



## Towards Developing a Reading Disability Identification Model for Philippine Public Schools

Violeta C. Valladolid  
*De La Salle University, Manila*

**Abstract** The ability to read is highly valued as it provides foundation for all other learning in school and eventually in workplace. Thus, it is important that a child be equipped with early literary skills to become proficient readers. The school plays a very crucial role in the development of foundational reading skills and in identifying at-risk students as well as in providing them immediate and intensive intervention. However, the identification and remediation of at-risk students remain to be one major concern in the Philippine public schools. The study aimed to determine the validity of Dual Discrepancy model in identifying students at-risk of reading difficulty in public schools through comparison with other identification procedures. It employed a multi-stage sampling technique involving Grade 2 students in one public school and used various standardized tests and measures. The study was able to establish the construct validity, relevance and utility, social consequential validity, and values implications of the DD model, providing some evidence of its applicability in Philippine public schools. Recommendations included implementation of progress monitoring through policy initiative by DepEd, putting in place efficient progress monitoring system in classroom, and conducting more research involving more schools, different grade levels, and other subject areas.

**Keywords:** Reading disability, dual discrepancy model, fluency

Reading is essential to success in one's life. The ability to read is highly valued as it provides foundation for all other learning and advancement in school and eventually in the workplace. As such, every child should be trained to develop early literary skills to become proficient readers. The school plays a very crucial role, not only in the development of foundational reading skills, but also in identifying those who are at-risk of reading difficulties as well as in providing immediate and intensive intervention for those who lag behind.

However, the identification and remediation of students at-risk of reading failure remain to be one major concern in the Philippine educational system, particularly in the public schools. The Philippines lacks a comprehensive

program to properly identify and assess children at-risk of learning difficulty/disability as well as to place them in educational or academic programs that will cater to their needs. This is a sad state since according to the Department of Education, learning disabilities affect around 40,000 Filipino schoolchildren and as high as 95% of children with special needs have not been provided with proper educational service (Ramos, 2012; “Bureau of Elementary Education”, n.d.).

There are various reasons for the inability to provide an assessment program among Filipino students. One of them is the lack of laws, policies, and programs to define learning disability (LD), as well as to identify and screen school children who are at-risk. There is also the problem of the unavailability of standardized psycho-educational tests as well as of experts or personnel to conduct the assessment in the schools. Referral to outside agencies or psychologists or experts also poses a problem since psychological testing is very expensive, and thus, not affordable especially for parents and children from poor families and makes use of foreign-made tests, whose validity and applicability for use in other cultures are being questioned. Finally, there is the failure to use a framework or model to guide in the early identification of LD.

Several models and approaches are currently used by experts and practitioners to screen and identify students with learning problems. These include IQ-achievement discrepancy, low achievement cut-off, teacher rating, and response to intervention models. However, these methods are not without limitations. As such, other educators and specialists began proposing hybrid models that “combine low achievement and response to instruction since they claimed that these models most clearly capture the LD construct and have the most direct relation to instruction (and) these models will not abandon the concepts of discrepancy and the loss of integrity of the LD construct, as the models retain the concepts of unexpected underachievement and discrepancy” (Fletcher, 2008, p. 551). One of these alternative models is the dual discrepancy (DD) model. Fuchs and Fuchs (1998) put forward a model for LD identification that is based on a treatment validity view, wherein a student’s progress is continuously assessed using the Curriculum-Based Measurement (CBM). They indicated that a student will only be recommended for special education if his or her performance in the CBM shows a dual discrepancy--that is, the student both performs below and shows a learning rate substantially slower than the students in his/her grade level.

Not too many studies have been conducted on the Dual Discrepancy (DD) model in identifying students at-risk of reading difficulties. More so, no study was ever conducted to determine its viability and validity in the Philippine school setting. This study is significant since the Philippine public school system is in dire need for model in identifying at-risk students, more particularly, students who are at-risk of reading difficulties/disabilities. But the main question is: Is the Dual Discrepancy Model a viable and valid model to use in the Philippine public school setting?

## The Concept of Reading Difficulty/Disability

Reading is not a single mental process and it depends on many different mental subskills, such as letter recognition, word recognition knowledge of letter-sound rules, word comprehension, among others (Coltheart, 2006). It is also a complex developmental challenge that is intertwined with many other developmental accomplishments, such as attention, memory, language, and motivation. As such, children need to have developed these skills early; if not, learning to read will not proceed normally.

According to Torgesen (1998), reading difficulty is expressed most directly in two kinds of reading tasks: (1) poor readers have difficulties understanding and applying the alphabetic principle in deciphering unfamiliar words and in learning to use the regular patterns of connection between letters and sounds in words and to sound out unknown words, and (2) poor readers have slower development of “sight vocabulary” of words which restricts comprehension in older poor readers. He further indicated that the most common cause of reading difficulties is the lack of ability to process the phonological features of language.

Felton (n.d) identified the three basic components of phonological processing that are important for success in reading, and these include phonological awareness, rapid naming/word retrieval, and holding sounds in working memory. He said that phonological awareness is the most common among poor readers. It entails the ability to segment words into sounds and to manipulate the sounds of words in different ways. Children with problems in phonological awareness have difficulties in decoding (letter to sound) for reading or encoding (sound to letter) for spelling while those with problems in rapid naming/word retrieval are characterized by slow and effortful naming of items such as letters, numbers and colors. On the other hand, children with problems in working memory have difficulties in holding a string of sounds (e.g., letter or a number) in short memory while the information is being processed. Children with a combination of phonological awareness, rapid naming/word retrieval, and working memory deficits are the most severely impaired readers.

According to Torgesen (1998), two pieces of information are relevant to the selection of procedures for early identification of children at-risk for reading difficulties. First, prediction accuracy increases significantly the longer the child has been in school, indicating that test results in first grade are more accurate than those administered during the first semester of kindergarten. Second, administration of multi-test batteries will not increase the efficiency of prediction; instead administration of two tests, one that measures knowledge of letter names or sounds, and the other that measures phonemic awareness, is recommended. Torgesen (1998) indicated that “measures of letter knowledge continue to be the best predictor of reading difficulties, and measures of phonemic awareness contribute additional predictive accuracy” (p.4.). He pointed out that the three measures of phonemic awareness can be grouped into three broad categories, namely,

sound comparison, phoneme segmentation, and phoneme blending.

According to Johnson, Pool, and Carter (2009), universal screening is an important tool in the process of identifying students who require early reading intervention. They identified direct route model, risk index model, and progress monitoring model as the most common screening procedures within the context of the Response to Intervention (RTI) model. In the direct route model, students are assessed using a screening measure that assesses a single skill (e.g., letter identification) and those who are identified as at-risk are immediately placed into intervention while in the risk model, a probability of risk is computed based on a number of variables (e.g., test results, parents' education, etc.). In the progress-monitoring model, students who are initially identified as at-risk are monitored for a certain number of weeks to check the development of reading proficiency.

Progress monitoring is a set of techniques used to assess students' academic performance on a regular and frequent basis (Luckner & Bowen, 2010). Fuchs and Fuchs (1999) listed five criteria in selecting assessment tools for monitoring progress and identifying students at-risk for failure. Aside from the traditional standards of reliability and validity, these assessment tools should demonstrate the following: (1) capacity to model growth, (2) sensitivity or responsiveness to individual change, (3) independence from specific instructional techniques, (4) capacity to inform teaching, and (5) feasibility to permit frequent data gathering on large number of students. Fuchs and Fuchs (1999) identified three classroom assessment models for monitoring students' progress or development of reading competence and for identifying children at-risk for failing to achieve literacy: mastery measurement (MM), curriculum-based measurement (CBM), and Dynamic Indicators of Basic Early Literacy Skills (DIBELS). Except for feasibility, only the CBM was able to meet all criteria.

### **The Dual-Discrepancy (DD) Model**

A lot of concerns have been raised against the more common LD identification models such as the discrepancy, low achievement, teacher rating and response to intervention (RTI) models. As such, educators and specialists started proposing hybrid models that combine low achievement and response to intervention since they most clearly capture the LD construct and have the most direct relation to instruction. These models will not abandon the concepts of discrepancy and the loss of integrity of the LD construct, as the models retain the concepts of unexpected underachievement and discrepancy (Fletcher, 2008, p. 551). Fuchs and Fuchs (1998) proposed a model for LD identification process based on a treatment validity view. In the treatment validity approach, a student will only be classified as having LD if he or she exhibits both low achievement and slow progress despite intensive intervention. In this model, repeated assessment of students is required using the Curriculum-Based Measurement.

Fuchs and Fuchs (1998) proposed a three-phase DD model for determining learning disability (LD) eligibility. In each stage, the use of CBM is essential.

Phase I involves the documentation of adequate classroom instruction and dual discrepancies. It begins with CBM assessments all students in a classroom, deciding whether overall classroom performance is adequate relative to other classrooms and district norms, and then identifying which students meet the dual discrepancy criteria. Phase II involves pre-referral intervention which involves designing of intervention program by the assessment team and classroom teacher to help remediate student's dual discrepancy and then collecting CBM data to judge the effectiveness of the intervention. Phase III involves the implementation of an extended intervention plan and the deciding on the student's placement. In summary, Fuchs and Fuchs (1997) proposed that in order to qualify a student for special education, a three-pronged test must be passed: (a) a dual-discrepancy between the student's performance level and growth and that of peers must be documented through the use of CBM, (b) the student's rate of learning with adaptations made in the general education classroom is inadequate, and (c) the provision of special education must result in improved growth.

In the area of reading difficulty, the most common components in the CBM-Reading include word identification fluency (WIF), phonological awareness, and letter knowledge for Grade1 and WIF and oral reading fluency (ORF) for Grades 2 and 3 (Johnson, Pool, & Carter, n.d.). ORF focuses on rate and accuracy, whose reliability and validity have been established in many research undertakings. In ORF, the number of correct words per minute (WCPM) is determined. On the other hand, accuracy is computed by dividing the CWPM by the total number of words read and multiplying the result by 100. WCPM has been shown in both theoretical and empirical research to serve as an accurate and powerful indicator of overall reading competence. CBM-ORF can be used for screening, progress monitoring as well as in diagnosing difficulties in reading sub-skills (Hasbrouck & Tindal, 2006).

### **Objectives of the Study**

The study primarily aimed to determine the validity of Dual Discrepancy model in identifying students at-risk of reading difficulty in public schools through comparison with other identification procedures based on Messick's (1995) validity measures: construct validity, relevance and utility, social consequential validity, and values implications. The three other LD identification models were the IQ-Achievement Discrepancy (IQ-Ach), Low Achievement (LowAch), and Low Performing (LowPerf) models.

### **Method**

This was an experimental study to determine the validity of the Dual Discrepancy Model in identifying Grade 2 public students who are at-risk for reading disability. The study employed a multi-stage sampling technique involving Grade 2 students in one public school used various standardized tests and measures. It consisted of (1) universal screening of 307 Grade 2 students

using the Gates-MacGinitie Test (GMRT), (2) identification of at-risk (AR) students from a sample of Grades 2 students through different LD identification models, (3) progress monitoring of 99 at-risk students' reading proficiency for 8 weeks, and (4) the comparison of the experimental group (i.e., Dual Discrepancy or DD group) with other at-risk groups and not-at-risk (NAR) group to determine the viability/validity of Dual Discrepancy model in Philippine public schools. Table 1 presents the participants of the study.

Progress monitoring, which is an important component of the DD model, was conducted for eight weeks among the four groups of at-risk students. In progress monitoring, development of a student's reading proficiency is determined by repeatedly assessing students reading performance level using the Curriculum-Based Measurement (CBM) - Reading. For this study, the two components of oral reading fluency skills were included: accuracy and rate.

Table 1  
*Distribution of Participants for each Activity*

Activity	Grouping	f	%
Universal Testing	Male	155	50.49
	Female	152	49.51
	Total	307	100
Identification of At-Risk (AR) and Not-At-Risk (NAR) students from 307 students	At-Risk (AR)	195	63.52
	Low-Risk (LR)	91	29.64
	Not-At-Risk (NAR)	21	6.84
	Total	307	100
Distribution of At-Risk to 4 Groups based on Type of Test Administered	CBM	50	30.67
	IQ and Achievement Tests	41	25.15
	Achievement Test only	37	22.70
	Teacher Rating	35	21.47
	Total	163	100
Identification of Final Sample of 4 Groups of At-Risk Students for 8-week progress monitoring (PM)	Dual Discrepant (DD)	45	90.00
	IQ-Achievement Discrepant (IQ-Ach)	24	58.54
	Low Achievement (LowAch)	27	72.97
	Low Performing (LowPerf)	33	94.29
Progress Monitoring (PM) of 4 Groups of At-Risk Students and of Not-At-Risk (NAR) Students for 8 weeks (Final Sample)	DD Group	21	46.67
	IQ-Ach Group	18	75.00
	LowAch Group	18	66.67
	LowPerf Group	24	72.73
	Not-At-Risk Group	18	85.71

## Results

### Construct Validity of the CBM-DD Model

**Comparison of DD Group with Other At-Risk Groups.** The construct validity of the DD model was assessed through the comparison of the Dual Discrepancy (DD) group with the other at-risk groups such as the IQ-Achievement Discrepant (IQ-Ach), low achievement (LowAch), and low performing (LowPerf) groups on three criteria, namely, (1) performance level, (2) growth rate, and (3) reading achievement. Furthermore, the four at-risk groups were compared on their success in meeting the performance criteria based on their performance goal, DIBEL's set criteria of  $\geq 26$  CWPM, expected growth rate of 1.1, and ambitious growth rate of 2.0.

The study was able to establish the construct validity of the DD model. ANOVA results revealed significant mean differences among the four at-risk groups in performance level [ $F(3,76) = 9.72, p = .000$ ] and in growth rate [ $F(3,76) = 5.37, p = .001$ ]. Reading achievement, however, was not significant. This is true for each reading subtest and the total score.

The at-risk students in the DD group registered significantly lower performance level than the IQ-Ach and LowAch groups after the 8-week progress monitoring ( $t\text{-value} = -3.38, p \leq .01$ ;  $t\text{-value} = -2.16, p \leq 0.05$ , respectively). The effect sizes were also medium to high (-.68 to -.107), indicating moderate to high practical significance. No significant difference, however, was observed in the reading achievement post-test scores. This is maybe because the four groups started out with low scores in the reading test as the reading scores were used as classification variables, with students who failed to reach the percentile cut-off score being included in any one of four at-risk groups. However, the DD group obtained significant higher performance level than the LowPerf group ( $t\text{-value} = 2.08, p \leq .05$ ).

The DD group also registered lower growth rate than the two at-risk groups, but significant mean difference was observed only with IQ-Ach group ( $t\text{-value} = 2.43, p \leq 0.05$ ), and not with LowAch group. But effect size values of -.77 and -.40 suggested moderate practical significance, in favor of the two other at-risk groups. On the other hand, it recorded higher growth rate than the LowPerf group, but the difference was not significant ( $t\text{-value} = 1.97, p \geq .05$ ). However, effect size of 0.60 suggested moderate practical significance, with DD group having better growth rate than the LowPerf group.

Chi-square results also revealed that all four groups are more likely not able to reach their expected performance goals and ambitious growth rate of 2.0 after the 8-week progress monitoring. On the other hand, significant differences were observed in the number of students in the four at-risk groups to succeed in reaching the DIBELS criterion of at least 26 CWPM and the set growth rate criterion of 1.1. While DD, IQ-Ach, and LowAch groups are more likely to reach these criteria, the LowPerf group is more likely unable to meet them.

**Classification Accuracy of the DD Model.** According to Speece and Case (2001), the construct validity of the DD model can also be examined through its diagnostic or classification accuracy. Particularly, the sensitivity, specificity and hit rate analyses are the statistical measures of classification accuracy. For this study, classification accuracy indices of the four at-risk classifications were compared with the reading achievement test scores after the 8-week progress monitoring as the criteria. Two criterion measures were used as benchmarks: 25<sup>th</sup> and 33<sup>rd</sup> percentile cut-offs.

The DD model was found to have higher sensitivity rates than the LowPerf model when the 25<sup>th</sup> percentile rank was used as criterion measure (100% vs. 80%) and than the three other models when the 33<sup>rd</sup> percentile rank was used (83.3% vs. 50% to 78.6%). It also registered the second highest hit rate (55.6%) with the higher cut-off as benchmark. This indicates that the DD model has better accuracy level in identifying students as at-risk and not-at-risk groups (i.e. based on hit rates) and in predicting at-risk students who will later be identified as at-risk by the reading achievement test (i.e., sensitivity rates). However, the DD model registered the lowest specificity rates with two 2 cut-offs (11.8% and 0), indicating that they cannot predict the not-at-risk students who will later be identified as not-at-risk by the reading achievement test. Nevertheless, results showed that the DD model, which registered high sensitivity rates, could very well identify students who will need reading intervention. This is good result since in the LD identification perspective, early detection of students with learning problems is important so that they can be provided with appropriate intervention to help them overcome their difficulties and catch up with their peers faster.

## Relevance and Utility of the DD Model

**Relevance of the DD Model.** Relevance of the DD model was determined by examining the extent to which it can distinguish between groups with different educational needs, that is between dual discrepant (DD) group and not-at risk (NAR) group. Since it is deemed that the DD model can be used to identify students with learning difficulties/disability, it is expected that students with special needs should be distinguishable from students who do not have special needs.

Results provided evidence of the relevance and utility of the DD model. Students who were identified as at-risk through the DD approach registered lower mean performance rate, growth rate, and scores in the GMRT subtests and total than the not-at-risk (NAR) students. The DD group obtained less average number of CWPM (25.86 vs. 107.93,  $t$ -value = -9.40,  $p \leq .000$ ) and lower growth rate (1.95 vs. 4.09,  $t$ -value = -3.24,  $p \leq .00$ ). The effect size for performance level was -3.08, indicating high practical significance. On the other hand, effect size for growth rate was -1.04, which is also considered a large-size effect. Significant mean differences were also observed between DD group and NAR group on all three reading subtests and on the Total Score. Likewise, effect sizes ranged from -1.16 to -2.41 (i.e., high practical



significance). This indicates that the DD model can significantly differentiate the poor and proficient readers, thus, can be used as basis for identifying students who will need more intensive intervention.

**Utility of the DD Model.** Utility can be evaluated by looking into its direct contribution to the enhancement of student achievement (Good & Jefferson, 1998). As such, to determine if the DD model has facilitated development in students' reading proficiency, their performance levels were compared after the 8-week progress monitoring and implementation of some forms of reading intervention. Furthermore, students' performance in the reading achievement test before and after one grading period of exposure to the general education instruction was compared.

The study presented the DD model as exhibiting utility since it was able to contribute to the enhancement of student achievement. Significant increases in the students' reading proficiency were observed after 8 weeks of progress monitoring of students who were administered with Word Identification Fluency (WIF) list or Oral Reading Fluency (ORF) passages. At-risk students who were administered the WIF list were able to read on the average only 1 correct word per minute during the pre-test, while those who were monitored using the ORF passages were able to read 35 correct words per minute. As a whole, the 45 students recorded around 18 correct words per minute during the pre-test. Significant increases in the students' reading proficiency were also observed after 8 weeks both for the WIF ( $t$ -value=5.88,  $p \leq .05$ ) and ORF ( $t$ -value=15.42,  $p \leq .05$ ) groups, as well as for the Total ( $t$ -value=9.74,  $p \leq .05$ ). The WIF group increased their CWPM to around 13 while the ORF group jumped from 35 to 76 words per minute. As a whole, an increase of 26 CWPM was recorded, from 18.62 words to 45.38 words. Furthermore, significant mean differences in the pre- and post-test scores in the Gates-MacGinitie Reading Test (GMRT) were found in the DD group ( $t$ -value=2.16,  $p \leq .05$ ), indicating that their performance in the test and thus their reading skills significantly improved after one grading period of exposure to the general education instruction. This indicates that the DD model, which employed weekly progress monitoring and some forms of reading interventions, was able to produce significant improvement in at-risk students' reading proficiencies.

**Social Consequential Validity of the DD Model.** Social consequential validity is concerned with the social consequences of the test in applied settings and can be addressed through comparisons with competing procedures (Messick, 1989). The examination of effects of variable like gender, age, and race is relevant in this analysis (Speece & Case, 2001). In this study, the social consequential validity of the DD model was examined by looking at whether it will result in disproportion of students classified as at-risk based on age, gender, and parents' education and SES (i.e., monthly income).

The current study also showed that the DD model, just like the three other approaches, did not exhibit potential bias against students based on their age, gender, and parents' socio-economic status. Pairwise comparisons through

chi-square pointed to significant gender difference only between DD and LowPerf groups ( $X^2=12.80$ ,  $df=1$ ,  $p\leq.01$ ), with male students more likely to be judged as at-risk by their teachers. DD model and the IQ-Ach and LowAch classifications, on other hand, did not result in gender disproportion. This indicates that the three LD identification models, particularly the DD model, provide a positive social consequence based on the assumption that overestimation of males is not an acceptable outcome (Speece & Case, 2001). Likewise, none of the four models yielded disproportion of at-risk identification based on age, parents' education, and family monthly income. This indicates that the approaches, particularly the DD model, did not reflect negative consequences and they did not result in over-identification of at-risk students who are younger, with less educated parents, and in the low socio-economic status.

### Values Implication of the DD Model

Evaluation of the values implications of validity relies on argument and logic rather on empirical evidence and also refers to the use of classification approach (Good & Jefferson, 1989; Messick, 1989; Speece & Case, 2001). Since “discussions of the values implications of the test-based inferences are based on comparisons of competing approaches using rational, philosophical argument, more akin to ethical argument or moral philosophy” (Good & Jefferson, 1989, p. 76), the values implications of the DD model was examined by determining the feasibility/ease, cost efficiency, relevance/applicability of the DD model in the classroom setting. A focus group discussion (FGD) was conducted among four class advisers and one school counselor, with the following topics: (1) typical class activities in reading (number of hours per week, books or instructional materials used, kinds of words for reading, remedial programs for reading, etc.), (2) ways to identify students with reading difficulties, and (3) feasibility/viability of progress monitoring in their classes. The data were analyzed qualitatively.

When the teachers were asked about the viability or feasibility of implementing in public school setting progress monitoring, which is an important component of the Dual Discrepancy model, they were unanimous in saying yes. The teachers also found the graphs very useful in determining who among the students were actually improving or not improving, and thus, need more reading intervention. Likewise, the teachers recognized the accuracy of the graphs in illustrating the correct status of reading competencies of their students, especially those who were very poor readers. They also reported that the approach is cost-effective and would not entail additional expenses to the school and the teachers themselves.

### Conclusion

The study was able to establish the construct validity of the DD model since the DD group exhibited deficient reading proficiencies than the other

groups of at-risk students, as shown by lower performance level and growth rate. The DD model has a better diagnostic classification accuracy in identifying students as at-risk and not-at-risk groups (hit rates) and in predicting at-risk students who will later be identified as at-risk by the reading achievement test (sensitivity rates).

The study was also able to establish the relevance and utility of the DD model. DD model can differentiate groups with different educational needs, i.e., between poor and proficient readers; thus, can be used for identifying students who will need more intensive intervention. The DD model also demonstrates direct contribution to the enhancement of student achievement (Good & Jefferson, 1998). Significant increases in DD students' reading proficiency were observed after 8 weeks.

The study was able to establish the social consequential validity of DD model as it did not reflect negative consequences based on gender, age, and parents' education and family monthly income. The DD model did not yield disproportion of at-risk identification based on age, and parents' education, and family monthly income, indicating that the DD model did not reflect negative consequences and did not result in over-identification of at risk students who are younger, with less educated parents, and belong to low SES.

Finally, the study was able to demonstrate the values implications of the DD model. Class advisers indicated in the FGD that progress monitoring, which is an important component of DD model is feasible, relevant and useful in public school setting and will not entail additional cost to the school and teachers themselves.

### **Recommendations**

Progress monitoring, which an important of the DD model, fits well into the class routine since it is conducted within the confines of the classroom and by the teachers. While this would entail additional workload for the teachers, this can be done and achieved with some modifications in the school structure and the role and responsibilities of the teachers. Furthermore, progress monitoring makes use of measures (i.e., CBM) that can easily be efficiently use by the teachers, inexpensive, and implemented repetitively in equivalent forms all through the school year (Shinn, 1989). The results are also easy to understand and to explain to the stakeholders.

The implementation of a progress monitoring will require a lot of changes in the classroom activities, school programs, and the educational system as a whole. As such various recommendations are forwarded in so far as the implementation is concerned. Recommendations included implementation of progress monitoring through policy initiative by DepEd, putting in place efficient progress monitoring system in classroom, and conducting more research involving more schools, different grade levels, and other subject areas.

## References

- Bureau of Elementary Education, Special Education Division.* (n.d.) Retrieved from Department of Education website: <http://www.deped.gov.ph/quicklinks/quicklinks2.asp?id=34>
- Coltheart, M. (2006). *Helping children with reading difficulties: The research setting* [PowerPoint slides]. Retrieved from [http://www.cheri.com.au/PDF\\_Files/CHERI%20XI%20Conf%202006/9ColtheartMax.pdf](http://www.cheri.com.au/PDF_Files/CHERI%20XI%20Conf%202006/9ColtheartMax.pdf)
- Felton, R. (n.d.). *Causes of severe reading difficulty and the impact on reading.* Retrieved from <http://www.ncsip.org/reading/Causes-for-Severe-Reading-Difficulty.pdf>
- Fletcher, J. M. (2008). *Identifying learning disabilities in the context of Response-to-intervention: A hybrid model.* Retrieved from RTI Action Network website: <http://www.rtinetwork.org/learn/ld/identifyingld>
- Fuchs, L. S., & Fuchs, D. (1999). Monitoring student progress toward the development of reading competence: A review of three forms of classroom-based assessment. *School Psychology Review, 28*(4), 659-671.
- Fuchs, L. S., & Fuchs, D. (1998). Treatment validity: A unifying concept for reconceptualizing the identification of learning disabilities. *Learning Disabilities Research and Practice, 13*, 204-219.
- Fuchs, L., & Fuchs, D. (1997). Use of curriculum-based measurement in identifying students with disabilities. *Focus on Exceptional Children, 30*, 1-16.
- Good, R. H., & Jefferson, G. (1998). Contemporary perspectives on curriculum-based measurement validity. In M. R. Shinn (Ed.), *Advanced applications of curriculum-based measurement* (pp. 61-88). New York, NY: Guilford.
- Gresham, F. M. (2001). *Responsiveness to intervention: An alternative approach to the identification of learning disabilities.* White paper presented at the Learning Disabilities Summit, Washington, DC. Retrieved from <http://www.air.org/ldsummit>
- Hasbrouck, J., & Tindal, G.A. (2006). Oral reading fluency norms: A valuable assessment tool for reading teachers. *International Reading Association, 636-644.* doi :101598/RT.59.7.3
- Johnson, E.S., Pool, J., & Carter, D.R. (2009). *Screening for reading problems in Grades 1 through 3: An overview of select measures.* Retrieved from RTI Action Network website: <http://www.rtinetwork.org/essential/assessment/screening/screening-for-reading-problems-in-grades-1-through-3>
- Luckner, J. L., & Bowen, S.K. (2010). Teachers' use and perceptions of progress monitoring. *American Annals of the Deaf, 155*(4). Retrieved from <http://www.questia.com/library/journal/1P3-2250450441/teachers-use-and-perceptions-of-progress-monitoring>
- Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning. *American Psychologist, 50*(9), 741-749.

- Messick, S. (1989). Validity. In R. L. Linn (Ed.), *Educational Measurement* (3rd ed., pp. 13-104). New York, NY: Macmillan.
- Ramos, R.M. (2012). *No such thing as 'bobo': Dealing with learning disabilities*. Retrieved from <http://www.interaksyon.com/article/33676/no-such-thing-as-bobo-dealing-with-learning-disabilities>
- Shinn, M. R. (Ed.) (1989). *Curriculum-based measurement: Assessing special children*. New York, NY: Guilford.
- Speece, D. L., & Case, L.P. (2001). Classification in context: An alternative approach to identifying early reading disability. *Journal of Educational Psychology*, 93(4), 735-749. doi: 10.1037/0022-0663.93.4.735
- Torgesen, J. K. (1998). Catch them before they fall: Identification and assessment to prevent reading failure in young children. *American Educator*, 22 (1-2). Retrieved from <https://www.aft.org/pdfs/americaneducator/springsummer1998/torgesen.pdf>