

Reading Comprehension Across Content Areas

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Abstract:

According to educational researcher, Steve Filkins, "Reading is a way to gain exposure to and develop tentative understandings of content". As a classroom teacher, I see the importance of learning to write and read well. Both are essential life skills that can provide students with authentic learning experiences, foster their language development, and enhance their social skills. By using specific instructional tools and strategies in content area instruction, teachers can increase overall comprehension and conceptual knowledge of their students (Bradford, Newland, Rule, et al. 2016). Literacy instruction that builds a strong relationship between the essential skills of writing and reading can help prepare students for future success. Through an extensive literacy-based science unit, students worked to research, read, plan, write, draft, collaborate, evaluate, reflect and produce tangible evidence of their learning. Students showed growth in both conceptual knowledge and informational text comprehension. As a classroom, teacher I was able to confirm the positive correlation between literacy integration into the content areas to increase overall conceptual knowledge.

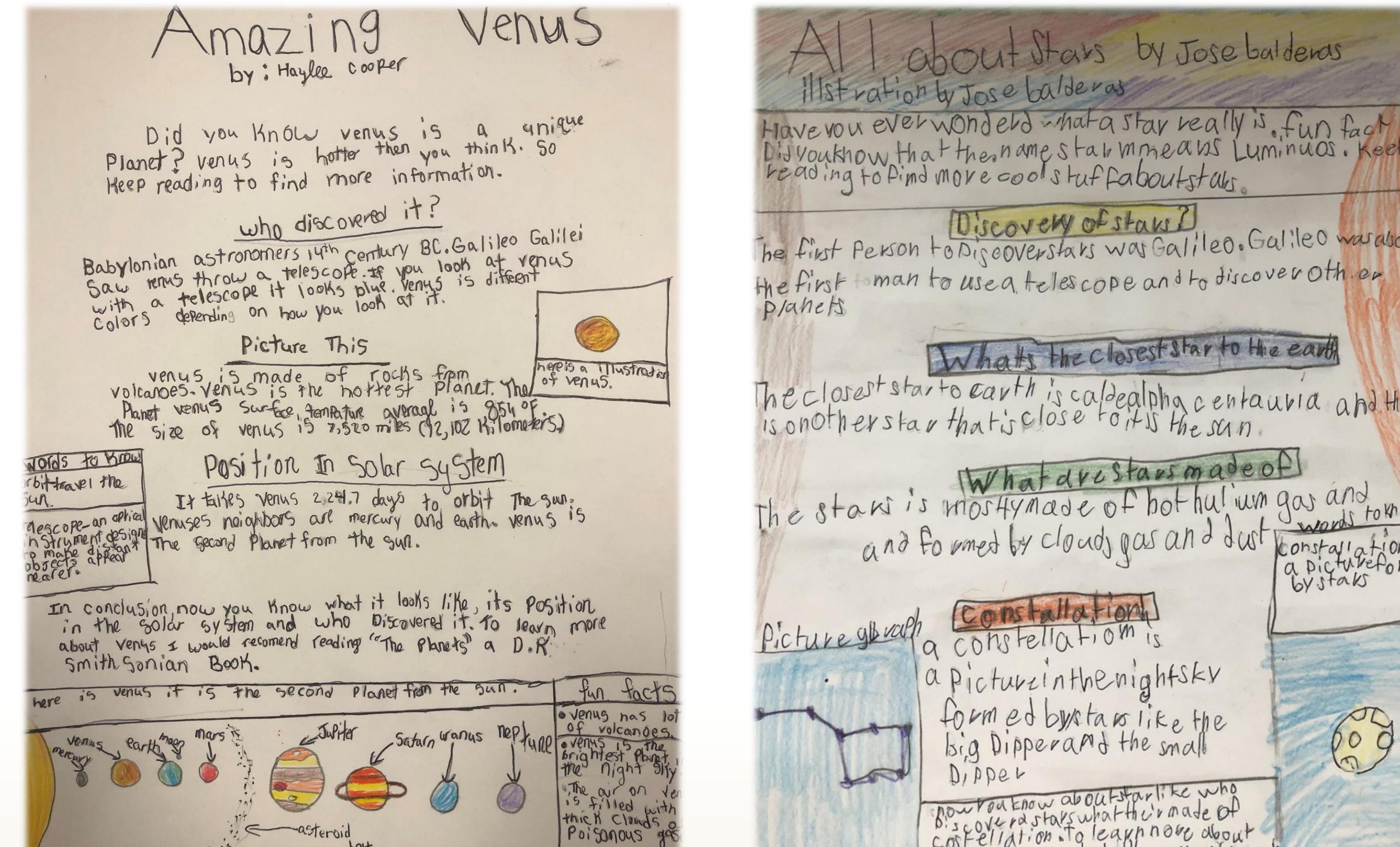
Objective:

- To identify how the explicit teaching of content-area reading and writing strategies improve third graders' reading comprehension in science.



Participants:

- Eighteen participants (nine female)
- Mean age = 8 years old; 4.5 years of education
- English speakers



Project Description:

Day 1: A pre-test was given to assess conceptual knowledge of the Solar System

Day 2-10:

- Students: researched chosen topics, learned how to use text features to better understand nonfiction texts
- Instructor: modeled use of text features, taught comprehension strategies such as implementing graphic organizers, self-questioning, and paraphrasing

Day 11: (mid-point check-in):

- Students: completed the same test given on day 1
- Instructor: compared pre-test and mid-point check-in scores to track growth

Day 12-21:

- Students: learned how to identify author's purpose through informational text examples and mentor texts. Students began writing informational articles about chosen topic.
- Instructor: held writing conferences with students.

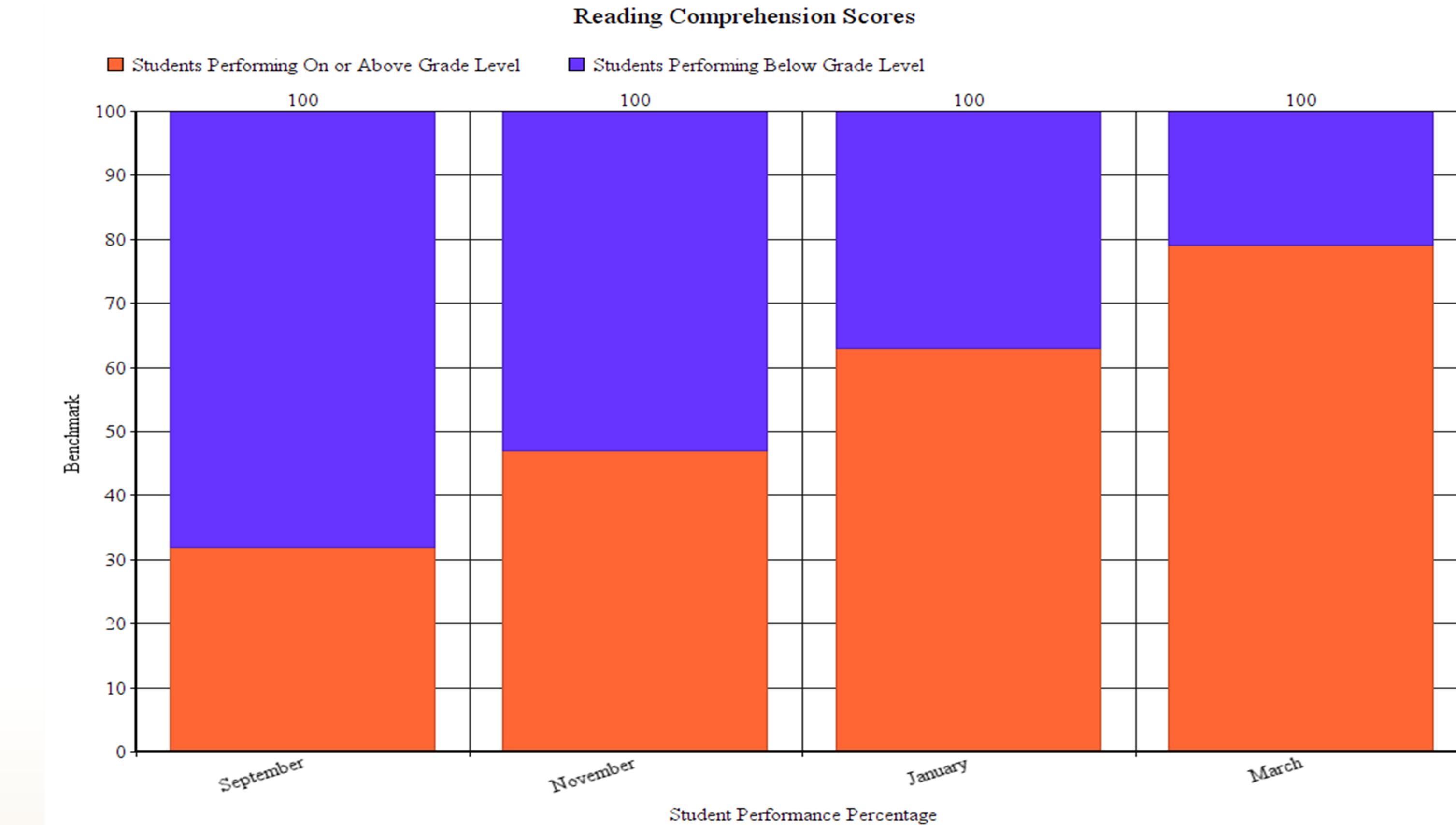
Day 22-24:

- Students: created a research product using supplied materials, presented their research to 1st grade students
- Instructor: provided support and feedback to students

Day 25:(final assessment):

- Students: completed the same test given on day 1 and 11
- Instructor: compared all 3 assessments to track growth

Results:



The number of students performing proficiently when reading and answering comprehension questions about a grade-level informational text, showed growth from each seven-week benchmark window to the next.

Descriptive Statistics			
	Mean	Std. Deviation	N
baseline	17.32	5.518	19
T1	22.68	6.609	19
T2	28.79	4.263	19

Tests of Within-Subjects Effects							
Measure:	MEASURE_1	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
test	Sphericity Assumed	1252.351	2	626.175	55.939	.000	.757
	Greenhouse-Geisser	1252.351	1.807	693.215	55.939	.000	.757
	Huynh-Feldt	1252.351	1.996	627.371	55.939	.000	.757
	Lower-bound	1252.351	1.000	1252.351	55.939	.000	.757
Error(test)	Sphericity Assumed	402.982	36	11.194			111.877
	Greenhouse-Geisser	402.982	32.519	12.392			101.058
	Huynh-Feldt	402.982	35.931	11.215			111.664
	Lower-bound	402.982	18.000	22.388			55.939

a. Computed using alpha = .05

The ANOVA analysis indicated significant growth in conceptual knowledge from the pre-assessment to the post-assessment where practical significance value of .757, in which results are meaningful to the typical classroom teacher.

Discussion:

Students showed significant increases in reading comprehension and conceptual knowledge.

References:

- Cohen, L. (2008) Research methods in education. British Journal of Educational Technology, 39(3), 571-589.
Filkins, S. R. (2012). Beyond standardized truth: Improving teaching and learning through inquiry-based reading assessment. Urbana, IL: National Council of Teachers of English.