

Research Proposal Outline, parts 1-7

I. Purpose of the Study and Objectives

- A. The purpose of this study is to compare groups of kindergartners' ability to learn letter sounds when exposed to the same letter sounds at different rates.
- B. Kindergarten students who are exposed to all letter sounds via Read Well Kindergarten's song, Alphabet Cheer, at the tenth week of school will perform better on the middle of the year (MOY) benchmark Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Initial Sound Fluency and Letter Naming Fluency assessments than students who are exposed to one new letter sound per week using Read Well Kindergarten's song, Alphabet Cheer.
- C. Examining the rate of kindergartners' abilities to learn letter sounds and apply that knowledge to initial sound fluency and nonsense word reading fluency will allow educators to make better informed decisions regarding year long instructional plans with regards to planning literacy extension activities. Students that are able to master the alphabetic principle at a faster rate may be able to increase their reading and writing skills leading to more literacy confident kindergartners.

II. How your study relates to previous research

- A. Foy, J. G. & Mann, V. (2006) Change in letter sound knowledge is associated with development of phonological awareness in pre-school children. *Journal of Research in Reading*, 29, 143-161. doi: 10.1111/j.1467-9817.2006.00279.x

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- B. Foy states that “phonological awareness skills are predictive of letter sound skills.” p. 154, and recommends that learning letter sound relationships be studied when the letters are introduced in a certain order, p. 154. The Read Well curriculum does introduce letters in a specific non-alphabetic order. This study would compare introducing a new letter once a week in a specific non-alphabetic order to introducing the letters in alphabetic order at the 10th week of school.
- C. According to the Institute for the Development of Educational Achievement, in order to become a competent reader, students must become adept within the areas of phonemic awareness, alphabetic principle, reading fluency, vocabulary, and comprehension (DiLorenzo, 2011). My research will test students’ ability to learn and apply the alphabetic principle over a shorter amount of time than the time frame used within the Read Well curriculum.

III. Literature Search

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- DiLorenzo, K. E., Rody, C. A., Bucholz, J. L., & Brady, M. P. (2011). Teaching letter sound connections with picture mnemonics: Itchy's Alphabet and early decoding. *Preventing School Failure: Alternative Education for Children and Youth*, 55(1), 28-34.
- Foy, J. G., & Mann, V. (2006). Changes in letter sound knowledge are associated with development of phonological awareness in pre-school children. *Journal of Research in Reading*, 29, 143-161. DOI: 10.1111/j.1467-9817.2006.00279.x
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- Manning, M., & Tsuguhiko, K. (2006). Phonemic awareness: A natural step toward reading and writing. *Childhood Education*, 82, 241-243.
- Moats, L. C. (2009). An overview of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). mClass DIBELS User's Guide, Wireless Generation. Retrieved from

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https://www.mclasshome.com/support_center/mCLASS_DIBELS_Guide.pdf (secure site sign on required.)

Piasta, S.B., & Wagner, R. K. (2010). Learning letter names and sounds: Effects of instruction, letter type, and phonological processing skill. *Journal of Experimental Child Psychology, 105*, 324-344.

Pufpaff, L. A. (2009). A developmental continuum of phonological sensitivity skills. *Psychology in the Schools, 46*, 679-691. DOI: 10.1002/pits.20407

Silva, C., Almeida, T., & Martins, M. A. (2010). Letter names and sounds: their implications for the phonetisation process. *Reading and Writing: An Interdisciplinary Journal, 23*, 147-172. Retrieved from <http://www.ispa.pt/NR/rdonlyres/80EEAA60-2E63-43E1-9CD3-BFE42B0B1A57/0/LetterNamesSoundsImplicationsPhonetisationProcess.pdf>.

Stevens, R. J., Van Meter, P. N., Garner, J., & Warcholak, N. (2008). Reading and integrated literacy strategies (RAILS): An integrated approach to early reading. *Journal of Education for Students Placed at Risk, 13*, 357-380. DOI: 10.1080/10824660802427611

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IV. Variables

- A. The experimental group of kindergarteners will be introduced to the complete alphabet at the 10th week of school, using Read Well Kindergarten's Alphabet Cheer. The control group of kindergarteners was introduced to one letter a week, using the same method. Half-day kindergarten students from the academic year 2011-2012 will be compared to half-day kindergarten students from the three previous academic years of 2010-2011, 2010-2009, and 2009-2008. The same teacher has taught these four classes and is currently in her fifth year of teaching.
- B. Read Well's Kindergarten Alphabet Cheer will be taught to a half day kindergarten class over the course of an academic year. The class will sing the Alphabet Cheer daily, practicing their learning of letter names respective letter sounds. During the first nine

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weeks of school, once a week, a letter is introduced in non-alphabetic order, for a total of 9 letters that consist of a, e, h, k, m, r, s, w, and z. After these first nine letter names and sounds are introduced, the remaining letter names and sounds will be introduced in alphabetic order the following week, week 10. Half-day kindergarten students in previous years of instruction have been exposed to one letter name and letter sound per week in non-alphabetic order over the course of 29 weeks. Twenty nine weeks are taken due to curriculum insertion of 3 review weeks that do not introduce a new letter name or letter sound.

V. Research Design

I will be using a non-equivalent groups, pretest-posttest, quasi-experimental design.

A. Threats to internal validity consist of:

1. Selection, due to using my current kindergarten class and comparing the beginning of the year and middle of the year DIBELS LNF and ISF results to my past 3 years half day kindergarten classes.
2. Maturation, due to the fact that 5 and 6 year olds mature quickly over a short period of time and this maturation can affect their cognitive ability to process information (Pufpaff, 2009).
3. Improvement in student learning of letter names and letter sounds may be attributed to educator professional growth, since the same teacher has taught the four classes over the period of four consecutive years.

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4. Treatment replication due to the fact that only 4 half day kindergarten classes' results will be analyzed.
- B. Limitations to generalizability will be due to the fact that only half day kindergarten classes at one school will be compared for learning of the alphabetic principle. These results could be generalized to schools with the same approximate school profile as my school. The following points should also be considered for purposes of generalizability. The population of half day kindergarten program within our district is random, with the exception of the community from which the school draws, and is due to: 1) Enrollment numbers and availability of all day kindergarten. If the school has more students for all day kindergarten than slots available, a lottery is performed. 2) Families enroll their children in half day kindergarten that cannot afford all day kindergarten. 3) Families that wish to spend time with their kindergartners in the afternoon and augment their children's education with family experiences enroll their children in half day kindergarten; usually these families can afford to pay the all day fee.
- C. Operational Definitions
- a. Special Education Student: Any student within the class that has an individual education plan (IEP)
 - b. English Language Learner (ELL): Any student within the class that speaks a language other than English at home. ELL students are tested at the beginning of the year for English comprehension and placed in one of three tiers (Sun, Nam, Vanderwood).

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- c. Intensive, strategic, and benchmark levels at which students are placed dependent upon the DIBELS BOY and MOY assessments.
- D. Treatment/Intervention: Students in the current year of instruction will be exposed to the full alphabet's letter names and letter sounds via Read Well Kindergarten's Alphabet Cheer at the tenth week of school. Students in previous years of instructions have been exposed to one letter name and letter sound per week in non-alphabetic order over the course of 29 weeks. Twenty nine weeks are taken due to curriculum insertion of 3 review weeks that do not introduce a new letter name or letter sound.

VI. Instruments/Measures

- A. The measures used for this study will be the DIBELS (Dynamic Indicators of Early Literacy Skills) Beginning of the Year (BOY) and Middle of the Year (MOY) Benchmark Assessments for Letter Naming Fluency and Initial Sound Fluency. These assessments help to identify students that may need additional support in order to achieve grade level literacy skills as defined by the state's Grade Level Expectations.
- B. Initial Sound Fluency measures a student's ability to identify, isolate, and pronounce the initial sound of a word presented orally within 5 seconds; students are presented with 16 words. Letter Naming Fluency measures a student's knowledge of the alphabet. Students identify as many upper and lower case letters as they are able from a page of randomly ordered letters that are organized in rows. Students are scored upon how many letters are correctly identified within one minute.

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- C. According to Langdon, 2004 (as cited in DiLorenzo, 2011), “DIBELS has content validity, construct validity, and predictive validity.”
- a. Evidence based on test content – DIBELS is used to predict student reading achievement by the end of a specific grade level and to aid in grouping students for small group instruction. Benchmark levels for each measure have been established through administration of DIBELS to many students and comparing DIBELS results to student reading skills at specific time intervals, (Moats).
 - b. Evidence based on response processes – Three benchmark measures and 20 progress monitoring measures are available for each type of measure. Use of several measures and the teacher knowledge of a student aids in identifying an inaccurate measure of a student’s ability.
 - c. Evidence based on relations to other variables – According to Godfreda and DiPerna, ISF studies reported low range concurrent validity coefficients. Literature review on Letter Naming Fluency revealed concurrent validity coefficients from low to high values.

VII. Sampling

- A. The population studied will consist of Half day AM Kindergarten students from 4 classes of consecutive academic years at AG Bell Elementary of Lake Washington School District, Redmond, Washington.
- B. The classes consist of 15 to 22 students, mixed gender, age range 4 years to 7 years over the period of the academic year. The classes are made up of academically diverse

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students; some students have attended preschool, others have not. Each class contained students that were English Language Learners (ELL) where the native language spoken was one of the following: Bosnian, Japanese, Mandarin, Marshallese, Portuguese, Spanish, Tagalog, Ukrainian, and Vietnamese.

- C. A convenience sampling procedure will be used for the experimental group, the group that listens and sings to the complete Alphabet Cheer beginning in the 10th week of school. The experimental group will be sampled for convenience since these are the students within the class at the present time. The control group will have learned one letter and its sound per week and have sung the alphabet cheer without music from week 10 to week 18, then again without music from week 19 to week 26. Students for the control group will be purposefully sampled based upon spoken native language in an attempt to eliminate the influence native language can have upon DIBELS measurements, previous school exposure, and age.
- D. The sampling unit will consist of individual students.
- E. The sample size will consist of 17 students within the experimental group and 17 students within the control group. This sample size may not be sufficient due to attrition rate as the year progresses. The students who have taken Beginning of Year DIBELS may not be within the class population later in the year. A minimum of 15 cases is required for causal-comparative research.
- F. There will not be subgroups due to purposefully sampling the control subjects to closely match the background experience of the experimental subjects.
- G. The study does not pose any risks to the research participants.