

Chapter 96

Evaluating a Technique for Improving Letter Memory in At-Risk Kindergarten Students

Carol Stockdale
ARK Institute of Learning, USA

ABSTRACT

This chapter focuses on a process for improving letter naming. Numerous studies have established the correlation between fluent letter naming and reading in young children (Badian, 2000; Catts, 2001; Faust, Dimitrovsky, & Shacht, 2003; Terepocki, Kruk, & Willows, 2002; Mann & Foy, 2003). Two schools using the same reading program were selected for the study. The 125 kindergarten children attending these schools were screened for letter naming fluency. The low scoring individuals in each school were randomly assigned either to a treatment or control group for the study. Pretesting addressed rapid letter recall, color naming, object naming, and receptive vocabulary. The children in the treatment groups received twelve twenty-minute instructional sessions teaching the children to attend to the distinctive features (unique parts) of each letter. The students in the treatment groups made significant gains in letter naming speed and accuracy compared to the control groups. Receptive language scores improved. Other measures had no significant correlation with letter naming proficiency in posttests.

INTRODUCTION

The goal of this study is to evaluate a method for helping students form a stable orthographic image for letters. Rapid letter naming is a complex skill that requires linking a verbal label to a recognized visual image. Maryanne Wolf describes this skill as “one of the best predictors of reading performance” (Wolf, 2000, p. 179). This skill is important for kindergarten children. Rebecca Treiman studied the role of naming letters for young children extensively. She concludes that prereaders and beginning readers use the names of letters as a means of connecting printed words with spoken words (Treiman & Rodriguez, 1999). In a study addressing the foundation of literacy, Treiman found that preschool and kindergarten children benefited from both letter-name and letter-sound relationships, but she concluded that letter

DOI: 10.4018/978-1-5225-0034-6.ch096

Evaluating a Technique for Improving Letter Memory in At-Risk Kindergarten Students

naming was more helpful to them than the letter-sounds. In fact, she stated that the non-reader could only use the letter-name link as a tool (Treiman, 2000).

A number of studies further suggest that difficulty in naming letters correlates with reading problems (Ehri, 1982, 1983; Roberts, 2003; Treiman, Weatherston, & Berch, 1994). Studies linked to naming difficulty indicate:

- Naming difficulty, as related to alphabetic knowledge, is a primary obstacle to reading.
- Letter knowledge predicts reading abilities.
- Dyslexic students make more naming errors than nondyslexic students.

Given the value of letter naming, techniques that address this skill can have consequence for improving instruction.

LETTER NAMING

In 1998, The National Research Council produced *Preventing Reading Difficulties in Young Children* (Snow et al. 1998) which outlined three “stumbling blocks” children may encounter impeding their route to becoming successful readers. The Council itemized these difficulties as understanding the alphabetic principle, transferring spoken language skills to reading, and remaining motivated to read when the process is so challenging. The first block children encounter is difficulty understanding the alphabetic principle—the concept that written spellings systematically represent spoken words. This concept includes letter naming (Badian, 2000; Terepocki, Kruk, & Willows, 2002; Mann & Foy, 2003; Lyon 1999).

A variety of other studies underscore the importance of alphabetics to develop reading skills (Badian, 2000; Catts, 2001; Faust, Dimitrovsky, & Shacht, 2003; Terepocki, Kruk, & Willows, 2002; Mann & Foy, 2003; Lyon 1999; Ehri, 1982, 1983; Roberts, 2003; Treiman, Weatherston, & Berch, 1994). These researchers examined the fundamental role of alphabetic through various lens. They focused on the foundational process of letter recall as it related to rapid naming (Catts, 2001) or to the reading process in terms of developmental stages (Ehri, 1982, 1983). Others looked at naming difficulty as a factor for dyslexic students (Faust, Dimitrovsky, & Shacht, 2003). Letter recall was the central point of many studies (Badian, 2000; Terrepocki, Kruk & Willows, 2002; Mann & Foy, 2003; Lyon, 1999) while letter naming as related to word recognition was studied by others (Roberts, 2003; Treiman, Weatherston, & Berch, 1994). Alphabetics importance to the development of reading skills has been broadly considered.

Other literature affirms the value of letter knowledge in predicting reading abilities. Badian found that letter naming and sentence memory were two preschool measures that added most to the prediction of reading at each grade level (Badian, 2000). Badian added that while not as strong as letter naming and sentence memory, preschool orthographic ability contributed to prediction of reading and spelling. A study on the relationship between letter naming and phonological awareness identified phoneme manipulation as closely associated with letter knowledge and letter sound knowledge, thus underscoring the importance of letter naming (Mann & Foy, 2003). From studying the reading process, Ehri indicated that letter knowledge became automatic before word recognition. She further concluded that kindergarten students’ knowledge of letter names was the best single predictor of reading achievement at the end of first grade, better even than IQ (Ehri, 1982).

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/evaluating-a-technique-for-improving-letter-memory-in-at-risk-kindergarten-students/151298

Related Content

School Shootings: Lessons From the Past, and Are We Doomed to Repeat Them?

Patricia A. Goforth (2019). *Handbook of Research on School Violence in American K-12 Education* (pp. 52-73).

www.irma-international.org/chapter/school-shootings/214242

Differentiating through Technology for Gifted Students

Debra R. Sprague and Beverly Shaklee (2016). *Special and Gifted Education: Concepts, Methodologies, Tools, and Applications* (pp. 711-724).

www.irma-international.org/chapter/differentiating-through-technology-for-gifted-students/151227

Reconceptualisation of Democratic Citizenship Education Against Social Inequalities and Electoral Violence in Zimbabwe

Monica Zembere (2021). *International Journal of Curriculum Development and Learning Measurement* (pp. 1-9).

www.irma-international.org/article/reconceptualisation-of-democratic-citizenship-education-against-social-inequalities-and-electoral-violence-in-zimbabwe/285977

Investigating English Language Learners' Reading Gains From Technology-Based Instruction

Kelly M. Torres, Aubrey Statt and Caroline A. Morales (2022). *International Journal of Curriculum Development and Learning Measurement* (pp. 1-16).

www.irma-international.org/article/investigating-english-language-learners-reading/290385

All the Class Is a Stage

Abhilash Ashok and Asha Priya (2020). *International Journal of Curriculum Development and Learning Measurement* (pp. 11-18).

www.irma-international.org/article/all-the-class-is-a-stage/247107