

Bayonne, NJ Schools 2003-2004

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About KidBiz3000®

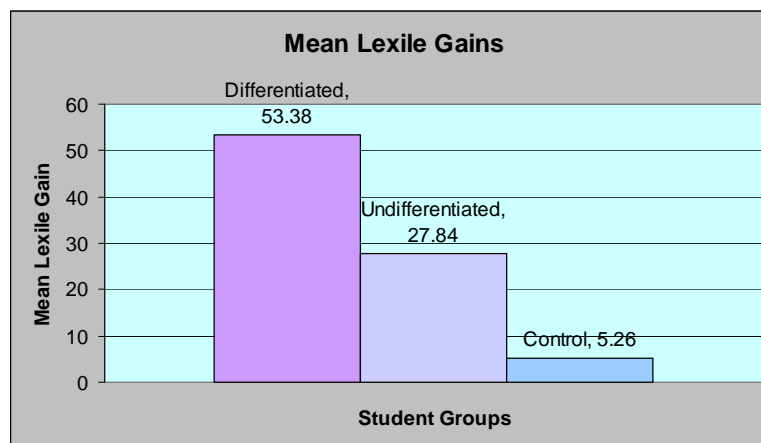
KidBiz3000 is an Internet-based learning system that improves reading skills for students in grades 2-8. It uses a proprietary software engine to deliver differentiated instruction directly to students. The program's primary focus is on reading comprehension and vocabulary acquisition.

Summary of Study Design and Findings

Drs. Tracey and Young evaluated the effects of a year-long intervention using KidBiz3000 on fifth grade students' performance in reading, language use, technology knowledge, and motivation. Significant gains were made in each of these areas, as evidenced by *dramatically increased scores* on the Scholastic Reading Inventory and TerraNova tests.

Traditionally, KidBiz3000 delivers differentiated reading lessons to students; reading passages and assessment are precisely matched to each student's individual reading level. In this study, one group of students used the differentiated version of KidBiz3000, while a second group received the grade-level appropriate version of the content. Students in each of these groups used the program twice weekly in the computer lab, while the control classes received traditional textbook based instruction in class. An evaluation of gains in these groups showed that there are strong, consistent, and positive effects associated with the use of the differentiated "version" of KidBiz3000. Students using the differentiated program made dramatic and significantly higher gains on 11 of the measures used, including the *TerraNova* and *Scholastic Reading Inventory*.

Based on these findings, this team concludes that KidBiz3000 has a positive impact on students' reading performance and test scores. This effect can be directly attributed to the differentiation of content based on student reading level.



Methodology

In this project, KidBiz3000 was tested in two conditions – differentiated and non-differentiated. The differentiated condition provided access to KidBiz3000 using its full capability, that is, it provided students with reading materials and follow-up activities at their individual level of reading ability. The non-differentiated condition provided access to the same KidBiz3000 reading material and follow-up activities, but all materials were presented at the students' grade level. Additionally, the study included a control condition in which students did not receive any exposure to the KidBiz3000 learning system.

Study Participants

The KidBiz3000 program was made available to seven classrooms in the Bayonne district, located in Hudson County, New Jersey, 14 miles from New York City. The city has a population just under 62,000, with a median household income of \$41,566. 69.9% of the population is white, non-Hispanic, of non-European descent. 17.8% of the population is Hispanic, 5.5% is black and 7.5% is other race. 33.4% of the district's students qualify for free and reduced lunch. Four classes received differentiated instruction (n=84) and three received non-differentiated instruction (n=51). Four additional classrooms participated in the control condition (n=84).

Measurement Tools

The students and teachers participated in pre-testing prior to the KidBiz3000 program implementation. All students in the study took the SRI, TerraNova, and the reading attitude and technology knowledge surveys. Teachers completed their technology surveys in September.

Implementation

KidBiz3000 provided its standard professional development to participating teachers prior to program implementation. All of the teachers in the differentiated and non-differentiated classrooms received attended two, large group, two-hour sessions, and one small group one-hour session. Topics covered included: a program overview, suggestions for implementation, trouble-shooting recommendations, the sharing of successes and concerns, and ideas for using the program in ways that would strengthen students' comprehension skills. Additionally, the trainer made several classrooms visits in response to individual requests by the teachers.

The program was implemented from October, 2003 to June, 2004. Students in the experimental conditions used the program for two 40-minute computer lab sessions per week. Additionally, students who had Internet access at home were able to access KidBiz3000 from there as well. Since the Scholastic Reading Inventory is designed as an assessment tool for measuring students' Lexile levels and can be used frequently, it was administered quarterly in this investigation. In addition to the pre-testing session in late September 2004, the SRI was also administered in mid-January and late April 2004. In the differentiated classrooms, these scores were used to modify the difficulty level of the passages that students received on KidBiz3000. At the conclusion of the implementation all tests and surveys were re-administered.

At a Glance

Evaluation period: October, 2003 - June, 2004

School District: Bayonne, NJ

Grades evaluated: 5

Participating classes: 11

Assessment: Scholastic Reading Inventory (SRI), TerraNova (2nd Ed.), Elementary Reading Attitude Survey (Kendall/Hunt, 1997), SouthEast and Islands Regional Technology in Education Consortium Student and Teacher Surveys

Hypothesis

Students in the differentiated KidBiz3000 condition would make significantly higher gains on the SRI, TerraNova, reading motivation, and technology attitude surveys.

Findings

Students in the differentiated classrooms outperformed students in the control classrooms on the following measures:

- Scholastic Reading Inventory
- TerraNova, 2nd Ed.
 - Language Composite
 - Language Subscore
 - Language Mechanics Subscore
 - Reading Composite
 - Reading Subscore
 - Vocabulary Subscore
- SEIR*TEC Student Survey
 - Experience using word processing programs
 - Multimedia productions
 - Recreational games
 - Exchanging messages with teachers
 - Practicing keyboarding
 - Use of computers in Language Arts
 - Use of computers in school

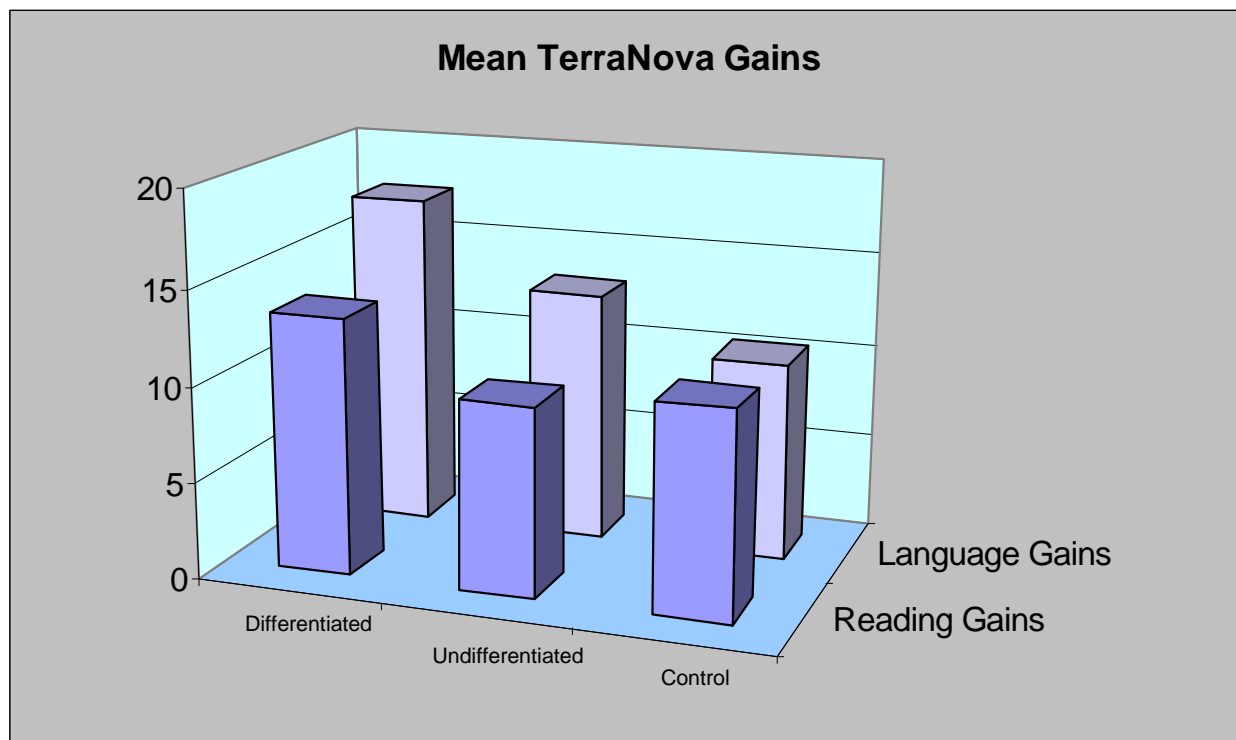
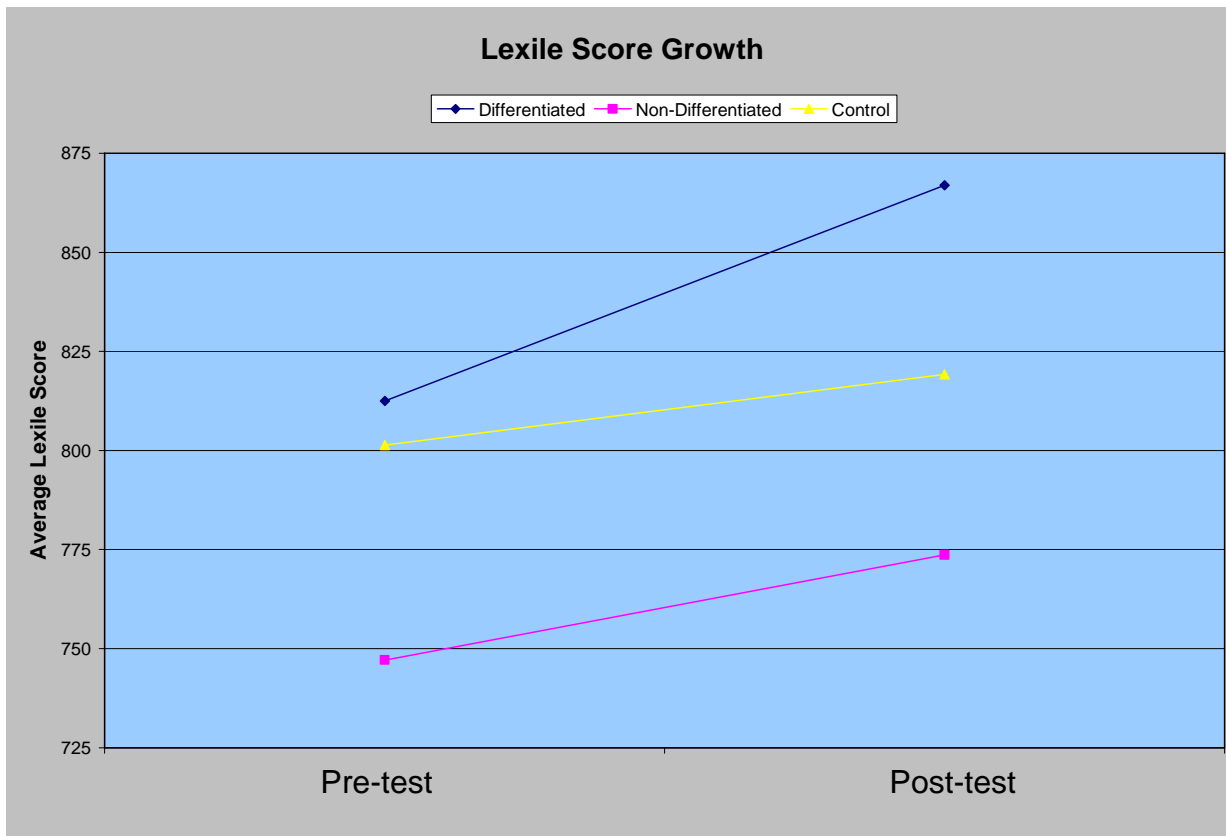
When comparing students in differentiated versus non-differentiated classrooms, students in the differentiated classrooms outperformed students in the non-differentiated classrooms on the SRI and TerraNova.

In addition, there were no cases in which students in the undifferentiated condition significantly outperformed students in the control condition. This finding underscores the critical importance of the central component of KidBiz3000 – providing students instructional materials at their correct level of difficulty.

Summary

This investigation showed strong, consistent, and positive effects associated with the use of the differentiated “version” of KidBiz3000. Students using the differentiated program made significant gains on 11 of the measures used, including the *TerraNova* and *Scholastic Reading Inventory*. Students who used the undifferentiated program made somewhat higher gains than the control group, but these gains were not significant.

Based on these findings, we conclude that KidBiz3000 has a positive impact on students’ reading performance and test scores. This effect can be directly attributed to the differentiation of content based on student reading level.



NOTE: A complete copy of this study is available upon request. Please contact research@achieve3000.com.