Inquiry Meets Technology

A Presentation by Jolene Kispert

Overview

Topic and Problem

- High School students in the Special Education English Language Arts instructional setting demonstrate low reading comprehension skills and lack of motivation to read
- Low reading comprehension skills hinder student learning in post-secondary education and future occupations

Without the ability to inquire, discuss and team build in the analog world, students will leave our high schools ill-equipped for what the market demands in employees and leaders (Wagner, 2014)

Overview

Instructional Unit and Intervention

- Can the implementation of an Achieve3000 Intensive Intervention (inquiry-based lesson) have an impact on reading comprehension?

Achieve3000 is an online, differentiating learning platform that meets students at their personal Lexile level. **Students read real-world, non-fiction articles and answer questions to show their understanding.** The articles are scaffolded to meet the students where they are while encouraging **growth in their Lexile score and reading comprehension.**
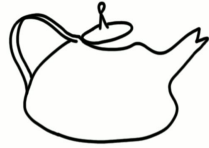
Data Collection

- Quantitative data collected
- Pre-assessment
  - Printed Achieve3000 article with multiple-choice questions to measure Reading Comprehension at the beginning of EACH lesson (5)
- Post-assessment
  - Article accessed via Achieve3000 login with multiple-choice questions to measure Reading Comprehension
- Assessments delivered at the students' personal Lexile level

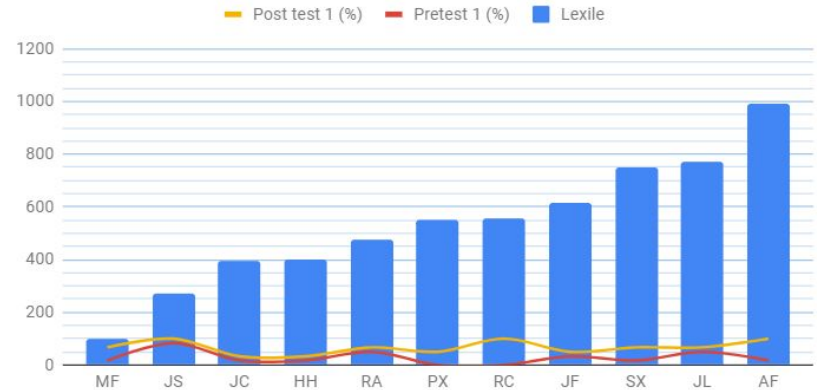| Grade	Typical Lexile level*	Grade	Typical Lexile level*
1	Up to 295L	7	925L to 1235L
2	170L to 545L	8	985L to 1295L
3	415L to 760L	9	1040L to 1350L
4	635L to 950L	10	1085L to 1400L
5	770L to 1080L	11 and 12	1130L to 1440L
6	855L to 1165L		

*The lower number represents the 25th percentile and the higher number represents the 75th percentile for typical students at that grade level

Analysis Methods

- Data exported from Achieve3000
- Comparisons were made from pre and post-assessment to show growth or loss in score
- Students grouped by Lexile score to compare pre and post-assessment scores and overall growth
- Teacher observations were documented in each testing period

Lexile with Pre and Post test Scores

Post test 1 (%) — Pretest 1 (%) ■ Lexile

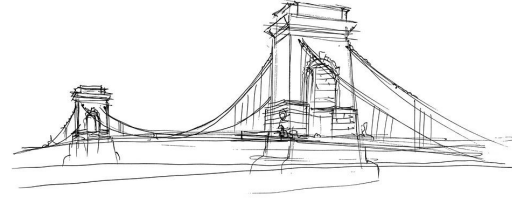MF JS JC HH RA PX RC JF SX JL AF

Results and Conclusions

- Students at a higher reading Lexile performed better than those with scores below 500 and showed greater growth between pre and post-assessment
- Average growth of all articles: 17%
- Teacher observed end-of-year academic burnout and technology fatigue as an influence
- Individual attention and small group instruction lead to growth for all students and through each lesson

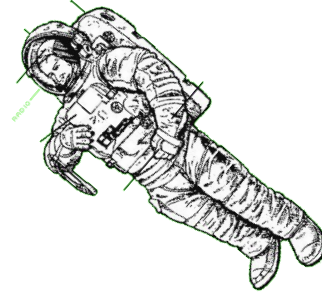| Article	Pre Score %	Post Score %	Growth %
Saving the Apes	36.95	44.84	7.89
Up to Scratch	18.37	32.47	14.11
Mallory's Footsteps	18.47	37.89	19.42
Addicted to Technology	15.84	38.63	22.79
A Real Scorcher	15.84	36.84	21
Total Average	21.09	38.14	17.04
Lexile Under 500	35.94	50.92	19.48
Lexile Over 500	33.83	71.57	37.73

Strengths and Weaknesses

Strengths

- Consistent pre and post assessment
- Student availability to researcher (case manager)
- Lexile data on hand
- Ease of data export
- Student pre-orientation with Achieve3000

Weaknesses

- Academic burnout
- End of year exams
- HVAC malfunction
- New lesson delivery method (inquiry)

Knowledge Applied

- More research needed on academic fatigue and technology burnout
- Start inquiry lesson delivery at the onset of the school year for student proficiency and relationship building
- Trust instincts because growth is evident.
- Keep at it! Research backs the need for more inquiry learning
- Students need technology breaks!
- Technology needs human touch

Questions?

References

Differentiated Instruction Solutions. (n.d.). Retrieved from http://www.achieve3000.com/

Wagner, T. (2014). *The global achievement gap: Why even our best schools don't teach the new*

survival skills our children need-- and what we can do about it. . New York, NY: Basic

Books.