**Henrietta Rema Sawyerr ECED 801: IRPP 3 Handout March 17th 2016**

**Warm Up**

* What is storybook intervention?
* Why is storybook intervention, an evidence based practice?
* As a teacher or a parent, share your experiences in storybook reading with a student or with your child.

**Discussion of Article**

Kelley, E. S., Goldstein, H., Spencer, T. D., & Sherman, A. (2015). Effects of automated tier 2 storybook intervention on vocabulary and comprehension learning in preschool children with limited oral language skills. *Early Childhood Research Quarterly, 31,* 47-61. doi:10.1016/j.ecresq.2014.12.004

* Discussion of Response to Intervention Model (pages 47-48)

What do you know about the response to intervention model? How is the response to intervention model different from other interventions?

* Discussion on Oral Language Development (pages 48-49)

What are the characteristics of Oral Language Interventions?

* Analyses of the Article

Discussion about Participants (Page 51)

Discussion about Setting (Page 51)

Discussion on Criteria for Selection of Participants (page 51)

Discussion on Procedures (Page 52)

Discussion on Measures Used (Page 52)

What do you think about the article – Discussion Section – Explanation of Key Terms.

Results

* Concluding remarks

**Response to Intervention Model (Page 47-48)**

Response to Intervention (RTI) is a multi-tier approach to the early identification and support of students with learning and behavior needs. The RTI process begins with high-quality instruction and universal screening of all children in the general education classroom. Struggling learners are provided with interventions at increasing levels of intensity to accelerate their rate of learning. These services may be provided by a variety of personnel, including general education teachers, special educators, and specialists. Progress is closely monitored to assess both the learning rate and level of performance of individual students. Educational decisions about the intensity and duration of interventions are based on individual student response to instruction. RTI is designed for use when making decisions in both general education and special education, creating a well-integrated system of instruction and intervention guided by child outcome data.

For RTI implementation to work well, the following essential components must be implemented with fidelity and in a rigorous manner:

* *High-quality, scientifically based classroom instruction*. All students receive high-quality, research-based instruction in the general education classroom.
* *Ongoing student assessment*. Universal screening and progress monitoring provide information about a student’s learning rate and level of achievement, both individually and in comparison with the peer group. These data are then used when determining which students need closer monitoring or intervention. Throughout the RTI process, student progress is monitored frequently to examine student achievement and gauge the effectiveness of the curriculum. Decisions made regarding students’ instructional needs are based on multiple data points taken in context over time.
* *Tiered instruction*. A multi-tier approach is used to efficiently differentiate instruction for all students. The model incorporates increasing intensities of instruction offering specific, research-based interventions matched to student needs.

**Tier 1: High-Quality Classroom Instruction, Screening, and Group Interventions**

Within Tier 1, all students receive high-quality, scientifically based instruction provided by qualified personnel to ensure that their difficulties are not due to inadequate instruction. All students are screened on a periodic basis to establish an academic and behavioral baseline and to identify struggling learners who need additional support. Students identified as being “at risk” through universal screenings and/or results on state- or districtwide tests receive supplemental instruction during the school day in the regular classroom. The length of time for this step can vary, but it generally should not exceed 8 weeks. During that time, student progress is closely monitored using a validated screening system [such as curriculum-based measurement](http://www.rtinetwork.org/essential/assessment/progress). At the end of this period, students showing significant progress are generally returned to the regular classroom program. Students not showing adequate progress are moved to Tier 2.

**Tier 2: Targeted Interventions**

Students not making adequate progress in the regular classroom in Tier 1 are provided with increasingly intensive instruction matched to their needs on the basis of levels of performance and rates of progress. Intensity varies across group size, frequency and duration of intervention, and level of training of the professionals providing instruction or intervention. These services and interventions are provided in small-group settings in addition to instruction in the general curriculum.

**Tier 3: Intensive Interventions and Comprehensive Evaluation**

At this level, students receive individualized, intensive interventions that target the students’ skill deficits. Students who do not achieve the desired level of progress in response to these targeted interventions are then referred for a comprehensive evaluation and considered for eligibility for special education services under the Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004).

**Source:** [**http://www.rtinetwork.org/learn/what/whatisrti**](http://www.rtinetwork.org/learn/what/whatisrti)

**The Response to Intervention Model**

**Characteristics of Effective Oral Language Interventions (Page 48-49)**

**Participants (page 51)**

* The study was conducted at three public schools with one pre-kindergarten classroom in each school.
* The children in the pre-kindergarten classrooms were from families with low income
* Many children in these classrooms had limited oral language skills
* 18 children, 11 girls and 7 boys, with a mean age of 4 years, 6 months took part in this study.
* All participants were African American.
* None of the participants had an identified disability or received services through an individualized education program (IEP).
* All the children spoke English as their only language

**Setting (page 51)**

* The classrooms were staffed by a lead teacher, one full time assistant, and one part-time assistant
* Programs were full day classrooms with 18 to 20 children
* Intervention and measurement sessions took place outside the classroom in small tutoring or meeting rooms
* The intervention sessions were conducted in small groups

**Criteria for Selection of Participants (page 51)**

**Picture Naming Test:** Children were presented with 15 cards with photographs of objects (e.g. baby) and asked to label them orally.

**Which One Doesn’t Belong Test:** Children were presented with photographs of three objects each (e.g. car, truck, baby) and asked to point to the item that did not belong

Children scoring less than two on the picture naming test were less unlikely to have sufficient vocabulary.

**Peabody Picture Vocabulary Test (PPVT)** was used for selecting participants.

The PPVT is an individualized administered, norm-referenced measure of receptive vocabulary.

Participants were presented with a plate of four pictures and asked to select the picture that represents the target word

Children were eligible to participate if the scores on the PPVT-IV was 83.44 (Dunn & Dunn, 2007).

**Core Language Subtests of the Clinical Evaluation of Language Fundamentals Preschool** was administered to describe the oral language skills of participants (Wiig, Secord, &Semel, 2004)

This test is an individually administered, norm-referenced measure of oral language ability

The core language subtest which includes sentence structure, word structure, and expressive vocabulary) assesses knowledge of syntax, grammar, and expressive vocabulary.

|  |  |  |
| --- | --- | --- |
| **Sentence Structure Subtest** | **Word Structure Subtest** | **Expressive Vocabulary Subtest** |
| Participants were asked to point to one of four pictures that represents a target sentence | Participants are asked to complete a sentence using a targeted grammatical structure | Participants were asked to verbally label a picture |

**Procedures (Page 52)**

* Duration of study was 14 weeks
* This included pre-testing, post-testing and school breaks
* Method used was a Group Design Experiment

1. Treatment and comparison participants completed measures before and after each unit
2. A unit consisted of three instructional books and one review
3. Participants in the comparison group had individual sessions approximately every three weeks

* Second Method used was an embedded single-case design experiment

1. Intervention school sessions were conducted each day
2. Participants listened to a plain storybook in small group at the listening center and completed a pre-test individually
3. Then the participants listened to the instructional books three times
4. Participants completed a post test on the day after listening to the instructional book for the third time
5. Facilitators and trained members of the research staff were responsible for implementing the intervention

**Measures (Page 52)**

* Group Design

1. Two assessments were used to measure outcomes
2. The Unit Vocabulary Tests and the Assessment of Story Comprehension
3. The Peabody Picture Vocabulary Test (PPVT-IV) and CELF-P were used before the intervention and after the intervention

**Unit Vocabulary Test (Page 53)**

* To assess vocabulary, children when asked to provide a definition in response to an open-ended question
* For example “What does \_\_\_\_\_\_\_ mean?
* The unit test were administered prior to and immediately following the completing of each unit.

**Assessment of Story Comprehension (Page 53)**

* This is a researcher-made curriculum-based measurement tool with nine stories
* This assessment was used to measure improvements in questioning answering
* For this assessment, an examiner reads one of the stories
* The examiner will the ask questions pertaining to the story
* For example, the questions will relate to the events that took place in the story
* Questions about the **characters emotions** (why is Jane sad?), **character actions** (Paul’s ball fell in the mud. What happened next?), **predictions of what the child thinks will happen next** and **questions that require children to use background knowledge.**
* This part of the test will normally last for five minutes

**Repeated Acquisition Design (Page 53)**

* Treatment participants completed mastery monitoring probes to assess learning of instructional content in each book
* The mastery monitoring probes were researcher created measures of instructional content in each book
* Refer to page 53 for more information

**Results (Page 54-58)**

1. Results indicate that an automated tier-2 intervention was generally effective in teaching challenging vocabulary words.
2. The results indicate that explicit vocabulary instruction is important for vocabulary learning
3. The results indicate that the intervention improved participants’ question and answering skills with respect to inferential questions
4. Results indicate that pre-test scores on the unit tests were generally low for both groups
5. The results indicate that Story Friends participants had significantly higher scores on measures of vocabulary than the comparison group

**Definition of Key Terms**

1. **Cronbach’s alpha** - This is a measure of internal consistency that is, how closely related a set of items are

as a group. It is considered to be a measure of scale reliability

1. **Effect size** - This is a name given to a family of indices that measure the magnitude of a treatment **effect**.

Unlike significance tests, these indices are independent of sample **size**. ES measures are the common

currency of meta-analysis studies that summarize the findings from a specific area of research.

1. **Implementation with fidelity** is using the curriculum and instructional practices consistently and accurately, as they were intended to be used. For example, standard treatment protocols were developed in a specific validation study, with a specified level of training as a qualification of those delivering that instruction - for a specified amount of time for the learners, and for an expected type of response from those learners.