

First grade students using RoxieReading 1 scored statistically higher in reading and spelling.

Summary

Nine first-grade classrooms received 30 minutes of phonics instruction. Three classrooms used word families (onset/rime), three classrooms used traditional phonics, and three classrooms used RoxieReading 1.

Students using RoxieReading 1 scored statistically higher in reading and spelling at $p > .00$ to $p > .03$ than students using onset/rime and traditional phonics. Age, gender, and socioeconomic status made no difference in the scores.

Description of Population

- All nine first-grade classrooms of 165 students with 151 students participating the full 21 weeks in the study.
- Small farming and manufacturing community in southwestern Montana
- 27% in low socioeconomic status as determined by free and reduced lunch

Time

- 30 minutes per day
- 21 weeks (August - March) of instruction

Treatment Groups

- The nine classrooms were divided into three treatment groups.
- All nine classrooms used *The Road to Independent Reading*, published by Macmillian/McGraw-Hill, the newly adopted basal program except for 30 minutes of phonics instruction.

Control Group	Experimental Group A	Experimental Group B
Three Classrooms	Three Classrooms	Three Classrooms
Contextual phonics and spelling using onset and rime (word families)	Traditional phonics, (SRA <i>100 Easy Lessons</i>)	Phoneme-based Phonics (<i>RoxieReading 1</i>)

Sampling Procedure

The principal assigned students to each classroom as follows:

- An equal number of high, medium, and low ability students
- An equal number of students with special needs
- A balance of gender, age, and socio-economic status
- An even distribution of title 1 students

Students who were excluded from the study to prevent skewing of the data:

- Those who could read entering first grade
- Those who received special services through Title 1
- Those who did not receive the full 21 weeks of instruction

The principal assigned teachers to each treatment group had a comparable

- Level of education
- Number of years teaching
- Number of years teaching at first grade

Data Collection

The following data was collected on each child.

- Gender
- Birth date to divide the children by year and month into three age groups
- Socio-economic status determined by free or reduced lunches
- Pre and post test of recognition of alphabet letters through flash cards (receptive)
- Pre and post test of dictation of alphabet letters (productive)
- An informal reading inventory
- Pre and post test scores on the Yopp/Singer Test of Phoneme Segmentation
- Pre and post test scores on a development spelling test developed by Morris and Perney (1984)
- Test of naming the sound that goes with a letter at the end of the experiment.
- Post test of Word Identification, Word Attack, and Passage Comprehension Tests with the *Woodcock Reading Mastery Test-Revised*

Purpose

The purpose of this study was to determine if there was a significant difference in the reading and spelling achievement among first-grade students at the end of twenty-one weeks. Was one curriculum more effective than the others?

Results in Reading

Experimental Group B (RoxieReading 1) scored statistically higher than the Control Group (Word families) or Experimental Group A (Traditional Phonics) at $p > .00$ to $p > .03$. Age, gender, and socio-economic status made no difference in the scores.

Figure 1. Statistical Results

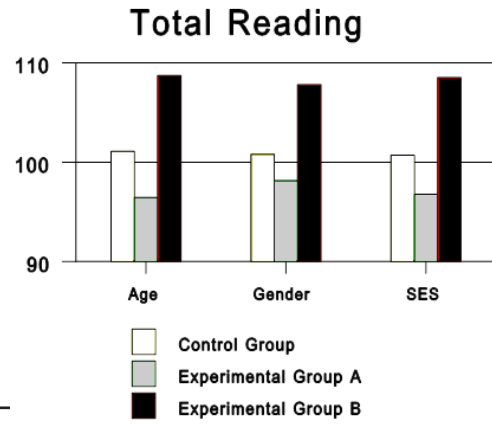


Table 1. Total Reading Achievement comparing the effect of age, gender, socio-economic status (SES) on method

	Source	df	Sum of Squares	Means Squared	F-value	p-value
Age and Method Total Reading	Age	2	287.39	143.70	1.25	.2915
	Method	2	833.78	416.89	3.63	.0308*
	Age*Method	4	183.98	46.00	.40	.8078
Gender and Method Total Reading	Gender	1	88.96	88.96	.77	.3826
	Method	2	1278.30	639.16	5.53	.0055*
	Gender*Method	2	65.98	32.99	.29	.7522
SES and Method Total Reading	SES	1	103.00	103.00	.92	.3391
	Method	2	1472.80	713.91	6.41	.0026*
	SES*Method	2	307.00	153.50	1.38	.2577

Results in Spelling

Experimental Group B (RoxieReading 1) scored statistically higher than the Control Group (Word families) or Experimental Group A (Traditional Phonics) at $p > .00$. Age, gender, and socio-economic status made no difference in the scores.

Figure 2. Statistical Results

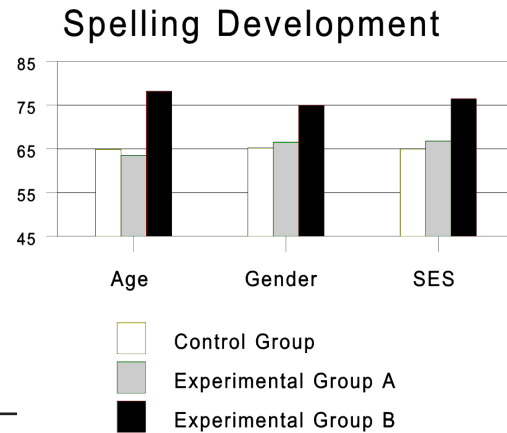


Table 2. Spelling Achievement comparing the effect of age, gender, socio-economic status (SES) on method

	Source	df	Sum of Squares	Means Squared	F-value	p-value
Age and Method Spelling	Age	2	119.24	59.62	.85	.4332
	Method	2	1772.00	885.98	12.56	.0000*
	Age*Method	4	545.66	136.42	1.93	.1125
Gender and Method Spelling	Gender	1	47.39	47.39	.64	.4260
	Method	2	1480.00	740.00	9.99	.0001*
	Gender*Method	2	119.86	59.93	.81	.4487
SES and Method Spelling	SES	1	7.82	7.82	.11	.7454
	Method	2	1550.80	775.42	10.52	.0001*
	SES*Method	2	184.69	92.34	1.25	.2910