Vocabulary and Reading Comprehension as a measure of Reading Skills of Filipino Children

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A Filipino child needs to develop higher order skills and functional literacy. It is given that any Filipino child with sufficient reading skills would have greater chances of success in school compared to a child whose reading skills are poor and more often than not, those with poor reading skills when assessed properly are diagnosed with reading disability. Poor reading skill is manifested with poor comprehension, wrong pronunciations, among others.If no proper intervention is administered early, it could affect the academic, social and psychological development of the child. As such, proper and correct diagnosis of reading disability as early as possible appears to be essential. The purpose of the present study is to develop a new test measuring reading ability or skill (Vocabulary and Reading Comprehension) that could be used for the above-mentioned case. The test that was constructedwas administered to 582 Grades 3 and 4 Filipino pupils. Results showed that the new test has good internal consistency (r = .87 and .74). Using Confirmatory Factor Analysis the model attained an acceptable fit.

Keywords: Vocabulary, Reading Comprehension, Reading, Reading Skills

Academic achievement is at the forefront of any educational institution. Its increase or decrease among pupils or students has always been the concern of experts within or outside an institution as schools and teachers are increasingly held accountable for student achievement (Stipek, 2006; US Department of Education, 2002). Academic achievement in psychology has been loosely defined as a student's previous learning in school. This would often vary from one school to another as it is tied to the school's curriculum. Often, the focus is on common areas of learning or subject like Reading.

Another focus in the research in schools is the proper conduct of assessing student skills. The assessment of one's academic achievement is vital and important in the development of an institution as well as the student's they. When academic achievement of students are assessed, their abilities are always taken into consideration as what they have achieved is largely influenced by their capacity to do it; for example, a good grade in a subject is partly based on the ability of that student for that particular subject. Accurate assessment of student's academic abilities is very important because academic abilities has been identified as one of the most crucial variables related to effective instructional planning and positive student outcomes (Fuchs & Fuchs, 1986; Shinn, 1998; Ysseldyke & Christenson, 1987). It has been argued that without a valid assessment of student's academic skills, instructional decision-making is unlikely to promote academic competence (Martens & Witt, 2004). Given the importance of academic assessment, a variety of measures have been developed that can be used for that purpose. These measures include group-administered achievement batteries, norm-referenced tests of academic achievement and criterion-referenced measures of academic skills (Eckert, Dunn, Coding, Begeny,& Kleinmann, 2006). Although a number of assessment measures are available for measuring the global academic achievement of students, there are also measures that are more specific wherein a particular subject has been targeted. Through the years, several measures of assessment in reading have been developed as discussed by Cain and Oakhill (2006). According to them there are different reasons why practitioners and researchers need to assess a child's reading ability. This is usually done to monitor progress, to detect and diagnose reading difficulties and to test psychological theories of the cognitive skills that underpin reading development and disorders. In addition, Hale et al. (2011) identified reading as one of the greatest areas that assessment is needed as reading skills deficits can interfere with skill development across different academic subject areas, vocational skills and daily living skills. In addition, reading skills have also been linked to students that are commonly referred for special education services (Winn, Skinner, Oliver, Hale, & Ziegler, 2006). For whatever each purpose, what appears to be important is an accurate assessment of reading ability. Hence, the present investigation where the objective is to develop and standardize a tool that could assess the reading ability of Filipino grades 3 and 4 students which is in response to the need for an empirically validated reading interventions and assessment across all grade levels (Hale et al., 2011).

Reading

Reading is said to be one of the most important and complex cognitive skill and such importance has resulted into extensive studies over years (Baddeley, Logie, & Nimmo-Smith, 1985). Reading has been defined as a process of interaction involving one's knowledge of print, vocabulary, and comprehension. Its five essential components include phonemic awareness, phonics, fluency, vocabulary, and comprehension. In addition, Fitzgerald and

Fitzgerald (1965) included word recognition and sentence understanding as components. They further stated that the components involve discovery, comprehension, reflection, reasoning, appreciation, analysis, evaluation, synthesis, organization, and application. This would mean that when one is reading, one is thinking about the meaning conveyed and at the same time integrates his own knowledge to get the meaning of the symbols written by the writer. Though the concept of reading is broad and comprises several components, the focus of this research would only be on the areas of vocabulary and reading comprehension in line with the view that an approach to studying and assessing fluency in reading is to focus in specific reading tasks that will allow individual components of the reading process to be isolated and studied (Baddeley, Logie, & Nimmo-Smith, 1985).

"Reading comprehension is a complex cognitive ability requiring the capacity to integrate text information with the knowledge of the listener or reader and resulting in the elaboration of a mental representation" (Meneghetti, Carretti, & De Beni, 2006, p. 291). As a component of reading, reading comprehension can be best understood if one is adept with the different cognitive processes as current models suggest that such processes play a significant role in comprehension skills (Meneghetti et al., 2006). van den Broek (1994) highlighted that short and long term memory is a factor in the reading comprehension skills of an individual as a reader needs to store and manipulate information in his working memory during text procession and at the same time in order to construct a coherent representation of what he has read, the reader would have to refer to his prior knowledge. Inference also plays a major role in reading comprehension as understanding of the text read goes beyond literal wherein integrated mental representation of what was read is created and processed (Bowyer-Crane & Snowling, 2005; Yuill & Oakhill, 1991). Recent studies on reading comprehension stressed the importance of the concept of individual differences wherein attempts are made to account for how the process and components of reading comprehension differ among those labeled as skilled and less skilled readers (Oakhill, Cain, & Bryant, 2003). Such labels or classifications are results of meaningful assessment of one's reading skills or achievement wherein comparisons are made using tasks that measure either global or specific areas of reading comprehension and making inferences out of its results (Meneghett et al., 2006). The literature also puts emphasis on the effects of being a poor comprehender or being less skilled. Those who are less skilled have problems interrelating successive topics being read (Lorch, Lorch,& Morgan, 1987), integrating information or themes (Palincsar & Brown, 1984), understanding story structure (Cain & Oakhill, 1996), and rarely uses reading strategies (Brown, Armbruster, & Baker, 1986). This further strengthened the need for a tool to serve that particular purpose because of the fact that children vary in their skill as readers.

The other variable that is the focused on this research is vocabulary. Literature for vocabulary are less when compared with reading comprehension, but if one would analyze the nature of both aspects of reading, vocabulary, and comprehension appears supplementary wherein vocabulary focuses on

recognition of words and identification of its meaning while reading comprehension is all about the knowledge or understanding of what has been read the first step of which is recognizing and giving meaning to words. Just like reading comprehension, vocabulary of children differs. Most children acquire vocabulary during the preschool years but the said acquisition is more arduous (Anglin, 1993; Hargrave & Senechal, 2000;) and given its importance wherein children's vocabulary can be a predictor of their overall reading ability (Hargrave & Senechal, 2000), the need for a tool to assess it seems imperative.

Studying reading is synonymous to studying reading disabilities or problems associated with reading. Despite efforts to have a highly literate population among children, there has been a rise in the number of cases of children with reading problems or disabilities. In the United States, many children exhibit reading difficulties as reported by the National Assessment for Educational Progress (2005). In the Philippines, the Department of Education has reported a number of cases of children with learning difficulties. Its impact is not only limited to poor reading achievement because studies have shown that poor readers are at significantly greater risk than good readers for developing attention and behavioral problems (Adams & Snowling, 2001; Maughan & Carroll, 2006). Thus stressing the notion and importance of assessing reading ability or achievement early in order to identify those children that would need intervention.

Aside from using reading tools to assess reading problems or difficulty, it can also be used to gauge reading achievement or accomplishments of children. This is of equal importance as reading achievement have been linked to many research variables. Reading achievement was found to be related to higher levels of self-esteem among students (Kaniuka, 2010), reading achievement was also related to extrinsic motivation (Chiu, Chow, & Mcbride-Chang, 2007), and significant predictors of scholastic achievement (Savolainen, Ahonen, Aro, Tolvanen, & Holopainen, 2008; Meneghetti et al., 2006).

Bilingualism

This study also took into consideration the concept of bilingualism and its possible effects on the reading achievement of Filipinos given that English is not the mother tongue of Filipinos. In the study by Meyer (2000), she stated that bilingual students are having problems using English as a medium of instruction since it brings confusion in learning with their first language. Questions would now arise on the reliability of the results of the different assessment measures of reading achievement that since most of them are written in English in a sense that when these instruments report a child a poor in reading.Is the child really poor in reading or the only reason for his low score is because the test items are written in a language that he cannot fully understand? This is one of the reasons why Lee (2008) conducted his study on the development and validation of a reading-related assessment battery in Malay for the purpose of assessing dyslexia. This is to ensure that the assessment of children in Malaysia for dyslexia would be more accurate and a clearer picture of the current state of

dyslexia in the country would be presented by making use of an instrument in their native language. This may be true also for the Philippines, despite the fact that Filipinos are largely considered to have a good command of the English language, assessment that will make use of the Filipino language would present a clearer picture of the reading ability of the Filipino Grades 3 and 4 students with respect to Vocabularyand Reading Comprehension.Thepresent study developed an instrument written in Filipino that measures the reading skills of Grades 3 and 4 pupils.Particularly, the new test measures Filipino vocabulary and reading comprehension.

Method

Design

The present study used a quantitative study cross-sectional explanatory design. According to Johnson (2001), a cross-sectional explanatory research would entail the gathering of data from the respondents during a single point in time with the objective of developing an instrument that would measure a phenomenon and explaining the nature of the phenomenon. Moreover, this was also a descriptive normative research as it made use of the constructed test and determines its usefulness to explain the current condition as regards to the participants' achievement in vocabulary and reading comprehension.

Participants

The study made use of two sets of participants that were selected through convenience sampling. They are Grades 3 and 4 pupils of selected public and private schools within the Metro Manila area. A total of 582 pupils participated in the research; 238 of who were involved in the development of the preliminary form while the remaining 344 took part in the development of the polished form.

Measure

To gather the needed data for the completion of the project, several instruments were used. The researcher after the consultation with experts developed four different instruments. They are as follows: preliminary and polished form for vocabularyand the preliminary and polished form for reading comprehension. All items were written in Filipino and are based on the Filipino and reading subjects of the Grades 3 and 4 pupils.Table 1 contains the description of all developed or used instruments.

Procedure

The entire test development process was divided into three stages. The first stage involved the writing of the test items in Filipino. This was undertaken after a review of the Filipino and reading subjects in Grades 3 and 4 to ensure

that the items that would be included is reflective of what the pupils are exposed to and is studying. The items were then formatted and submitted to experts for content validation. Experts in both Filipino and reading reviewed and evaluated the items in terms of suitability and appropriateness. From the original 65 items for vocabulary and 60 items for reading comprehension, only 50 items for both subscales were retained. This made up the preliminary form of vocabulary and reading comprehension.

Table 1
Description of test instruments

Type of Test	No. of Items	Description
Preliminary Form Vocabulary	50	Measures the skill of the
Polished Form Vocabulary	45	test taker in identifying Filipino words and matching it with its corresponding meaning.
Preliminary Form Reading Comprehension	50	Measures the skill of the test taker in reading
Polished Form Reading Comprehension	27	passages and understanding it by answering questions about it.

The second stage focused on determining the usability of the preliminary form. It was administered to 238 Grades 3 and 4 pupils from 5 schools that agreed to participate in the research. The result of which was subjected to Cronbach's alpha for reliability testing and item analysis (difficulty and discrimination). After the initial analysis, only 45 items were retained for the Vocabulary subscale 27 for the Reading Comprehension.

Stage three dealt on the use of the polished form. It was administered to 344 Grades 3 and 4 pupils from 3 schools. Data gathering was again subjected to Cronbach's alpha for reliability testing and Confirmatory Factory Analysis for validity.After which, the normative structure was constructed, specifically Stanine and Percentile Rank.

Data Analysis

Several techniques were used to determine the psychometric properties of both the preliminary and polished forms of the vocabulary and reading comprehension subscales. Intra-class analysis method, Cronbach's alpha, item analysis, and Confirmatory Factory Analysis (CFA) were obtained. In addition, the Means, Standard Deviation, Percentiles, and Stanines were also obtained.

Results

Content Validation

Results of the Intra Class Reliability Method of the responses during the expert validation of the two subscales are an indication that the new test has content validity. Obtained value for vocabulary (*r* = .58) and reading comprehension (*r* = .81) reveal a consistent rating among the experts, thereby indicating a high degree of agreeability in terms of the usability and appropriateness of the test items.

Descriptive Statistics

Means and Standard Deviations of the participants from the preliminary and polished forms of both the vocabulary and reading comprehension subscales are found in Table 2. The distribution of scores does not appear normal (skewed to the left) with the exception of the preliminary form of reading comprehension. For the confidence interval (95%)the computed means for the preliminary form is both below (Vocabulary; M = 31.54) and above (Reading Comprehension; M = 29.95) the expected ranges. A similar scenario was observed in the polished form with the Vocabulary (M = 35.94) exceeding the upper limit of the interval and Reading Comprehension (M = 21.21) not meeting the lower limit of the interval.

Table 2
Descriptive statistics of the preliminary and polished forms

Subscales	M (SD)	Skewness	Kurtosis	95% Confidence Interval
Preliminary Form				
Vocabulary	31.54 (11.10)	-1.227	1.307	35.25 – 36.62
Reading Comp.	29.95 (6.20)	-.658	-.572	20.82 – 21.59
Polished Form				
Vocabulary	35.94 (6.50)	-1.531	2.094	30.12 – 32.96
Reading Comp.	21.21 (3.58)	-1.247	2.363	29.16 – 30.75

Internal Consistency of the Preliminary and Polished Form

Results showed that the preliminary form of both Vocabulary and Reading Comprehensioncontain items that are internally consistent with alpha values of .93 and .87 reliability respectively, an indication test soundness, stability and dependability. Concerning the polished form, similar interpretation can be made despite the decrease in value for the Vocabulary subscale (*r* = .87) and reading comprehension (*r* = .74). The decrease in the value of the coefficient can be explained by the decrease in the number of test items as the reliability

coefficient of a test is affected by the length or the number of items in a particular test (Kaplan & Saccuzzo, 2009). Nonetheless, the polished form is internally consistent and can be dependent on to generate stable scores over a period of time.

Item Analysis

Item analysis was performed to determine the level of difficulty and discriminatory of the contents of the preliminary form. This served as one of the basis to find out which test items should be included in the polished form. Based on the computation the items on vocabularyhave an average difficulty index of 0.59, while reading comprehension'saverage difficulty index is 0.75. In addition, the average discriminatory index or power of the test items is 0.32 and 0.59 for Reading Comprehension and Vocabularyrespectively. Based on the results, all test items in the preliminary form are classified within the range of reasonably good item to very good items (Sevilla, Ochave, Punsalan, Regala, & Uriarte, 1999).

Table 3
Percentage of retained items against discarded items

Subscales	Retain (%)	Discard (%)
Vocabulary	45 (90%)	5 (5%)
Reading Comprehension	27 (54%)	23 (46%)

The results of the item analysis determined the contents of the polished form. Ideally, a good test should have good items as this will aid in enhancing its reliability and validity (Freidenberg, 1999). As such, the composition of the polished form of the instrument developed includes test items that are either reasonably good or very good. Based on the statistical computation the number of test items that composed the polished form was reduced as items classified as poor were discarded. The polished form of Vocabulary and Reading Comprehensionhas 45 and 27 items respectively. The average difficulty level and discriminatory power for Reading Comprehensionpolished form are 0.71 and 0.40. While for Vocabularyit is 0.62 and 0.56 for difficulty and discrimination.

Confirmatory Factor Analysis

The polished forms of the instruments were also subjected to Confirmatory Factor Analysis (see Figure 1). It was tested for goodness of fit using the chi-square (χ^2), RMSEA, Akaike Information Criterion (*AIC*), Comparative Fit Index (*CFI*), Population Comparative Fit Index (*PCFI*), among others.Table 3 contains the results of the Confirmatory Factor Analysis for the polished form. To extensively evaluate the factor structure of the instrument, multiple indices were used. The traditional chi-square was evaluated along with the RMSEA, PGI, APGI, Joreskog GFI and AGFI.

Table 3
Goodness of Fit indices

Goodness of Fit Index	Values
RMSEA	0.043
PGI	0.885
APGI	0.879
Joreskog GFI	0.752
Joreskog AGFI	0.737
Chi square	4131.038

Results show that the chi square value is considered low and is significant at 0.05 alpha level. This is an indication of the departure of the data from the model as the significant value suggests. Of all the indices that were reported, it is only the chi-square that generated such an indication. As discussed by Anderson and Gerbing (1988), and Huang and Michael (2000), cited by Ganotice (2010, p.66) that the value of the chi-square likelihood ratio statistic is directly dependent on sample size whereas large sample size may generate significant values even if the discrepancies are trivial.
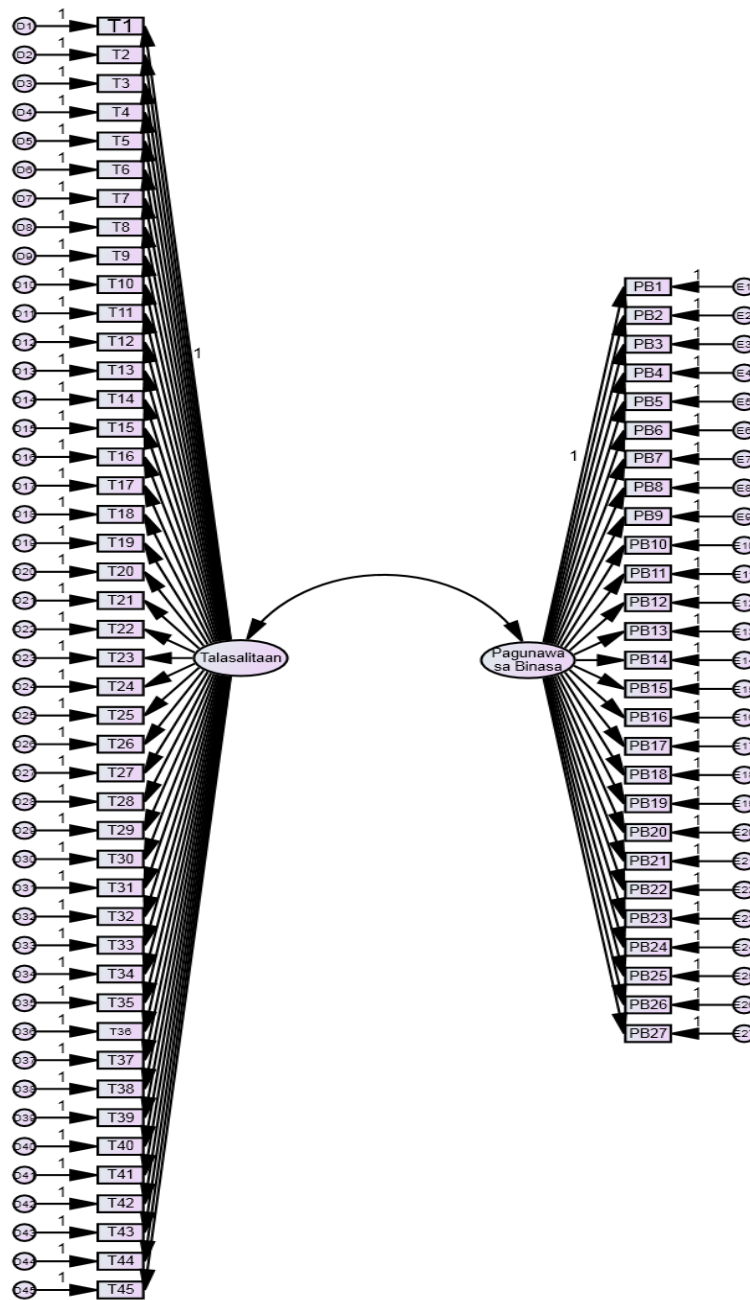
Despite the chi-square results, other indices reported a fit that is along the adequate and good level. The RMSEA value of 0.043 is an indication of a good fit as discussed by Hu and Bentler (1999) wherein they stated that values that are less than .06 indicate a good fit. Other indices computed through CFA indicate an adequate fit as they are near the cut off-point or rule of thumb in determining whether the fit is good or not. The above results indicate that both Vocabulary and Reading Comprehensionis a valid instrument to measure reading skill.

Normative Structure

The normative structure of the developed test is based on its polished form and derived from 344 respondents within the Metro Manila area. Though it is ideal to have included samples outside the Metro Manila area, due to time constraints and practical reasons, the researcher decided to confine its investigation within the declared area. This move is supported by Gregory (1996) wherein he stated that very few test developers would go into using and fully employing large samples taken from different areas in selecting their norm group. He further explained that what is more typical is a good faith effort to pick a diverse and representative sample.

In relation to the constructive normative structure, the raw scores were converted to percentile and the percentiles were converted to STANINE (Standard Nine). Percentile ranks ranges from a low of 1 to a high of 99; while the STANINE is from 1 to 9. In terms of qualitative interpretation, the normative structure was divided into three categories, namely: Below Average, Average, and Above Average. STANINE scores that ranges from 1 to 3 would indicate Below Average achievement while STANIE scores that ranges from 4 to 6

translates into an Average achievement and the STANINE scores of 7 to 9 means an Above Average achievement.

Note: Talasalitaan is the Vocabulary and Pagunawa sa Binasa is Reading Comprehension

Figure 1
Model tested for CFA.

Discussion

The aim of the present study was to construct and validate a new test that will measure Filipino children's reading skills with respect to the facets of vocabulary and reading comprehension. The choice of vocabulary and reading comprehension as subscales is based on the notion that these are the two basic components of reading. According to Hargrave and Senechal (2000) Vocabulary is a component of reading that provides an indication of the overall reading ability of the participants and participants who scored high on this subscale demonstrates high skills in terms of understanding and deducing the meaning of Filipino words common among Grades 3 and 4 pupils. Reading Comprehension was included because it has been identified as one of the basic components of reading ability (Baddeley et al., 1985). This measures the level of understanding of the participants of the passages that they have read by answering its succeeding questions. Participants who score high on this subscale exhibit the ability to understand and make inferences about what they have read.

The researcher also choose to write the test in Filipino in order to accurately assess Filipino children's reading ability and avoid instances wherein one would be judged as poor in reading simply because he or she cannot understand the English language but appears to do well in reading when items are in Filipino.

The pertinent data that has been gathered indicates that Vocabulary and Reading Comprehension is a valid and reliable instrument that can measure reading skills of Grades 3 and 4 pupils. It's content validity has been established via expert validation and is deemed important because according to Freidenberg (1995), one of the basic requirement for a test that make inferences about the broader domain of knowledge and/or skills is a valid content. This has been supplemented by the results of the confirmatory factor analysis where several fit indices have adjudged the factor structure of the new test as fitting. Such empirical evidences aids in the realization of the objective of the instrument to provide accurate information about the reading skills of Filipino students.

In addition to being valid, the new test is also reliable. In terms of application, a test that is high in reliability is highly favored over one that is not because a reliable test can be depended on to generate scores that are realistic estimates of the test taker's actual knowledge or characteristics (Freidenberg, 1995). Thus the Vocabulary and Reading Comprehension subscales can produce data that is reflective of the skill of Filipino children with respect to the domains measured by each of them

The above psychometric properties of the new test is particularly important because an accurate assessment of student's academic abilities has been identified as one of the most crucial variables related to effective instructional planning and positive student outcomes (Fuchs & Fuchs, 1986; Shinn, 1998; Ysseldyke & Christenson, 1987). Likewise, without a valid assessment of student's academic skills, instructional decision-making is unlikely to promote academic competence (Martens & Witt, 2004). Tests of such nature accurately yields information on student's abilities that can be used by teachers,

administrators and educational managers in designing their lessons, curriculum, study plan and other similar programs wherein all of the above can be tailored fit in order to meet the needs of the students that they serve thereby increasing chances for academic success. And in a more practical sense, the use of the said instrument can aid in the Philippines implementation of the K to 12 Basic Education Program where one of its features is building proficiency through language as the use of language has been identified as a factor in reading development and vice versa.

References

Adams, J.,& Snowling, M. (2001). Executive functioning and reading Impairments in children reported by their teachers as hyperactive. *British Journal of Developmental Psychology,19*(2), 293-306.

Angling, J.M. (1993). Vocabulary development: A morphological analysis. *Monographs of the Society for Research in Child Development, 58*(10).

Baddeley, A., Logie, R.,& Nimmo-Smith, I. (1985). Component of fluent reading. *Journal ofMemory and Language, 24,* 119-131.

Bowyer-Crane, C.,& Snowling, M.J. (2005). Assessing children's inference generation: What do tests of reading comprehension measure? *British Journal of Educational Psychology,75,* 189-201.

Brown, A.L., Ambruster, B.B.,& Baker, L. (1986). The role of metacognition in reading and studying. In J. Orasanu (Ed.), *Reading comprehension: From research to practice.* Hillsdale, NJ: Erlbaum.

Cain, K.,& Oakhill, J. (1996). The nature of the relation between comprehension skill and the ability to tell a story. *British Journal of Developmental Psychology, 14*(2), 187-201.

Cain, K.,& Oakhill, J. (2006). Assessment matters: Issues in the measurement of reading comprehension. *British Journal of Educational Psychology,76*(4), 697-708.

Chatterji, M. (2006). Reading achievement gaps, correlates and moderators of early reading achievement: Evidence from the Early Childhood Longitudinal Study (ECLS) kindergarten to first grade sample. *Journal of Educational Psychology,98*(3), 489-507.

Chiu, M.M., Chow, B.W.,& Mcbride-Chang, C. (2007). Universals and specifics in learning strategies: Explaining adolescent mathematics, science, and reading achievement across 34 countries. *Learning and Individual Differences, 17,* 344-365.

Eckert, T., Dunn, E., Codding, R., Begeny, J., & Kleinmann, A. (2006). Assessment of mathematics and reading performance: An examination of the correspondence between direct assessment of student performance and teacher report. *Psychology in the Schools,* (43), 247-265.

Fitzgerald, J.,& Fitzgerald, P. (1965). Teaching reading and the language arts. USA:Bruce Publishing Company.

Friedenberg, L. (1995). Psychological testing: Design, analysis and use. Massachusetts:Allyn & Bacon.

Fuchs, L.S.,& Fuchs, D. (1986). Effects of systematic formative evaluation on studentachievement: A meta-analysis. *Exceptional Children,*(53), 199-208.

Ganotice, F. (2010). A confirmatory factor analysis of scores on Inventory of School Motivation (ISM), Sense of Self Scale, and Facilitating Conditions Questionnaire(FCQ): A study using a Philippine sample.

Ghelani, K., Sidhu, R., Jain, U., & Tannock, R. (2004). Reading comprehension and reading related abilities in adolescents with reading disabilities and attention-deficit/hyperactivity disorder. *Dyslexia,*(10), 364-384.

Gregory, R. (1996). Psychological Testing: History, principles and applications (2nd ed.) Needham Heights, MA: Allyn & Bacon

Hale, A. et al. (2011). Reading assessment methods for middle-school students: An investigation of reading comprehension rate and maze accurate response rate. *Psychology in the Schools, 48*(1), 28-36.

Hargrave, A.C.,& Senechal, M. (2000). A book reading intervention with preschool children who have limited vocabularies: The benefits of regular reading and dialogic reading. *Early Childhood Research Quarterly, 15*(1), 75-90.

Hu, L.T.,& Bentler, P.M. (1999). Cutoff criteria for fit indixes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling,* (6), 1-55.

Huang, C.,& Michael W. B. (2000). A confirmatory factor analysis of scores on a Chinese version of an academic self-conceptscale and its invariance across groups. *Educational and Psychological Measurement,*(60), 772-786.

Kaniuka, T. (2010). Reading achievement, attitude toward reading, and reading self-esteem of historically low achieving students. *Journal of Instructional Psychology, 37*(2), 184-188.

Kaplan, S.,& Saccuzzo, D. (2009). Psychological testing: Principles, applications and Issues (7th ed.). Belmont CA: Thomson Wadsworth

Keller-Margulis, M., Shapiro, E.,& Hintze, J. (2008). Long-term diagnostic accuracy of curriculum-based measures in reading and mathematics. *School Psychology Review,* (3), 374-390.

Lee, L. W. (2007). Development and validation of a reading-related assessment battery in Malay for the purpose of dyslexia assessment. *Ann of Dyslexia,*(58), 37-57.

Lorch Jr., K.G., Lorch, E.P., & Morgan, A.M. (1987). The task effects and individual differences in an on-line processing of the topic structure of a text. *Discourse Processes, 10,* 63-80.

Martens, B. K., & Witt, J.C. (2004). Competence, persistence and success: The positive psychology of behavioral skill instruction. *Psychology in the Schools,*(41), 19-30.

Maughan, B.,& Carroll, J. (2006). Literacy and mental disorders. *Current opinion in Psychiatry,* (19), 350-354.

Meneghetti, C., Carretti, B.,& De Beni, R. (2006). Components of reading comprehension and scholastic achievement. *Learning and Individual Differences, 16,* 291-301.

Meyer, L. (2000). Barriers to meaningful instruction for English learners. *Theory into practice*. http://www.jstor.org/stable/1477342

Oakhill, J., Cain, K.,& Bryant, P.E. (2003). The dissociation of word reading and text comprehension: Evidence from component skills. *Language and Cognitive Processes, 18,*443-468.

Palincsar, A.S.,& Brown, A.L. (1984). Reciprocal teaching of comprehension fosteringand comprehension monitoring activities. *Cognitive and Instruction, 1,* 117-175.

Ponitz, C., Rimm-Kaufman, S., Grimm, K.,& Curby, T. (2009). Kindergarten classroom quality, behavioral engagement, and reading achievement. *School Psychology Review,38*(1), 102-120.

Sevilla, C., Ochave, J., Punsalan, T., Regala, B.,& Uriarte, G. (1992). Research Methods (Revised ed.). Quezon City: Rex Bookstore

Stipek, J.D. (2006). No child left behind comes to preschool. *Elementary School Journal,*(106), 455-465.

Savolainen, H., Ahonen, T., Aro, M., Tolvanen, A.,& Holopainen, L. (2008). Reading comprehension, word reading and spelling as predictors of school achievementand choice of secondary education. *Learning and Instruction, 18,* 201-210.

U.S. Department of Education. (2002). No child left behind: A desktop reference. Office of the Elementary and Secondary Education. Washington D.C.

van den Broek, P. (1994). Comprehension and memory for narrative texts: Inferences and coherence. In M.A. Gernsbacher (Ed.), *Handbook of psycholinguistics*. San Diego, CA:Academic Press.

Winn, B.D., Skinner, C.H., Oliver, R., Hale, A.D.,& Ziegler, M. (2006). The effects of listening while reading and repeated reading on the reading fluency of adult learners. *Journal of Adolescent and Adult Literacy, 50,* 196-205.

Yuill, N.,& Oakhill, J. (1991). *Children's problem in text comprehension: An experimental investigation.* New York: Cambridge University Press