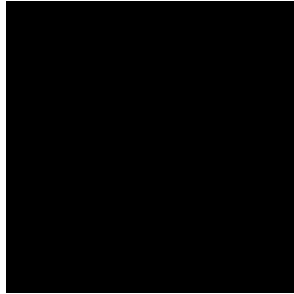


Module F.
Program
Evaluation:
Results of Pilot
Intervention
(INFER)



A 9th Grade Intervention in Reading

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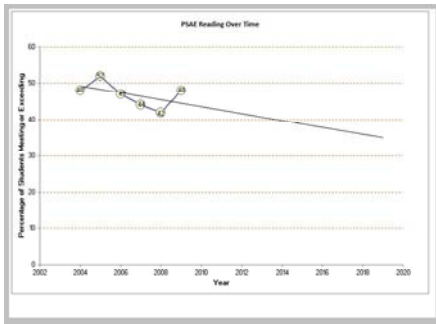


Intervention

We need to intervene with students who do not have the skills to be successful, or those who have the skills but have not sufficiently mastered the skills to be successful independently.



Portrait of a High School Not Making Progress Over Time



We Have To Do Something

- Purpose: To determine if a research-based structured reading intervention (SIM-INFER) taught with fidelity would make a difference in 9th grade General English Students' Explore Reading scores.

Background

- INFER was chosen because of its relation to skills tested on ACT-like tests
- It was chosen because of its research base-
- **The effects of instruction in an inference strategy on the reading comprehension skills of adolescents with disabilities.**
(<http://www.thefreelibrary.com/The+effects+of+instruction+in+an+inference+strategy+on+the+reading...a0171580673>)
- It was chosen because it was researched with 9th graders



Background

- The strategy consists of 5 lessons which teach the steps of the strategy, types of questions, and a mnemonic device.
- There are 4 practice passages with each lesson and 4 practice passages for each level from 4th grade to 9th grade.
- There is a mechanism for feedback to assist students in improving their performance.



Support

- Training in 4 SIM strategies, including INFER, was held over a 2 day period in the summer with Sue Meyer, University of Kansas SIM Trainer.
- Another training was held on an In-Service Day the week before school began.
- Additionally, the SIM Trainer trained Peer Tutors in 4 SIM strategies including INFER
- The SIM Trainer followed up with Coaching sessions for the teacher and Divisional.



Support

- Primary support for students was the English Teacher
- The English Divisional assisted in co-teaching, setting up the spreadsheet, and facilitating implementation.
- The Peer Tutor, assisted with reteaching, giving feedback, grading and entering data.
- Other students served as tutors for their classmates.



Description of Students-INFER

- 4 Sections of General Freshman English were taught INFER instead of the standard English curriculum for 1 term 90 minutes every other day.
- Students were placed in General English based on English and Reading Explore scores as well as teacher recommendation.
- Limited number of IEP and LEP students.
- 15 or fewer students were also in a Reading Intervention class.



Comparison Group

- 6 sections of General Freshman English who had not been taught the strategy were also given the Explore test.
- These sections were co-taught and had students with IEP's in them.
- The same criteria for being placed in this class was used for the comparison and experimental groups.



Level Completion

- Students' goal was to complete 9th grade passages at 80% or better accuracy.
- Every time a student scored 80% or better, they moved to a higher level.
- Students graphed their progress through the levels.
- However, students were encouraged to continue to 10th grade passages if they had time.



Logistics

- Each student had a folder with a blank graph on it that they filled in as they moved through the strategy.
- Each student had an INFER book with practice passages in it.
- The practice passages needed to be graded and scores entered into a spreadsheet.
- Students needed to be given feedback via a teacher, a tutor, or Feedback Form.



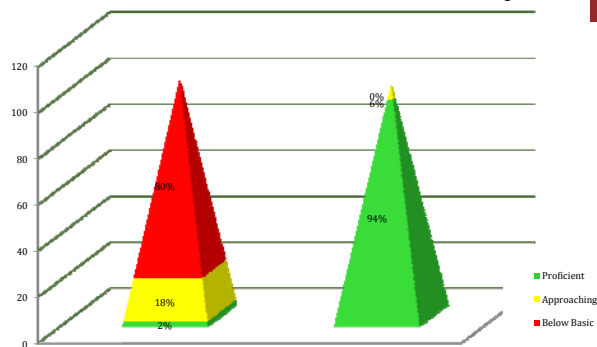
Fidelity of Implementation

- One method to confirm the fidelity of implementation is to ensure that the students have attained the skills taught in the program. This is confirmed with a pre- and post assessment.
- An assumption is that students who complete all lessons, should score higher than those who score fewer lessons



Pre and Posttest INFER

This chart indicates that students learned what was taught



Pre – Post (Within Program Assessments)

- Fifty two percent of students in the INFER intervention completed all 10 levels; 46% completed 9 levels.
- Results demonstrate that students learned the INFER strategy within the program

Lesson Completed	Valid N	PRE		POST	
		Mean	SD	Mean	SD
LVL08	1	40.00	.	77.00	.
LVL09	47	43.19	17.51	86.68	20.20
LVL10	54	45.24	15.89	92.78	5.96

External Validity

- The question remains, was the effort worth the results?
- To examine this question, a retired EXPLORE test was administered to all students in the INFER intervention in addition to 142 General Education students.

Growth

- On average, all groups demonstrated increased scores on the EXPLORE Reading Test.
- In general, students in the INFER intervention appeared to increase more than the comparison group

Group	N	EXPLORE				
		Grade 8		Grade 9		
		Mean	SD	N	Mean	SD
INFER LVL 9	35	12.0	1.8	42	13.8	3.1
INFER LVL 10	39	12.1	1.8	47	14.7	2.9
Comparison	204	12.5	2.2	142	13.5	2.2

Was the improvement chance?

- Grade 9 EXPLORE Results reveal that the significant differences would not be expected by chance; $t(229) = 2.38, p < .05 (.02)$

GROUP	N	Mean	SD
ALL INFER	89	14.3 *	3.0
General Ed	142	13.5	2.2

Students Who Completed INFER

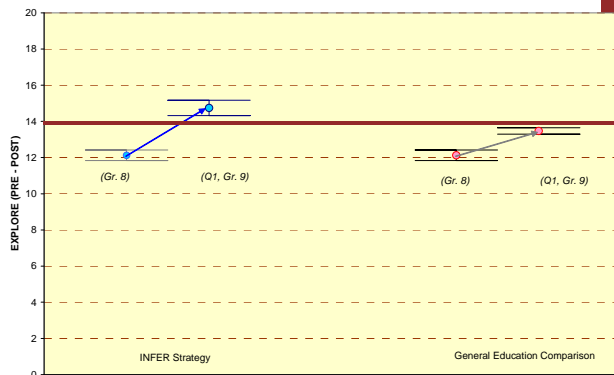
- The effects of intervention were more pronounced when the comparison is made between students who completed the INFER Intervention versus typical students

Target comparison	N	Mean	SD
Completed LVL 10	47	14.7 *	2.9
Comparison	142	13.5	2.2

Results reveal that the significant differences would not be expected by chance; $t(63.5) = 2.76, p < .05 (.008)$

Effects of Intervention

Effects of One Quarter Intervention (INFER)



Implications

The implications of this Pilot study are far reaching

- Previous *program review* has indicated the strong relation between EXPLORE and ACT
- The INFER intervention provided **significant improvement** in EXPLORE scores over gains seen by typical instruction alone
 - *This effect was strongest for students who completed all 10 levels of the intervention, but was still significant for students who did not complete all 10 lessons*
