

Title: “Group Size and Time Allotted to Intervention: Effects for Students with Reading Difficulties”

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Subject(s): Intervention

Grade Level: 1–2, 3–6

Synopsis: This article looks at evidence for the most effective group size and length (“intensity”) of intervention instruction for at-risk, learning disabled, and low-performing students in reading. It also looks at the most effective grouping for regular reading instruction.

Up to the early 1980s, reading instruction was most often given in small, ability-based groups. Beginning in the 1980s, teachers moved away from this (and school districts often mandated this move) because of evidence that ability grouping harmed the self-esteem of and reduced instructional time for low-performing students. The authors claim that today there is “considerable evidence that same-ability, small-group reading instruction, particularly for students with significant reading problems, is warranted.” (p. 300) However, they have found in teacher interviews that most general education teachers today use whole-class reading instruction, with follow-up activities done in mixed-ability groups. Special education teachers are more likely to use small, ability- and needs-based groups (Moody, Vaughn, & Schumm, 1997). In one study (Schumm, Moody, & Vaughn, 2000), they followed 29 third-grade teachers for a year. The teachers primarily used whole-class instruction and independent activities. Student outcomes were low. High-achieving students made 0.7 of a one-year gain in word recognition and a one-year gain in comprehension; average students made only a 0.5 of a year gain in word recognition and 0.2 in comprehension; and low-achieving students made only 0.4 of a year gain in word recognition and 0.3 in comprehension. Student attitudes about reading declined considerably over the year. “Thus, we concluded that this ‘one size fits all’ method of whole-class instruction in reading followed by independent activities ‘fits’ none of these students very well.” (p. 302)

The authors then performed two meta-analyses on grouping practices for reading. The studies they looked at provided evidence that small groups or student pairs improved outcomes over large group or whole class instruction. The overall effect size for smaller groupings was 0.43 (Elbaum et al., 1999). Similar positive effects were found in another meta-analysis that looked at one-to-one tutoring vs. whole-class instruction (Elbaum et al., 2000). (Studies that compared one-to-one instruction with one-to-three instruction showed no significant gains in favor of one-to-one.)

A study was conducted to hold intervention method constant and compare group size directly. The study assigned 77 second-grade students (English speakers and ELLs, all struggling readers) to the same treatment condition, but varied group size (1:10, 1:3, and 1:1). “Regardless of group size, gains in comprehension, phoneme segmentation, and fluency yielded high effect sizes.” (p. 308)

A second study was conducted to look at duration of intervention. In this study, 45 second-grade students (15 of whom were ELLs) were placed in supplemental reading instruction in groups of 1:3 (one teacher per 3 students). Instruction in phonemic awareness, systematic phonics, fluency, reading and comprehension, and spelling were given to all students. At the end of each 10-week period, all students were assessed and

those who had reached an acceptable level of fluency were released from the program. Fluency testing was done at the start of the intervention and after 10, 20 and 30 weeks of intervention. Ten students exited after 10 weeks, 14 students exited after 20 weeks, and 10 exited after 30 weeks. There were 11 students who never reached exit criteria even after 30 weeks of intervention. (The students who did not profit from intervention represented less than 5% of the school population.) However, some students did not continue to make progress in the general education class after release from the intervention. "It may be that some of the learning problems demonstrated by students who are at-risk for reading problems are that they have difficulties associated with learning through large class instruction and their learning needs can really only be met by small-group instruction." (p. 314) "Students that meet exit criteria may still need to be monitored recognizing that some may need additional supplemental instruction later." (p. 316) Another finding was that "All four groups made their largest gains on the TORF during the first 10 weeks of instruction. This corresponds with other research that indicates that students often make the largest gains initially from the intervention in reading and though their gains are adequate as instruction continues over time, they are less substantial." (p. 318)

Quote(s): "Many students' progress in reading is inadequate unless they are provided the intensive and systematic instruction available through small-group instruction." (p. 304)