Intervention Peer Review Screening Instrument K-12 Reading, Mathematics, and Writing

BEFORE YOU BEGIN

Directions:

This rubric is designed to help educators evaluate intervention materials for reading and written expression to support the needs of students in the Tennessee Response to Instruction and Intervention (RTI²) and Special Education framework. This rubric is designed to assist TN educators in the selection of evidence based interventions to meet student need. Tools identified will help schools determine which interventions are most effective based on the intensity of intervention a student may require as defined through the RTI² and Special education framework. The criteria for the screening instrument was developed based on research and review of similar processes in other states.

Evaluator must be versed on interventions and varying levels of intensity of interventions for reading and writing. In addition, evaluators must have experience with the grade band of interventions that will be assigned to them. It is recommended that evaluators familiarize and continue to use as a resource the RTI² manual and special education framework manual during the evaluation process (www.tncore.org or www.tnspdg.com).

For each sub-criterion on the screening instrument, evaluate the intervention based on what the vendor submitted, and cite the evidence for each criteria. If the criteria is present, give it a "Yes" criteria for that area. If the criteria is not present, give it a "No" criteria for that area.

For each overall criterion on the screening instrument, evaluate the sub-criterion score to determine a rating of "Met" or "Not Met" (see each section for description).

ORGANIZATION

SECTION 1: Area(s) of Deficit
SECTION 2: Internal Validity, External Validity, and Evidence Based/Peer Reviewed
SECTION 3: Systematic and Explicit Instruction
SECTION 4: Intervention Intensity (Tier II, Tier III or special education intervention)
       and Grade(s)
SECTION 5: Teacher Usability

REVIEW

Evaluator:_____   Organization: _____

Vendor/Publisher: _____   Intervention (Program) Name: _____

Information provided by Vendor:

Tier: _____   Grade(s) _____   Area(s) of Deficit: _____

SECTION 1A: Area(s) of deficit in Reading

There is evidence provided by the vendor to confirm the intervention adequately targets the area of deficit submitted.

In Tennessee, areas of deficit in reading for RTI[2] are defined as **basic reading skills**, **reading comprehension**, and **reading fluency.**

Basic reading skills include the ability to identify and manipulate individual sounds in language; to identify printed letters and their associated sounds; to decode written language. **Phonics** is a set of rules that specify the relationship between letters in the spelling of words and the sounds of spoken language. Phonics refers to a systematic approach of teaching letters (and combinations of letters) and their corresponding speech sounds. Phonics begins with the alphabetic principle: language is comprised of words made up of letters that represent sounds. **Phoneme Segmentation Fluency** (PSF) is a standardized measure of a student's ability to segment three and four phoneme words into individual phonemes fluently, for example the examiner says "bat" and the student says /b/ /a/ /t/. PSF is usually measured mid- kindergarten through the spring of first grade. **Phonological Awareness** is a broad skill that includes identifying and manipulating units of oral language – parts such as words, syllables, and onsets and rimes. Children who have phonological awareness are able to identify and make oral rhymes, can clap out the number of syllables in a word, and can recognize words with the same initial sounds like "money" and "mother." **Phonemic awareness** is commonly defined as the understanding that spoken words are made up of separate units of sound that are blended together when words are pronounced. The ability to hear, think about, identify and manipulate the individual sounds (phonemes) in spoken words.

Reading comprehension involves constructing meaning that is reasonable and accurate by connecting what has been read to what the reader already knows and thinking about all of this information until it is understood.

Reading fluency is recognizing the words in a text rapidly and accurately and using phrasing and emphasis in a way that makes what is read sound like spoken language. A standardized reading measure of accuracy and fluency with connected text or passages, usually measured beginning mid-first grade through sixth grade.

Metrics for Reading:

A.	The area of deficit(s) focus on a reading skills deficit(s) and not grade level standards.	Yes _____	No_____
B.	The intervention (program) does address the area of deficit listed by the vendor.	Yes _____	No_____
C.	The area of deficit(s) listed by the vendor matches the Tennessee definition for either reading **skills**, **reading comprehension**, or **reading fluency**.	Yes _____	No_____

Overall Area of Deficit for Reading:

The intervention (program) must have met all three criterion above to receive a met rating in **area of deficit**.	Met _____	Not Met_____

Justification/Notes (Deficit for Reading)

Section 1B: Area(s) of deficit in Mathematics

There is evidence provided by the vendor to confirm the intervention adequately targets the area of deficit submitted. In Tennessee, mathematics areas of deficit for RTI[2] are defined as **mathematics calculation, mathematics problem solving** and **early numeracy**.

Math (mathematics/mathematical) calculation is the knowledge and retrieval of facts and the application of procedural knowledge in calculation.

- Math application refers to math flexibility for applications. Students should have the opportunity to apply math in context.

Math (mathematics/mathematical) problem solving involves using mathematical computation skills, language, reasoning, reading, and visual-spatial skills to solve problems and applying mathematical knowledge at the conceptual level.

- Conceptual understanding refers to the conceptual understanding of key concepts, such as place value and ratios. Students should learn concepts from a number of perspectives so that they are able to see math as more than a set of mnemonics or discrete procedures.
- Procedural skill and fluency refers to the speed and accuracy in calculation. Students need time to practice core functions such as single-digit multiplication so that they gain access to more complex concepts and procedures.

Math early numeracy includes counting and cardinality, ability to identify numbers, discriminate between quantities, patterns and relationship, formulate mental number lines, number concepts, geometry, and spatial sense.

- Cardinality is understanding the one to one correspondence between counting numbers and the number of objects in a set.

Metrics:

A.	The area of deficit focus on a mathematical skills deficit and not grade level standards.	Yes _____	No_____
B.	The intervention (program) does address the area of deficit listed by the vendor.	Yes _____	No_____
C.	The area of deficit listed by the vendor matches the Tennessee definition for either mathematics calculation or mathematics problem solving.	Yes _____	No_____

Overall Area of Deficit:

The intervention (program) must have met all three criterion above to receive a met rating in **area of deficit**.	Met _____	Not Met_____

Justification/Notes

Section 1C: Area(s) of deficit in Written Expression

There is evidence provided by the vendor to confirm the intervention adequately targets the area of deficit submitted.

In Tennessee, an area of deficit in writing for RTI[2] is defined as written expression.

Written Expression involves basic writing skills (transcription) and generational skills (composition).
   Transcription involves difficulty producing letters, words, and spelling.
   Composition is difficulty with word and text fluency, sentence construction, genre- specific discourse structures, planning processes, and reviewing and revising processes.

Metrics for Writing:

	Yes	No
A. The area of deficit(s) focus on a reading **or** writing skills deficit(s) and not grade level standards.	Yes _____	No_____
B. The intervention (program) does address the area of deficit listed by the vendor.	Yes _____	No_____
C. The area of deficit(s) listed by the vendor matches the Tennessee definition for writing.	Yes _____	No_____

Overall Area of Deficit for Writing:

	Met	Not Met
The intervention (program) must have met all three criterion above to receive a met rating in **area of deficit (writing)**.	Met _____	Not Met_____

Justification/Notes

Section 2: VALIDITY; EVIDENCE BASED and PEER REVIEWED

There must be sufficient evidence provided by the vendor to confirm the intervention meets the below criteria for validity and has been peer reviewed.

Internal Validity is how well a research study was designed to reduce the impact of variables not studied. The level of confidence that positive results are due to the intervention and things not outside of the study.

External Validity is the extent to which the results of a study's findings can be generalized to a larger population beyond the original research sample. The intervention can be applied to other practical settings beyond the controlled research study. External validity criteria includes: Implementation, domains addressed (math), student outcomes measured and treatment acceptability.

Evidence Based and Peer Reviewed is used in publishing and in professional settings where work and/or action is examined and reviewed by a group of individuals that have professional credentials and experiential backgrounds that are equivalent to the individual whose work is being reviewed. This process is used to examine work for many purposes. When psychologists try to publish their research, a group of experts (peers) review the work to determine if it meets criteria for publication. They will examine procedures, source materials, study methodology, etc. In professional settings it is used to review behavior, adherence to ethical standards, procedural issues, etc. This method is widely used by universities, hospitals, research foundations and other venues that oversee the work of scholars and other professionals. Evidence based interventions have been demonstrated through extensive research to be effective for the majority of students.

Metrics for Validity:

	Yes	No
A. In the research data provided there was a practical significance (provides an indication of the magnitude of the intervention's effect. The larger the effect size, the larger the impact of the intervention). An effect size of .25 or greater is desired.	Yes _____	No_____
B. In the research data provided there was a measurement of fidelity of implementation that was conducted adequately and observed with adequate intercoder agreement, and levels of fidelity indicate that the intervention program was implemented as intended (at 75% or above) Note: Fidelity of implementation refers to the accurate and consistent delivery of instruction or assessment in the manner in which it was designed or prescribed according to research findings and/or developers' specifications. Five common aspects of fidelity are adherence, exposure, program differentiation, student responsiveness, and quality of delivery. (National Center for Intensive Intervention)	Yes _____	No_____
C. In the research data provided students were randomly assigned and the evidence is convincing that participants were at risk (i.e., below 30th percentile on local or national norm; or sample mean below 25th percentile on local or national test; or students with identified disability).	Yes _____	No_____
D. There is evidence of positive findings across multiple studies. There is evidence of at least two research studies that were repeated/replicated.	Yes _____	No_____

E. There is evidence of a random sample population from multiple schools. (For example, a study that only sampled from one school could not be generalized to cover children in an entire state).	Yes _____	No_____
F. There is evidence of a large sample size (n>75)	Yes _____	No_____

Overall Validity:

The intervention (program) must have met four of the six above criterion including component D to receive a met rating in the area of **validity**.	Met _____	Not Met_____

Metrics for Evidence Based and Peer Reviewed:

A. The vendor provided two peer reviewed articles, published in a research journal, that indicate the intervention has showed improvement in student growth	Yes _____	No_____
B. Judged as sound by professionals	Yes _____	No_____

Overall Evidence Based and Peer Reviewed:

The intervention (program) must have met both criterion above to receive a met rating in the area of **peer reviewed**.	Met _____	Not Met_____

Justification/Notes

SECTION 3: SYSTEMATIC AND EXPLICIT INSTRUCTION INTERVENTION TIER AND GRADE(S)

There is sufficient evidence provided by the vendor to confirm the intervention adequately provides systematic and explicit instruction.

Systematic instruction refers to a carefully planned sequence for instruction, similar to a builder's blueprint for a house. A blueprint is carefully thought out and designed before building materials are gathered and construction begins. The plan for systematic instruction is carefully thought out, strategic, and designed before activities and lessons are developed. For systematic instruction, lessons build on previously taught information, from simple to complex, with clear, concise student objectives that are driven by ongoing assessment. Students are provided appropriate practice opportunities, which directly reflect intervention.

There is evidence of scaffolding instruction. Scaffolding is an instructional technique in which the teacher breaks a complex task into smaller tasks, models the desired learning strategy or task, provides support as students learn the task, and then gradually shifts responsibility to the students. In this manner, a teacher enables students to accomplish as much of a task as possible without assistance.

Explicit Instruction involves direct, face-to-face teaching that is highly structured, focused on specific learning outcomes, and based on a high level of student and teacher interaction. It involves explanation, demonstration, and practice with topics being taught in a logical order. Another characteristic of explicit teaching is modeling skills, thinking, and behaviors. This also involves the teacher thinking out loud when working through problems and demonstrating processes for students. The majority (over 50 percent) of the program should be direct intervention provided by the interventionists; however, computer-based and/or technology assisted interventions can be used to provide practice opportunities. This should apply to all tiers (II, III, and special education).

Metrics for Systematic Instruction:

A. There is evidence of a carefully planned sequence for instruction.	Yes _____	No_____
B. There is evidence that lessons build on previously taught information, from simple to complex, with clear, concise student objectives	Yes _____	No_____
C. There is evidence of scaffolding.	Yes _____	No_____

Overall Systematic Instruction:

The intervention (program) must have met two of the three criterion above to receive a met rating in the area of **systematic instruction**.	Met _____	Not Met_____

Metrics for Explicit Instruction:

A.	There is evidence of face-to-face teaching that is highly structured, focused on specific learning outcomes, and based on a high level of student and teacher interaction.	Yes _____	No _____
B.	There is evidence of support for teachers in modeling skills, thinking, and behaviors.	Yes _____	No _____
C.	The majority (over 50 percent) of the program should be direct intervention provided by the interventionists.	Yes _____	No _____

Overall Explicit Instruction:

The intervention (program) must have met two of the three criterion above to receive a met rating in the area of **explicit instruction**.	Met _____	Not Met _____

Justification/Notes

Section 4: Intervention Tier and Grade

There is sufficient evidence provided by the vendor to confirm the intervention adequately targets the tier and grade(s) submitted. Tier II, Tier III, and special education interventions will be **explicit, systematic, evidence based (research-based)** interventions that target the student's identified area of deficit (reading, mathematics, and/or writing).

Tier II is in addition to the instruction provided in Tier I. There will be evidence that Tier II interventions are more intense than Tier I and are focused on skills vs standards. Tier III interventions will provide students at this level with daily, intensive, small group, or individual intervention targeting specific area(s) of deficit, which are more intense than interventions received in Tier II. Special education intervention is the most intensive intervention provided and addresses persistent difficulties in a specific area of deficit and includes individualization of the intervention.

The intensity level is the measure of strength by which instruction or intervention is delivered. Intensive academic and interventions are characterized by their increased focus for students who fail to respond to less intensive forms of instruction. Intensity of interventions can be increased through many dimensions including length, frequency, and duration of implementation.

Metrics for Intervention Tier:

A. There is evidence for: • Tier II intervention is at least 25-30 minutes in duration and can be delivered daily, or • Tier III intervention is 45 minutes in duration and can be delivered daily, or • special education intervention is 45-60 minutes, individualized and can be delivered daily (the length is at least 45 minutes in duration daily).	Yes _____	No_____
B. The instructional focus at Tier II can be group or individual. Tier III and special education while still in small groups strive to provide more individualized intervention.	Yes _____	No_____
C. There is evidence of assessment support. Tier II intervention can provide a group or individualized diagnostic assessment while Tier III and special education interventions must provide an individualized diagnostic assessment.	Yes _____	No_____
D. There is evidence of student engagement and response. Tier II interventions provided opportunities for students to respond to the teacher while Tier III and special education interventions provided opportunities more often than Tier II.	Yes _____	No_____
E. There is evidence that a special education intervention can be individualized to a student's specific needs and allows for the student to begin the intervention only at levels needed or required. There must be individualization of entry points and exit points.	Yes _____	No_____

Overall Intervention Tier:

- Tier II intervention must have met at least three of the five above criterion
- Tier III intervention must have met at least four of the above criterion
- Special education intervention must met four of the five above criterion including component E.

Tier Level _____

Metrics for Grade(s):

	Yes	No
A. There is evidence of grade level appropriateness.	Yes _____	No_____
B. The graphics and materials are age appropriate for students.	Yes _____	No_____

Overall Grade(s):

The intervention (program) must have met both criterion above to confirm the grade(s) specified by the vendor.

Grade(s) _____

Justification/Notes

Section 5: TEACHER USABILITY

There is sufficient evidence provided by the vendor to confirm the intervention provides supports and has ease of use for the interventionists.

The intervention is user friendly for teachers. Materials support teachers in ways such as the following: planning (including ideas for pacing), introducing and concluding lessons, assessment types, vocabulary, activities, and record keeping. Materials are clear and easy to read for students, teachers, and parents. The design and graphics do not distract from the intervention.

Metrics:

A. Materials provide instructional support such as the following: introducing and concluding lessons, assessment types, vocabulary, and activities.	Yes _____	No_____
B. Materials support teachers in ways such as the following: planning (including ideas for pacing) and record keeping.	Yes _____	No_____
C. Materials are clear and easy to read for students, teachers, parents. The design and graphics do not distract from the reading, mathematics, or writing.	Yes _____	No_____

Overall Teacher Usability :

The intervention (program) must have met two of the three criterion above criterion including component A to receive a met rating in the area of **teacher usability**.	Met _____	Not Met_____

Justification/Notes