A BRIEF REVIEW DETAILING THE EFFECTIVENESS OF DIRECT INSTRUCTION READING ON ENGLISH LANGUAGE LEARNERS WITH LEARNING DISABILITIES

Shahd A. Binnafesah[1]

Graduate Student

T. F. McLaughlin[2]

Full Professor
Department of Special Education
Gonzaga University

Abstract: *The purpose of this study was to review the literature with direct instruction (DI) reading and its effectiveness to develop reading acquisition with English language learners (ELL) with learning disabilities. This paper provided an overview of DI materials and teaching procedures, learning disabilities (LD), and English language learners (ELL) with LD. From the literature examined the author concluded that DI has been an effective method to teach ELL students with LD to improve their reading skills.*

Key Words: *Direct instruction, reading skills, learning disabilities, reading disabilities, English language learners, English as a second language, reading instruction, explicit instruction*

Introduction

Reading is a very important skill for student to achieve success in both academic, future life, and for students' psychological health (Carnine, Silbert, Kame'enui, & Tarver, 2005, 2010; Rinaldi, Sells, & McLaughlin1997; Ritchie & Bates, 2013). According to Crawford and colleagues, students who fall behind in reading will also lag behind in mathematics because many math problems require reading (Crawford, Tindal, & Steiber, 2001). Through natural development most students acquire language; never the less, reading is a skill that require learning and does not derive as a natural proses (Lyon, 1999; Moats & American Federation of Teachers, 1999). Because reading is such an important skill, it has to be taught to children from an early age when they begin their schooling (Ulring, McLaughlin, Neyman, & Waco, 2012). Some of these students acquire reading skills naturally, while some students required systematic and explicit instructions (Shippen, Houchins, Steventon & Sartor, 2005). These students are referred as " poor readers" (Spear-Swerling & Sternberg, 1994). Reading difficulties became the most prevalent problem for students with learning disabilities experience (Handler & Fierson, 2011). According to the United States Department of Education, students with learning disabilities (LD) are the majority group who receives special education service (U.S. Department of Education, 2007).

Students with reading disability have difficulties in processing the language information and understanding text (Handler & Fierson, 2011). The disability is characterized by having issues in written language, decoding, word recognition, quick naming, and comprehension. As a consequence of these deficits in understanding of phonological components of the language (Handler & Fierson, 2011), these children need specialized reading instruction. The instruction must include explicit instructions in phonetic awareness (Handler & Fierson, 2011; National Institute of Child Health and Human Development, 2013).

There are several approaches that may help students with LD to become better readers; The Direct Instruction method (DI), has shown to assist students with LD in their reading skills (Kuder, 1991). This method is a highly organized model designed to young children in small groups and provides them with specific instructions in decoding. Good reading skills require accuracy and comprehension, which DI reading program concentrates on (Torgerson, Brooks & Hall, 2006). There are many authors that have emphasized the efficacy of Direct Instruction reading program with students who have learning disabilities (Kuder, 1991; Johnson, Luiten, Derby, McLaughlin, Weber, & Johnson, 2003; Erbey, McLaughlin, Derby, & Everson, 2011).

Teaching reading becomes more challenging when teaching English Language Learners (ELL) with LD. ELL students usually perform more poorly than their non-ELL peers on the national assessment (Kamps, Abbott, Greenwood, Arreaga-Mayer, Wills, Longstaff, & Walton, 2007) and they perform below grade level in reading and math compared to their non-ELL peers (Fry, & Pew Hispanic, 2008). Because ELL students have not acquired reading skills, which results in poor reading achievement, they may be identify as students with LD (Snow, Burns, & Griffin, 1998). In order to improve their reading skills, ELL students need an individually tailored program that will meet their needs.

Methodology

The aim of this paper was to explore the current literature addressing the direct instruction reading and its effectiveness in teaching ELL students with LD. Our search strategy included electronic searcher of the following: PsycINFO (EBSCO), ERIC (EBSCO), ProQuest Research Library (ProQuest), and Google Scholar. Manual searches were also conducted by the first author using the citations in reference sections from those articles found. These data were collected from September 2013 through December 2013.

Review of Literature

The introduction of the Direct Instruction model began in the 1960's when Becker and his colleague Carnine combined their behavioral analysis approach with the instructional theory of Bereiter and Engelmann (Becker, 1984). This model's uniqueness is based on precise and systematic instructions in building and maintaining cognitive skills (Becker, 1984). The DI basic tenants for providing an effective reading instruction is to develop reading skills such as

phonological awareness, word recognition, fluency, and comprehension. These include: (a) modeling/ demonstration, (b) prompting, (c) immediate feedback, (d) providing opportunities to respond, (e) frequent exercise, (e) shaping, and (f) reinforcing the student responses (Ritchey, 2011; Steventon, & Fredrick, 2003). Therefore, DI method means to teach new knowledge to the learners throughout meaningful interactions between the teacher and the students (Carnine et al., 2010; Rupley, Blair, & Nichols, 2009).

Direct instruction is based on several effective variables that allied to students' academic achievement; Rosenshine highlighted these variables in his research; they include highly structured lessons that delivered to a small group of students by the teacher. The program has clear objectives that focus on the academic areas and provide sufficient time for instruction and review with wide coverage for the content. In addition, Rosenshine emphasized the immediate feedback and its rule in motivating the students' performance or correcting their errors (Rosenshine, 1986).

In order for a student to become a good reader, there are some skills that the students need to achieve. These skills are phonemic awareness, phonics, vocabulary, comprehension, and fluency (National Reading Panel, 2000). The most well known program that uses DI to teach children to read is the Direct Instruction System for Teaching Arithmetic and Reading (DISTAR) (Adams, & Engelmann, 1996). This program is based on explicit instruction, which can be used to teach all reading components. It is an instrument that results in positive outcomes, which have been linked with explicit instruction such as phonological awareness (Torgesen, Wagner, Rashotte, Rose, Lindamood, Conway, & Garvan, 1999), word interpretation (Lovett, Barron, & Benson, 2003), and comprehension (Gersten, Fuchs, Williams, & Baker, 2001). Moreover, systematic phonics instruction has proved through many extensive meta-analysis that it is an important effective method for helping young children to learn how to read English better (Ehri, Nunes, Stahl & Willows 2001). The direct explicit instruction in phonological awareness is the main ingredient for aiding development in reading accuracy and comprehension (Manset-Williamson & Nelson 2005; Torgerson et al., 2006).

Students with Learning Disabilities

Students with LD differ from their regular peers in some areas (Kame'enui, & Carnine, 1998). They experience difficulties in auditory and visual processing, verbal development, memory abilities; these complications may affect the students' school and social life. (Atkinson, Wilhite, Frey, & Williams, 2002). Students with LD are categorized by having difficulty in working on tasks that require focus on organization; those students showed that they have no strategies to monitor their thoughts in the act of reading (Atkinson et al., 2002).

A systematic instruction has been effective in teaching students with LD. This means that there is a defined range of logical operations and systematic instruction and the procedures are broken

down into smaller tasks, which are taught in a logical way (Carnine, Silbert, Kame'enui, & Tarver, 2004). DI reading programs teach phoenix in a very explicit and organized way that LD students can perceive. When phonological awareness is mastered, the students will understand the relationship between the written words; then it will make sense to them and will give meaning to sentences and paragraphs (Martin, Martin, & Carvalho, 2008). Thus, the explicit instruction is often an essential component to provide effective reading instruction for students with LD (Heward, 2003; Vaughn & Linan Thompson, 2003). There are many studies that were conducted to evaluate DI reading program with students with LD and showed successful results (Kuder, 1991; Johnson, Luiten, Derby, McLaughlin, Weber, & Johnson, 2003; Erbey, McLaughlin, Derby, & Everson, 2011; Kaufman, McLaughlin, Derby, & Waco, 2011). It has been reported that one out of five children have difficulty in phonemic awareness; without using explicit instruction to develop the decoding skill, these children will not meet the skill levels of their regular peers (Foorman, Fletcher, & Frances, 1997; Manset-Williamson, & Nelson, 2005).

English Language Learners with Learning Disabilities

ELL students might have a reading disability as a direct effect from the lack of English language proficiency (Snow et al., 1998) or from having learning disabilities even in their first language. The National Reading Panel provided substantial proof that phonological processing and vocabulary are cognitive elements of reading skills (National Reading Panel, 2000). In recent studies, researchers have associated the short-term memory (STM) and working memory (WM) to the performance of ELL students who are at risk for RD (e.g., Swanson, Sa´ez, Gerber, & Leafstedt, 2004). In the reading act, there are two procedures involved: The predicting of word identification in the Short Term Memory STM, and the predicting comprehension in the working memory WM (Swanson & Berninger, 1995). In other words, the STM function is to decode the newly learned word and practice them. On the other hand, WM engages in manipulation of this information and storing it (Gathercole, Pickering, Ambirdge, & Wearing, 2004). For example when the grapheme-phoneme is received the working memory start blending that grapheme-phoneme to produce the word (Constantinidou, & Evripidou, 2012). It has been suggested that ELL with LD students are having difficulties with tasks that involve recalling of ordered information (Thorn, Gathercole, & Frankish, 2002).

Because ELL students have difficulties in word decoding, DI reading instruction teaches reading in explicit logical operations, which will allow ELL students with LD to process the knowledge in a way that their memory could follow and memorize what it has received and provides the student with sufficient practice.

The significant role of DI that has to deal with WM and STM has stimulated researchers to study the effects of DI instruction in teaching ELL children to learn reading skills for English as a second language. Lesaux and Siegel did one of these studies in 2003 and they confirmed that ELL children, who received DI in phonological awareness, performed at the same level of those

who had English as their first language. Moreover, Gunn and his colleagues did an experimental study to examine the effect of Reading Mastery and Corrective Reading with 122 students from diverse backgrounds with reading difficulties. They found that the experimental group significantly outperformed the control group in reading skills. Another study was by Ganschow and colleagues (1995), which proved that explicit and systematic teaching instruction in the phonological awareness in Spanish improved ELL students' performance in English word reading.

Summary and Conclusions

One of the common problems that face educators in schools is to teach students with LD to read (Atkinson et al., 2002). Because the United States has a fast growing population in ELL (U.S. Department of Education, National Center for Education Statistics, 2013), the number of students with LD would increase significantly in the coming years. The educators need effective research based instruction to help those students to overcome their problems with reading. In order to improve ELL students with LD reading competence, they need a specialized reading instruction that can deal with the cognitive problem they have.

DI reading provides reliable techniques to support ELL students with LD readers in their journey to learn reading in English. The findings of numerous studies have proved that DI reading programs are very effective in teaching reading acquisitions to ELL students with LD.

Acknowledgements

References

Adams, G. L., & Engelmann, S. (1996). *Research on direct instruction: 25 Years beyond DISTAR*. Seattle, WA: Educational Achievement Systems.

Atkinson, T. S., Wilhite, K. L., Frey, L. M., & Williams, S. C. (2002). Reading instruction for the struggling reader: Implications for teachers of students with learning disabilities or emotional/behavioral disorders. *Preventing School Failure, 46*, 158–162.

Becker, W. C. (1984, May). *Direct Instruction-A twenty-year review*. Paper presented at the Annual Banff International Conference on Behavioral Science.

Carnine, D. W., Silbert, J., Kame'enui, E. J., & Tarver, S. G. (2005). *Direct reading instruction* (4th ed.). Upper Saddle River, NJ: Merrill/Prentice-Hall.

Carnine, D. W., Silbert, J., Kame'enui, E. J., & Tarver, S. G. (2010). *Direct reading instruction* (5th ed.). Upper Saddle River, NJ: Pearson Education.

Constantinidou, F., & Evripidou, C. (2012). Stimulus modality and working memory performance in Greek children with reading disabilities: Additional evidence for the pictorial superiority hypothesis. *Child Neuropsychology, 18*, 256-280. doi:10.1080/09297049.2011.602013

Crawford, L., Tindal, G., & Steiber, S. (2001). Using oral reading rate to predict student performance on statewide achievement tests. *Educational Assessment, 7*, 303–323.

Ehri, L. C., Nunes, S. R., Stahl, S. A., & Willows, D. M. (2001). Systematic phonics instruction helps students learn to read: Evidence from the national reading panel's meta-analysis. *Review of Educational Research*, *71*, 393-447.

Erbey, R., McLaughlin, T. F., Derby, K. M., & Everson, M. (2011). The effects of using flashcards with reading racetrack to teach letter sounds, sight words, and math facts to elementary students with learning disabilities. *International Electronic Journal of Elementary Education, 3*, 213-226. Retrieved from: http://www.iejee.com/index.html

Foorman, B., Fletcher, J., & Frances, D. (1997). A scientific approach to reading instruction. *Center for Academic and Reading Skills.* Retrieved from: http://www.ldonline.org/ld_indepth/reading/cars.html

Fry, R., & Pew Hispanic, C. (2008). *The role of schools in the English Language Learner achievement gap*. Washington DC: The Pew Hispanic Center.

Ganschow, L., & Sparks, R. (1995). Effects of direct instruction in Spanish phonology on the native-language skills and foreign-language aptitude of at-risk foreign-language learners. *Journal of Learning Disabilities, 28*, 107-120.

Gathercole, S. E., Pickering, S. J., Ambridge, B., & Wearing, H. (2004). The structure of working memory from 4 to 15 years of age. *Developmental Psychology, 40*, 177-190. doi:10.1037/0012-1649.40.2.177

Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research*, *71*, 279-320. doi:10.3102/00346543071002279

Gunn, B., Biglan, A., Smolkowski, K., & Ary, D. (2000). The efficacy of supplemental instruction in decoding skills for Hispanic and non-Hispanic students in early elementary school. *The Journal of Special Education, 34*, 90-103. doi:10.1177/002246690003400204

Handler, S. M., & Fierson, W. M. (2011). Learning disabilities, dyslexia, and vision. *Pediatrics, 127*, 818-856.

Heward, W. L. (2002). Ten faulty notions about teaching and learning that hinder the effectiveness of special education. *The Journal of Special Education*, *36*, 186-205. doi:10.1177/002246690303600401

Johnson, J. J., Luiten, L. M., Derby, K. M, McLaughlin, T. F. Weber, K. P. & Johnson, M.

(2001). Evaluating the effectiveness of Teach Your Child to Read in 100 Easy Lessons using graded word lists. *Proven Practice: Prevention and Remediation Solutions for Schools, 3*, 68-74.

Kame'enui, E. J., & Carnine, D. W. (1998*). Effective teaching strategies that accommodate diverse learners.* Upper Saddle River, NJ: Prentice Hall.

Kamps, D., Abbott, M., Greenwood, C., Arreaga-Mayer, C., Wills, H., Longstaff, J., & Walton, C. (2007). Use of evidence-based, small-group reading instruction for English language learners in elementary grades: secondary-tier intervention. *Learning Disability Quarterly*, *30*, 153-168.

Kaufman, L., McLaughlin, T. F., Derby, K., & Waco, T. (2011). Employing reading racetracks and di flashcards with and without cover, copy, and compare and rewards to teach of sight words to three students with learning disabilities in reading. *Educational Research Quarterly, 34*, 27-50.

Kuder, S. (1991). Language abilities and progress in a direct instruction reading program for students with learning disabilities. *Journal of Learning Disabilities, 24,* 124-127.

Lesaux, N. K., & Siegel, L. S. (2003). The development of reading in children who speak English as a second language. *Developmental Psychology, 39*, 1005-1019. doi:10.1037/0012-1649.39.6.1005

Lovett, M. W., Barron, R. W., & Benson, N. J. (2003). *Effective remediation of word identification and decoding difficulties in school-age children with reading disabilities*. In H. Swanson, K. R. Harris, S. Graham (Eds.), *Handbook of learning disabilities* (pp. 273-292). New York, NY: Guilford Press.

Lyon, G. R. (1999). *The NICHD research program in reading development, reading disorders, and reading instruction.* NY: National Center for Learning Disabilities.

Manset-Williamson, G., & Nelson, J. M. (2005). Balanced, strategic reading instruction for upper-elementary and middle school students with reading disabilities: A comparative study of two approaches. *Learning Disability Quarterly*, *28*, 59.

Martin, D., Martin, M., & Carvalho, K. (2008). Reading and learning-disabled children: Understanding the problem. *Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *81*, 113-117.

Moats, L. C., & American Federation of Teachers. (1999). *Teaching reading is rocket science: What expert teachers of reading should know and be able to do*. Washington, DC: American Federation of Teachers.

National Institute of Child Health and Human Development. (2013). *National reading panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: Available at http://www.nichd.nih.gov/publications/pubs/nrp/Documents/report.pdf

National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.

Rockville, MD: Available at http://www.nichd.nih.gov/publications/pubs/nrp/Documents/report.pdf

Rinaldi, L., Sells, D., & McLaughlin, T. F. (1997). The effects of reading racetracks on the sight word acquisition and fluency of elementary students. *Journal of Behavioral Education, 7*, 219-233.

Ritchey, K. D. (2011). The first "R": Evidence-based reading instruction for students with learning disabilities. *Theory Into Practice, 50*, 28-34.

Ritchie, S. J., & Bates, T. C. (2013). Enduring links from children mathematics and reading achievement to adults' socio-economic status. *Psychological Science*, *24, 1301-1308.*

Rupley, W. H., Blair, T. R., & Nichols, W. D. (2009). Effective reading instruction for struggling readers: The role of direct/explicit teaching. *Reading & Writing Quarterly: Overcoming Learning Difficulties, 25*, 125-138.

Shippen, M. E., Houchins, D. E., Steventon, C., & Sartor, D. (2005). A comparison of two direct instruction reading programs for urban middle school students. *Remedial and Special Education, 26*, 175-182.

Spear-Swerling, L., & Sternberg, R. J. (1994). The road not taken: An integrative theoretical model of reading disability. *Journal of Learning Disabilities*, *27*, 91-103, 122.

Steventon, C. E., & Fredrick, L. D. (2003). The effects of repeated readings on student performance in the corrective reading program. *Journal of Direct Instruction, 3*, 17-27.

Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading failure in young children.* Washington, DC: National Academy Press.

Rosenshine, B. V. (1986). Synthesis of research on explicit teaching. *Educational Leadership, 43*, 60-69.

Swanson, H., Sáez, L., Gerber, M., & Leafstedt, J. (2004). Literacy and cognitive functioning in bilingual and non-bilingual children at or not at risk for reading disabilities. *Journal of Educational Psychology, 96*, 3-18. doi:10.1037/0022-0663.96.1.3 15.

Swanson, H., & Berninger, V. (1995). The role of working memory in skilled and less skilled readers' comprehension. *Intelligence, 21*, 83-108. doi:10.1016/0160-2896(95)90040-3

Thorn, A. C., Gathercole, S. E., & Frankish, C. R. (2002). Language familiarity effects in short-term memory: The role of output delay and long-term knowledge. *The Quarterly Journal of Experimental Psychology A: Human Experimental Psychology, 55A*, 1363-1383. doi:10.1080/02724980244000198

Torgesen, J. K., Wagner, R. K., Rashotte, C. A., Rose, E., Lindamood, P., Conway, T., & Garvan, C. (1999). Preventing reading failure in young children with phonological processing disabilities: Group and individual responses to instruction. *Journal of Educational Psychology, 91*, 579-593. doi:10.1037/0022-0663.91.4.579

Torgerson, C. J., Brooks, G., & Hall, J. (2006). A systematic review of the research literature on the use of phonics in the teaching of reading and spelling. *Research Report*-711, University of Sheffield, UK.

Ulring, A. M., McLaughlin, T. F., Neyman, J., & Waco, T. (2012). The differential effects of direct instruction flashcards and reading racetracks on sight word accuracy for three elementary students with learning disabilities. *Academic Research International,* 2(2), 406-420. Retrieved from: http://174.36.46.112/~savaporg/journals/issue.htm/

U.S. Department of Education. (2007). *The 27th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*. Retrieved from http://www2.ed.gov/about/reports/annual/osep/2005/parts-b-c/27th-vol-2.pdf

U.S. Department of Education, National Center for Education Statistics. (2013). *The Condition of Education 2013 (NCES 2013-037), English Language Learners.* Retrieved from https://nces.ed.gov/fastfacts/display.asp?id=96

Vaughn, S. S., & Linan-Thompson, S. S. (2003). What is special about special education for students with learning disabilities?. *Journal of Special Education*, *37*, 140-147.