

Intensive Intervention Practice Guide: Applying Response to Intervention for Secondary Students Who Struggle With Reading Comprehension

Britta Cook Bresina, University of Minnesota
Kristi Baker, Southern Methodist University
Rachel Donegan, Vanderbilt University
Victoria M. Whaley, University of Connecticut



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What Is It?

Response to Intervention (RTI) is a multi-level framework designed to prevent academic failure and remediate areas of deficit. It is a framework to support students for whom generally effective practices have been insufficient. Its inclusion in the Individuals with Disabilities Education Act (IDEA; U. S. Department of Education, 2004) identified RTI with special education eligibility determination. However, RTI can also be viewed as a framework to organize increasingly intensive instruction for students at risk for or with disabilities (D. Fuchs, Fuchs, & Stecker, 2010).

Traditionally, the RTI model calls for a preventative approach where students in general education (Level 1) are screened for academic difficulty. Students identified as struggling participate in slightly more intensive Level 2 interventions that generally last a short amount of time and may include small group instruction, additional instructional blocks, or a more explicit approach to instruction. Students who respond well to the intervention return to Level 1 while students who do not respond well may receive Level 3 interventions which are more intensive than Level 2. Level 3 instructional sessions are typically longer or more frequent, occur over a longer period of time, are small group or one-on-one instruction, and are aligned with students' instructional level, even if it is several years behind the student's grade level. In both Level 2 and 3 interventions, frequent progress monitoring tracks the success of the intervention and is used to determine whether further intensification is necessary (D. Fuchs, Fuchs, & Compton, 2012).

The majority of empirical research on the RTI framework has been done in the elementary grades. However, it should not be assumed that RTI practices found to be effective for elementary extend to the secondary grades (Wanzek et al., 2013). To meet the needs of struggling adolescent readers, RTI in the secondary grades may require adaptations from the framework common in elementary grades (L. S. Fuchs, Fuchs, & Compton, 2010).

For Whom Is It Intended?

Many secondary students who struggle to read, regardless of disability status, struggle specifically with reading comprehension. These students will need interventions targeting comprehension and other related skills to make progress.

By the time a student who struggles with reading is in secondary school, their remaining years of schooling, and time remaining to ameliorate reading difficulties, is limited. Difficulties with reading comprehension are not only apparent in English class and on high-stakes assessments, but also in the content area classes where students are expected to use their reading skills to

learn from complex texts. Students who demonstrate poor reading comprehension will encounter many roadblocks in school. These students must improve their comprehension if they are to meet necessary benchmarks, graduate from high school, and transition to post-secondary education or employment. While reading difficulties that persist into adolescence have a history of being resistant to instructional intervention (e.g., Vaughn & Fletcher, 2012), adolescence is not too late for intensive reading comprehension instruction to be beneficial (Scammacca et al., 2007). However, some of these students fail to make progress in generally effective interventions, have a wide range of deficits across multiple reading skills that impacts comprehension, or have large deficits in reading comprehension specifically. Previous work has demonstrated these students may require increasingly intensive interventions, organized within an RTI framework, over several years, to make progress (Pyle & Vaughn, 2012).

How Does It Work?

The RTI framework consists of four main components: (a) universal screening, (b) levels of increasingly intensive intervention, (c) progress monitoring, and (d) data-based instructional decisions. By the secondary grades, the primary focus of RTI shifts from the identification of to the treatment of difficulties (Vaughn & Fletcher, 2012), suggesting alterations to the traditional RTI framework used in the elementary grades.

Universal Screening

By adolescence, a student's struggles with reading are often well documented (L. S. Fuchs et al., 2010). Additionally, all students in secondary grades take yearly state assessments. Research has shown success in using these test data as a universal screening measure to identify students who are struggling in reading (Pyle & Vaughn, 2012; Solis, Miciak, Vaughn, & Fletcher, 2014; Vaughn & Fletcher, 2012). The addition of Curriculum-Based Measurement (CBM; Deno, 1985) oral reading fluency can be used to provide supplemental data (Pyle & Vaughn, 2012; Vaughn et al., 2012). It has been shown to be a reliable and valid measure of general reading competence across grades for individuals with reading disabilities. However, it should be noted that it is a stronger indicator of general reading competence in elementary grades (Wayman, Wallace, Wiley, Ticha, & Espin, 2007).

The large amount of data available on each child by the secondary grades means many struggling learners and students with reading disabilities have already been identified. Therefore, placement within the RTI levels in secondary grades can be determined by the student's current achievement scores rather than their response to interventions as is common practice in the elementary grades (L. S. Fuchs et al., 2010; Pyle & Vaughn, 2012; Solis et al., 2014; Vaughn & Fletcher, 2012) in accordance with the treatment rather than identification focus of RTI in the secondary grades (Vaughn & Fletcher, 2012).

Levels of Intervention

Level 1. This level is general education core instruction and includes differentiation. Given the increased emphasis in the secondary grades of using one's reading abilities to learn in content area classes, instruction in literacy skills in all areas of general education is increasingly important. To support all learners, instruction in vocabulary, necessary background knowledge, and comprehension strategies should be included (Solis et al., 2014; Vaughn & Fletcher, 2012), as should structured opportunities for students to practice reading comprehension skills while interacting with content area text. These approaches have been shown to benefit text comprehension and increase retention for all students, including those with learning disabilities (see Scammacca, Roberts, Vaughn, & Stuebing, 2015 and Swanson et al., 2014 for reviews).

Level 2. This level uses empirically validated reading comprehension interventions in a small group setting (L. S. Fuchs et al., 2010) and supplements Level 1 instruction. Ideally, groupings are homogeneous with similar areas of difficulty (e.g., vocabulary, inferencing). While intensive and matched to the needs of the learner, this level of intervention is not individualized because it uses a standard protocol intervention. In secondary grades, complex reading problems often require more time to remediate and therefore, Level 2 interventions may need to be extensive in duration (Vaughn & Fletcher, 2012; Wanzek et al., 2013). Additionally, variations to pacing, instructional materials, and group size are encouraged at this level (Pyle & Vaughn, 2012).

Level 3. This level can include special education services. It uses empirically validated interventions matched to the needs of the individual learner. To best support the development of reading comprehension in adolescents, multi-component interventions that provide intensive instruction in multiple areas of reading (e.g., word study, reading comprehension, vocabulary, reading fluency, motivation, word reading, spelling) appear most effective (Calhoon, Sandow, & Hunter, 2010; Edmonds et al., 2009; Pyle & Vaughn, 2012; Scammacca et al., 2007; Vaughn & Fletcher, 2012). Data-based instructional decisions are made to individualize and intensify instruction to meet the unique needs of each student. Instructional groups should be homogeneous and include few students (Vaughn & Fletcher, 2012). Because growth in reading comprehension can be much slower for secondary students than elementary (e.g., Scammacca et al., 2007; Wanzek et al., 2013), daily intervention over an extended period of time is recommended. Vaughn and Fletcher (2012) suggest allocating a minimum of 50 minutes, about one class period in the secondary grades, to intervention daily.

Progress Monitoring

A recommended measure for progress monitoring for RTI is CBM. The use of CBM is an empirically valid and reliable way to measure student response to intervention (Wayman et al., 2007) and is a valid and reliable indicator of performance on state tests at the secondary level (Espin, Wallace, Lembke, Campbell, & Long, 2010). Common practice at the elementary level is to administer CBM probes weekly or bi-weekly to chart the growth of students receiving intervention at Level 2 or 3. Less frequent administration of CBM probes may be adequate for adolescent learners, since they tend to grow more slowly (Solis et al., 2014; Vaughn & Fletcher, 2012), although more research is needed to determine ideal frequency (Espin et al., 2010). It should be noted that students seem to show greater growth in reading comprehension in middle than in high school (Scammacca et al., 2007).

Data-Based Instructional Decisions

The use of data in secondary grades is similar to that of elementary grades (e.g., to determine responsiveness to intervention, progress monitoring, instructional alterations), though, a very limited body of research exists on the use of data-based individualization (DBI; *NCLII*, 2013) in the secondary grades (e.g., Wanzek et al., 2013). Increased instructional time in intensive reading comprehension interventions is a key component in student growth (Vaughn & Fletcher, 2012). However, the identification of additional variables by which intensification can successfully occur in the secondary grades is still needed (Wanzek et al., 2013).

Table 1.
Research Suggested RTI Framework
Alterations for the Secondary Grades

RTI Component	Suggested Alterations
Universal Screening	<ul style="list-style-type: none"> • Focus of RTI shifts to treatment rather than identification and prevention • Annual state achievement tests may be used as universal screeners and may be paired with other forms of data such as CBM and student records • Students may be placed immediately in the level of intensification that matches their needs rather than systematically progressing through the levels
Level 1	<ul style="list-style-type: none"> • An increased emphasis on the teaching of literacy skills such as vocabulary, comprehension strategies, and necessary background knowledge should be paired with core instruction for all learners • Structured opportunities should be provided for students to practice reading comprehension skills while interacting with content area text
Level 2	<ul style="list-style-type: none"> • Students may require more time in this level of intervention than in the elementary grades
Level 3	<ul style="list-style-type: none"> • Reading comprehension interventions should include skill instruction in a variety of reading related skills (e.g., word study, reading comprehension, vocabulary, reading fluency, motivation, word reading, spelling) • A large amount of instructional minutes should be devoted to intensive intervention daily • Interventions may need to occur over a long period of time
Progress Monitoring	<ul style="list-style-type: none"> • Less frequent progress monitoring may be acceptable to still show accurate student growth, although research is needed to determine an ideal frequency
Data-Based Instructional Decisions	<ul style="list-style-type: none"> • More research is needed to identify variables, aside from increased instructional time, which effectively intensify interventions for students struggling with reading comprehension in the secondary grades

(Calhoun et al., 2010; Edmonds et al., 2009; Pyle & Vaughn, 2012; Scammacca et al., 2007; Solis et al., 2014; Vaughn et al., 2010, 2011, 2012; Vaughn & Fletcher, 2012; Wanzek et al., 2013)

How Adequate Is the Research Knowledge Base?

The majority of the research surrounding RTI has been focused at the elementary grades. However, some extensive studies have been performed in the secondary grades, primarily middle school (e.g., Vaughn et al., 2010, 2011, 2012). A literature search identified 10 articles that were either empirical studies (Calhoun et al., 2010; Pyle & Vaughn, 2012; Solis et al., 2014; Vaughn et al., 2010, 2011, 2012), meta-analyses (Edmonds et al., 2009; Scammacca et al., 2007; Wanzek et al., 2013), or literature reviews (Vaughn & Fletcher, 2012). These articles provide evidence of a benefit to continuing reading intervention through an RTI framework into the secondary grades.

Despite the small number of studies evaluating RTI to support reading comprehension in the secondary grades, common evidence is found across studies. Interventions for adolescents may need to occur for a longer period of time compared to common practice in the elementary grades (Pyle & Vaughn, 2012; Scammacca et al., 2007; Vaughn et al., 2010, 2011; Vaughn & Fletcher, 2012; Wanzek et al., 2013). Multi-component, explicit instruction that includes both word level and comprehension instruction seems to be most effective at improving the reading comprehension outcomes of adolescents (Calhoun et al., 2010; Edmonds et al., 2009; Pyle & Vaughn, 2012; Scammacca et al., 2007; Vaughn & Fletcher, 2012). Such intensive interventions can keep students from falling further behind their non-struggling peers or losing skills (Edmonds et al., 2009; Vaughn et al., 2012; Wanzek et al., 2013). Also, it is agreed upon to place secondary students directly into the level of intensification the data suggests they require (L. S. Fuchs et al., 2010; Pyle & Vaughn, 2012; Solis et al., 2014; Vaughn & Fletcher, 2012).

Finally, secondary students with reading delays may require greater intensity of instruction, though it is still unclear the specific variables of intensity that are likely to provide the greatest impact for these students. When determining how to intensify for older students, teachers may cautiously consider practices recommended for use with younger readers (Wanzek et al., 2013) while continuing to monitor student progress. Further research is needed in this area as lacking this information likely decreases the effectiveness of using RTI to support reading comprehension difficulties at the secondary level.

How Practical Is It?

With the changes previously mentioned, there is growing evidence that intensive interventions for reading comprehension in the secondary grades through an RTI framework elicit positive improvements for students with reading difficulties. As adolescents have developed gaps in their reading abilities over time, a few issues should be taken into consideration when providing interventions for these students.

Teachers should first consider that while the goal of interventions may be increasing reading comprehension, evidence suggests that more effective comprehension interventions combine vocabulary, background knowledge, or decoding if students also struggle in these areas (Scammacca et al., 2007; Solis et al., 2014). Furthermore, a common difficulty in the secondary grades is supporting reading comprehension at Level 1 in general education content area classes due to the demands of the content area curriculum. However, many studies have shown the effectiveness of incorporating strategies to support reading comprehension within an academic content area such as social studies (for a review, see Swanson et al., 2014). This practice has been found to support the reading comprehension of student with and without learning disabilities alike (Scammacca et al., 2015; Swanson et al., 2014).

Another potential area of difficulty is scheduling consistent time necessary for interventions to be effective (Vaughn et al., 2010). Research in this area has found that reading comprehension gains in intervention studies with older students have been small, indicating that it may take a long time to see growth (e.g., Vaughn et al., 2010, 2011).

The use of annual state achievement tests in the secondary grades as a universal screening measure is quite practical (Vaughn & Fletcher, 2012) as it reduces additional time needed to administer assessments and saves students from being subjected to redundant assessing.

How Effective Is It?

While there is limited research on the effectiveness of RTI in the secondary grades to remediate reading comprehension difficulties, there is evidence that adolescence is not too late to improve reading comprehension outcomes (Scammacca et al., 2007).

Overall, the literature supports the implementation of intensive reading interventions for students in secondary schools and that using an RTI framework to intensify reading comprehension interventions is an effective approach for these students. Pyle and Vaughn (2012) detail three

intervention studies occurring over 3 years where increasingly intensive reading interventions were provided to middle school students. In year three, the intervention closely followed an RTI framework for all students. Students participating in the intervention had not made adequate progress during the previous 2 years of the study. The intervention took place in smaller groups, used bi-weekly progress monitoring, and teachers adjusted interventions in response to student progress. Students who participated in the intervention showed progress and outperformed students in the comparison group on reading comprehension measures. Solis et al. (2014) further detail components of the RTI framework used in this series of studies including benchmarking using a grade level assessment, progress monitoring, and adjusting interventions based on individual student response. This research demonstrates an RTI framework can help improve reading comprehension outcomes for students who struggle and can be made more effective through the alterations described above.

What Questions Remain?

- How frequently should progress monitoring assessments, such as CBM, be administered to provide an accurate depiction of student growth for data-based instructional decisions?
- How, or to what extent, do the common decision rules for data-based individualization apply to teaching adolescents?
- Which intensification variables are most beneficial for adolescents within the secondary school setting?
- How, or to what extent, do strategies used to support reading comprehension within the general education Level 1 content area curriculum differ across content areas in effectiveness?

Where Can I Learn More?

- **RTI in Secondary Schools: Is It on Your Radar Screen?**
www.rtinetwork.org/learn/rti-in-secondary-schools/response-to-intervention-in-secondary-schools
- **IES Adolescent Literacy Practice Guide**
ies.ed.gov/ncee/wwc/Docs/PracticeGuide/adlit_pg_082608.pdf
- **IES RTI Practice Guide**
ies.ed.gov/ncee/wwc/PracticeGuide/3
- **Center on Instruction: Effective Instruction for Adolescent Struggling Readers – Second Edition**
www.centeroninstruction.org/effective-instruction-for-adolescent-struggling-readers--second-edition
- **The IRIS Center**
iris.peabody.vanderbilt.edu/iris-resource-locator/
- **National Center on Intensive Intervention**
www.intensiveintervention.org/

References

- Calhoun, M. B., Sandow, A., & Hunter, C. V. (2010). Reorganizing the instructional reading components: Could there be a better way to design remedial reading programs to maximize middle school students with reading disabilities' response to treatment? *Annals of Dyslexia*, 60, 57–85. <https://doi.org/10.1007/s11881-009-0033-x>
- Deno, S. L. (1985). Curriculum-Based Measurement: The Emerging Alternative. *Exceptional Children*, 52(3), 219–232. <https://doi.org/10.1177/001440298505200303>
- Edmonds, M. S., Vaughn, S., Wexler, J., Reutebuch, C., Cable, A., Tackett, K. K., & Schnakenberg, J. W. (2009). A synthesis of reading interventions and effects on reading comprehension outcomes for older struggling readers. *Review of Educational Research*, 79(1), 262–300. <https://doi.org/10.3102/0034654308325998>
- Espin, C., Wallace, T., Lembke, E., Campbell, H., & Long, J. D. (2010). Creating a progress-monitoring system in reading for middle-school students: Tracking progress toward meeting high-stakes standards. *Learning Disabilities Research & Practice*, 25(2), 60–75. <https://doi.org/10.1111/j.1540-5826.2010.00304.x>
- Fuchs, D., Fuchs, L. S., & Compton, D. L. (2012). Smart RTI: A next-generation approach to multilevel prevention. *Exceptional Children*, 78(3), 263–279. <https://doi.org/10.1177/001440291207800301>
- Fuchs, D., Fuchs, L. S., & Stecker, P. M. (2010). The “blurring” of special education in a new continuum of general education placements and services. *Exceptional Children*, 76(3), 301–323. <https://doi.org/10.1177/001440291007600304>
- Fuchs, L. S., Fuchs, D., & Compton, D. L. (2010). Rethinking response to intervention at middle and high school. *School Psychology Review*, 39(1), 22–28.
- National Center on Intensive Intervention. (2013). *Data-based individualization: A framework for intensive intervention*. Washington, DC: Office of Special Education, U.S. Department of Education. Retrieved from https://intensiveintervention.org/sites/default/files/DBI_Framework.pdf
- Pyle, N., & Vaughn, S. (2012). Remediating reading difficulties in a response to intervention model with secondary students. *Psychology in the Schools*, 49(3), 273–284.
- Scammacca, N. K., Roberts, G., Vaughn, S., & Stuebing, K. K. (2015). A meta-analysis of interventions for struggling readers in grades 4–12: 1980–2011. *Journal of Learning Disabilities*, 48(4), 369–390. <https://doi.org/10.1177/0022219413504995>

- Scammacca, N., Roberts, G., Vaughn, S., Edmonds, M., Wexler, J., Reutebuch, C. K., & Torgesen, J. K. (2007). Interventions for adolescent struggling readers: A meta-analysis with implications for practice. *Center on Instruction*, 1–41.
- Solis, M., Miciak, J., Vaughn, S., & Fletcher, J. M. (2014). Why intensive interventions matter: Longitudinal studies of adolescents with reading disabilities and poor reading comprehension. *Learning Disability Quarterly*, 37(4), 218–229. <https://doi.org/10.1177/0731948714528806>
- Swanson, E., Hairrell, A., Kent, S., Ciullo, S., Wanzek, J. A., & Vaughn, S. (2014). A synthesis and meta-analysis of reading interventions using social studies content for students with learning disabilities. *Journal of Learning Disabilities*, 47(2), 178–195. <https://doi.org/10.1177/0022219412451131>
- U. S. Department of Education. (2004). Individuals with Disabilities Education Improvement Act of 2004. *U.S. Department of Education*. <https://doi.org/10.1017/CB09781107415324.004>
- Vaughn, S., Cirino, P. T., Wanzek, J., Wexler, J., Fletcher, J. M., Denton, C. D., ... Francis, D. J. (2010). Response to Intervention for Middle School Students. *School Psychology Review*, 39(1), 3–21.
- Vaughn, S., & Fletcher, J. M. (2012). Response to intervention with secondary school students with reading difficulties. *Journal of Learning Disabilities*, 45(3), 244–256. <https://doi.org/10.1177/0022219412442157>
- Vaughn, S., Wexler, J., Leroux, A., Roberts, G., Denton, C., Barth, A., & Fletcher, J. (2012). Effects of intensive reading intervention for eighth-grade students with persistently inadequate response to intervention. *Journal of Learning Disabilities*, 45(6), 515–525. <https://doi.org/10.1177/0022219411402692>
- Vaughn, S., Wexler, J., Roberts, G., Barth, A. A., Cirino, P. T., Romain, M. A., ... Denton, C. A. (2011). Effects of individualized and standardized interventions on middle school students with reading disabilities. *Exceptional Children*, 77(4), 391–407.
- Wanzek, J., Vaughn, S., Scammacca, N. K., Metz, K., Murray, C. S., Roberts, G., & Danielson, L. (2013). *Extensive reading interventions for students with reading difficulties after grade 3. Review of Educational Research* (Vol. 83). <https://doi.org/10.3102/0034654313477212>
- Wayman, M. M., Wallace, T., Wiley, H. I., Ticha, R., & Espin, C. A. (2007). Literature synthesis on curriculum-based measurement in reading. *The Journal of Special Education*, 41(2), 85–120. <https://doi.org/10.1177/00224669070410020401>