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Reading Rockets

Grouping Students Who Struggle With Reading

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There are a variety of grouping formats that are effective for teaching reading to students with learning disabilities: whole class, small group, pairs, and one-on-one. Learn more about the research and implications for practice for using each format in the general education classroom.

In this article, we provide an overview of the recent research on grouping practices (whole class, small group, pairs, one-on-one) during reading instruction for students with disabilities. We also provide suggestions on how teachers can apply this research in the classroom.

Teachers' grouping practices play a critical role in facilitating effective implementation of both reading instruction and inclusion of students with disabilities. Maheady (1997) referred to grouping as one of the alterable instructional factors that "can powerfully influence positively or negatively the levels of individual student engagement and hence academic progress."

As increased numbers of students with learning disabilities (LD) are receiving education in the general education classroom, teachers will need to consider grouping practices that are effective for meeting these students' needs. Furthermore, reading instruction is the academic area of greatest need for students with LD (Lyon, 1995); thus, grouping practices that enhance the reading acquisition skills of students with LD need to be identified and implemented.

Overview: Grouping practices

Until relatively recently, most teachers used homogeneous (same ability) groups for reading instruction (Barr & Dreeben, 1991; Slavin, 1987). This prevailing practice was criticized based on several factors. Ability grouping:

- Lowers self-esteem and reduces motivation among poor readers
- Restricts friendship choices
- Widens the gap between poor readers and good readers (Calfee & Brown, 1979; Good & Stipek, 1983; Hiebert, 1983; Rosenholtz & Wilson, 1980)

Perhaps the most alarming aspect of ability grouping was the finding that students who were the poorest readers received reading instruction that was inferior to that of higher ability counterparts in terms of instructional time (Hunter, 1978); time reading, discussing, and comprehending text (Allington, 1980); and appropriateness of reading materials (Gambrell, Wilson, & Gantt, 1981; Juel, 1988). As a result, heterogeneous grouping practices now prevail (e.g., Moody, Vaughn, & Schumm, 1997), and alternative grouping practices such as cooperative learning (e.g., Johnson & Johnson, 1975; Slavin, 1983) and peer tutoring (e.g., Come & Fredericks, 1995; Labo & Teale, 1990) have been developed.

As general education classrooms become more heterogeneous, due in part to the integration of students with LD, both special and general education teachers need to have at their disposal a variety of instructional techniques designed to meet the individual needs of their students. In this article, we provide an overview of the recent research on grouping practices (whole class, small group, pairs, one-on-one) teachers use during reading instruction; furthermore, implications for reading instruction are highlighted after each discussion.

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Whole-class instruction

Research findings

Considerable research has focused on the fact that for much of general education the instructional format is one in which the teacher delivers education to the class as a whole. The practice of whole-class instruction as the dominant approach to instruction has been well documented (e.g., Zigmond & Baker, 1990). For example, in a study that involved 60 elementary, middle, and high school general education classrooms that were observed over an entire year, whole-class instruction was the norm (McIntosh, Vaughn, Schumm, Haager, & Lee, 1993). When teachers were not providing whole-class instruction, they typically circulated around the room monitoring progress and behavior or attended to their own paperwork.

Elementary students have also reported that wholeclass instruction is the predominant instructional grouping format (Elbaum, Schumm, & Vaughn, 1997). Students noted that teachers most frequently provided reading instruction to the class as a whole or by having students work alone. Students less frequently reported opportunities to work in small groups, and they rarely worked in pairs. Although students preferred to receive reading instruction in mixed-ability groups, they considered same ability grouping for reading important for nonreaders. Students who were identified as better readers revealed that they were sensitive to the needs of lower readers and did not express concerns about the unfairness of having to help them in mixed-ability groups (Elbaum et al., 1997; Thorkildsen, 1993; Vaughn, Schumm, Niarhos, & Gordon, 1993). In particular, students with LD expressed appreciation for mixed-ability groups because they could then readily obtain help in identifying words or understanding what they were reading (Elbaum et al., 1997).

Many professionals have argued that teachers must decentralize some of their instruction if they are going to appropriately meet the needs of the increasing number of students with reading difficulties (Fuchs, Fuchs, Mathes, & Simmons, 1997; Maheady, 1997). However, general education teachers perceive that it is a lot more feasible to provide large-group instruction than small-group instruction for students with LD in the general education classroom (Schumm & Vaughn, 1991). The issue is also true for individualizing instruction or finding time to provide mini lessons for students with LD. Teachers have reported that these are difficult tasks to embed in their instructional routines (Schumm, Vaughn, Gordon, & Rothlein, 1994).

Implications for practice

Numerous routines and instructional practices can contribute to teachers' effective use of whole-class instruction and implementation of alternative grouping practices.

1. Teachers can involve all students during whole-class instruction by asking questions and then asking students to partner to discuss the answer. Ask one student from the pair to provide the answer. This keeps all students engaged.
2. Teachers can use informal member checks to determine whether students agree, disagree, or have a question about a point made (Schumm, Vaughn, & Sobol, 1997). This allows each student to quickly register a vote and requires students to attend to the question asked. Member checks can be used frequently and quickly to maintain engagement and learning for all students.
3. Teachers can ask students to provide summaries of the main points of a presentation through a discussion or after directions are provided (Schumm et al., 1997). All students benefit when the material is reviewed, and a student summary allows the teacher to determine whether students understand the critical features.
4. Because many students with LD are reluctant to ask questions in large groups, teachers can provide cues to encourage and support students in taking risks. For example, teachers can encourage students to ask a "who," "what," or "where" question.
5. At the conclusion of a reading lesson, the teacher can distribute lesson reminder sheets, which all the students complete. These can be used by teachers to determine:
 - a. What students have learned from the lesson
 - b. What students liked about what they learned
 - c. What else students know about the topic

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Small-group instruction

Research findings

Small-group instruction offers an environment for teachers to provide students extensive opportunities to express what they know and receive feedback from other students and the teacher. Instructional conversations are easier to conduct and support with a small group of students (Goldenberg, 1993).

In a recent meta-analysis of the extent to which variation in effect sizes for reading outcomes for students with disabilities was associated with grouping format for reading instruction, small groups were found to yield the highest effect sizes (Elbaum, Vaughn, Hughes, Moody, & Schumm,

2000). It is important to add that the overall number of small-group studies available in the sample was two.

However, this finding is bolstered by the results of a meta-analysis of small-group instruction for students without disabilities, which yielded significantly high effect sizes for small-group instruction (Lou et al., 1996). The findings from this meta-analysis reveal that students in small groups in the classroom learned significantly more than students who were not instructed in small groups.

In a summary of the literature across academic areas for students with mild to severe disabilities, Polloway, Cronin, and Patton (1986) indicated that the research supported the efficacy of small-group instruction. In fact, their synthesis revealed that one-to-one instruction was not superior to small-group instruction. They further identified several benefits of small-group instruction, which include more efficient use of teacher and student time, lower cost, increased instructional time, increased peer interaction, and opportunities for students to improve generalization of skills.

In a descriptive study of the teacher-student ratios in special education classrooms (e.g., 1-1 instruction, 1-3 instruction, and 1-6 instruction), smaller teacher-led groups were associated with qualitatively and quantitatively better instruction (Thurlow, Ysseldyke, Wotruba, & Algozzine, 1993). Missing from this study was an examination of student academic performance; thus, the effectiveness of various group sizes in terms of student achievement could not be determined.

A question that requires further attention regarding the effectiveness of small groups is the size of the group needed based on the instructional needs of the student. For example, are reading group sizes of six as effective as groups of three? At what point is the group size so large that the effects are similar to those of whole-class instruction? Do students who are beginning readers or those who have struggled extensively learning to read require much smaller groups, perhaps even one-on-one instruction, to ensure progress?

Although small group instruction is likely a very powerful tool to enhance the reading success of many children with LD, it is unlikely to be sufficient for many students. In addition to the size of the group, issues about the role of the teacher in small-group instruction require further investigation. In our analysis of the effectiveness of grouping practices for reading (Elbaum et al., 2000), each of the two studies represented different roles for the teacher. In one study (Englert & Mariage, 1991), the teacher served primarily as the facilitator, while in a second study the teacher's role was primarily one of providing direct instruction (Lloyd, 1980). Although the effect sizes for both studies were quite high (1.61 and .75, respectively), further research is needed to better understand issues related to a teacher's role and responsibility within the group.

Implications for practice

Many teachers reveal that they have received little or no professional development in how to develop and implement successful instructional groups (Moody et al., 1997). Effective use of instructional groups may be enhanced through some of the following practices.

1. Perhaps the most obvious, but not always the most feasible application of instructional groups, is to implement reading groups that are led by the teacher. Whereas these groups have been demonstrated as effective, many teachers find it difficult to provide effective instruction to other members of the class while they are providing small-group instruction. Some teachers address this problem by providing learning centers, project learning, and shared reading time during small group instruction.
2. Flexible grouping has also been suggested as a procedure for implementing small-group instruction that addresses the specific needs of students without restricting their engagement to the same group all the time (Radencich & McKay, 1995). Flexible grouping is considered an effective practice for enhancing the knowledge and skills of students without the negative social consequences associated with more permanent reading groups (Flood, Lapp, Flood, & Nagel, 1992). This way teachers can use a variety of grouping formats at different times, determined by such criteria as students' skills, prior knowledge, or interest.

Flexible groups may be particularly valuable for students with LD who require explicit, intensive instruction in reading as well as opportunities for collaborative group work with classmates who are more proficient readers. Flexible grouping may also satisfy students' preferences for working with a range of classmates rather than with the same students all of the time (Vaughn, Schumm, Klingner, & Saumell, 1995).

3. Student-led small groups have become increasingly popular based on the effective implementation of reciprocal teaching (Palincsar & Brown, 1984). This procedure allows students to take turns assuming the role of the leader and guiding reading instruction through question direction and answer facilitation.

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Peer pairing and tutoring

Research findings

Asking students to work with a peer is an effective procedure for enhancing student learning in reading and is practical to implement because teachers are not responsible for direct contact with students. For students with LD involved in reading activities, the overall effect size for peer pairing based on a meta-analysis was $ES = 0.37$ (Elbaum et al., 2000). This finding was similar to one reported for students with LD ($ES = 0.36$; Mathes & Fuchs, 1994) and for general education students (mean $ES = 0.40$; Walberg, 1984, cited in Bloom, 1984).

The Elbaum and colleagues (2000) report revealed that the magnitude of the effects for peer pairing differed considerably depending on the role of the student within the pair. For example, when students with disabilities were paired with same-age partners, they derived greater benefit ($ES = 0.43$) from being tutored rather than from engagement in reciprocal tutoring ($ES = 0.15$). This may be a result that for the most part the tutors were students without disabilities who demonstrated better reading skills and were able to provide more effective instruction. These findings differ, however, when the peer pairing is cross-age rather than same-age. Overall, cross-age peer pairing students with disabilities derived greater benefit when they served in the role of tutor.

Students with LD prefer to work in pairs (with another student) rather than in large groups or by themselves (Vaughn et al., 1995). In fact, many students with LD consider other students to be their favorite teachers (Klingner, Vaughn, Schumm, Cohen, & Forgan, 1998). Considering the high motivation students express for working with peers and the moderately high effect sizes that result from peer pairing activities for reading, it is unfortunate that students report very low use of peer pairing as an instructional procedure (Elbaum et al., 1997).

Implications for practice

Because students appreciate and benefit from opportunities to work with peers in reading activities, the following instructional practices may enhance opportunities for teachers to construct effective peer pairing within their classrooms.

1. Classwide Peer Tutoring (CWPT) is an instructional practice developed at Juniper Gardens to "increase the proportion of instructional time that all students engage in academic behaviors and provide pacing, feedback, immediate error correction, high mastery levels, and content coverage" (Greenwood, Delquadri, & Hall, 1989, p. 372). CWPT requires 30 minutes of instructional time during which 10 minutes is planned for each student to serve as a tutor, 10 minutes to be tutored, and 5 to 10 minutes to add and post individual and team points (Delquadri, Greenwood, Whorton, Carta, & Hall, 1986). Tutees begin by reading a brief passage from their book to their tutor, who in turn provides immediate error correction as well as points for correctly reading the sentences. When CWPT is used for reading comprehension, the tutee responds to "who, what, when, where, and why" questions provided by the tutor concerning the reading passage. The tutor corrects responses and provides the tutee with feedback.
2. Peer-Assisted Learning Strategies (PALS) borrows the basic structure of the original CWPT but expands the procedures to engage students in strategic reading activities (Fuchs et al., 1997). Students are engaged in three strategic reading activities more typically addressed during teacher directed instruction: partner reading with retell, paragraph summary, and prediction relay. PALS provides students with intensive, systematic practice in reading aloud, reviewing and sequencing information read, summarizing, stating main ideas, and predicting.
3. Think-Pair-Share was described by McTighe and Lyman (1988) as a procedure for enhancing student engagement and learning by providing students with opportunities to work individually and then to share their thinking or work with a partner. First, students are asked to think individually about a topic for several minutes. Then they are asked to work with a partner to discuss their thinking or ideas and to form a joint response. Pairs of students then share their responses with the class as a whole.

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One-on-one instruction

Research findings

Traditionally, one-on-one instruction in which the student receives explicit instruction by the teacher is considered the most effective practice for enhancing outcomes for students with LD. In fact, the clinical model where the teacher works directly with the student for a designated period of time has a long standing tradition in LD (Kirk, Kirk, & Minskoff, 1985; Lerner, 1997).

Most professionals consider one-on-one instruction to be the preferred procedure for enhancing outcomes in reading (e.g., Jenkins, Mayhall, Pschka, & Jenkins, 1974; Juel, 1991; Wasik & Slavin, 1993). Many professionals perceive one-on-one instruction as essential for students who are falling to learn to read: "Instruction in small groups may be effective as a classroom strategy, but it is not sufficient as a preventive or remedial strategy to give students a chance to catch up with their age mates" (Slavin & Madden, 1989, p. 11).

In a review of five programs designed for one-on-one instruction, Wasik and Slavin (1993) revealed that all of the programs were highly effective, even though they represented a broad range of methodologies. Though one-on-one instructional procedures are viewed as highly effective, they are actually infrequently implemented with students with LD, and when implemented, it is often for only a few minutes (Vaughn, Moody, & Schumm., 1998).

In a recent review of research on one-on-one instruction in reading (Elbaum et al., 2000), no published studies were identified that compared one-on-one instruction with other grouping formats (e.g., pairs, small groups, whole class) for elementary students with LD. Thus, though one-on-one instruction is a highly prized instructional procedure for students with LD, very little is known about its effectiveness.

Implications for practice

The implications for practice of one-on-one instruction are in many ways the most difficult to define because although there is universal agreement on its value, very little is known about its effectiveness for students with LD relative to other grouping formats. Furthermore, the instructional implications for practitioners revolve mostly around assisting them in restructuring their classrooms and caseloads so that it is possible for them to implement one-on-one instruction.

Over the past eight years we have worked with numerous special educators who have consistently informed us that the following factors impede their ability to implement one-on-one instruction:

- Case loads that often require them to provide services for as many as 20 students for two hours per day, forcing group sizes that exceed what many teachers perceive as effective;
- Increased requirements to work collaboratively with classroom teachers, which reduces their time for providing instruction directly to students; and
- Ongoing and time-consuming paperwork that facilitates documentation of services but impedes implementation of services (e.g., Moody et al., 1997; Vaughn et al., 1998).

Considering the "reality factors" identified by teachers, it is difficult to imagine how they might provide the one-on-one instruction required by many students with LD in order to make adequate progress in reading. Certainly, it would require restructuring special education so that the number of students receiving services and the amount of time these services are provided by special education teachers is altered.

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Conclusion

Research studies have repeatedly shown that reading instruction in many classrooms is not designed to provide students with sufficient engaged reading opportunities to promote reading growth (Gelzheiser & Meyers, 1991; O'Sullivan, Ysseldyke, Christenson, & Thurlow, 1990; Simmons, Fuchs, Fuchs, Mathes, & Hodge, 1995). We have provided a summary of recent research on the effectiveness for students with LD of various grouping practices that can increase engaged reading opportunities, as well as implications of this research for classroom instruction.

As classrooms become more diverse, teachers need to vary their grouping practices during reading instruction. There needs to be a balance across grouping practices, not a sweeping abandonment of smaller grouping practices in favor of whole-class instruction. Teachers can meet the needs of all students, including the students with LD, by careful use of a variety of grouping practices, including whole-class instruction, teacher- and peer-led small group instruction, pairing and peer tutoring, and one-on-one instruction.

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References

References

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Allington, R. L. (1980). Poor readers don't get to read much in reading groups. *Language Arts*, 57(8), 873-875.

Barr, R., & Dreeben, R. (1991). Grouping students for reading instruction. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research: Vol. II* (pp. 88 5-910). New York: Longman.

Bloom, B. S. (1984). The 2 sigma problem: The search for methods of group instruction as effective as one-to-one tutoring. *Educational Researcher*, 13, 4-16.

Calfee, R., & Brown, R. (1979). Grouping students for instruction. In D. L. Duke (Ed.), *Class-room management: Seventy-eighth yearbook of the National Society for the Study of Education* (pp. 144-182). Chicago: University of Chicago Press.

Carnine, D. (1997). Bridging the research- to-practice gap. *Exceptional Children*, 63(4), 513-52 1.

Collins, J. (1997, October 2 7). How Johnny should read. *Time*, 2 1.

Come, B., & Fredericks, A. D. (1995). Family literacy in urban schools: Meeting the needs of at-risk children. *The Reading Teacher*, 48(7), 566-571.

Delquadri, J., Greenwood, C. R., Whorton, D., Carta, J.J., & Hall, R. U. (1986). Classwide peer tutoring. *Exceptional Children*, 52(6), 5 3 5- 542.

Elbaum, B. E., Schumm, J. S., & Vaughn, S. (1997). Urban middleelementary students' perceptions of grouping formats for reading instruction. *Elementary School Journal*, 97(5), 475-500.

Elbaum, B., Vaughn, S., Hughes, M. T., Moody, S. W., & Schumm, J. S. (2000). A meta-analytic review of the effect of instructional grouping format on the reading outcomes of students with disabilities. In R. Gersten, E. Schiller, J. S. Schumm, & S. Vaughn (Eds.), *Issues and research in special education* (pp.105-135). Hillsdale, NJ: Erlbaum.

- Englert, C. S., & Mariage, T. V. (1991). Making students partners in the comprehension process: Organizing the reading "posse." *Learning Disability Quarterly*, 14, 123-138.
- Flood, J., Lapp, D., Flood, S., & Nagel, G. (1992). Am I allowed to group? Using flexible patterns for effective instruction. *The Reading Teacher*, 45(8), 608-616.
- Fuchs, D., Fuchs, L. S., Mathes, P. G., & Simmons, D. C., (1997). Peerassisted learning strategies: Making classrooms more responsive to diversity. *American Education Research Journal*, 34(1), 17 4-2 06.
- Gambrell, L. B., Wilson, R. M. & Gantt, W. N. (1981). Classroom observations of task-attending behaviors of good and poor readers. *Journal of Educational Research*, 74(6), 400-404.
- Gelzheiser, L. M., & Meyers, J. (1991). Reading instruction by classroom, remedial, and resource room teachers. *Journal of Special Education*, 24, 512-526.
- Gersten, R., Vaughn, S., Deshler, D., & Schiller, E. (1997). What we know about using research findings: Implications for improving special education practice. *Journal of Learning Disabilities*, 30(5), 466-476.
- Goldenberg, C. (1993). Instructional conversations: Promoting comprehension through discussion. *The Reading Teacher*, 46(4), 316-326.
- Good, T. L., & Stipek, D. J. (1983). Individual differences in the classroom: A psychological perspective. In G. D. Fenstermacher & J. I. Goodlad (Eds.), *Individual differences and the common curriculum. Eighty-second yearbook of the National Society for the Study of Education, Part I* (pp. 9-43). Chicago: University of Chicago Press
- Greenwood, C. R., Delquadri, J. C., & Hall, R. V. (1989). Longitudinal effects of classwide peer tutoring. *Journal of Educational Psychology*, 81(3), 371-383.
- Hiebert, E. H. (1983). An examination of ability grouping for reading instruction. *Reading Research Quarterly*, 18, 2 3 1-2 5 5.
- Hunter, D. (1978). Student on-task behavior during second grade reading group meetings (Doctoral dissertation, University of Missouri-Columbia, 1978). *Dissertation Abstracts International*, 39, 48 3 8A.
- Jenkins, J. R., Mayhall, W. F., Pschka, C. M., & Jenkins, J. M. (1974). Comparing small group and tutorial instruction in resource rooms. *Exceptional Children*, 40, 245-2 5 1.
- Johnson, D. W., & Johnson, R. T. (1975). *Learning together and alone: Cooperation, competition, and individualization*. Englewood Cliffs, NJ: Prentice Hall.
- Juel, C. (1988). Learning to read and write: A longitudinal study of fifty-four children from first through fourth grade. *Journal of Educational Psychology*, 80, 43 7-447.
- Juel, C. (1991). Cross-age tutoring between student-athletes and at-risk children. *The Reading Teacher*, 45, 178-186.
- Kirk, S. A., Kirk, W. D., & Minskoff, E. H. (1985). *Phonic remedial reading lessons*. Novato, CA: Academic Therapy.
- Klingner, J. K., Vaughn, S., Schumm, J. S., Cotten, P., & Forgan, J. W. (1998). Inclusion or pull-out: Which do students prefer? *Journal of Learning Disabilities*, 31(2), 148-158.
- Labo, L. D., & Teale, W. H. (1990). Cross-age reading: A strategy for helping poor readers. *The Reading Teacher*, 43(6), 362-369.
- Lerner, J. W. (1997). *Learning disabilities. Theories, diagnosis, and teaching strategies* (7th ed.). Boston: Houghton Mifflin.
- Lloyd, J. (1980). Direct instruction: Effects on oral and written language comprehension. *Learning Disability Quarterly*, 3, 70-76.
- Lou, Y., Abrami, P. C., Spence, J. C., Poulsen, C., Chambers, B., & d'Appolonia, S. (1996). Within-class grouping: A meta-analysis. *Review of Educational Research*, 66(4), 42 3 -45 8.
- Lyon, G. R. (1995). Research initiatives in learning disabilities: Contributions from scientists supported by the National Institute of Child Health and Human Development. *Journal of Child Neurology*, 10, S121-S126.
- Maheady, L. (1997). Preparing teachers for instructing multiple ability groups. *Teacher Education and Special Education*, 20(4), 3 2 2-3 3 9.
- Mathes, P. G., & Fuchs, L. S. (1994). The efficacy of peer tutoring in reading for students with mild disabilities: A best-evidence synthesis. *School Psychology Review*, 23(1), 59-80.
- McIntosh, R., Vaughn, S., Schumm, J., Haager, D., & Lee, O. (1993). Observations of students with learning disabilities in general education classrooms. *Exceptional Children*, 60(3), 249-261.
- McTighe, J., & Lyman, F. T. (1988). Cueing thinking in the classroom: The promise of theory-embedded tools. *Educational Leadership*, 45(7), 18-24.

- Moody, S. W., Vaughn, S., & Schumm, J. S. (1997). Instructional grouping for reading: Teachers' views. *Remedial and Special Education, 18*(6), 347-356.
- National Assessment of Educational Progress. (1995). *NAEP 1994 reading. A first look-Findings from the national assessment of educational progress (Rev. ed.)*. Washington, DC: U.S. Government Printing Office.
- O'Sullivan, P. J., Ysseldyke, J. E., Christenson, S. L., & Thurlow, M. L. (1990). Mildly handicapped elementary students' opportunity to learn during reading instruction in mainstream and special education settings. *Reading Research Quarterly, 25*, 131-46.
- Palincsar, A. S., & Brown, A. L. (1984). The reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction, 1*, 117-175.
- Polloway, E. A., Cronin, M. E., & Patton, J. R. (1986). The efficacy of group versus one-to-one instruction: A review. *Remedial and Special Education, 7*(1), 22-30.
- Radencich, M. C., & McKay, L. J. (1995). *Flexible grouping for literacy in the elementary grades*. Boston: Allyn & Bacon.
- Rosenholtz, S. J., & Wilson, B. (1980). The effect of classroom structure on shared perceptions of ability. *American Education Research Journal, 17*, 75-82.
- Schumm, J. S., & Vaughn, S. (1991). Making adaptations for mainstreamed students: General classroom teachers' perspectives. *Remedial and Special Education, 12*(4), 18-27.
- Schumm, J. S., Vaughn, S., Gordon, J., & Rothlein, L. (1994). General education teachers' beliefs, skills, and practices in planning for mainstreamed students with learning disabilities. *Teacher Education and Special Education, 17*, 22-37.
- Schumm, J. S., Vaughn, S., & Sobol, M. C. (1997). "Are they getting it?": How to monitor student understanding in inclusive classrooms. *Intervention in School and Clinic, 32*(3), 168-171.
- Simmons, D., Fuchs, D., Fuchs, L., Mathes, P., & Hodge, J. (1995). Teacher-directed reading instruction in the mainstream: A call for instructional reform. *Reading and Writing Quarterly: Overcoming Learning Difficulties, 11*, 19-36.
- Slavin, R. E. (1983). *Cooperative learning*. New York: Longman.
- Slavin, R. E. (1987). Making chapter I make a difference. *Phi Delta Kappan, 69*, 110-119.
- Slavin, R. E., & Madden, N. A. (1989). What works for students at risk: A research synthesis. *Educational Leadership, 46*(5), 4-13.
- Thorkildsen, T. A. (1993). Those who can, tutor: High-ability students' conceptions of fair ways to organize learning. *Journal of Educational Psychology, 85*(1), 182-190.
- Thurlow, M. L., Ysseldyke, J. E., Wotruba, J. W., & Algozzine, B. (1993). Instruction in special education classrooms under varying student-teacher ratios. *The Elementary School Journal, 93*(3), 305-320.
- United States Department of Education. (1997). *Nineteenth annual report to Congress on the implementation of the Individuals with Disabilities Education Act*. Washington, DC: Author.
- Vaughn, S., Moody, S., & Schumm, J. S. (1998). Broken promises: Reading instruction in the resource room. *Exceptional Children, 64*(2), 211-226.
- Vaughn, S., Schumm, J. S., Klingner, J. K., & Saumell, L. (1995). Students' views of instructional practices: Implications for inclusion. *Learning Disability Quarterly, 18*(3), 236-248.
- Vaughn, S., Schumm, J. S., Niarhos, F. J., & Gordon, J. (1993). Students' perceptions of two hypothetical teachers' instructional adaptations for low achievers. *Elementary School Journal, 94*(1), 87-103.
- Walberg, H. J. (1984). Improving the productivity of America's schools. *Educational Leadership, 41*(8), 19-27.
- Wasik, B. A., & Slavin, R. E. (1993). Preventing early reading failure with one-to-one tutoring: A review of five programs. *Reading Research Quarterly, 28*(2), 178-200.
- Zigmond, N., & Baker, J. (1990). Mainstream experiences for learning disabled students (Project MELD): Preliminary report. *Exceptional Children, 57*, 176-185.
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