#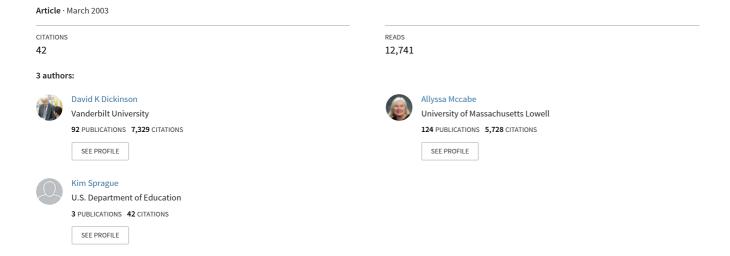 Teacher Rating of Oral Language and Literacy (TROLL): Individualizing early literacy instruction with a standards-based rating tool

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Teacher Rating of Oral Language and Literacy (TROLL): Individualizing early literacy instruction with a standards-based rating tool

This rating system measures skills critical to the New Standards for Speaking and Listening. TROLL can be used to track children's progress in language and literacy development, to inform curriculum, and to stimulate focused communication between parents and teachers.

Keisha is a quiet little girl with tawny skin, long black hair, and large brown eyes. Her teacher has observed that she is shy with other children, reluctant to participate in groups, and often the last to join in activities, but the teacher never has had to reprimand Keisha. Only when the teacher sat down to fill out reports on the language development of each of her students did she realize Keisha has a problem.

CJ is an energetic almost 5-year-old African American boy who attends childcare from 7:00 a.m. to 4:00 p.m. five days a week. His teacher observed that "CJ has demonstrated strong use of his oral language skills since entering my program. CJ speaks clearly and is easily understood by adults." The teacher was enrolled in a college course that focused on enriching children's language and literacy skills. She noticed after completing the TROLL assessment of CJ that he did not always choose to attend to stories in large group and appeared most interested in stories when reading one-on-one or in a small group of no more than three other children where he was able to ask questions as a way to clarify the meaning of a story. She suggested to his mother that his older brothers be encouraged to read to him at home. She also noted that his scores on the language and reading subtotals of the TROLL were high—higher than his writing subtotal—and she was knowledgeable about his exact writing skills and limitations.

Reading, writing, and oral language: Roots of literacy

Early reading and writing abilities are by now well-known dimensions of early literacy. Through their preschool years, children progressively construct understandings of writing (e.g., Bissex, 1980) and reading (e.g., Sulzby & Teale, 1991). Similarly, the contribution of children's phonological awareness has often been explored and is also widely recognized (Bryant, MacLean, & Bradley, 1990; Cronin & Carver, 1998; Speece, Roth, Cooper, & de la Paz, 1999; Stanovich, 1992; Vellutino & Scanlon, 2001;

Wagner, Torgesen, Laughon, Simmons, & Rashotte, 1993; Wagner et al., 1997).

However, there are other lesser known oral language skills relevant to literacy that include the development of narrative ability (Dickinson & Tabors, 2001; see McCabe & Rollins, 1991, for review), use of talk while pretending (Dickinson, 2001; see Pelligrini & Galda, 1993, for review), and varied vocabulary usage (Tabors, Beals, & Weizman, 2001). To be able to read and write effectively, children must develop strong oral language skills (Dickinson & McCabe, 1991; Dickinson & Tabors, 2001; Snow, 1983; Snow, Burns, & Griffin, 1998). Oral language skills blossom during the preschool years, but they are also very vulnerable and in need of stimulation during this time, as a number of major organizations involved in the education of young children have recognized.

A call for developmentally appropriate assessment

The International Reading Association (IRA) and the National Association for the Education of Young Children (NAEYC) jointly formulated a position statement regarding early literacy development (1998). The statement acknowledges the difficulty that teachers face, for example, in kindergarten classrooms where a five-year range in children's literacy skills is not uncommon (Riley, 1996). Estimating where each child is in terms of the acquisition of speaking, listening, reading, and writing skills is critical to providing developmentally appropriate instruction to all children in this wide range. The position statement is quite clear that

> throughout these critical years *accurate assessment* of children's knowledge, skills, and dispositions in reading and writing will help teachers better match instruction with how and what children are learning. However, early reading and writing cannot simply be measured as a set of narrowly defined skills on standardized tests. These measures often are not reliable or valid indicators of what children can do in typical practice, nor are they sensitive to language variation, culture, or the experiences of young children. (International Reading Association & National Association for the Education of Young Children, 1998, p. 38; emphasis added)

As if these difficulties were not enough, preschool teachers face time constraints and typically have not been trained to evaluate children's language development as it relates to the

acquisition of literacy or their emergent reading and writing skills. In response to this need, we present an accessible means of evaluating each child in a classroom for literacy-related abilities. One way to help teachers track children's development is by periodic reflection on demonstrations of early literacy. Even though teachers may lack prior formal training regarding assessment of language and literacy development, we have found that they can recognize critical aspects of this development. Using the Teacher Rating of Oral Language and Literacy (TROLL) to evaluate children can help teachers assess the effectiveness of an educational program.

New Standards: Speaking and listening for preschool through third grade

Because speaking and listening are so critical for literacy development in early childhood, the New Standards project, a program of the National Center on Education and the Economy (Tucker & Codding, 1998), has developed research-based standards for speaking and listening in preschool through third grade (New Standards Speaking and Listening Committee, 2001). These standards complement those already developed for reading and writing. The speaking and listening standards include specific recommendations for teachers regarding beneficial habits of conversation, useful kinds of talk such as narratives and explanations, and language conventions relevant to early childhood. Many programs are concerned with ensuring that their students meet such national standards.

Development of TROLL

To guide teachers' observations of children's individual language and literacy skills and interests, we created an instrument that focuses on key abilities. In constructing this tool, we drew on the same body of theory and research that was the foundation for the speaking and listening standards. Indeed, we contributed to both efforts. TROLL is a tool developed by the first author to provide teachers with a way to track the language and literacy skills and interests of children in their classrooms and is represented in its entirety in Table 1. Although it was developed for research purposes separate from the New Standards initiative, TROLL addresses all the

central speaking and listening skills in the New Standards, as well as many of the early reading and writing skills covered by the companion reading and writing standards. Of special interest is the fact that it allows teachers to track children's interests in various language and literacy activities—something that no direct assessment tool can capture.

Using TROLL to inform instruction

No formal training is required to use the TROLL instrument; however, it is most effective if teachers know about language and literacy development. In other words, TROLL can make knowledgeable teachers better. This tool is designed for classroom teachers to easily track the language and literacy development of all their students. The TROLL requires only 5 to 10 minutes for each child and need not disrupt classroom activities (it can be completed during naptime).

Teachers can use the information to inform their teaching by identifying (a) children who are displaying evidence of serious delay and who may need formal assessment by audiologists or speech-language pathologists and (b) children who are showing high levels of literacy development and therefore need special additional challenges in this area. Furthermore, by completing TROLL several times over the course of a year, teachers can track the progress of all their students.

Second, teachers could combine results for all the children in their class to determine which areas need more systematic instruction. For example, if all children in a class score relatively low on rhymes, their teacher might want to begin providing numerous opportunities to listen to and produce rhyming chants, songs, and poems.

Teachers should consider using TROLL ratings of children as a basis for discussions with parents. In fact, as we saw in the case of CJ at the outset of this article, teachers are likely to initiate such discussions without anyone urging them to do so. (Recall that the teacher recommended that CJ's mother get his older brothers to read with him one-on-one because that was an effective setting for the child.)

Parents can also serve as a source for ratings using the TROLL. In particular, teachers of bilingual children often have a difficult time rating the language competence of children who speak English as a second language (ESL). Of course, if a teacher can rate a child's competence in a language other than English, it would be of great interest to rate the child's skill in both English and his or her first language. Whenever possible, educators need to involve the parents of ESL students. In fact, maternal reports of preschoolers' literacy (when children were 3 or 4 years old) significantly predicted much of the variation in kindergarten tests, grade 1 teacher assessments, and direct assessments of decoding given near the end of first grade (Dickinson & DeTemple, 1998). Thus, if TROLL were used collaboratively with parents, it could provide a powerful way to organize a multifaceted conversation about a child's full range of language and literacy development.

TROLL has been used extensively

Over the last several years, TROLL has been used with 973 children in the context of research examining early literacy development. Over 100 teachers have been involved in this process.

One measure of a good test is that all items on the test tap related abilities. We analyzed responses for 534 of these preschool children and found strong indications that TROLL meets standards expected of research tools in this regard. Specifically, Cronbach's alpha estimates of internal consistency ranged from .77 to .92 for separate subscales, indicating strong internal consistency. For the total TROLL scores, alphas exceeded .89 for each age.

Another way of determining the value of a tool is the extent to which a child's performance on that tool compares to performance on other measures. After all, TROLL relies on a teacher's professional judgement or perception of a child's development rather than formal testing of actual development. It is therefore reassuring to find that, for this sample, the ratings teachers provided using TROLL compared favorably to formal assessments by researchers. These measures included the well-established Peabody Picture Vocabulary Test (PPVT-III), which is a measure of receptive vocabulary, as well as measures of emergent literacy and early phonological awareness. Teacher ratings of children's language and literacy development on the TROLL show moderate associations with children's scores on all three of those direct assessments despite the fact that teachers never saw those test results. So in

about five minutes, and with no special training on the TROLL, teachers themselves can index what specially trained researchers would spend 25–30 minutes per child assessing.

Of course, the TROLL teacher ratings do not agree completely with the researchers' tests. This difference partly reflects the fact that TROLL assesses other factors that teachers take into consideration as they rate individual children—factors that are not captured in the direct, formal assessments. TROLL captures the kind of information the position statement by

Table 1
Teacher Rating of Oral Language and Literacy (TROLL)

Language use

1. How would you describe this child's willingness to **start a conversation** with adults and peers and continue trying to communicate when he or she is not understood on the first attempt? Select the statement that best describes how hard the child works to be understood by others.

Child almost never begins a conversation with peers or the teacher and never keeps trying if unsuccessful at first.	Child sometimes begins conversation with either peers or the teacher. If initial efforts fail he or she often gives up quickly.	Child begins conversations with both peers and teachers on occasion. If initial efforts fail, he or she will sometimes keep trying.	Child begins conversations with both peers and teachers. If initial efforts fail, he or she will work hard to be understood.
1	2	3	4

2. How well does the child **communicate personal experiences** in a clear and logical way? Assign the score that best describes this child when he or she is attempting to tell an adult about events that happened at home or some other place where you were not present.

3. How would you describe this child's pattern of **asking questions** about topics that interest him or her (e.g., why things happen, why people act the way they do)? Assign the score that best describes the child's approach to displaying curiosity by asking adults questions.

(continued)

Table 1 (continued)
Teacher Rating of Oral Language and Literacy (TROLL)

4. How would you describe this child's use of talk while **pretending** in the house area or when playing with blocks? Consider the child's use of talk with peers to start pretending and to carry it out. Assign the score that best applies.

Child rarely or never engages in pretend play or else never talks while pretending.	On occasion the child engages in pretending that includes some talk. Talk is brief, may only be used when starting the play, and is of limited importance to the ongoing play activity.	Child engages in pretending often and conversations are sometimes important to the play. On occasion child engages in some back-and-forth pretend dialogue with another child.	Child often talks in elaborate ways while pretending. Conversations that are carried out "in role" are common and are an important part of the play. Child sometimes steps out of pretend play to give directions to another.
1	2	3	4

5. How would you describe the child's ability to **recognize and produce rhymes**?

Child cannot ever say if two words rhyme and cannot produce a rhyme when given examples (e.g., rat, cat).	Child occasionally produces or identifies rhymes when given help.	Child spontaneously produces rhymes and can sometimes tell when word pairs rhyme.	Child spontaneously rhymes words of more than one syllable and always identifies whether words rhyme.
1	2	3	4

6. How often does child use a **varied vocabulary** or try out new words (e.g., heard in stories or from teacher)?

Never	Rarely	Sometimes	Often
1	2	3	4

7. When child speaks to adults other than you or the teaching assistant, **is he or she understandable**?

Never	Rarely	Sometimes	Often
1	2	3	4

8. How often does child **express curiosity** about how and why things happen?

Never	Rarely	Sometimes	Often
1	2	3	4

Language subtotal _____

Reading

9. How often does child like to hear books read in the full group?

Never	Rarely	Sometimes	Often
1	2	3	4

(continued)

Table 1 (continued)
Teacher Rating of Oral Language and Literacy (TROLL)

10. How often does child attend to stories read in the full group or small groups and react in a way that indicates comprehension?

Never 1	Rarely 2	Sometimes 3	Often 4

11. Is child able to read storybooks on his or her own?

Does not pretend to read books 1	Pretends to read 2	Pretends to read and reads some words 3	Reads the written words 4

12. How often does child remember the story line or characters in books that he or she heard before either at home or in class?

Never 1	Rarely 2	Sometimes 3	Often 4

13. How often does child look at or read books alone or with friends?

Never 1	Rarely 2	Sometimes 3	Often 4

14. Can child recognize letters? (choose one answer)
      None of the letters of the alphabet 1
      Some of them (up to 10) 2
      Most of them (up to 20) 3
      All of them...4

15. Does child recognize his or her own first name in print?

No 1	Yes 2

16. Does child recognize other names?

No 1	One or two 2	A few (up to four or five) 3	Several (six or more) 4

17. Can child read any other words?

No 1	One or two 2	A few (up to four or five) 3	Several (six or more) 4

18. Does child have a beginning understanding of the relationship between sounds and letters (e.g., the letter *B* makes a "buh" sound)?

No 1	One or two 2	A few (up to four or five) 3	Several (six or more) 4

(continued)

Table 1 (continued)
Teacher Rating of Oral Language and Literacy (TROLL)

19. Can child sound out words that he or she has not read before?

No	Once or twice	One syllable words often	Many words
1	2	3	4

Reading subtotal _____

Writing

20. What does child's writing look like?

Only draws or scribbles	Some letter-like marks	Many conventional letters	Conventional letters and words
1	2	3	4

21. How often does child like to write or pretend to write?

Never	Rarely	Sometimes	Often
1	2	3	4

22. Can child write his or her first name, even if some of the letters are backward?

Never	Rarely	Sometimes	Often
1	2	3	4

23. Does child write other names or real words?

No	One or two	A few (up to four or five)	Several (six or more)
1	2	3	4

24. How often does child write signs or labels?

Never	Rarely	Sometimes	Often
1	2	3	4

25. Does child write stories, songs, poems, or lists?

Never	Rarely	Sometimes	Often
1	2	3	4

Writing subtotal _____ (out of 24 possible)
Oral language subtotal _____ (out of 32 possible)
Reading subtotal _____ (out of 42 possible)
Total TROLL score _____ (out of 98 possible)

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IRA and NAEYC recommended be captured in assessment. Formal tests measure how well a child does at only one point in time; children may be tired or sick on the day of the PPVT-III assessment and receive a dismal score for their receptive vocabulary, whereas their teacher knows that on most days they are quick to pick up on the vocabulary of classroom units and articulate when sharing stories of personal experience. The TROLL score is not as vulnerable to fluctuations in a child's performance as are the formal tests.

Furthermore, as noted earlier, the TROLL includes information about the child's engagement in literacy activities and patterns of use of oral language. Formal assessments do not tap such interests and inclinations to use language and print in any way. And yet, a child's initiative in this area could be an important determinant of the child's future success.

Overall, children's scores improve from fall to spring. However, the correlations between TROLL scores and direct assessment measures of literacy are generally less reliable in the spring than in the fall, which is just the opposite of what one would predict. After all, teachers have had far more interaction with children—and should therefore be *more* sensitive to their reading and writing skills—in the spring than in the fall. In fact, however, there is no firm correlation between teacher TROLL scores in the spring and formal assessments of children's emergent literacy conducted at that time, although correlations with vocabulary (PPVT) and phonological awareness (EPAP) remain moderately strong. Unfortunately, this may reflect the fact that teachers do not revisit their assessment of children's literacy skills as much as they should. In the fall, teachers may arrive at judgments about a child's accomplishments that they fail to update. Children's progress in language and literacy may go undetected by their teachers. This finding is sobering.

One danger of any judgment is that it can become a self-fulfilling prophecy (Rosenthal & Jacobsen, 1968). Teachers' opinions of children at the very outset of their education can predict children's success just by virtue of the teacher giving extra attention, motivation, or instruction to those children they expect to become the most accomplished. Conversely, teacher expectations—never revisited—can predict other children's failure by virtue of overlooking children expected to fail.

This lack of revision of judgments about literacy skills and interests points to the value of teachers carrying out periodic informal assessments of children to provide concrete evidence of children's growth. For example, teachers can ask children to write their own or others' names or to identify letters in them.

In general, then, rather than contribute to self-fulfilling prophecies of children's success or failure, we hope that TROLL will predict possible failure to learn to read in order to prevent such failure. That is, we hope that teachers will use this instrument to give struggling children the help they need to succeed so that they never have to experience failure at a later point. Specifically, we (Dickinson, 2001) recommend that teachers make sure that one or more adults read with small groups of children every day and ensure that all children have this experience once a week. Teachers can also set aside time when children tell stories. Finally, teachers need to introduce varied and challenging vocabulary as a routine part of the curriculum.

What TROLL scores mean

Table 2 displays what different scores on TROLL indicate about a child's overall developmental level. For example, a score of 66 in the spring indicates that the child is making progress that is average for 4-year-olds in this sample. The sample consisted only of low-income children, so these scores should be regarded as provisional. However, we argue that the well-known academic disadvantages of low-socioeconomic status (SES) preschool children (e.g., Stipek & Ryan, 1997) make this sample important in its own right. If a child from a low-SES family scores at the 10th percentile, for example, this result cannot be dismissed as a result of economic disadvantage; such a child is scoring very poorly relative to his or her economic peers. Scores at the 75th and, especially, the 90th percentile, however, should prompt a teacher to provide opportunities for children to read more advanced books, engage in writing frequently, and talk at length about challenging and interesting topics.

Table 2
What TROLL scores mean

3-year-olds' TROLL scores		4-year-olds' TROLL scores		5-year-olds' TROLL scores		Relative standing on the TROLL	Recommendations/ meaning
Fall *n* = 115	Spring *n* = 55	Fall *n* = 336	Spring *n* = 234	Fall *n* = 83	Spring *n*=229		
40	44	43	46	51	55	10th percentile	Assessment by child of audiologist, speech-language pathologist. Discuss concerns with parents.
44	49	52	55	59	65	25th percentile	Assessment of child by speech-language pathologist, extra involvement in extended conversations, and other literacy activities.
51	56	61	66	68	76	50th percentile	Child is performing at an average level.
61	62	71	74	75	85	75th percentile	Child is performing above average.
68	69	80	84	85	91	90th percentile	Child should be encouraged to read and write at advanced levels in school and at home.

Note. Our data come from a low-income sample. In national studies children from such homes tend to receive less support for early language and literacy development than children from economically advantaged homes. Children from more advantaged backgrounds would be expected to receive somewhat higher ratings than those reported above (roughly 5 – 6 points higher on average).

Program evaluation potential: TROLL measures appropriate language and literacy instruction

As we mentioned, children's scores on TROLL might well serve as an impetus to plan systematic language and literacy instruction for a class. In fact, such instruction has been implemented by a number of Head Start programs in the Boston, Massachusetts, area, where TROLL detected changes that occurred as a result of program improvement efforts. Head Start teachers and their supervisors volunteered to participate in a professional development program called LEEP (Literacy Environment Enrichment Program). They received academic credit for participating in two intensive three-day blocks separated by three months. TROLL scores for children whose teachers participated in LEEP were significantly higher than for children whose teachers did not. Specifically, children in LEEP classrooms gained more overall from fall to spring on average in comparison to a control group.

Furthermore, the classrooms that supported such advances had improved classroom language and literacy practices. Teachers who participated in LEEP made greater efforts to engage children in conversations and to provide opportunities for children to write and to use books. The change that appeared to reflect the most major shift was the extent to which teachers planned activities with the intention of having children practice literacy-related skills. Enriching the literacy environment had one additional effect that might come as a surprise. Children whose teachers participated in LEEP displayed significantly more growth in social skills than their peers, as assessed by the Social Skills Rating System (Gresham & Elliott, 1990). Children who are busy talking, reading, and writing—activities registered by TROLL—were more likely to be viewed by their teachers as developing stronger skills in collaborating with others.

Case studies

We conclude by returning to Keisha and CJ. Keisha scored the lowest on the TROLL of anyone in her class of 4-year olds—a total of 44 points. Her teacher realized that she spent far more time talking to Keisha's high-scoring classmates than she did to Keisha. Children who already were the most advanced talkers were the ones who asked questions, participated in group discussions, and took many opportunities to explain activities to other children or tell stories about themselves. The teacher found that in her classroom, as in the classrooms of other preschool teachers (see Dickinson & Tabors, 2001), the old adage of "the rich get richer" applied to language and literacy development. The teacher also realized that several of the children who misbehaved also received low scores, and she made an effort to involve them in more conversations. Two such boys, in particular, seemed to thrive on this extra attention for desirable behavior and were noticeably better behaved by the end of the year.

In the coming weeks, Keisha's teacher made a concentrated effort to involve her in conversation every day. The teacher also shared her TROLL assessment of Keisha with the child's mother, who acknowledged that she had been struggling with a number of issues and had not had much time to talk with Keisha, let alone read with her. The teacher recommended regular trips to the library and setting aside time at meals just to talk about the day. By the end of the year, Keisha was far more talkative and began to initiate looking at books on her own. She did not have to fail at reading in order to get the help she needed to succeed. Keisha benefited from the kind of early intervention strongly recommended by Snow et al. (1998, pp. 318–319).

CJ's teacher responded to his advanced skills (he scored 71, which placed him above the 90th percentile) by making sure that his brothers read to him frequently and by involving him a couple of times a week in small-group book reading, when she encouraged his conversations and explained a number of terms in books that were unfamiliar to him.

Tracking children's language and literacy development is a critical yet challenging task. The TROLL provides one means for teachers to accomplish this and can provide a starting point for productive conversations with colleagues and parents.

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