

Early Intervention is Key: Greater Student Success through the Web Based Teaching Tool!

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EARLY EDUCATION AND TECHNOLOGY FOR CHILDREN

Ontario

### **Early Intervention is Key:**



### Greater Student Success through the Web Based Teaching Tool!

Early Education and Technology for Children (EETC)



# What is early screening and intervention?

- Early screening refers to the practice of administering a brief screening measure(s) in an effort to gauge children's educational trajectories and determine if they are at-risk for future school failure.
- Early intervention refers to the provision of supports/services to children that are showing first indications of an identifiable problem or are significantly at-risk of failing.











Child development research indicates that *learning and development is most rapid in the pre and early school years*. As a result screening and intervention should begin as early as possible in order to detect children who are struggling, and enhance their development (Pascal, 2009).





Many different factors, such as low socioeconomic status, parental involvement, emotional and behavioural problems, race and ethnicity may contribute to a student's potential risk for academic failure (Simner, 1999).











The most accurate decision-making strategies use academic achievement tests and **direct** screening methods.







In a typical classroom between 15 to 20% of students may be at-risk for future school failure <u>IF</u> they don't receive the support they need early on (Simner, 1999).





### **Critical Screening Areas**

Three critical screening areas for the early years include:



- 1. School Readiness
- 2. Phonological Awareness
- 3. Mathematics







### **1. School Readiness**

If children who are at-risk for future school failure are identified and supported early on, the odds of these children actually **failing can be reduced substantially** (Simner, 1999).







### **2. Phonological Awareness**

Phonological awareness is strongly related to success in reading and spelling acquisition. It is not only a strong predictor but a necessary prerequisite for success in learning to read – it is the top predictor of reading success.







### **2. Phonological Awareness**

Phonological Awareness is a better predictor of reading success than anything we know of...including IQ!







### **3. Mathematics**

Fluency in basic calculation is an important tool for solving most math problems. Weak consolidation of number facts reduces cognitive and attentional resources that are necessary for higher-level problem solving (Mueller, 2006).







#### Dynamic Screening & Intervention Model (DSIM)







- Increases student achievement and reduces future academic difficulties
- Helps teachers implement data-driven instruction
- Ensures struggling students get extra support, if needed





### The Response to Intervention Model (RTI)



High quality classroom instruction, universal screenings and group interventions

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Targeted interventions for flagged students Intensive interventions and comprehensive evaluation for students not responding to tier 2 interventions





### **DSIM and RTI**

The following is required for DSIM and RTI to be successful in increasing student achievement:

- 1. High quality classroom instruction
- 2. Ongoing student screening/assessment
- 3. Tiered instruction
- 4. Parent involvement







## What is the Web Based Teaching Tool (WBTT)?

WBTT is a **bilingual**, **universal**, online program which primary teachers (JK to Grade 1) use for **early screening and intervention**.





### **WBTT Program Goals**

- To increase student achievement
- To close the early achievement gap
  - To support the classroom-based model, where screenings, interventions and progress monitoring take place by the classroom teacher
  - To differentiate students with learning difficulties from those requiring extra support
- To provide additional support to students who need it as early as possible



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### **Step 1: Screening**

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 Teachers screen students with tools to measure school readiness, phonological awareness and math

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### **WBTT Screening Tools**

	School Readiness	Phonological Awareness	Early Numeracy
JK	TSRI		JK Math Screen
SK	TSRI	Rosner Auditory Analysis Task	SK Math Screen
Grade 1	TSRI	Yopp-Singer Test of Phoneme Segmentation	Gr.1 Math Screen

Grade 2 screenings available upon request





### **1. School Readiness**

#### Teacher's School Readiness Inventory (Simner, 1995)

The TSRI preschool teachers were able to identify nearly 85% of the children in their classes who, by the end of grade two, had either repeated a grade or had been placed in some form of special education class.









### **1. School Readiness**

When the TSRI's reliability was tested in fall of 2010, it showed good reliability:

.86 for Fall Senior Kindergarten
 .85 for Spring Senior Kindergarten
 .82 for Fall Grade 1

.84 for Spring Grade 1

Derek Berg, 2010







### 2. Phonological Awareness: Grade SK

#### Rosner Auditory Analysis Task (Rosner, 1968)

This is a collection of criterion referenced tests; no normative data is presented. Reliability was assessed using 284 children (K - 6) in western Pennsylvania. Validity was assessed using the Stanford Achievement Test





### 2. Phonological Awareness: Grade 1

#### Yopp-Singer Test of Phoneme Segmentation (Yopp, 1995)

The reliability score for the Yopp Singer Segmentation test was 0.95. Ten different other phonemic tests were used in this benchmark.







#### WBTT Mathematical Screen (Mueller, 2005)

Many sources of information were used to create this screening, including published research, national and international longitudinal studies of children (e.g., the National Longitudinal Survey of Children and Youth in Canada), input from teachers, administrators, and researchers and the Ontario curriculum







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 Students who fall below benchmarks on any of WBTT's screens are flagged as potentially at-risk for future school difficulties



 Suggested next steps are provided for flagged students





### **Step 3: Interventions**

WBTT provides teachers with a database of interventions that can be added to flagged students' profiles

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### **Step 4: Continual Monitoring**

- Interventions help track students' progress
  - Observation Checklists help determine the strengths and needs of flagged students, and help monitor their progress, or lack thereof







### **WBTT Welcome Page**

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#### Welcome to the Web Based Teaching Tool (WBTT)!

The WBTT team is very excited about all the students that will increase their achievement through the support of WBTT screens and interventions this semester. WBTT offers educators a system to differentiate between those students with long-term learning difficulties and those who require extra support in order to catch up to their peers. Each of the WBTT screens are research-based, valid and reliable, and can successfully help predict when a student is at-

risk for future school difficulties. All the while, WBTT helps teachers achieve data-driven instruction.

WBTT screenings are research-based early detection methods for teachers to use to reinforce their classroom observations and ensure that support for every student is available. WBTT also gives teachers the option to screen their students again in the spring so that they can monitor the progress all students have made since they were last screened in the fall. Research has found that screening all students a second time, including students who were not initially flagged, proved to be more beneficial in closing the early achievement gap. As such, the WBTT team strongly encourages universal screening for all students throughout the entire school year.

#### WBTT Testimonials from Educators



Teachers and principals discuss their experiences and successes using the WBTT program in their classrooms and schools.





allows schools to connect WBTT





### **WBTT Class Profile**

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### **WBTT Student Profile**

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### **WBTT Use Across Ontario**

- 50 (68%) school boards use WBTT in some capacity
  - > 39 (63%) of English-language boards
  - > 11 (92%) of French-language boards



- Since 2004, WBTT has been used
  - ➢ In 1598 (approx. 35%) schools
  - > By more than 12,000 (approx. 20%) teachers
  - > With over 100,000 (approx. 30%) students

Source: As reported by schools in Ontario School Information System (OnSIS), 2008-2009





### What does the Data Show?

- Every year between 15 and 20% of children screened with WBTT are flagged and at-risk of future school difficulties
  - In the 2009-2010 school year, approximately 40% of the 15-20% are no longer flagged as a result of supports received through WBTT.
  - The remaining students who continue to be flagged despite receiving intervention supports are often those students who will eventually be formally identified, or on an IEP.





### Why use WBTT?

- It is easy and quick to administer
- It is an effective predicting tool
- It provides interventions that benefit students
- It offers strategies for teachers







### Why use WBTT?

- It helps educators detect and support struggling students as soon as they start school
- It encourages the home-school connection by promoting parent involvement and ongoing discussions between teachers and parents
- All screenings are research-based, valid and reliable
- Since principals and school boards have access to WBTT information, student achievement is supported at all levels





#### Final notes...

It is imperative that screening takes place as soon as possible in the early childhood years. By screening at an early age, predictions can be made about future school success and early educational interventions can be implemented. This can lead to higher rates of academic success.







### Final notes...

Success in the elementary years can lead to success at the secondary level. Students who are successful in secondary school are more likely to access higher education. This often translates into better jobs and other broader social and cultural rewards.











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### For more information



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