

Launch Pad Phonics Modules and Emergent Reading Skills
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PURPOSE OF THE STUDY

The present study was designed to determine if Learning Advantages' Launch Pad Phonics modules could significantly impact the emergent reading skills of students in kindergarten and first grade.

METHOD

SUBJECTS

The subjects for this study were ninety-three kindergarten students and sixty-seven first grade students. These students attend a rural public elementary school in Indiantown, Florida. Many of the families in this community are migrant farm workers. Ninety-six percent (96%) of the students attending the school receive free or reduced lunch. The ethnic population of the school is 66% Hispanic, 24% black, and 10% white. Approximately sixty percent (60%) of the students have a home language other than English. Indiantown has the highest Mayan Indian population in the United States.

SELECTION OF PARTICIPANTS

Six first grade classes and seven kindergarten classes participated in this study. Prior to selecting students for the experimental and control groups, all students designated as Non-English Speaking (NES) by the IPT 1 IDEA Oral Language Proficiency Test were excluded from the study. Also any students who were enrolled in Exceptional Student Education (ESE) programs were excluded from the study. Of the remaining students, six children from each class were randomly selected to make up the experimental group, and the others made up the control group. Students who moved, were referred for ESE testing, or were placed in ESE classes throughout the 1999-2000 school year were exited from the investigation. Table 1a. and 1b. detail the ethnic make-up of the experimental and control groups for each grade.

Table 1a. Kindergarten Ethnic Breakdown

Group	n	% Hispanic	% black	% white
experimental	41	69	25	6
control	52	78	22	0
total	93	74	22	4

Table 1b. First Grade Ethnic Breakdown

Group	n	% Hispanic	% black	% white
experimental	30	67	27	6
control	37	68	27	5
total	67	68	27	5

TESTING INSTRUMENTS

Kindergarten students were tested using a Kindergarten Reading Assessment Test. This test assesses a student's ability to recognize upper and lower case letters in random order, identify initial consonant sounds, detect middle short vowel sounds (CVC), name eight basic colors, and match rhyming pairs. This test consists of ninety-six questions, and was administered one-on-one to each student participating in the study by their classroom teacher. Each student received a percentile score to indicate the percent of correct responses given. This reading instrument was chosen because it is aligned with county grade level expectations and Florida Sunshine State Standards for kindergarten.

First grade students were tested using the Adams Phonics Survey. This test assesses a student's knowledge of consonant names, beginning consonant sounds, vowel sounds, reading and phonetic decoding of real and pseudo words, and spelling. This test consists of 188 questions. This assessment was administered one-on-one to each student participating in the study by their classroom teacher. Each student received a percentile score to indicate the percent of correct responses given. This reading instrument was chosen because it correlated well with the Launch Pad objectives to build students' reading readiness, phonemic awareness and phonics skills.

PROCEDURES

The kindergarten and first grade assessment was administered to all participants in October. These scores were used as the baseline data for our study. Once the pre-testing was complete, we began the study. The Launch Pad learning modules were used to reinforce phonemic lessons that were being taught to the whole class. The six experimental subjects in each class spent the first fifteen minutes per school day exploring and taking quizzes on the Launch Pad modules. During this time the classroom teacher or the teacher assistant supervised the experimental group's progress. Teachers were easily able to monitor student progress by using the student-tracking chart provided in each module. The daily lesson consisted of three interactive activities: (a) Learning new skills and concepts (b) Exploring practice activities and (c) Quizzing of specific skills.

During these fifteen minutes that the experimental group worked with the Launch Pad, the control group was involved in math practice. Afterwards, both groups received instruction in phonemic awareness.

The posttest was administered in May and results were evaluated to see if using the Launch Pad for fifteen minutes daily to reinforce classroom skills significantly increased a student's emergent reading skills.

FINDINGS

Results of the *t*-test, number of participants, group means, standard deviations, and degrees of freedom for kindergarten are presented in table 2a. When looking at kindergarten results as a whole, the *t*-test results revealed a statistically significant difference between the students using the Launch Pad daily and the students not using the Launch Pad. In this sample, those students who used the Launch Pad modules for fifteen minutes a day ($M=57.15$, $SD=18.63$, $n=41$) significantly increased their emergent reading skills compared to students who did not use the Launch Pad modules ($M=46.71$, $SD=22.67$, $n=52$, $t=2.36$, $p<.05$). Prior to beginning the study we determined that the results would be considered practically significant if the predictor accounted for at least 10% of the variance in the mean test scores. These results did not prove practical significance: the use of the Launch Pads accounts for 6% of the variance in the percent of increase in mean scores between the pretest and the posttest of the kindergarten participants.

Table 2a. Results of kindergarten *t*-test

Kindergarten	n	M	SD	<i>t</i>	df
experimental	41	57.15	18.63	2.36	91
control	52	46.71	22.67		

Individual classroom results of the *t*-test are presented in table 2b. When analyzing the kindergarten result by class, the *t*-test results revealed a statistically significant difference between the students using the Launch

Pad daily (experimental group) and the students not using the Launch Pad (control group) in four of the seven test groups: Class KB ($t = 1.79$), Class KE ($t = 2.06$), Class KF ($t = 2.45$), and Class KG ($t = 2.22$).

Table 2b. Results of individual Kindergarten class t -test

class	Group	n	M	SD	t	Df
KA	Experimental	6	67.33	7.37	0.42	14
	Control	10	65.80	6.01		
KB	Experimental	6	60.83	12.09	1.79	11
	Control	7	44.57	17.09		
KC	Experimental	6	77.17	8.40	1.25	12
	Control	8	61.00	28.53		
KD	Experimental	5	45.80	23.98	0.26	11
	Control	8	41.88	24.08		
KE	Experimental	6	66.17	16.02	2.06	12
	Control	8	44.88	18.95		
KF	Experimental	6	37.00	10.99	2.45	9
	Control	5	18.40	11.76		
KG	Experimental	6	43.83	10.93	2.22	10
	Control	6	30.83	7.17		

Results of the t -test for first grade are presented in table 3a. When looking at the first grade outcome as a whole the t -test results revealed a statistically significant difference between the experimental and control groups. The students using the Launch Pad daily ($M=24.93$, $SD=9.82$, $n= 30$) significantly increased a student's emergent reading skills compared to the students not using the Launch Pad ($M=16.70$, $SD=9.15$, $n=37$, $t=3.49$ $p<.05$). These results proved practical significance: the use of the Launch Pads accounts for 16% of the variance in the percent of increase in the mean scores between the pretest and the posttest of the first grade participants.

Table 3a. First Grade

First Grade	n	M	SD	T	df
experimental	30	24.93	9.82	3.49	65
control	37	16.70	9.15		

Individual classroom results of the t -test are presented in table 3b. Analysis of the first grade results by class revealed a statistically significant difference between the experimental group and the control group in two of the six classes: Class 1C ($t=2.16$) and Class 1D ($t=2.61$).

Table 3b. First Grade Class Breakdown of *t*-test

class	Group	n	M	SD	<i>t</i>	df
1A	Experimental	4	34.00	6.98	1.24	7
	Control	5	25.80	12.76		
1B	Experimental	5	25.60	4.34	1.39	9
	Control	6	18.33	9.83		
1C	Experimental	5	26.60	10.01	2.16	10
	Control	7	14.00	8.37		
1D	Experimental	5	23.40	8.50	2.61	8
	Control	5	11.60	3.05		
1E	Experimental	6	19.83	11.89	0.63	12
	Control	8	16.25	7.81		
1F	Experimental	5	23.00	12.69	1.05	9
	Control	6	15.50	8.64		

Tables 4a and 4b show that in every class, the group using the Launch Pad modules scored higher mean increases than the students not using the modules.

Table 4a. KINDERGARTEN mean test scores

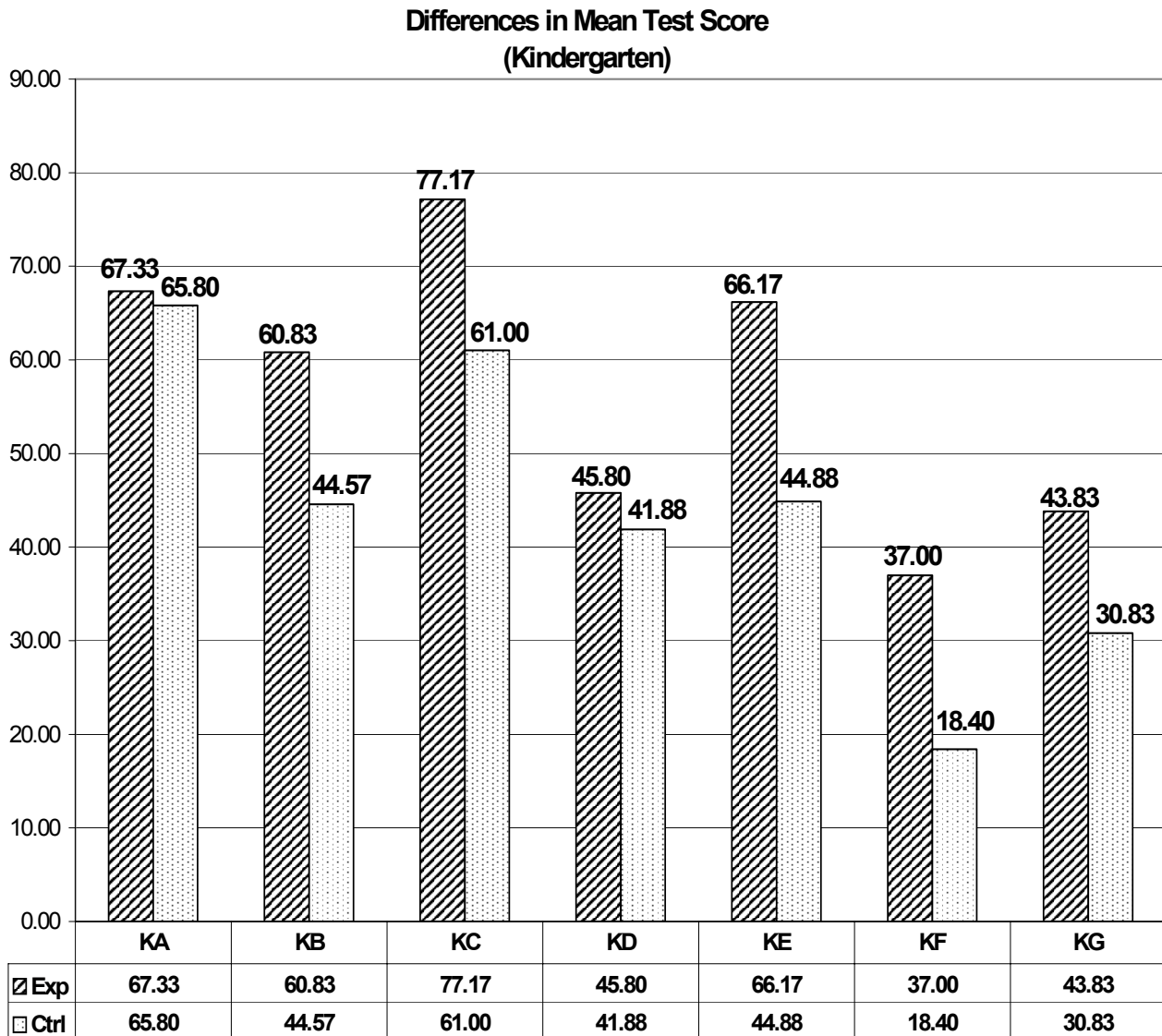
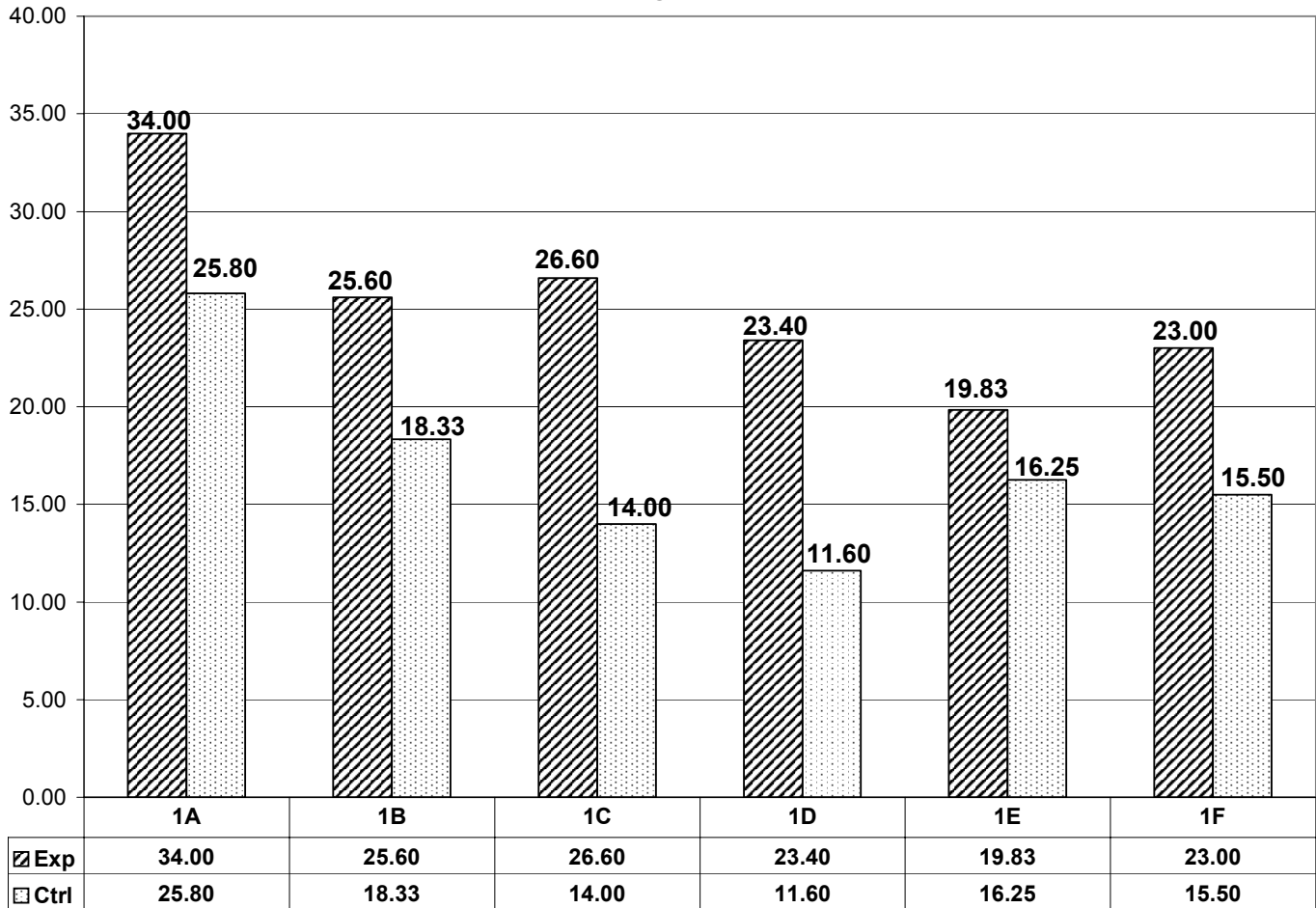


Table 4b. FIRST GRADE mean test scores

**Differences in Mean Test Score
(First grade)**



DISCUSSION

The overall outcome of using Learning Advantages’ Launch Pad Phonics Modules to reinforce phonemic awareness taught by the classroom teacher indicates that the product had a statistically significant impact on students’ emergent reading skills. Teachers involved in this project felt that the Launch Pad units were effective tools for reinforcing phonics instruction. The literature tells us that early literacy promotes later success in school (National Research Council, 1998). Research into reading problems shows that struggling readers need more individual instructional time to build the required foundation for literacy. Launch Pad provides the self-paced learning and repetitive practice activities that struggling learners need. Teachers can prescribe specific skill objectives to meet the needs of individual learners. While teachers do not have extra time for individual instruction, Launch Pads guides students with verbal commands and visual clues and allows students to work through activities independently. Immediate feedback and lively characters actively engage children and challenge them to make the lesson connection.

It has been reported that the vast majority of students with severe reading difficulties have a substantial weakness in auditory-related skills, such as identifying individual sounds with words and associating those sounds with written letters (Helford & Groves, 1999). Teacher observation during our project revealed that students using the Launch Pad Modules in kindergarten made the connection between sounds and letters earlier than the students not using Launch Pad. The systematic intensive instruction from Launch Pad

reinforces how letters represent sounds and how they go together to form words. This helps students build a solid foundation for future literacy development.

Many of the participants in this study were at-risk students. Positive comments and feedback from teachers and students involved in this project indicated that these students benefited from the increased instructional time and daily practice that Launch Pad provided. The positive feelings created by Launch Pad and the consequent lessons helped build students' self esteem as they viewed their successful efforts and saw themselves as active participants in their education. Teachers felt as though they had a valuable tool to help promote literacy development in their students. Launch Pads individualized instruction, using proven practices, helps students and teachers meet their goals.

Phonics is an essential component in learning to read. Teachers need tested programs that are easy to implement and that will generate positive outcomes. Launch Pads' ease of implementation and reliable operation is a strong point. Within moments of opening the Launch Pad units, teachers were progressing through their first lesson card. Unlike the myriad of problems associated with personal computers (PC's) because of their complexity, Launch Pad units performed consistently and dependably throughout our study. This is significant in light of the fact that so many teachers feel they have not had enough training to feel comfortable using most technology. Only fifty-five percent of the 1000 teachers surveyed, working in kindergarten through sixth grade, felt they had proper training in technology (Furger, 1996). Launch Pads provide a multimedia approach to learning without the need for training, learning new commands, or the fear of crashes that is associated with PC's. Their ease of use, lightweight compact construction, and mobility make the Launch Pad units an ideal tool to use with students.

The mean test scores of students using the Launch Pad phonics modules increased more than the mean test scores of students not using the modules. In many cases students whose pre-test performance placed them at the bottom of their class in the beginning of the study, experienced much greater gains on the posttest than did their counterparts in the control group. Additional research may want to examine the effects of Launch Pad on students who enter kindergarten without basic readiness skills, as well as students being recommended for ESE Services.

Research consistently shows that children who get off to a good start in reading rarely stumble. Those who fall behind tend to stay there for the rest of their academic lives (National research Council, 1999). Our study with the Launch Pad phonics modules showed us that Launch Pad can be an effective tool to aid teachers and to help students get off to good start in reading.

LIMITATIONS

The results of this study may not be generalizable. More research on a wider scale is needed. This is just a preliminary look at one group of students. Varying teaching styles, after-school programs, one-on-one assistance from paraprofessionals and volunteers, and differing social and environmental factors were uncontrollable conditions that may have had some influence on the results of this study.

REFERENCES

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