



Review Article

The schoolwide enrichment model for reading (SEM-R) framework

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Abstract

Educators and researchers have suggested that the Schoolwide Enrichment Model for Reading (SEM-R) is an appropriate approach that helps in meeting their needs. SEM-R was developed from the general SEM model. It was designed to emphasize reading enjoyment and reading skill development (Reis et al., 2008). The SEM-R consists of three phases: (a) Phase I: Exposure, (b) Phase II: Supported Independent Reading, and (c) Phase III: Choice Components. Separate studies have demonstrated the effectiveness of the SEM-R on increasing gifted students' reading fluency, achievement, and attitude toward reading. Therefore, the purpose of this paper is to provide a brief literature review exploring the researched effects of the SEM-R on gifted students' reading fluency, achievement, and attitude toward reading.

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Introduction

Around 5 million students are identified as gifted in the United States; however, many of them are disadvantaged in the sense that they frequently are not given the chance to reach their full achievement (Dweck, 2008). Although they possess higher levels of intelligence, many of them are disadvantaged in the sense that they frequently are not given the opportunity to reach their full potential (Farmer, 1993). The research has demonstrated that gifted students spend most of their day in regular classroom settings (Cox et al. 1985). Unfortunately, traditional classroom instruction does not meet their needs appropriately (Archambault et al. 1993; Cox et al. 1985; Westberg et al. 1993). This situation may result in disappointment, a loss of self-esteem, weariness, languor, and underachievement (Knight & Becker, 2000).

Gifted readers, who are characterized as individuals having an extraordinary reading ability and are able to understand the complexities of language above their age (Mason & Au, 1990), face the same issue. These individuals read differently for different reading purposes. Levande (1993) described gifted readers as children with extensive vocabularies who read two or more years above their grade level. In addition, gifted readers utilize higher-order thinking skills, such as analysis, synthesis, and evaluation (Catron & Wingenbach, 1986). Unfortunately, traditional reading curricula do not help these readers to develop their reading abilities. Usually, gifted readers have little to gain from the reading materials and reading activities in a regular classroom (Witty, 1985). Further, many gifted readers develop their reading skills outside the school (Jackson, 1993). Therefore, to obtain real growth in reading skills and secure school success, educators must provide gifted readers with appropriately challenging instruction, instructional tools, and learning experiences (Anderson et al. 1985).

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Fortunately, researchers have demonstrated that there are strategies and programs to meet the needs of gifted students. Programs based on enrichment models and projects are the most ordinarily used method in gifted education (Reis & Renzulli, 2003). Enrichment programs are "richer and more varied educational experiences" that modify a curriculum "to provide greater depth and breadth than is generally provided" (Davis & Rimm, 2004, p.120). Enrichment programs can provide gifted students with appropriate education in different methods (Olszewski-Kubilius & Lee, 2004; Schenkel, 2002). Reis and Renzulli (2003) stated that enrichment programs could have a positive effect on students in general education since these programs address 21st-century skills such as complex thinking strategies and problem-solving. Furthermore, enrichment approaches are the key component of reading instruction for gifted students (Mangieri & Madigan, 1984).

Over the last 20 years, researchers and educators have tested different enrichment approaches. Both educators and researchers have suggested that the Schoolwide Enrichment Model (SEM) is capable at serving gifted learners in a variety of educational environments (Karafelis, 1986; Reis et al. 1995). The SEM was developed to support and increase creative output in gifted students. This model was developed using Renzulli's Enrichment Triad (Renzulli, 1977; Renzulli & Reis, 1985, 1997). The SEM consists of three types of enrichment: (a) Type I: general exploratory activities, (b) Type II: group training activities, and (c) Type III: individual and small group investigation of real-world problems.

For gifted readers, educators and researchers have suggested that the Schoolwide Enrichment Model for Reading (SEM-R) is an appropriate method that helps in meeting their needs (Reis et al. 2008; Reis et al. 2007; Reis et al. 2011). SEM-R was developed from the general SEM model. It was created to confirm reading enjoyment and reading skill development (Reis et al. 2008). The SEM-R consists of three phases: (a) Phase I: Exposure, (b) Phase II: Supported Independent Reading, and (c) Phase III: Choice Components. The Exposure phase typically involves book talks and other methods of exposing students to different books, genres, and authors in ways that spark their interest (e.g., stopping at a cliffhanger). During Phase two, students read independently from their selected books while each student or a small group of students take turns participating in individual conferences with the teacher to be sure that their choice was appropriately challenging. It is during Phase II that the teacher provides differentiated instruction and has students practice their fluency. Lastly, in Phase three, students participate in extension or enrichment activities related to their reading. These activities directly correlate to the third enrichment type of Renzulli's Enrichment Triad Model. Some examples include creating a poem related to the lesson, creating a book, and developing a project.

Additionally, separate studies have demonstrated the effectiveness of the SEM-R on increasing gifted students' reading fluency, achievement, and attitude toward reading. Reading fluency is defined as the ability to read text fast and minutely (NRP, 2000). Nathan and Stanovich (1991) pointed out, reading fluency enables speed that frees memory and helps to increase comprehension and analysis of the written word. Reading researchers emphasize the existence of strategies that contribute to the development of reading fluency. The SEM-R has been found to be effective at rising reading fluency, and in some schools, understanding (Reis & Boeve, 2009; Reis et al. 2008; Reis & Housand, 2009; Reis et al. 2007).

In addition, reading achievement is a widely used term in education. It refers to being able to use the skills that are needed to read grade-level material fluently and with understanding. Gifted learners' achievement development results from complex, advanced, and significant content provided (Little, 2012; Tomlinson, 2001, 2003, 2012; VanTassel-Baska, 2012). Reis et al. (2010) stated that SEM-R increases reading achievement.

Finally, the SEM-R is effective in increasing academic attitude toward reading, which is defined as "reading for the acquisition of knowledge about content areas, correct language usage, and understanding grammar" (Moore & Lemons, 1982, p. 48). Attitudes toward reading affect the growth of reading skills and result in academic achievement. Reis et al. (2008) found that SEM-R develops reading enjoyment, which helps to increase reading skill development and supplement.

The purpose of this paper is to provide a brief literature review exploring the researched effects of the SEM-R on gifted students' reading fluency, achievement and attitude toward reading. An additional purpose of this paper is to provide implications for practice and give suggestions for future research.

Literature Review

Understanding the complex needs of gifted readers and what programs work (or something like that?) is critical to the provision of support in educational contexts. The following section provides a brief review of the literature related to the impact of SEM-R on gifted students' reading fluency, achievement, and attitude toward reading.

Fluency

Reis and Boeve (2009) conducted a mixed-method study to investigate an afterschool enriched reading program among five gifted readers in grades 3–5. Researchers implemented the Schoolwide Enrichment Model–Reading (SEM-R) to present challenging reading activities for two days each week in a 6-week afterschool program. In addition, researchers administered observations, parent and teachers' interviews, school records, the Elementary Reading Attitude Survey (ERAS; McKenna & Kear, 1990), and curriculum-based measures of oral reading fluency. Findings indicated that students' reading fluency scores improved after implementing the SEM-R. The findings confirmed the effectiveness of the SEM-R on increasing elementary students' reading fluency.

Moreover, Reis et al. (2008) conducted an experimental design to evaluate the effect of the Schoolwide Enrichment Reading Model (SEM-R) on oral reading fluency (ORF), reading comprehension, and attitudes toward reading for students in two elementary schools. A total of 31 teachers and 475 students from Grades 3-5 were randomly assigned to either the SEM-R treatment with one hour of SEM-R and one hour of basal instruction or to the control group with two hours of basal instruction. The researchers utilized the Iowa Tests of Basic Skills (ITBS), the Elementary Reading Attitudes Survey, and the oral reading fluency assessments. Results showed that the treatment group scored significantly higher than the control group in reading fluency. In addition, there were no significant differences in reading comprehension or attitudes toward reading between the two groups. The results suggest that SEM-R produces higher oral reading fluency than a standard program and does no harm in terms of reading comprehension and attitudes.

Finally, Little et al. (2014) evaluated the effectiveness of the Schoolwide Enrichment Model–Reading (SEM-R) approach on students' reading fluency and comprehension. The researchers conducted a multi-site cluster-randomized design among 2,150 students and 47 teachers in four middle schools. Participants were randomly assigned to treatment or control conditions. Researchers implemented pretest and posttest. Additionally, they administered the oral reading fluency (ORF) and the Gates–MacGinitie Reading Tests (GMRT). Results indicated that the SEM-R resulted in similar or higher scores for fluency and similar scores for comprehension between the groups. The results indicated the effectiveness of the SEM-R in increasing middle school students' reading fluency.

Achievement

Little and Hines (2006) sought to determine the effect of the Project Expanding Horizons, which is based on the Schoolwide Enrichment Model-Reading (SEM-R) on reading achievement. The researchers conducted an experimental design among 155 students in grades 3–6. Further, the researchers administered standardized fluency passages obtained from the AIMSweb program through EdFormation Results showed statistically significantly higher scores for third and fifth graders. No differences were founded in fourth and sixth graders' scores. These results suggested that participating in this project may have result in further support to students' developmen in reading achievement.

Further, Reis and Housand (2009) examined the effect of the Schoolwide Enrichment Reading Framework (SEM-R) on students' reading achievement and fluency by using a quantitative, randomized design. A total of nine teachers and 260 third and fourth-grade students participated in this study, and they were randomly assigned to treatment and control conditions. The researchers utilized observations, the Measures of oral reading fluency (ORF), and the Iowa Tests of Basic Skills (ITBS). Results indicated that statistically significantly higher scores in oral reading fluency and reading comprehension for the treatment group in all grades. Results emphasize that the SEM-R produces higher oral reading fluency and reading achievement than the traditional programs.

More recently, Shaunessy-Dedrick et al. (2015) conducted an experimental design to explore the effects of the Schoolwide Enrichment Reading (SEM-R) on fourth-grade students' ($n = 786$) reading comprehension and attitudes toward reading. Eight schools were randomly assigned to treatment or control conditions. Treatment schools utilized SEM-R for eight months, whereas control schools utilized the district curriculum. Researchers administered the Iowa Tests of Basic Skills (ITBS), the Reading Skills Survey and the Elementary Reading Attitude Survey (ERAS). Two results were found. First, there were no statistically significant differences in students' attitudes toward reading. Second, treatment groups had significantly higher scores on the comprehension test than control groups. Based on the results, the SEM-R may increase students' reading achievement.

Attitude Toward Reading

Reis et al. (2007) conducted a randomized design to examine the effect of the Schoolwide Enrichment Model–Reading (SEM-R) on 226 urban elementary students' (third through sixth grade) reading comprehension, oral reading fluency, and attitude toward reading in two elementary schools. Fourteen teachers were randomly assigned to teach either the

treatment or control group. The researchers administered the Iowa Tests of Basic Skills (ITBS), the Elementary Reading Attitudes Survey, and the oral reading fluency assessments. The results demonstrated that after implementing the SEM-R, the treatment group received higher score than the control group in reading fluency and attitude toward reading. The results support the use of the SEM-R to increase students' fluency and reading enjoyment.

Additionally, Reis et al. (2011) investigated the effect of SEM-R on students' oral reading fluency, comprehension, and attitudes toward reading. A total of 63 teachers and 1,192 students through fifth-grade students across five elementary schools participated in this investigation, and they were randomly assigned to treatment or control conditions. The researchers administered the Measures of oral reading fluency (ORF), the Iowa Tests of Basic Skills (ITBS), the Reading Comprehension subtest (Form A), and the Attitudes and Practices Survey (TRAPS). Results indicated that the SEM-R increased students' attitudes toward reading. Further, results showed that both the enrichment reading approach and differentiated instruction were effective. Based on these results, the most significant benefit of the SEM-R was increasing students' enjoyment of reading.

Last, Reis et al. (2010) conducted a qualitative study to examine the SEM-R in 11 elementary and middle schools. Researchers administered qualitative comparative analysis with multiple data sources, including observations and interviews. Findings indicated that SEM-R was beneficial for both teachers and students. The finding showed that teachers had positive attitudes about the implementation of SEM-R. Further, over 95% of the teachers reported positive changes in students' attitudes toward reading. This study supported the implementation of the SEM-R to increase students' reading enjoyment.

Summary of Brief Literature Review

As seen through this brief review of selected literature, the SEM-R impacts students' reading fluency, attitude toward reading, and in some cases, reading achievement. The SEM-R has received a wealth of attention from researchers using a diverse range of methods (e.g., Reis et al. (2010) conducted a qualitative study; Reis & Boeve (2009) conducted a mixed-methods study; Rise and Housand (2009) used a quantitative, randomized design). Further, each one of these studies focused on different group ages. Little et al.'s (2014) study included middle school students, and Shaunessy-Dedrick et al.'s (2015) research was on elementary school students.

Regardless of whether the study was quantitative, qualitative, or mixed-method, all of the studies described above present data that indicated the relation between the SEM-R and students' reading fluency, achievement, and attitude toward reading.

Implications for Practice and Suggestions for Future Research

In this section, I will discuss the implications for practice and discuss suggestions for future research to enhance practitioners' and other researchers' understanding of the impact of SEM-R on gifted reading fluency, achievement, and attitude toward reading.

Implications for Practice

Many of the studies highlighted in this paper provided implications for practice that were important for gifted reading fluency, achievement, and attitude toward reading. Reis and Boeve's (2009) results indicated that gifted students need time to learn self-regulation strategies that encourage them to read challenging texts independently. In practice, this implies earlier intervention might help these students to react more positively to challenge and to acquire self-regulation strategies at a younger age. In addition, Rise et al.'s (2004) finding emphasizes that the success of the SEM-R is significantly dependent on teachers' skills. Therefore, teacher training and professional development are important since they contribute to the success of the SEM-R.

Suggestions for Future Research

The studies included in this brief literature review incorporated many suggestions for future research related to the SEM-R. First, most of the studies investigate the use of the SEM-R for couple weeks; therefore, Rise et al. (2011) suggest that future research investigates the use of this tool for a full academic year. Second, Rise et al.'s (2011) study was done on elementary school students; therefore, researchers suggested future research on the impact of the SEM-R on high school students. Finally, since there is a wide range of fidelity of implementation across classrooms, Little et al. (2014) recommended additional research on the SEM-R to study aspects of implementation more closely to determine critical levels of fidelity of each aspect of the intervention.

Conclusion

In conclusion, the highlighted studies indicate several factors related to the impact of the SEM-R on gifted reading fluency, attitude toward reading, and in the same cases achievement. The implementation of the SEM-R increases

students' reading fluency (Reis & Boeve, 2009; Rise et al. 2008; Little et al. 2014). In addition, there is a correlation between the SEM-R and reading enjoyment. The application of the SEM-R increases students' reading enjoyment. (Reis et al. 2010; Reis et al. 2007; Reis et al. 2011). Unfortunately, the effects of SEM-R on student reading achievement is inconclusive as some studies showed improvement while others showed it caused no harm (Little & Hines, 2006; Rise & Housand, 2009; Shaunessy-Dedrick et al. 2015). Therefore, in future SEM-R research, we hope to investigate the effect of this approach on students' reading achievement.

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