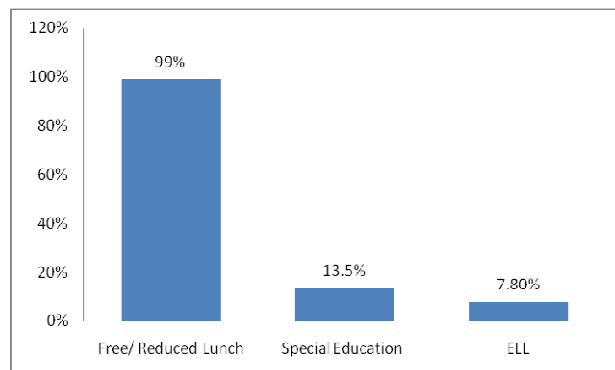


Mathematics Case Study #8/06

High School
Rolling Fork, Mississippi
 (October 2006)

Overview and Demographics

At the time of the case study, this High School enrolled 397 students in ninth grade through twelfth grade. Of the total student group, 99 percent received free and reduced lunch, 41 students are served in special education and 13 students are English language learners.



Case Study Summary

Scope: **Title-1 intervention strategy**

Subject: **Mathematics**

Target grade proficiency: **Grades 9 & 10**

Number of students in target group: **118**

Number of classes in target group: **2 groups**

Case study timeframes: **8 weeks**

Intervention Strategy

This was a Title-1 intervention program. 118 students signed onto the program delivered by a third party service provider and teachers from South Delta school district. There were two groups in the intervention strategy; 101 students were categorized as general and 17 students were special needs students. The intervention program was structured around the IMTA solution as the core intervention tool. The system was used to run a complete diagnostic assessment on each student. On completion of the assessment each student received an individualized intervention plan designed to bring them back to grade level proficiency. Upon completion of the diagnostic assessment, staff set two intervention strategies, one for each group. Both groups used the IMTA solution for the assessment and the intervention.

Assessment

The students in the target group were put through the IMTA diagnostic assessment. There were no time limitations placed on the students to complete the initial assessment. The initial diagnostic assessment, for the first group, was conducted during four 45 minute sessions over two weeks. The assessment for the special needs student group was conducted in six 45 minute sessions over the first two weeks. Staff waited for all students to complete the initial assessment. The mean aggregated scores of the two groups showed the need for a “strategic level” or intensive intervention program.

Mean aggregate assessment score for Math					
	MCT Test Level	Test Form	Max # Points	Raw Mean Score Group1	Raw Mean Score Group2
MCT	18	B	54	24.7	18.4

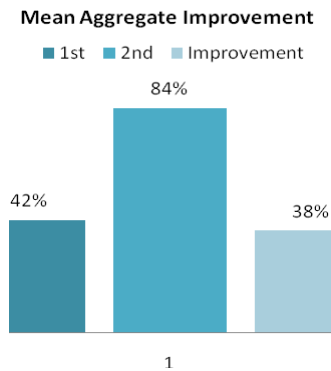
Mean aggregate IMTA assessment score for Math			
	Test	Raw Mean Score Group1	Raw Mean Score Group2
IMTA	C	42%	30%

Group-1 Intervention

The Group-1 intervention program was run over three 45 minute sessions per week for 6 weeks. The staff monitored student progress on a weekly basis during the six weeks. Each student had access to a computer during these sessions. Each student's progress was dynamically tracked throughout the study. The intervention for this group was completed within 19 instructional days or a total of 14 hours. Staff also ran an assessment at the end of the six weeks to measure progress. The second assessment was independent of the first, covering the same curriculum content but with a different set of questions.

The table and figure below provide a summary of the aggregated results data.

Mean aggregate improvement score for Math		
	Test	Raw Mean Score Group1
IMTA	1st	42%
IMTA	2nd	84%
Improvement		38%



Group-1 Results & discussion

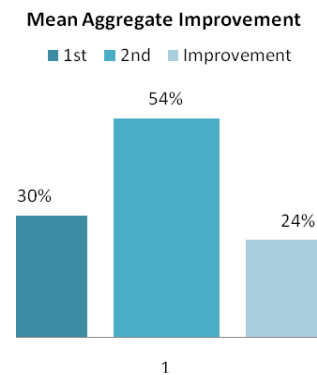
The second assessment, after six weeks, showed a significant improvement. The group showed an average aggregate improvement of 38% in math over the 6-week period. This improvement over a short 6-week period was very encouraging. However, individual students (and therefore the aggregated data) would have benefited from a more ability-targeted grouping and produced even better gains. We also recognize that the staff that ran this case study were very effective and wanted to make sure that each hour spent was quality time.

Group-2 Intervention

The Group-2 intervention program presented staff with a greater challenge because of the special-needs students in this group. The intervention strategy was to run over four 45 minute sessions per week for 6 weeks. Staff monitored student progress on a bi-weekly basis during the six weeks. Each student had access to a computer during these sessions. Each student's progress was dynamically tracked throughout the study. The intervention for this group was completed within 24 instructional days or a total of 18 hours. The staff ran another assessment at the end of the six weeks to measure progress. The second assessment was independent of the first, covering the same curriculum content but with a different set of questions.

The table and figure below provide a summary of the aggregated results data.

Mean aggregate improvement score for Math		
	Test	Raw Mean Score Group2
1st	1st	30%
2nd	2nd	54%
Improvement		24%



Group-2 Results & discussion

The second assessment, after six weeks, showed a significant improvement for the special-needs students. The group showed an average aggregate improvement for math of 24%. While the improvement in the target group was significant, the staff recognized that due to the nature of the group, the intervention required more one-to-one intervention with the students. It is estimated that of the 18 hours of the intervention each student required an average of 2 hours of one-to-one instruction.

Conclusion

This 2006 pilot program was independently administered by a third party service provider and teachers from South Delta school district. The improvement results showed the power of the EDUSS tool to truly identify student's individual competencies and then customize an automated intervention program to remediate the student back up to grade level.

"We are excited about the results shown by the 17 students in Group-2 who were special-needs student with mental and behavioral problems."