • Makes predictions and say why • Talks about motives of characters • Describes causes and effects of events
<u>**Comprehension**</u> <u>**Accuracy and Fluency**</u> • Exhibits diminishing use of memory and context to identify words • Reads unfamiliar level I books that have been previewed for them. • Attends to words in sequence and getting most of them correct when reading level I Books. • Reads aloud with confidence although they may occasionally stop to figure out a passage. • Reads aloud independently Level I books that have been previewed using intonation, pauses, and emphasis • Uses punctuation cues to guide meaning and fluency <u>**Reading Self-Monitoring and Self-Correcting Strategies**</u> • Relies on illustrations and print to confirm unknown words. • Uses finger-print-voice matching • Monitors comprehension ("Does it make sense?") • Notices when words sound right, given their spelling • Notices whether words make sense in context	<u>**Reading Habits**</u> <u>**Reading a Lot**</u> • Begins to read independently for short periods (5–10 minutes) • Identifies titles and authors in literature • Sees self as reader • Reads four or more books every day independently or with assistance. • Discusses at least one of these books with another student or group • Reads some favorite books many times, gaining deeper comprehension • Reads own writing, sometimes that of others • Reads functional messages in classroom • Hears two to four books or other texts read aloud daily • Listens to and discusses every day at least one book or chapter that is more difficult than they can read independently <u>**Discussing Books**</u> • Explains why literature is liked/disliked during class discussions with guidance • Discusses favorite reading material with others • Participates in guided literature discussions • Demonstrate the skills from comprehension standards

	Compares two books by the same author
• Notices when sentences don't make sense	• Talks about several books on the same theme
• Solves reading problems and self-corrects by:	• Refers explicitly to parts of the text when presenting or defending a claim
Using syntax and word-meaning clues	• Disagrees politely when appropriate
Comparing pronounced sounds to printed letter	• Asks others questions that seek elaboration and justification
	• Attempts to explain why their interpretation of a books is valid
	Reading Vocabulary
	• Learns new words every day from reading and talk
	• Makes sense of new words from how the words are used
	• Refines sense of what new words mean as they encounter them again
	• Notices and shows interest in understanding unfamiliar words in text that are read to them
	• Talks about the meaning of new words encountered in independent and assisted reading
	• Knows how to talk about what nouns mean in terms of function, features, and category
Off-Track Reader **Compensatory Reader (Spear-Swerling Sternberg 1996; Compton, 1997)**	**Classroom Based Assessment Tools**
Print – Sound Code **Children in the early stage will all read like off -track readers – but this will pass quickly for typically developing reader.** • Has grasped alphabetic principle and phonemic awareness and some orthographic knowledge but their skills are not developed for full and accurate reading • Has specific difficulty with segmentation and deletion phonemic awareness tasks • Will not automatically know all the letter sounds • Relies on context (pictures) and sight word knowledge to read. No strategic use of reading strategies. • Reads lists of phonetically regular and irregular words relying on knowledge of familiar words that start with the same letter • Is not be able to read lists of nonsense words will still rely on first letter and then guess at word • Has slower growth of reading vocabulary because of their limited ability to recognize new words in context. Flat vocabulary growth • Fails to recognize common spelling patterns that can help them as a reader • Has limited comprehension skills	**Formal Assessments** • DIBELS - Letter Naming Fluency, Phoneme Segmentation, Nonsense Word Fluency, Retell Fluency and Oral Reading Fluency (Kaminski, Good, Smith, & Dill, 2003) **(S,P,E)** • .Comprehensive Test of Phonological Processing (Wagner, Torgesen & Roshotte, 1999) - Rapid Letter Naming **(S,D)** • The Names Test: A Quick Assessment of Decoding (Cunningham, 1990) **(S,D)** • TROLL – (Dickinson, McCabe, & Spraque, 2003)**(S,P,E)** • Yopp Singer Test of Phoneme Segmentation **(S,P)** • Observation Survey of Early Literacy Achievement (Clay, 2005) **(S,P,D)** • Words their Way Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000) **(S,P,D)** • Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)** • Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001) **(P,D)** **Informal Assessments** • PAR – WMS Phonological Awareness of Reading – (Should be able to accurately perform all phonological awareness tasks and produce all letter sounds) **(P)** • Curriculum Based Measurement (Fuchs, 1999, 2003)

Compensatory Readers are very similar to Phonetic-Cue readers except that they do not have normal development of phonological awareness, have flat development of vocabulary, and no strategic word recognition	**(P,D)** • Oral and Written Narrative Retellings ((Paris & Paris, 2003) **(P)** • Story Construction from a Picture Book (van Kraayenoord & Paris, 1996) **(P)** • Anecdotal Records of Children using Montessori language materials (Boyd-Batstone, 2004) **(P)** • Reading Non-words – Child will read lists of phonetically regular words correctly and high frequency irregular words correctly – will not read low frequency irregular words correctly (Compton, 1997). **(P)** • Sight Word Lists **(P)** • Work Samples related to goals for reading **(P)** • Running Records – Children will rely heavily on phonetic knowledge to read unfamiliar words. Will not yet synchronize all the cuing systems. Children in this phase will move from no-response errors, to non-sense word errors to word substitution errors as they grow. **(P)** • Reading Logs **(P)**

Table 3.4 Continued – Revised Reading Continuum – Beginning Readers

Characteristics of Beginning Readers (Hill, 2001) (6-8 years)
Automatic Reading (Spear-Swerling & Sternberg, 1996) (7-8 years)
1st Grade/2nd Grade   Fountas and Pinnel – Level H, I, J, K, **L**

Print Sound Code

Phonemic Awareness

- Identifies the number of syllables in a word

Reading Words

- Recognizes word endings, common contractions, and many high frequency words
- Uses chunking strategy with more complex spelling patterns (e.g., "If I know fought, then this must be thought")
- Uses chunking strategy with polysyllabic words (e.g., fright-en-ing)
- Uses sight word knowledge
- Reads regularly spelled one-and two-syllable words automatically
- Recognizes or figures out most irregularly spelled words and patterns such as diphthongs, special vowel spellings and common word endings

Comprehension

Accuracy and Fluency

- Reads unfamiliar level L books with 90 percent or better accuracy of word recognition
- Uses basic punctuation when reading orally
- Increases fluency and expression when reading aloud
- Reads aloud independently unfamiliar level L books that they have previewed silently using intonation, pauses and emphasis

Reading Self-Monitoring and Self-Correcting Strategies

- Uses meaning cues (context), sentence cures (grammar), letter sounds and patterns (phonics)
- Begins to self-correct
- Self-monitors as in first grade column should be an established habit
- Knows when they don't understand a paragraph and search for clarification clues within the text
- Examines the relationship between earlier and later parts of a text and figures out how they make sense together

Reading Comprehension

- Retells beginning, middle and end with guidance
- Discusses characters and story events with guidance
- Reads and follows simple directions.
- Demonstrates comprehension of a variety of genres
- Demonstrates the skills from first grade both orally and in

Reading Comprehension

- Compares the observations of the author to their own observations when reading nonfiction
- Discuss how, why and what-if questions about nonfiction

When stories are read aloud:

- Discusses or writes about the themes of the book
- Trace characters and plots across multiple episodes
- Relates later parts of a story to earlier parts

Reading Habits

Reading a Lot

- Reads wide variety of genres
- Chooses reading materials independently
- Reads independently for 15 minutes
- Read one or two short books or long chapters every day discussing what they read with peers
- Reads good children's literature every day
- Reads multiple books by same author and discusses differences and similarities
- Rereads favorite books gaining deeper comprehension and knowledge of writing craft
- Reads own writing and writing of classmates
- Reads functional and instructional messages
- Reads voluntarily to each other
- Has worthwhile literature read to them daily
- Listens to and discusses daily at least one book or chapter that is more difficult than what they can read independently or with assistance
- Hears texts read from a variety of genres
- Uses reading strategies modeled by adults

Discussing Books

- Learns and shares information from reading
- Demonstrates skills from comprehension standards
- Identifies basic genres and compare works by different authors in same genre
- discuss recurring themes across works
- Paraphrases or summarizes what another speaker has said and checks for whether the speaker accepts paraphrasing
- Challenges a speaker sometimes whether facts are accurate, including reference to the text
- Challenges another speaker sometimes on logic or

writing • Recognizes and talks about organizing structures • Combines information from two different parts of text • Infer fcause and effect relationships not explicitly stated	inference • Asks other speakers to provide supporting information or details • Corrects someone politely who paraphrases or interprets their ideas incorrectly **Reading Vocabulary** • Learns new words every day from reading and talk • Recognizes when they don't know what a word means and uses a variety of strategies for making sense of how it is used in the passage they are reading • Talks about the meaning of some new words encountered in reading • Notices and shows interest in understanding unfamiliar words • Knows how to talk about what nouns mean in terms of function, features, and category
Off-Track Reader **Non-Automatic Reader (Spear-Swerling Sternberg 1996; Compton, 1997)**	**Classroom Based Assessment Tools**
Fluency and Accuracy • Recognizes words accurately but is not fluent • Has decoding skills and will know all letter sounds, but cannot use them automatically • Does not use strategies for word recognition in a synchronized way. • Will not chunk multi-syllabic words • Relies on context cues to recognize words • Is inaccurate in recognizing words • Has both naming speed and phonological deficits that will cause a particular risk for failure • Reading comprehension declines because of speed issues with increasingly challenging text. • Attitude towards reading is impacted. **Classroom assessments should focus on:** • Speed of response when reading a list of words – off-track reader will read words accurately if given enough time. • Ability to read multi-syllabic words with chunking • Tracking ability to read text at rate of 100 words per minute with less than 5% errors	**Formal Assessments** • DIBELS - Nonsense Word Fluency, Retell Fluency and Oral Reading Fluency (Kaminski, Good, Smith, & Dill, 2003) **(S,P,E)** • Comprehensive Test of Phonological Processing (Wagner, Torgesen & Roshotte, 1999) - Rapid Letter Naming **(S,D)** • The Names Test: A Quick Assessment of Decoding (Cunningham, 1990) **(S,D)** • Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)** • Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001) **(P,D)** **Informal Assessments** • Written Narrative Retellings **(P)** • Curriculum Based Measurement (Fuchs, 1999, 2003) **(P,D)** • Anecdotal Records of Children using Montessori language materials (Boyd-Batstone, 2004) **(P)** • Reading Non-words – will read both phonetically regular and irregular words with ease using spelling knowledge to chunk words (Compton, 1997) **(P)** • Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000) **(P)** • Sight Word Lists – Vocabulary is expanding **(P)** • Running Records – Much more synchronization of cuing systems and automatic word recognition **(P)** • Think Alouds (comprehension strategies) (Wade, 1990) • Oral and Written Narrative Retellings (Paris & Paris, 2003) **(P)** • Reading Logs **(P)**

Table 3.4 Revised Reading Continuum – Expanding Readers

Characteristics of Expanding Readers (Hill, 2001) **(7-9 years)** Automatic Reading (Spear-Swerling & Sternberg, 1996) (7-8 years) 2nd/**3rd Grade** (Committee, 1999) Fountas and Pinnel Levels – L, M, N**, O**	
Comprehension	Reading Habits
<u>Accuracy and Fluency</u> • Begins to read aloud fluently • Uses word structure cues (e.g. root words, prefixes, suffixes, word chunks) when encountering unknown words • Uses a chunking strategy with unfamiliar words of all types • Uses sight word knowledge • Reads independently unfamiliar Level O books with 90 percent or better accuracy of word recognition • Reads aloud independently unfamiliar Level O books that they have previewed silently using intonation, pauses and emphasis • Uses the cues of punctuation to guide meaning and fluent reading • Uses pacing and intonation to convey meaning • Reads easily words with irregularly spelled suffixes <u>Reading Self-Monitoring and Self-Correcting Strategies</u> • Self-corrects for meaning • Uses reading strategies appropriately, depending on purpose • Identifies own reading strategies and sets goals • Uses self-monitoring strategies when reading challenging text • Notices when sentences or paragraphs do not make sense • Uses syntax to figure out meanings of new words • Infers word meaning from roots, prefixes and suffixes, and context. • Analyzes the relations across parts of text • Questions the author and uses text to guide answers <u>Reading Comprehension</u> • Follows written directions • Summarizes and retells story events in sequential order • Responds to and makes personal connections with facts, characters, and situations in literature • Compares and contrasts story characters and events • Reads "between the lines" with guidance • With Level O Books:	• Identifies text organizers (Index, Table context, etc) • In addition to the goals for Beginning readers with increasingly challenging literature Expanding Readers will focus on the qualities of literature by: • Reading 30 chapter books a year, independently or with assistance • Participates regularly in discussions of literature with peers or adults • Discusses underlying themes or messages in fiction • Reads and responds to a wide variety of genres • Identifies and discusses recurring themes across texts • Evaluates literacy merit • Participates in peer talk about selecting books • Examines reasons for character actions • Accounts for situation and motive • Recognizes genre features • Notes and talks about author's craft in word choice, plot, character development, beginnings and endings **Discussing Books** • Demonstrate skills from comprehension standards and second grade discussing books • Notes and talks about author's craft: word choice, beginnings and endings, plot, character development • Uses comparisons and analogies to explain ideas • Refers to knowledge shared in discussions • Uses information that is accurate, accessible and relevant • Restates own ideas with greater clarity when a listener indicates non-comprehension • Asks other students questions, asking them to support arguments • Indicates when ideas need further explanation **Reading Vocabulary** • Increases vocabulary by using context cues • Learns words from daily reading • Recognizes when word meaning is unknown using various strategies to figure it out • Knows meanings of roots, prefixes, suffixes • Talks about the meaning of most new words encountered • Notices and shows interest in unfamiliar words • Knows how to talk about what nouns mean in terms of function, features, and category

• demonstrate all skills from Beginning Readers <center>Reading Habits</center> Reading a Lot • Reads silently for 20-30 minutes • Chooses to read and finishes various materials at appropriate level • Reads easy chapter books	• Knows how to talk about verbs as "action words" • Talks about words as they relate to other words: synonyms, antonyms, or more precise words
<center>**Off – Track Reader** **Delayed Reader (Spear-Swerling Sternberg 1996)**</center>	<center>**Classroom Based Assessment Tools**</center>
• Typical reader has developed comprehension skills because of being able to read, but this child has had delayed practice with comprehension skills because of slow development of automatic and strategic word recognition. • Comprehension is compromised as a result but has potential to learn the skills • Needs text that is appropriate for them to practice strategies • Needs direct teaching of the strategies • 3 problems handicap the delayed reader; motivation, lower levels of practice ,and lower expectations by adults. • Classroom assessments should focus on: • Evidence of use of reading comprehension strategies • i.e. reading conferences and think aloud • Written and oral summaries **Non-Automatic Reader (Spear-Swerling Sternberg 1996)(Compton, 1997)** • Lacks fluency and accuracy • Recognizes words accurately but is not fluent • Has decoding skills and will know all letter sounds; but cannot use them automatically • Does not use strategies for word recognition in a synchronized way. • Will not chunk multi-syllabic words • Relies on context cues to recognize words • Is inaccurate in recognizing words • Naming speed and phonological deficits will cause a particular risk for failure • Reading comprehension declines because of speed issues with increasingly challenging text. • Attitude towards reading is impacted	**Formal Assessments** • DIBELS Oral Reading Fluency and Retell Fluency (Kaminski, Good, Smith, & Dill, 2003) **(S,P,E)** • Comprehensive Test of Phonological Processing (Wagner, Torgesen & Roshotte, 1999) - Rapid Letter Naming **(S,D)** • The Names Test: A Quick Assessment of Decoding (Cunningham, 1990) **(S,D)** • Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)** • Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001) **(P,D)** **Informal Assessments** • Written Narrative Retellings / Summaries **(P)** • Curriculum Based Measurement (Fuchs, 1999, 2003) **(P,D)** • Anecdotal Records of Children using Montessori language materials and observations of literature circles (Boyd-Batstone, 2004) **(P)** • Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000) **(P)** • Sight Word Lists – Vocabulary is expanding. **(P)** • Running Records – Much more synchronization of cuing systems and automatic word recognition. **(P)** • Think Alouds (comprehension strategies) (Wade, 1990) **(P)** • Oral and Written Narrative Retellings (Paris & Paris, 2003) **(P)** • Reading Logs **(P)** • Motivation reading inventories (McKenna, 1990) **(P)** • Reading Non-words – Will read both phonetically regular and irregular words with ease using spelling knowledge to chunk words (Compton, 1997). **(P)** • Work Samples tied to goals for reading **(P)** **Classroom assessments should focus on:** • Speed of response when reading a list of words – off-track reader will read words accurately if given enough time • Ability to read multi-syllabic words with chunking • Tracking ability to read text at rate of 100 words per minute with less than 5% errors

Table 3.4 Revised Reading Continuum – Bridging Readers

Characteristics of Bridging Readers (Hill, 2001) **(8-10 years)**
Strategic Reading (Spear-Swerling & Sternberg, 1996) (9-14 years)
3rd/**4th grade** (Committee, 1999)   Fountas and Pinnel Levels – O,P,Q, **R**

Comprehension
__Accuracy and Fluency__
- Reads aloud with expression.
- Responds to punctuation cues
- Reads aloud accurately (in the range of 85-90%), familiar material of the quality and complexity in the sample reading list in a way that makes meaning clear to listeners
- Reads with rhythm, flow, and meter that sounds like everyday speech

__Reading Self-Monitoring and Self-Correcting Strategies__
- Predicts word meaning based on context cues
- Self-corrects miscues when subsequent reading indicates an earlier miscue
- Has a variety of fix-up strategies
- Can monitor own comprehension – metacognition is developing
- Uses a range of cueing systems, e.g., phonics and context clues, to determine pronunciation and meanings

__Reading Comprehension__
- Uses resources (e.g., encyclopedias, CD-ROMs, and nonfiction texts) to locate and sort information with guidance
- Gathers information by using the table of contents, captions, index, and glossary (text organizers) with guidance
- Gathers and uses information from graphs, charts, tables, and maps with guidance
- Demonstrates understanding of the difference between fact and opinion
- Follows multi-step written directions independently
- Identifies key words, phrases and themes specific to particular genres
- Follows multi-step directions
- Adjusts reading strategy to genre

__Reads and comprehends at least four books about one issue or subject, or four books by a single writer, or four books in one genre, and produces evidence of reading that:__
- Makes and supports warranted and responsible assertions about text
- Supports assertions with elaborated and convincing evidence

- Draws the texts together to compare and contrast themes, characters, and ideas
- Makes perceptive and well developed connections
- Evaluates writing strategies and elements of author's craft.

The student reads and comprehends informational materials to develop understanding and expertise and produces written or oral work that:
- Restates or summarizes information
- Relates new information to prior knowledge and experience
- Extends ideas
- Makes connections to related topics or information

Reading Habits
__Reading Widely__
- Reads medium-level chapter books
- Chooses reading materials at the appropriate level
- Expands knowledge of different genres (e.g., realistic fiction, historical fiction, and fantasy).
- Reads silently for 30-minute periods
- Reads 30 books or book equivalents a year, including magazines, newspapers, textbooks, and on-line materials as well as traditional and contemporary literature.

__Discussing Books__
- Discusses setting, plot, characters, and point of view (literary elements) with guidance
- Responds to issues and ideas in literature as well as facts or story events
- Makes connections to other authors, books, and perspectives.
- Participates in small group literature discussions with guidance
- Uses reasons and examples to support ideas and opinions with guidance

__Reading Vocabulary__
- Increases vocabulary by using context cues, other reading strategies, and resources (e.g., dictionary and thesaurus) with guidance.

Off- Track Reader Delayed Reader (Spear-Swerling Sternberg 1996)	Classroom Based Assessment Tools

• Has automatic word recognition but may have been off track previously and done so with more difficulty than a normally developing reader
• Misses opportunities to practice comprehension strategies
• Delays in reading comprehension but has potential to learn the skills if text level is appropriate and direct instruction occurs
• Finds that texts in the 9-12 room often may be too challenging for them to develop those strategies
• Mistakenly, teachers assume that if child is reading words, he/she can comprehend.
• Needs text at the appropriate level and direct instruction and modeling of comprehension strategies
• Has 3 problems handicapping the child: motivation, lower levels of practice and lower expectations by adults.
 	
Classroom assessments should focus on:
    ▪ Evidence of use of reading comprehension strategies
    ▪ i.e. reading conferences and think aloud
    ▪ Written and oral summaries
	Formal Assessments
	• DIBELS (Kaminski, Good, Smith, & Dill, 2003) **(S,P,E)**
	• The Names Test: A Quick Assessment of Decoding (Cunningham, 1990) **(S,D)**
	• Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)**
	• Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001) **(P,D)**
	
	Informal Assessments
	• Written Narrative Retellings / Summaries **(P)**
	• Anecdotal Records of Children using Montessori language materials and observations of literature circles (Boyd-Batstone, 2004) **(P)**
	• Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000) **(P)**
	• Running Records – Much more synchronization of cuing systems and automatic word recognition. **(P)**
	• Think Alouds (comprehension strategies) (Wade, 1990) **(P)**
	• Oral and Written Narrative Retellings (Paris & Paris, 2003) **(P)**
	• Reading Logs **(P)**
	• Motivation reading inventories (McKenna, 1990) **(P)**
	• Work Samples tied to Goals for Reading **(P)**
	• Curriculum Based Measurement (Fuchs, 1999, 2003) **(P,D)**
	
	• The transition may be quick and seamless or children may experience Fourth Grade Slump with more demanding text (Snow, Burns, & Griffin, 1998; Spear-Swerling & Sternberg, 1996).

Table 3.4 Continued – Revised Reading Continuum – Fluent Readers

Characteristics of Fluent Readers (Hill, 2001) **(9-11 years)**
Strategic Reading (Spear-Swerling & Sternberg, 1996) (9-14 years)
4th/**5th grade** (Committee, 1999)
Fountas and Pinnel Levels – R,S,T,**U**

Comprehension

Accuracy and Fluency

- Reads aloud with fluency, expression, and confidence

Reading Self-Monitoring and Self-Correcting

- Self-corrects miscues

Reading Comprehension – Level R,S,T,U Books

- Begins to gain deeper meaning by "reading between the lines"
- Begins to set goals and identifies strategies to improve reading
- Begins to use resources (e.g., encyclopedias, articles, Internet, and nonfiction texts) to locate information
- Gathers information using the table of contents, captions, glossary, and index (text organizers) independently, uses connections they make to create sensory image.
- Visualizes events in a text helps them "come alive"
- Shares thinking
- Provides evidence from text or illustrations
- Stays focused on the text
- Relates text to other texts
- Relates text to the world and others
- Provides a different interpretation to text
- Adjusts reading strategy to genre

Reads and comprehends at least four books about one issue or subject, or four books by a single writer, or four books in one genre, and produces evidence of reading that:

- Makes and supports warranted and responsible assertions about text
- Supports assertions with elaborated and convincing evidence
- Draws the texts together to compare and contrast themes, characters, and ideas
- Makes perceptive and well-developed connections
- Evaluates writing strategies and elements of author's craft.
- The student reads and comprehends informational

materials to develop understanding and expertise and produces written or oral work that:

- Restates or summarizes information
- Relates new information to prior knowledge and experience
- Extends ideas
- Makes connections to related topics or information

Reading Habits

Reading a Lot

- Selects appropriate or challenging level texts for independent reading
- Selects, reads, and finishes a wide variety of genres with guidance
- Begins to develop strategies and criteria for selecting reading materials.
- Reads silently for extended periods (30–40 min.)
- Reads 30 books or book equivalents a year including magazines, newspapers, textbooks, and on-line materials as well as traditional and contemporary literature.

Discussing Books

- Begins to discuss literature with reference to setting, plot, characters, and theme (literary elements) and author's craft.
- Generates thoughtful oral and written responses in small group literature discussions with guidance
- Adds to one another's responses
- Shares agreement or disagreement
- Poses real questions

Reading Vocabulary

- Begins to use new vocabulary in different subjects and in oral and written response to literature
- Begins to use resources (e.g., dictionary and thesaurus) to increase vocabulary in different subject areas.

Off – Track Reading Sub-Optimal Reader (Spear-Swerling Sternberg 1996)	Classroom Based Assessment Tools
• Has accurate, automatic word recognition • Uses some strategies to aid comprehension routinely • Fall short in terms of higher-level comprehension • Has never been off-track in reading prior to this time.	**Formal Assessments** • Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)** • Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001) **(P,D)** **Informal Assessments** • Written Narrative Retellings / Summaries **(P)** • Anecdotal Records of Children using Montessori language materials and observations of literature circles (Boyd-Batstone, 2004) **(P)** • Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000) **(P)** • Running Records – Much more synchronization of cuing systems and automatic word recognition. **(P)** • Think Alouds (comprehension strategies) (Wade, 1990) **(P)** • Reading Logs **(P)** • Motivation reading inventories (McKenna, 1990) **(P)** • Work Samples tied to goals for reading **(P)** • Curriculum Based Measurement (Fuchs, 1999, 2003) **(P,D)** • The transition may be quick and seamless or children may experience Fourth Grade Slump with more demanding text (Snow, Burns, & Griffin, 1998; Spear-Swerling & Sternberg, 1996).

Table 3.4 Continued – Revised Reading Continuum – Proficient Readers

Characteristics of Proficient Readers (Hill, 2001) (10-13 years) Strategic Reading (Spear-Swerling & Sternberg, 1996) (9-14 years) 5th/6th grade (Committee, 1999) Fountas and Pinnel Levels T,U,V,**W**

Comprehension

Accuracy and Fluency

- Reads aloud with fluency, expression, and confidence

Reading Self-Monitoring and Self-Correcting

- Self-corrects miscues

Reading Comprehension – Level, T, U, V, W Books

- Continues to develop skills of fluent reader
- Connects prologues and epilogues
- Identifies major and minor characters, analyzing their roles in the story and recognizes the importance of the characters
- Becomes aware of how the writer uses language, symbolism, or other literary devices to foreshadow events and outcomes.
- Begins to generate in-depth written responses to literature
- Identifies literary devices (e.g. similes, metaphors)
- Uses reasons and examples to support ideas and conclusions
- Probes for deeper meaning by "reading between the lines" in response to literature
- Gathers and analyzes information from graphs, charts, tables, and maps with guidance
- Integrates information from multiple nonfiction sources to deepen understanding of a topic with guidance
- Reads and understands informational texts (e.g., want ads, brochures, schedules, catalogs, manuals) with guidance
- Uses resources (e.g., encyclopedias, articles, Internet, and nonfiction texts) to locate information independently.
- Demonstrates, at this stage, a higher level of synthesis and analysis, drawing on prior experiences as well as other texts they have read to draw meaningful conclusions and form their opinions and beliefs.

Reads and comprehends at least four books about one issue or subject, or four books by a single writer, or four books in one genre, and produces

- About text
- Supports assertions with elaborated and convincing evidence
- Draws the texts together to compare and contrast themes, characters, and ideas
- Makes perceptive and well-developed connections

Evaluates writing strategies and elements of author's craft.

The student reads and comprehends informational materials to develop understanding and expertise and produces written or oral work that:

- Restates or summarizes information
- Relates new information to prior knowledge and experience
- Extends ideas
- Makes connections to related topics or information

Reading Habits

Reading a Lot

- Reads complex children's literature
- Develops strategies and criteria for selecting reading materials independently
- Reads 30 books or book equivalents a year including magazines, newspapers, textbooks, and on-line materials as well as traditional and contemporary literature

Discussing Books

- Discusses literature with reference to theme, author's purpose, and style (literary elements), and author's craft
- Begins to generate in-depth responses in small group literature discussions
- Uses increasingly complex vocabulary in different subjects and in oral and written response to literature.
- Reflects on and discusses an analysis of the text with others in both written and oral form

Reading Vocabulary

- Uses resources (e.g., dictionary and thesaurus) to increase vocabulary independently

evidence of reading that:	
• Makes and supports warranted and responsible assertions	
Off-Track Reader **Sub-Optimal Reader (Spear-Swerling Sternberg 1996)** • Has accurate, automatic word recognition • Uses some routine strategies to aid comprehension • Falls short in terms of higher-level comprehension • Has never been off-track in reading prior to this time.	**Classroom-based Assessment Tools** **Formal Assessments** • Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)** • Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001) **(P,D)** **Informal Assessments** • Written Narrative Retellings / Summaries **(P)** • Anecdotal Records of Children using Montessori language materials and observations of literature circles (Boyd-Batstone, 2004) **(P)** • Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000) **(P)** • Running Records – Much more synchronization of cuing systems and automatic word recognition. **(P)** • Think Alouds (comprehension strategies) (Wade, 1990) **(P)** • Reading Logs **(P)** • Motivation reading inventories (McKenna, 1990) **(P)** • Work Samples tied to goals for reading **(P)** • Curriculum Based Measurement (Fuchs, 1999, 2003) **(P,D)**

A collaborative learning community

Wilmington Montessori School's mission statement states, "Wilmington Montessori School is a collaborative learning community rooted in Montessori principles…." This collaborative learning community will be the foundation for successfully using classroom-based reading assessments. Researchers who work closely with teachers consistently emphasize the need for extensive time for teachers to work together collecting data from their classroom assessments and making decisions about what that data means for their instruction in the classroom, both for the individual student and for the school program. This conversation is supported by

leadership that emphasizes an environment of professional collaboration and growth, developing a culture around using classroom-based assessments for decision making and communication (Aschbacher, 1993; Baker & Smith, 2001; Calfee & Hiebert, 1991; Gaustad, 1996; Johnston & Rogers, 2001; Mosenthal, et al., 2004; Paris, et al., 2002; Salinger, 2001; Shepard, 1997, 2000b; Smith, et al., 2001; Stiggins, 1991; Taylor, Pearson, et al., 2005; Taylor, Pressley, et al., 2000).

There is never enough time for collaboration in the busy life of a classroom teacher, and teachers at Wilmington Montessori are no different (See Survey, Educational Position Paper 2). Schools need to make time for conversations about assessments a priority. Wilmington Montessori School has several opportunities to structure time for teachers to collaborate around this work. First, the schedule within the elementary program sets aside an hour and a half each week, during the school day so that kindergarten, lower elementary and upper elementary teachers can meet. Preschool teachers hold a monthly level meeting. While teachers discuss a variety of topics, it is an ideal time for them to make a commitment to discuss the goals for reading and examine how students are showing evidence of reaching those goals. Teachers might choose one form of classroom-based assessment for the fall and another for the spring.

Second, teachers meet weekly across the entire school program in whole faculty study groups (Murphy & Lick, 2001). These groups provide a format for teachers to collect data from classroom assessments, reflect on that data, implement changes in instruction, and again collect and reflect on data. The instructional support teacher should be an active part of these discussions, providing guidance and leadership. The Early Childhood and Elementary Education Directors can contribute

direction to this work as they grow in their understanding of models of professional development that emphasize time for teachers to reflect on evidence of children's learning.

Like most schools, Wilmington Montessori School has children with reading development problems. Naturally, the teachers are concerned about them. Early identification will improve as the school implements the DIBELS and other early screening tools. Implementing such progress monitoring tools, including Curriculum Base Management (Fuchs, 1999, 2003), will permit regular monitoring of their progress. However, teachers need assistance with evaluating these assessments so that they can match classroom instruction to children's needs and determine when a child may need further evaluation. A child support team—the instructional support teacher, the Elementary Education Director, two lower elementary teachers and two upper elementary teachers—has been initiated this year to meet this need. I recommend that this group consider the Response to Intervention (RTI) model (Fuchs, D. & Fuchs, L., 2006; Gersten & Dimino, 2006). This model begins with the classroom teacher monitoring a child's response to normal classroom instruction. Progress monitoring assessments determine if the child is responding to instruction. Children who are not responding to classroom instruction would be discussed by the child-support team, who would contribute to the evaluation process and help to identify instructional interventions. In such a case, the interventions become more teacher-centered, direct, and explicit than is typical in a Montessori classroom. Work with the instructional support teacher may be one of those options. Again, performance is monitored to determine if these interventions are successful. If the child continues to struggle, the child study team may continue working with the

teacher on alternative instructional supports or may decide that the child needs further professional evaluation. This model allows for students who may be starting the year behind their peers to be evaluated in terms of the progress they are making within the regular classroom setting. With some adjustments, many children can continue to progress at an expected rate of progress. At the same time, the process allows for the early identification of children who may not be progressing at an expected rate and will continue to fall farther behind. Instructional modifications can be made for these children, some within the classroom structure to help them to make expected progress. Lastly, the model provides support to classroom teachers through the child study team.

Finally, the school cannot tackle all aspects of classroom-based reading assessment at one time. First, the school should implement a consistent use of screening and progress monitoring tools that will make data available across the developmental benchmarks and support teachers' understanding of those benchmarks. Second, the teachers and administrators will want to address one form of informal progress monitoring assessments. Because all teachers at the school indicate that observations are their primary assessment tool, I suggest that they begin by looking at ways to structure those observations. This includes learning to look for patterns across observations that provide evidence of children's progress towards the developmental benchmarks and the school's overall goals for reading. Sharing observation records in whole faculty study groups can become one way for teachers to develop their skills and draw conclusions about children's learning. Lastly, I recommend that teachers become familiar with Curriculum Based Management to monitor the progress of children who are delayed readers. Data from this monitoring can be brought to the child study team where teachers can discuss ways to alter the

classroom environment or to adapt instruction to meet the needs of individual children.

Within the context of this collaborative environment, Wilmington Montessori teachers will, over time, grow in the skills of monitoring children's progress towards the goals of reading. This will lead to better communication with parents, clear evidence of the progress children are making, and evidence that can inform their instructional decisions for children.

Closing Comments

This Executive Position Paper developed recommendations for both formal and informal classroom-based assessment tools which might be used by a school to develop a school-wide reading assessment system. These recommendations include screening, progress monitoring, diagnosis and program evaluation tools (Castillo, 2006; Harp, 2000; Kame'enui, 2002; Meisels & Piker, 2001; Rathvon, 2004; Southwest Education Development Laboratory, 2000) that meet the guidelines of the No Child Left Behind legislation and the National Reading Panel (2000).

This paper provided suggestions for implementing a classroom-based, school-wide reading assessment model at Wilmington Montessori School. Such a classroom-based reading assessment system will need to provide 1) evidence of children's progress across the developmental milestones of reading and the school's overall goals of literacy learning, 2) proactive information about children who may be at risk of later reading difficulties, 3) a framework for teachers to increase their understanding of developmental milestones and the school's literacy goals, 4) a way to collect information across the school community to help teachers evaluate the

overall success of the school in supporting children's reading growth, and 5) a way the school to hold to the principles of the child-centered Montessori philosophy.

I made specific suggestions for formal and informal classroom-based assessments which would provide for screening, progress monitoring, diagnosis, and program evaluation at the school. These assessments are all individual or small group assessments that focus teachers' observations on the goals for reading, assisting them with collecting and reflecting on data. In addition, the assessments help the teachers make instructional decisions resulting from what they learn about individual children. The teachers at Wilmington Montessori will need to explore these assessments and others from Tables 3.1, 3.2, and 3.3 to determine which ones might best serve the needs of their classrooms and students.

I presented recommendations to change the current reading continuum to tie it more closely to the goals for reading identified by the New Standards Primary Literacy Committee (1999). First, these changes also included grade level and text level benchmarks for each continuum level so that teachers can better identify where children are on the continuum. Second, I added descriptors of children who may go off track (Spear-Swerling & Sternberg, 1996) at various stages on the continuum. Lastly, I added a list of assessments which would be appropriate for a teacher to choose from for each developmental stage.

Finally, I suggested that the teachers use program level meetings and whole faculty study groups to discuss evidences of children's progress towards the reading goals. Through these conversations teachers will grow in their understanding of the developmentally appropriate expectations of children across the continuum and become increasingly sophisticated in recognizing when children are demonstrating

these expectations in the context of the classroom setting. I recommended that the child study team investigate the Response to Intervention Model to structure assistance for teachers concerned about meeting the needs of children lagging in their development. This model provides a structured way to monitor progress to determine when a child is making progress and to evaluate the effectiveness of instructional interventions.

Implementing such a model will take several years. The most immediate issue is identifying and implementing instructional assistance for children not making sufficient reading progress. This will require agreement about the on-demand assessments and an effective model for the child-study team. With a focus on the continuum and exploration of curriculum-based and "closer look" assessments, classroom assessment should become an integral part of instruction in the classroom. In fact, the two should become intertwined supporting the collaborative learning community of the Montessori classroom.

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Wilmington Montessori School
Kindergarten Curriculum Overview
LANGUAGE GOALS

- Students will construct, examine and extend the meaning of various kinds of text.
- Students will organize and evaluate information to share with others.
- Students will use literary knowledge to connect self to society and culture.
- Students will use written and oral communication appropriate for various purposes and audiences.

Children in Kindergarten will work on the following, according to developmental stages:

Use appropriate decoding and word recognition strategies, develop an increasingly extensive vocabulary
- Identify upper and lower case letters
- Understand concepts of print (letter, word, sentence, left to right directionality, top to bottom, return sweep of print)
- Understand concept of rhyme
- Understand concept of beginning sounds
- Sound/letter symbol associations for consonants and some vowels
- Identify 5-10 familiar words, including their name, number and direction words

Assimilate information from prior knowledge and experiences to understand text
- Use picture clues to determine meaning of unknown words
- Recognize environmental print
- Ask and/or answer questions related to a story
- Make and revise predictions related to a story with teacher assistance
- Begin to differentiate between real and make-believe
- ID fiction/nonfiction

Develop an understanding of the literary elements used in creating stories
- Identify title, author and illustrator with teacher assistance
- Identify character and setting with teacher assistance
- Retell familiar stories using beginning, middle and end

Respond to text in a variety of ways (speaking, writing, art)
- Begin to express opinions
- Respond to literary texts from various cultures
- Begin to relate ideas from literature to situations involving self and society
- Discuss stories and ideas from fiction and non-fiction sources

Use a variety of resources (print, audio-visual, technology) to gather and evaluate information to share with others
- Identify different resources available to gather information
- Identify different ways to organize and share information

Written and Oral Communication

Children in Kindergarten will work on the following, according to developmental stages:
- Use left-to-right, top to bottom progression
- Write own first and last name
- Write using invented spelling, demonstrating some letter/sound associations
- Use conventional spelling for familiar words
- Use drawings with labels to share experiences
- Use oral language to tell the story depicted in drawings
- Use details in their drawings to develop the text
- Copy environmental print and other messages
- Experiment with different forms of writing (labels, signs, lists, messages)
- Use oral language for different purposes (inform, persuade, express self)
- Begin to follow rules for conversation (taking turns, staying on topic)
- Share and discuss work using complete sentences
- Share an idea on a topic
- Speak in front of a group (i.e. share)

LANGUAGE GOALS

- Students will construct, examine and extend the meaning of various kinds of text.
- Students will organize and evaluate information to communicate with others.
- Students will use literary knowledge to connect self to society and culture.
- Students will use written and oral communication appropriate for various purposes and audiences.

Children in 6-9 classes will work towards the following, according to developmental stages:

Use appropriate decoding and word recognition strategies
Use a combination of effective, efficient word recognition strategies to comprehend printed text (e.g., context clues, word parts, phonics, analogy)
- Read a variety of texts and genres fluently (orally) as appropriate to the child
- Use context and picture clues

Develop an increasingly extensive vocabulary to construct meaning while reading and enrich writing
- Categorize words and phrases to develop concepts
- Use dictionaries, glossaries and thesauruses to confirm meaning and word choices while reading and writing
- Use synonyms, antonyms, homonyms and homographs to construct meaning while reading and enrich writing

Assimilate information from prior knowledge and experiences to understand various genres
- Set purpose(s) for reading, listening, or viewing
- Make and revise predictions
- Use appropriate strategies to assist comprehension (e.g., reread, adjust rate of reading, seek meaning of unknown vocabulary)

Develop an understanding of the literary elements used in creating stories
- Identify character, setting (time and place), main idea, and plot

- Identify and begin to interpret figurative language and literary devices (e.g., similes, metaphors, personification, point of view)
- Identify author's purpose

Respond to text in a variety of ways (speaking, writing, art)
- Make and revise predictions as needed
- Retell stories in oral and written form
- Restate informative texts including important details
- Organize the important points of text using summaries, outlines, or other graphic organizers
- Compare information within and between texts
- Discriminate between fact and opinion
- Draw conclusions and determine cause/effect
- Follow oral and written directions
- Relate content of text to real-life situations
- Offer a personal response to texts
- Apply information from printed, electronic and oral texts to complete authentic tasks (projects)
- Use divergent thinking
- Evaluate how electronic, print, and cinematic messages affect them
- Recognize the underlying purposes of media messages (e.g., profit, humanitarianism, support of artistry)

Use a variety of resources (print, audio-visual, technology) to gather and evaluate information to share with others
- Connect and synthesize information from different sources
- Formulate, express, and support opinions
- Respond to open-ended questions to analyze and evaluate texts (e.g., author's purpose, character analysis)
- Differentiate between literal and non-literal meaning
- Evaluate texts and media presentations for bias and misinformation
- Acknowledge the possibility of a variety of interpretations of the same text
- Compare information within and between text

WRITTEN AND ORAL COMMUNICATION

Written Communication
- Writing expressive, informative, and persuasive texts

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- Writing that reflects appropriate organization, development of ideas, use of voice and tone, word choice, and transitions
- Begin to write with a sense of audience
- Uses the prewriting, drafting, revising, and editing components of the writing process
- Apply appropriate grammatical structures to writing
  - Use complete sentences, varied in length and structure
  - Use correct subject-verb agreement and noun-pronoun agreement
  - Begin to use compound and complex sentences
- Apply appropriate mechanics of writing, such as
  - Recognize words that are misspelled and refer to resources for correction
  - Move from writing using invented spelling to writing using an increasing percentage of conventional spelling
  - Capitalize beginning words of sentences, proper nouns, "I", and titles
  - Begin to use commas, apostrophes, and quotation marks

Oral Communication

- Use oral language for different purposes (inform, persuade, and express self)
- Share related ideas on a topic in a sequential order (including beginning, middle, and end) appropriate for the audience
- Include necessary details
- Paraphrase information shared orally by others
- Speak clearly and audibly using expression/appropriate tone
- Use audio/visual aids when appropriate
- Respond to feed-back and answer questions

Wilmington Montessori School 9-12 Curriculum Overview

Language Goals

- Students will construct, examine, and extend the meaning of various kinds of text.
- Students will organize and evaluate information to communicate with others.
- Students will use literary knowledge to connect self to society and culture.
- Students will use written and oral communication appropriate for various purposes and audiences.

Reading Children in 9-12 classes will work towards the following according to developmental stages:

Use appropriate decoding and word recognition strategies
- Use a combination of effective, efficient word recognition strategies to comprehend printed text (e.g., context clues, word parts, phonics, analogy)
- Read a variety of texts and genres fluently (orally)

Develop an increasingly extensive vocabulary to construct meaning while reading and enrich writing
- Use context clues to determine meaning, e.g.,
  - Read and reread sentences
  - Use similes or metaphors
  - Look for definitions in sentences (appositive phrases)
- Use reference works (e.g., dictionaries, thesauruses, glossaries, computers, human resources)
- Use prefixes, suffixes and root words to determine meaning
- Understand synonyms, antonyms, and homonyms
- Use context clues to determine specific meaning of words with multiple definitions (homographs)

Assimilate information from prior knowledge and experiences to understand various genres
- Set purpose(s) for reading, listening, or viewing
- Make and revise predictions
- Self-monitor comprehension (e.g., reread, adjust rate of reading, seek meaning of unknown vocabulary, use think-aloud strategies)

Develop an understanding of the literary elements used in creating stories

- Identify character, setting (time and place), theme, plot, conflict/resolution/denouement, antagonist and protagonist, opening routine, trigger event
- Identify and interpret figurative language and literary devices (e.g., similes, metaphors, personification, point of view)
- Identify author's purpose
- Make inferences about content, events, characters, setting
- Recognize the effect of point of view

Respond to text in a variety of ways (speaking, writing, art)
- Make, revise and support predictions
- Summarize stories, including important details, in oral and written form
- Restate informative texts including important details
- Organize the important points of text using summaries, outlines, or other graphic organizers
- Compare information within and between texts

- Discriminate between fact and opinion
- Draw conclusions and determine cause/effect
- Accept or reject the validity of information, giving supporting evidence
- Follow oral and written directions
- Relate content of text to real-life situations
- Offer a personal response to texts
- Apply information from printed, electronic, and oral texts to complete authentic tasks (projects)
- Understand the differences between genres

Use a variety of resources (print, audio-visual, technology) to gather and evaluate information to share with others
- Connect and synthesize information from different sources
- Formulate, express, and support opinions
- Respond to a variety of questions (critical thinking)
- Draw conclusions and make inferences
- Differentiate between literal and non-literal meaning
- Recognize ambiguity in words or expressions
- Recognize the possibility of different interpretations of the same text

WRITTEN AND ORAL COMMUNICATION

Children in 9-12 classes will work toward the following according to developmental stages:

Written Communication

- Writing expressive, informative, and persuasive texts
- Experimenting with appropriate use of various types of texts (personal narrative, memoir, personal vignettes, personal essay, business letters, editorials)
- Writing that reflects appropriate organization, development of ideas, use of voice and tone, word choice, and transitions
- Begin to write with a sense of audience

- Uses the prewriting, drafting, revising, and editing components of the writing process
- Apply appropriate grammatical structures to writing
    - Use complete sentences, varied in length and structure
    - Use transitional sentences to connect paragraphs
    - Vary sentence structure, leads and endings
    - Use correct subject-verb agreement and noun-pronoun agreement
    - Use compound and complex sentences
    - Write cohesive paragraphs using supportive details and examples
- Apply appropriate mechanics of writing, such as
    - Recognize words that are misspelled and refer to resources for correction
    - Write using an increasing percentage of conventional spelling
    - Capitalize beginning words of sentences, proper nouns, "I," and titles
    - Use commas, apostrophes, and quotation marks, semi-colons, colons

Research – Use the research process to

- Choose and specify topic
- Focus questions
- Use organizational strategies (note cards, outlines)
- Write rough drafts
- Revise and edit
- Cite sources using proper bibliographic formatting
- Prepare final copy

Use available Technology to
- Gather, organize and evaluate a variety of resources (encyclopedias, articles, internet, non-fiction, interviews, etc.)
- Analyze information from graphs, charts, tables and maps
- Synthesize information into a meaningful format to share with others

Oral Communication

- Use oral language for different purposes (inform, persuade, and express self)
- Formulate and organize messages appropriate for the audience and the purpose
- Stay on topic
- Summarize main points before or after presentation

- Maintain eye contact with audience
- Use audio/visual aids when appropriate
- Respond to feed-back and answer questions

APPENDIX B - SURVEY

Dear _____,

As you know, I am working on my Executive Position Paper to complete my work towards my doctorate. My topic is on how classroom-based reading assessment can be used in Montessori Schools to support the children as readers, support the teachers in their work in the classroom, and support Montessori Schools to communicate clearly with families and others about the progress that children make in reading. Ultimately, my goal is to inform our work with classroom assessment and reading at WMS.

The goals of this survey are to
- understand what areas of reading (e.g., fluency, comprehension, phonological awareness) are focused on in classroom assessments at Wilmington Montessori School,
- determine what reading assessment tools are currently used in the classrooms, and
- understand the beliefs classroom teachers at Wilmington Montessori hold about assessment.

Your survey responses are anonymous and will be kept confidential. Please return your responses to Carolyn by Tuesday, June 13th by placing your survey in the attached envelope. Your name on the envelope allows Carolyn to track responses. She will destroy all envelopes prior to passing the surveys to me.

Thank you again for your time. I hope that this work will help all of us at Wilmington Montessori to better meet the needs of our children.

Linda

Program Level – _____ (preschool, K, 6-9, 9-12)

1. Assessment tools are used in various ways by teachers. Please check all that apply for each of the classroom based / teacher created assessments listed.

Informal Classroom Reading Assessment Tool	Use weekly	Use Monthly or periodically during the year	Use for daily or weekly instructional decisions for individual children	Use for preparing progress reports or for parent conferences	Use for all children in classroom	Use for some children in classroom	Do Not use
Anecdotal Records							
Reading Conferences with Students							
Recorded Observations of Students							
Mental Observations of Students							
Reading Journals or Response Logs							
Student Portfolios							
Checklists of Montessori Materials							
Checklists of Reading skills							
Teacher made assessments							
Published assessments							
Words Their Way Spelling Assessment							
Rubrics							
Published Informal Reading Inventories							
Running Records							
Oral Retellings							
Written Retellings							
Work Samples							
WMS Preschool Phonological Awareness Assessment							
Cloze Assessments							
Classroom Reading Logs							
Other Tools – Please list:							

2. Assessment tools are used in various ways by teachers. Please check all that apply for each of the published classroom assessments listed.

Published Classroom Reading Assessment Tool	Use weekly	Use Monthly or periodically during the year	Use for daily or weekly instructional decisions for individual children	Use for preparing progress reports or for parent conferences	Use for all children in classroom	Use for some children in classroom	Do Not use
An Observation Survey of Early Literacy Achievement (Clay)							
Basic Reading Inventory (Johns)							
Developmental Reading Assessment (DRA)							
Comprehensive Test of Phonological Processing							
Dynamic Indicators of Basic Early Literacy Skills (DIBELS)							
The Names Test							
Preschool Test of Phonological Print Processing							
Yopp Singer Test of Phoneme Segmentation							
Degrees of Reading Power							
Gray Oral Reading Test							
Story Construction from a Picture Book							
Think Alouds: Assessing Comprehension							
Early Reading Diagnostic Assessment							
Elementary Reading Attitude Survey							
Motivation to Read Profile							
Comprehensive Reading Achievement							
Book Selection							
Bader Reading and Language Inventory							
Reading Inventory for the Classroom							
Fox in a Box							
Curriculum-Based Measurement							
Test of Language Development							
Other Published Assessments used:							

3. The following is a list of reading related skills. Please choose the column that reflects the importance of assessing a given skill for children in the age group you teach.

Reading Related Skills	Very Important	Important	Somewhat Important	Not Important
Oral Language Vocabulary				
Oral Language Syntax				
Oral Language Semantics				
Phonological Awareness				
Phonemic Awareness				
Letter Knowledge				
Letter Sounds				
Reading Words/ Decoding				
Rapid Letter Naming				
Reading Vocabulary				
Oral Narrative Retellings				
Written Narrative Retellings				
Rapid Auto Naming of Words				
Accuracy				
Fluency				
Correcting and Self-monitoring strategies				
Reading Comprehension				
Listening Comprehension				
Concepts about Print				
Reading Attitude				
Amount of Reading				
Choices of Literature and Genres				
Ability to Discuss Books				
Using the language of Books				

4. Please indicate your level of agreement with the following statements about classroom assessment.

		Strongly Agree				Strongly Disagree
1.	Assessment is a separate activity from instruction.	1	2	3	4	5
2.	Children should be assessed only on information they have had lessons on.	1	2	3	4	5
3.	Lessons in the classroom provide opportunities for assessment.	1	2	3	4	5
4.	A primary reason for classroom assessment is to inform my daily instructional decisions.	1	2	3	4	5
5.	A primary purpose of classroom assessment is to tell me what a child can do.	1	2	3	4	5
6.	A primary purpose of classroom reading assessment is to tell me what a child cannot do.	1	2	3	4	5
7.	A primary reason for assessment is to compare children's progress with other children.	1	2	3	4	5
8.	Sharing assessment information with a child can be motivating to the child.	1	2	3	4	5
9.	Assessment labels children.	1	2	3	4	5
10.	Sharing assessment information with a child is damaging to their self-esteem.	1	2	3	4	5
11.	The same classroom assessments should be given to all children in an age group.	1	2	3	4	5
12.	A classroom reading assessment tool can have multiple purposes.	1	2	3	4	5
13.	I use assessments more often with children who are struggling as readers.	1	2	3	4	5
14.	Classroom reading assessments should be chosen to match the development of the child.	1	2	3	4	5
15.	I base my daily instructional decisions primarily on my observations of children.	1	2	3	4	5
16.	I use multiple techniques of reading assessment.	1	2	3	4	5

		Strongly Agree				Strongly Disagree
17.	A primary purpose of classroom reading assessment is for grouping children for guided reading.	**1**	**2**	**3**	**4**	**5**
18.	I base my daily instructional decisions on a variety of classroom reading assessments of children.	**1**	**2**	**3**	**4**	**5**
19.	I have a system for recording my observations of children while reading.	**1**	**2**	**3**	**4**	**5**
20.	Classroom reading assessment provides evidence of student learning.	**1**	**2**	**3**	**4**	**5**
21.	I plan for assessment just as I plan daily instructional activities.	**1**	**2**	**3**	**4**	**5**
22.	Classroom assessment helps me to understand the whole child.	**1**	**2**	**3**	**4**	**5**
23.	I make a regular time to reflect on the reading assessment data that I gather.	**1**	**2**	**3**	**4**	**5**
24.	I share student work and reading assessments with other teachers (besides co-teacher) to better understand children's progress.	**1**	**2**	**3**	**4**	**5**
25.	I use collections of classroom assessment information to inform the writing of progress reports.	**1**	**2**	**3**	**4**	**5**
26.	I use collections of classroom assessment information to prepare for parent conferences.	**1**	**2**	**3**	**4**	**5**
27.	I use collections of classroom assessment information to make referrals to the Resource Room.	**1**	**2**	**3**	**4**	**5**
28.	I am confident in my understanding of the developmental benchmarks for reading at the program level I teach.	**1**	**2**	**3**	**4**	**5**
19.	I am confident in my ability to know when a child is making appropriate progress as a reader.	**1**	**2**	**3**	**4**	**5**
30.	I am confident that I know and can recognize the early indicators of reading problems for children in my age level.	**1**	**2**	**3**	**4**	**5**
31.	Reading assessment in my classroom informs the progress that children are making towards the goals on the WMS continuums.	**1**	**2**	**3**	**4**	**5**
32.	Systematic classroom reading assessment conflicts with Montessori philosophy.	**1**	**2**	**3**	**4**	**5**

		Strongly Agree				Strongly Disagree
33.	I am selective about the work samples that are collected to demonstrate progress.	1	2	3	4	5
34.	My Montessori training center emphasized classroom assessments in reading.	1	2	3	4	5
35	Collections of classroom assessments could be used to evaluate the reading program in the school.	1	2	3	4	5
36.	I adjust the pacing of curriculum according to the information from the reading assessment of a child.	1	2	3	4	5
37.	I would like more professional development opportunities to understand classroom assessments in reading.	1	2	3	4	5
38.	I am most comfortable with classroom assessment tools that have set directions for administration.	1	2	3	4	5
39.	I am most comfortable with classroom assessment tools that allow me to interact and question the child.	1	2	3	4	5

5. I have the following concerns about classroom-based reading assessments:

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6. I would like to learn more about these aspects of classroom-based reading assessment:

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