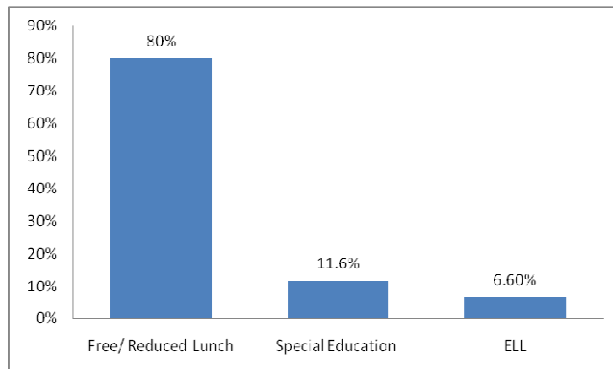


Mathematics and English Case Study #2/07

High School
Sardis, Mississippi
(November 2007)

Overview and Demographics

At the time of the case study, this High School was rated number 14 in the list of top 20 worst performing schools in Mississippi. The school enrolls 469 students in ninth grade through twelfth grade. Of the total student group, 80 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 and English**
Target grade proficiency: **Grades 9 & 10**
Number of students in intervention group: **54**
Number of classes in intervention group: **1**
(Title-1 group)
Case study timeframes: **2 months (Stage-1)**
and 12 months (Stage-2)

Intervention Strategy

This was a Title-1 intervention program. There were 54 students signed onto the program delivered by a third party service provider and teachers from North Panola school district. The intervention 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 to tutor them back to grade-level proficiency. The staff set two intervention goals: the first goal (stage-1) was to show improvement within 2 months, the second

goal (stage-2) was to pass AYP within 12 months from the start of the program. Upon completion of the initial diagnostic assessment there were two intervention strategies put in place.

Assessment

The students in the target group were screened by doing the IMTA diagnostic assessment. There were no time limitations placed on the students to complete the initial assessment. The initial diagnostic assessment, for the group, was conducted over four 45 minute session over two weeks. Due to other commitments, staff waited for all students to complete the initial assessment. The mean aggregated scores of the group showed the need for a "strategic level" intervention program.

Mean aggregate assessment score for the group					
	MCT Test Level	Test Form	Max # Points	Raw Mean Score Language	Raw Mean Score Mathematics
MCT	18	A	55	26.2	23.7

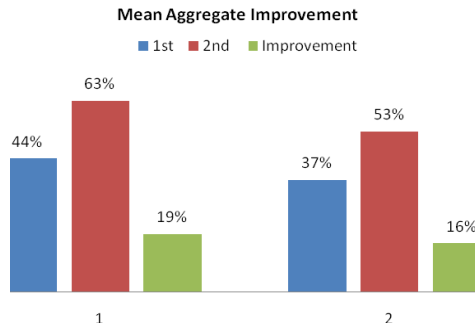
Mean aggregate assessment score for the group			
	Test	Raw Mean Score Language	Raw Mean Score Mathematics
IMTA	C	44%	37%

Stage-1 Intervention

Stage-1 of the intervention strategy was to run three 45 minute sessions per week for 6 weeks. The staff would monitor the 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 stage-1 intervention for the group was completed within 18 instructional days or a total of 13 hours. The staff then 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 Stage-1 results data.

Mean aggregate improvement score for the group			
	Test	Raw Mean Score Language	Raw Mean Score Mathematics
IMTA	1st	44%	37%
IMTA	2nd	63%	53%
Improvement		19%	16%



Stage-1 Results & discussion

The second assessment, after six weeks, showed a significant improvement. The group showed an average aggregate improvement for English of 19% and an average aggregate improvement for Mathematics of 16%.

While the improvement in the target group was very significant, individual students (and therefore the aggregated data) would have benefited from a more ability-targeted sub-grouping in the intervention program.

Stage-2 Intervention

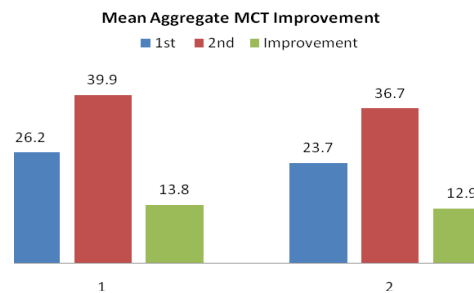
During the Stage-2 phase of intervention program each student was provided with a notebook computer with the IMTA solution installed. Each student would then follow the automated intervention plan the EDUSS program custom-designed for him/her. Staff measured student MCT scores at the beginning and at the end of the 12 month intervention to calculate AYP. Individual scores were aggregated and the mean calculated.

During the intervention phase, students received very little assistance from teachers due to the lengthy time period of the strategy and the fact that original teachers that assisted in the case study went back to district activities. In short, the vast majority of the intervention was provided by the IMTA's inbuilt worked examples

and teaching slides within its automated tutorial module. The second assessment was the official MCT.

The table and figure below provide a summary of the Stage-2 results data.

Mean aggregate assessment score for the group					
	MCT Test Level	Test Form	Max # Points	Raw Mean Score Language	Raw Mean Score Mathematics
MCT	1st	A	55	26.2	23.7
MCT	2nd	A	54	39.9	36.7
Improvement				25%	23.6%



Stage-2 Results & discussion

The second assessment, after 12 months, showed significant improvement. The group showed an average aggregate improvement for English of 25% and an average aggregate improvement for Mathematics of 23.6%. While the improvement in the target group was very encouraging, the intervention staff recognized the potential that could have been achieved if teachers were closer involved in this second stage.

Of the 54 students 88% of the students passed AYP in both Mathematics and English.

Conclusion

This 2006 pilot program was independently administered by a third party service provider and teachers from North Panola school district. The improvement results showed the unique power of the EDUSS tool to truly identify students individual competencies and then customizing an automated intervention program to remediate the student back up to grade level. The second significant conclusion is the proof that the program can be used to achieve grade recovery for a large group of students with significant beneficial long term consequences.