Response to Intervention: Principles and Methods

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What is Response to Intervention?

- Response to intervention (RTI) is a systematic and data-based method for identifying, defining, and resolving students' academic and/or behavioral difficulties.

Key RTI Features

- Prevention-based model
  - Primary—before any problems exist
  - Secondary—at the first sign of problems
  - Tertiary—to reduce effects of problems
- Includes three elements:
  - Effective instruction
  - Data recording
  - Systematic review of data to inform instruction

RTI is a *Well-Child* Program for Education

- Health Care
  - Infant screenings
  - Annual check-ups
  - Comparison to developmental standards
  - Immunizations
  - Use of research-based standard protocol treatments for common problems
  - Hypothesis testing as part of evaluation
  - Referral for specialist care if needed

- Education
  - Standardized Kindergarten screening
  - Three yearly "check-ups"
  - Comparison to local and national benchmarks
  - Use of research-based instruction for general education instruction
  - Hypothesis testing as part of curriculum and assessment practices
  - Referral to special education only if progress in other instruction is not made
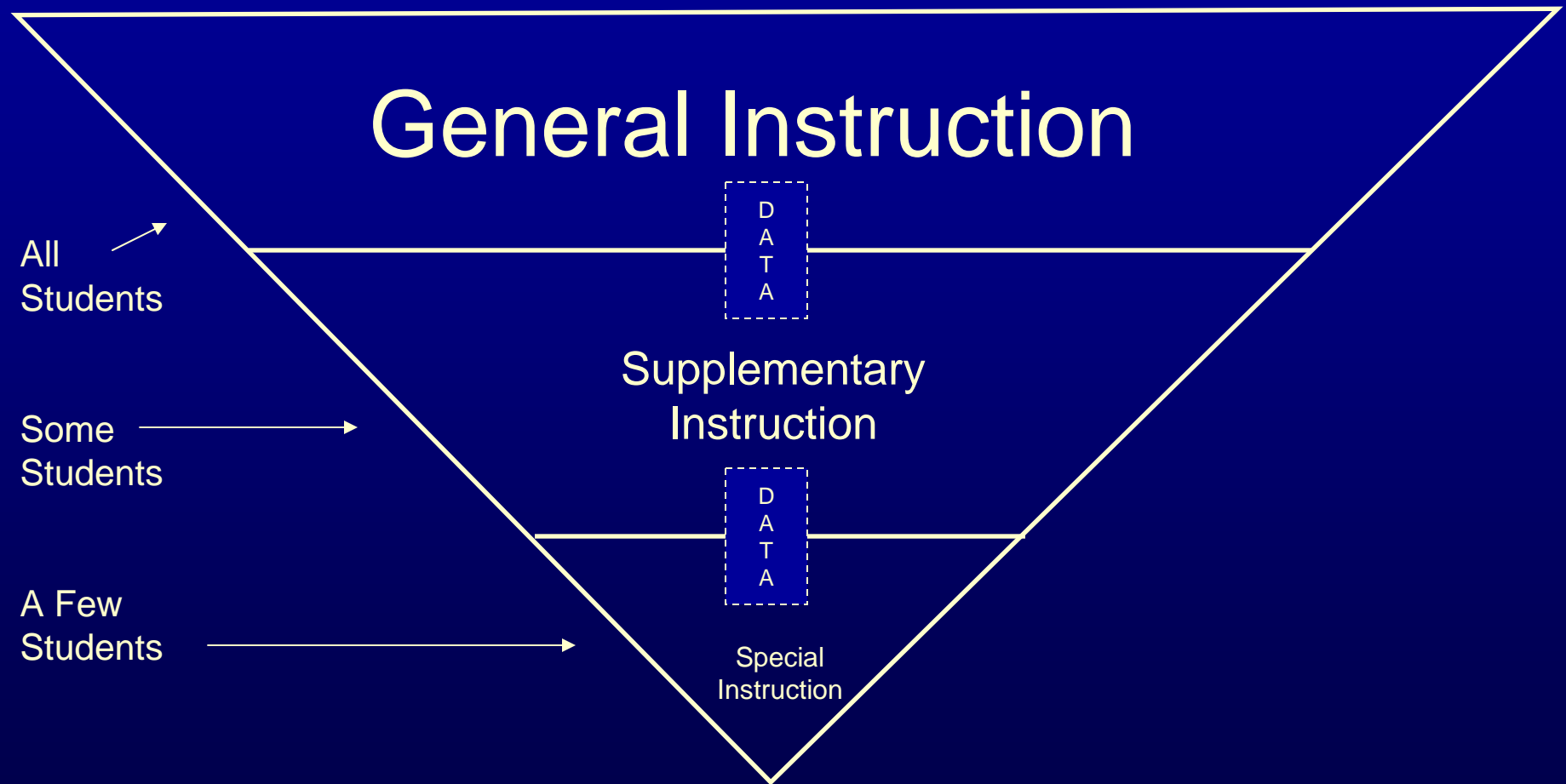
RTI Stages

- Usually conceptualized as a multi-tier (stage) model whereby students get more individualized assistance on the basis of whether they respond to certain instruction.

- Three-tier model is most common.

- Outcome indicators are essential to determine whether the students have responded to the instruction.

Three-Tier RTI Model

- **Tier 1**
  - Scientifically based general education instruction with regular progress monitoring
- **Tier 2**
  - Intensive small-group scientifically based instruction with regular progress monitoring
- **Tier 3**
  - Comprehensive evaluation for special education services using a problem-solving model

Three Tiers of Instruction

General Instruction

All Students

DATA

Supplementary Instruction

Some Students

DATA

A Few Students

Special Instruction

RTI Research

- Majority of data are related to reading.
- Data indicate that using RTI procedures optimizes outcomes for all students.
- Studies show that not all students will be successful from RTI alone; those students who still struggle need to receive special education services.
- Learning disabilities do exist and will not be eradicated with RTI policies.

RTI and Education Policies

- RTI procedures are specifically mentioned in both NCLB and IDEIA 2004.

- IDEIA 2004 requires that students receive scientifically based instruction before special education referrals can be made.

- RTI data can be used as part of the evaluation procedures for determining the presence of a specific learning disability.

Research on RTI and Special Education Services

- RTI shown to reduce the number of students identified as LD (Marston, Muyskens, Law, & Canter, 2003).

- RTI also linked with drop in overall number of special education placements (O'Connor, 2003).

- RTI led to a significant reduction in primary grades special education referrals and placement when used specifically for early intervention (K–3) programming (Tilly, 2003).

- RTI does not eliminate or discount the presence of LD, but is one important step in the process toward diagnosis and treatment (Speece, Case, & Molloy, 2003)

Why Use Response to Intervention?

- There is clear evidence that RTI methods have helped promote better reading intervention practices.

- RTI helps to build a bridge between general and special education by offering decision-making tools and opportunities for communication about, and ownership of children's learning experiences.

- RTI procedures offer "well-child" prevention-focused methods for education.

- RTI policies linked with reduction in the number of students receiving special education.

RTI Components: Tier I

Tier 1 RTI Activities:

- Whole-class instruction using research-based curriculum

- Universal benchmarks to monitor student progress three times per year

- Identification of lowest 20%

- Comparison with teacher judgment

- Next step: Tier 2

RTI Components: Tier 2

- Tier 2 activities:
  - Daily small-group instruction in addition to whole-class instruction (added reading instruction).
  - Direct and systematic instruction in the core skills students need.
  - Monitor student progress weekly.
  - Those students still not meeting benchmark goals at preset time points are referred for special education evaluation.

- Next Step: Tier 3

RTI Components: Tier 3

- Tier 3 activities:
  - Review of Tier 2 data.
  - Comprehensive evaluation to identify why student has not responded to intervention.
  - Consideration of special education eligibility.
  - Development of IEP or other intervention.
  - Ongoing progress monitoring.

RTI in 10 Steps

- There are 10 basic steps to designing and implementing RTI procedures in a school.
- Each step is essential and will affect the overall quality of the process and data collected.
- The steps need to be implemented in order.
- See Form 7.1 in Brown-Chidsey and Steege, 2005.

RTI Step 1: Tier 1 Instruction

- Implement scientifically based general education instructional methods.

- Scientifically based instruction includes those methods shown in multiple research studies to result in better outcomes for students.

- Review of evidence to support specific curricula needs to be conducted before selecting instructional materials and methods.

- Evaluation of the integrity (accuracy) of Tier 1 interventions needs to be conducted regularly.

- See Forms 7.2 and 7.3 in Brown-Chidsey and Steege, 2005.

RTI Step 2: Universal Benchmarks

- Collect universal benchmarks of all students' performance three times during the school year:
  - Fall (September 15–October 15)
  - Winter (January 1–31)
  - Spring (May 1–31)
- CBM or DIBELS are ideal for benchmarks.
- See Forms 7.4 and 7.5 in Brown-Chidsey and Steege, 2005.

RTI Step 3: Identifying "Riskness"

- Identify which students scored below the benchmark target(s).
- Those students below the target are at risk for significant school difficulties.
- Compare the at-risk student list with teacher judgment and other indicators of students' progress.
- See Form 7.6 in Brown-Chidsey and Steege, 2005.

RTI Step 4: Tier 2 Instruction

- Provide daily scientifically based small-group instruction to students with scores below benchmark target(s) for at least 3 weeks.

- Just like general interventions, the specialized ones need to be scientifically based and supported with evidence.

- Graphs can be hand-drawn or computer-generated.

- See Forms 7.7 and 7.8 in Brown-Chidsey and Steege, 2005.

RTI Step 5: Progress Monitoring

- Monitor student progress toward benchmark(s) using daily assessments and data graphing for 3 school weeks.
- Frequent assessment of student progress has been shown to be important for effective instructional decision making.
- Students need to see the data, too.
- See Form 7.9 in Brown-Chidsey and Steege, 2005.

RTI Step 6: Progress Review

- Review, revise, and/or discontinue small-group instruction based on student. performance and progress toward benchmark at end of 3 weeks.

- Interventions should not last forever and need to be reviewed frequently

- The data tell the story.

- See Form 7.10 in Brown-Chidsey and Steege, 2005.

RTI Step 7

- For students not yet showing evidence of meeting benchmark(s) by end of the school year, increase the intensity, duration, and/or frequency of instruction and continue to monitor progress for up to another 3 weeks.

- Every effort to help the student find success is needed.

- Use Form 7.10 in Brown-Chidsey and Steege, 2005, as needed.

RTI Step 8

- Review, revise, and/or discontinue small-group instruction based on student performance and attainment of benchmark at end of second 3 weeks.

- It is important to keep records of progress reviews.

- Use Form 7.10 in Brown-Chidsey and Steege, 2005, as needed.

RTI Step 9:Tier 3 Evaluation

- For students not yet showing evidence of meeting benchmark(s) by end of the school year, initiate a comprehensive evaluation to determine whether the student has a disability and is eligible for special education services.

- Intervention continues during evaluation.

- See Form 7.11 in Brown-Chidsey and Steege, 2005.

RTI Step 10: IEP Meeting

- IEP team determines whether student has a disability and meets the criteria for special education services; if the student is eligible for special education, an IEP is developed and becomes the student's new instructional program.

- For students found not eligible, other interventions must be tried.

How Much for How Many?

- Not all students will need all steps.

- Training and planning make this process much easier.

- There needs to be a data management plan.

- Sample reports are found in Chapter 9 of Brown-Chidsey and Steege (2005).

Three Examples

- Morgan: Reading difficulties in grade 1

- Laura: Math difficulties in grade 4

- Blake: Middle-school content area reading difficulties

Example 1: Morgan

- Morgan entered kindergarten knowing few letters and with a shy and timid presentation. At the kindergarten screening her mother reported that she was read to since birth (and before) and has always shown interest in books. In the first few months of kindergarten she listened eagerly during reading activities.

- By the end of kindergarten, Morgan's scores on the DIBELS showed that she was at risk for reading problems.

Morgan in Grade 1

- At the beginning of grade 1 Morgan scored below the benchmark target on Nonsense Word Fluency (NWF) and Oral Reading Fluency (ORF).

- Morgan received small-group Tier 2 instruction 5 days a week for 30 minutes each day.

- The Tier 2 intervention was Early Reading Intervention (ERI) and the progress indicator was NWF.

Morgan's Progress
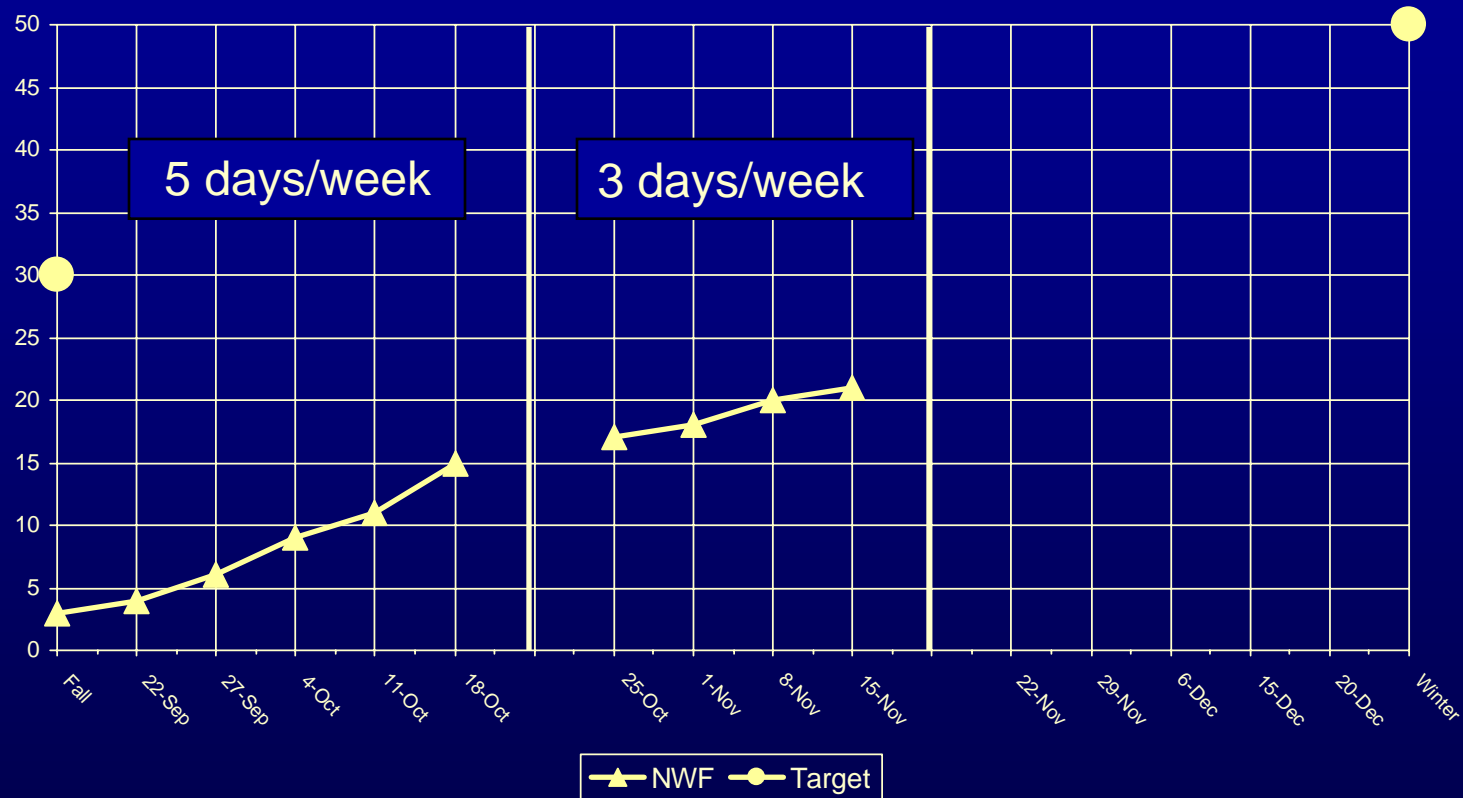
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Progress Review

- On October 18, Morgan's progress was reviewed; it seemed she was making good progress, so her Tier 2 services were scaled back to 3 days per week.

- On November 15 her progress was reviewed again and her rate of progress had slowed.

- Morgan resumed daily ERI sessions to get her back on track.

Laura

- At the beginning of grade 4 Laura scored below the target on CBM math benchmarks for computation fluency.

- Laura received small-group Tier 2 instruction 3 days a week for 30 minutes each day.

- The Tier 2 intervention was Great Leaps Math and included practicing math facts.
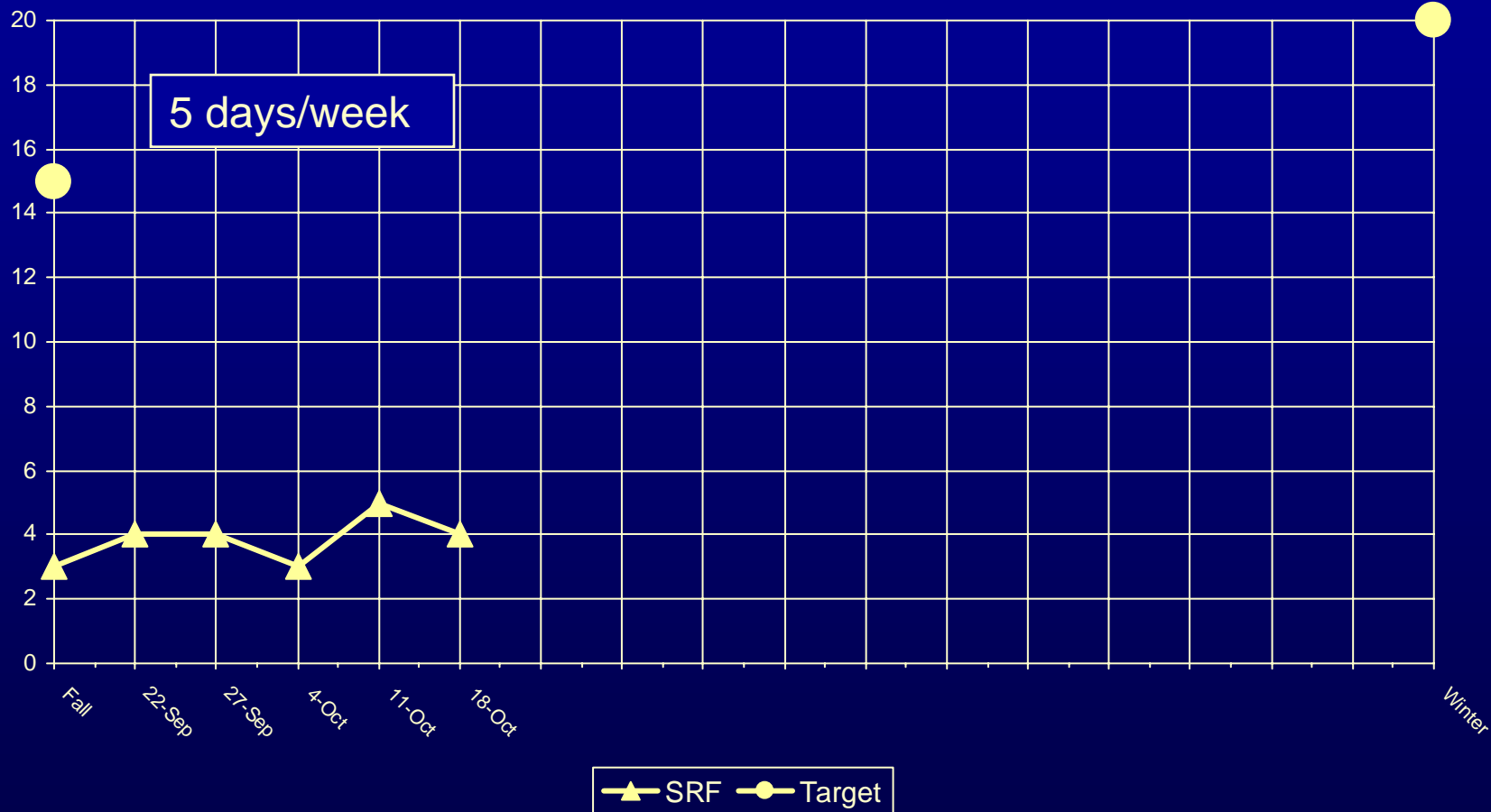
Laura's Progress

Progress Review

- On October 18, Laura's progress was reviewed; it seemed she might not make the winter benchmark, so her Tier 2 services were increased to 5 days per week.

- On November 15 her progress was reviewed again and her rate of progress had improved.

- Is Laura making effective progress?

Blake

- At the beginning of grade 7, Blake struggled with his English and social studies homework assignments. Universal silent reading fluency (SRF) benchmarks showed that Blake scored well below the benchmark for reading comprehension fluency.

- Blake received small-group Tier 2 instruction 5 days a week for 10 minutes each day using the Great Leaps program.

- Progress was monitored with weekly SRF passages.

Blake's Progress

5 days/week

Legend: SRF (triangle), Target (circle)

X-axis: Fall, 22-Sep, 27-Sep, 4-Oct, 11-Oct, 18-Oct, Winter

Y-axis: 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20

Progress Review

- Is Blake making effective progress?
  - No

- What could be done to enhance his reading comprehension?
  - New intervention that includes specific comprehension instruction such as previewing, questioning, and review (SQ3R)
  - Continued progress monitoring.
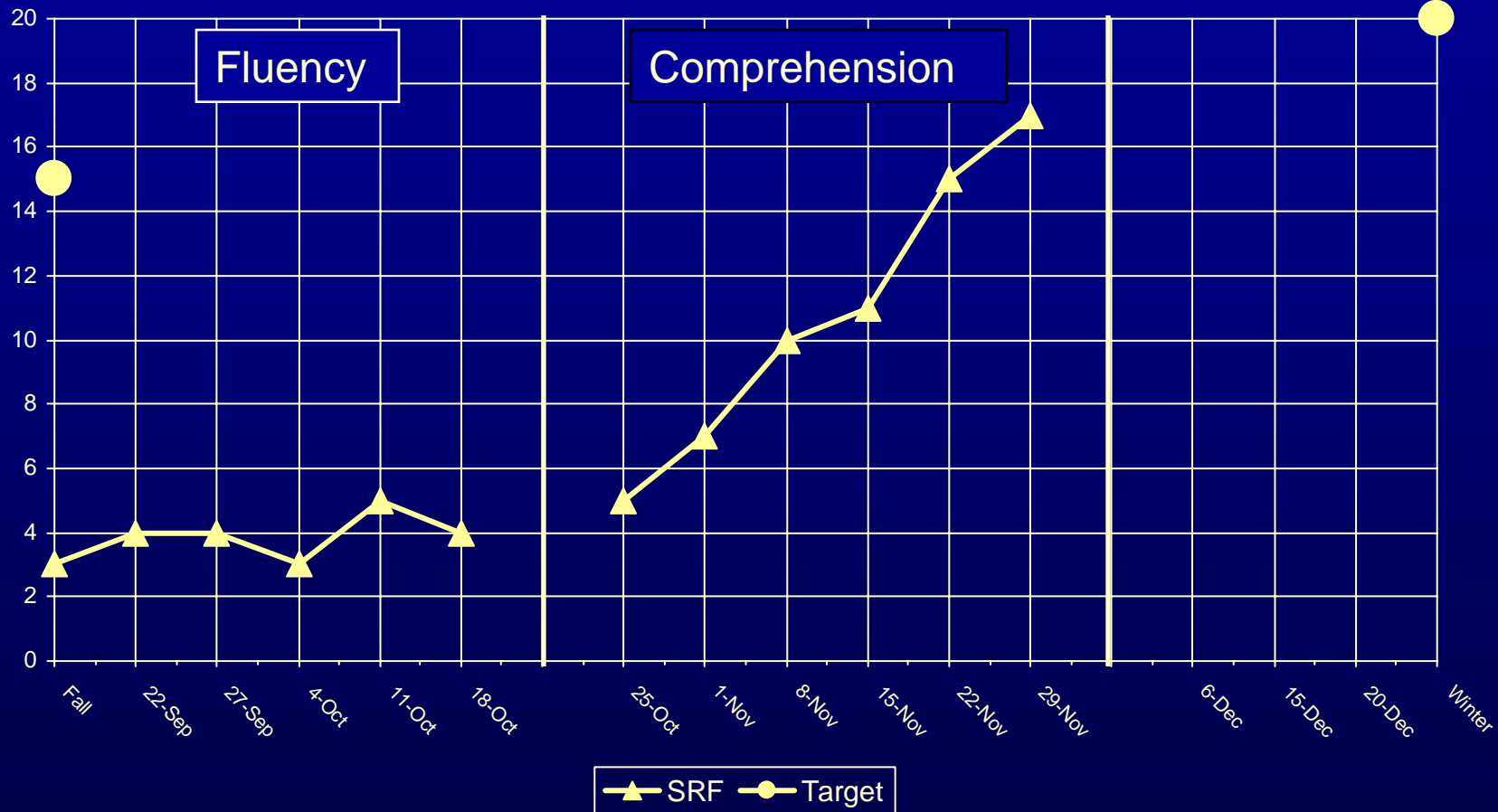
Blake's Progress

Progress Review

- Is Blake making effective progress?
  - Yes

- What should happen next?
  - Maintain current intervention.
  - Eventually fade intervention to fewer days per week.
  - Continued progress monitoring.

Conclusions

- Effective RTI interventions require time and consistent implementation.

- Team-based approaches work best

- Accountability will not go away; the more we plan ahead, the better we can help kids.

Making RTI Happen

- RTI requires coordinated, data-driven, and systematic integration of instruction and assessment.

- It cannot be implemented over night; it can take 3–5 years for the steps to be learned and used accurately and with desired outcomes.

- When used consistently, data has shown that RTI helps *all* students.

Additional Resources

- www.nrcld.org/html/symposium2003/summary

- www.aimsweb.com

- dibels.uoregon.edu

- www.interventioncentral.org

- idea.uoregon.edu

- www.whatworks.ed.gov

RTI Summary

- RTI appears to offer a robust and technically sound set of methods that enhance student achievement while reducing special education placements.

- RTI appears to be a viable way to improve access to effective instruction for all students.

- RTI is not a replacement for all other assessment procedures, but a set of procedures which make educational planning easier.

References

Brown-Chidsey, R., & Steege, M. W. (2005). *Response to Intervention: Principles and Strategies for Effective Practice*. New York: Guilford Press.

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