At- a-Glance

Established in 2006, the Dallas Independent School District African American Mathematics Achievement Task Force was created in support of Dallas Independent School District’s (Dallas ISD) initiative to improve the academic achievement of all students and to eliminate the achievement gap between and among student groups. The Dallas ISD African American Mathematics Achievement Task Force formulated a set of recommendations, based on a comprehensive review of educational research and best practice models, student assessment data, and Dallas ISD current curriculum and instruction standards to be implemented at the campus-level to improve African American student performance in mathematics.

The primary goal of the African American Mathematics Achievement Task Force Project (AAMATF) was to oversee coordination, administration and implementation of AAMATF program activities at the campus-level related to the recommendations formulated by the Dallas ISD African American Mathematics Achievement Task Force in an effort to increase African American student achievement in mathematics.

Program Implementation

During first year program implementation of the AAMATF, target schools were comprised of the five high schools having the largest percentage of African American students coupled with the smallest percentage of African American students passing the Texas Assessment of Knowledge and Skills (TAKS) Mathematics, and their designated feeder middle school. During the 2008-09 school year, the AAMATF was expanded to include three additional high schools and their designated feeder middle schools. All students enrolled in mathematics courses at target schools, not just African American students, were participants in the program.

During the 2008-09 school year, the AAMATF was implemented in 16 Dallas ISD schools (8 high schools, 8 middle schools). Table 1 displays the 2008-09 AAMATF target schools.

<table>
<thead>
<tr>
<th>Middle Schools</th>
<th>High Schools</th>
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</thead>
<tbody>
<tr>
<td>D. A. Hulcy*</td>
<td>David W. Carter*</td>
</tr>
<tr>
<td>Robert T. Hill*</td>
<td>Emmett J. Conrad*</td>
</tr>
<tr>
<td>T. W. Browne*</td>
<td>Justin F. Kimball*</td>
</tr>
<tr>
<td>Oliver W. Holmes</td>
<td>Franklin D. Roosevelt</td>
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<td>John B. Hood</td>
<td>W.W. Samuell</td>
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<tr>
<td>Maynard Jackson</td>
<td>A. Maceo Smith</td>
</tr>
<tr>
<td>Boude Storey</td>
<td>South Oak Cliff</td>
</tr>
<tr>
<td>E. B. Comstock</td>
<td>H. Grady Spruce</td>
</tr>
</tbody>
</table>

*Schools that were added to the AAMATF Project during the 2008-09 school year

In line with the Dallas ISD African American Mathematics Achievement Task Force’s recommendations, AAMATF teachers and students had access to the following activities and incentives at AAMATF target schools during the 2008-09 school year:

- Tutoring and mentoring services were provided to students by Group Excellence (university students).
- Financial resources and organizational support were directed to the creation and sustainability of math clubs.
- Graphing calculators were made available to target schools in an effort to support student access to appropriate mathematical technology in their mathematics classroom.
- A summer math academy was available to eligible students in an effort to provide assistance in learning higher-level mathematics content and strategies, and to provide an opportunity for the development of beneficial support systems comprised of teachers and other students.
- AAMATF teachers and coaches were provided with professional development activities that were specifically geared toward improving
teacher practices of leadership in standards-based math and culturally relevant pedagogy.

- Mathematics coaches were available at target schools to provide campus mathematics teachers with varied instructional services as needed (i.e., classroom demonstrations or strategies, mentoring, professional development, classroom observations, and one-on-one assistance).

**AAMATF Spring 2009 Survey**

The AAMATF Spring 2009 Survey, developed through collaboration with AAMATF staff and staff from the Dallas ISD Evaluation and Accountability Department, collected self-reported data from AAMATF mathematics teachers and coaches who attended Spring 2009 AAMATF Professional Development relating to the following areas:

- Relevance of AAMATF professional development activities
- Level of implementation of AAMATF professional development activities and demonstrations in classrooms

One hundred eighteen AAMATF mathematics teachers and coaches completed the AAMATF Spring 2009 Survey. Sixty-one percent of respondents were female and 39% were male. Fifty-eight percent of respondents were mathematics teachers and coaches at an AAMATF middle school campus, while 42% were mathematics teachers and coaches at an AAMATF high school campus. The largest percentage of respondents fell within the 1-3 years (28%) and 16 or more years (24%) ranges of certified teaching experience in mathematics. Figure 1 displays AAMATF Spring 2009 Survey respondents by years of certified teaching experience in mathematics.

![Figure 1. AAMATF Spring 2009 Survey respondents by years of certified teaching experience in mathematics.](image)

Seventy-three percent (85 of 117) of Spring 2009 respondents reported that they attended both the Fall 2008 and Spring 2009 AAMATF professional development sessions.

**Survey Findings**

**Relevance of Professional Development Activities.** Seventy-eight percent of respondents reported that they agreed or strongly agreed that Spring 2009 AAMATF Professional Development activities and topics deepened their understanding of culturally proficient instruction. Ninety-six of 118 (81%) respondents reported that they agreed or strongly agreed that AAMATF vertically-aligned professional development, which included teacher and coach participants from within a designated school feeder pattern, was beneficial to them in becoming proficient mathematics instructors.

Eighty-one percent of respondents that participated in both the Fall 2008 and Spring 2009 AAMATF professional development sessions reported that they agreed or strongly agreed that the Fall 2008 AAMATF professional development activities and topics deepened their understanding of culturally proficient instruction, while 5% disagreed or strongly disagreed.

**Implementation of AAMATF Professional Development Activities and Demonstrations in Classrooms.** Eighty-three percent of respondents who reported that they had attended both the Fall 2008 and Spring 2009 AAMATF Professional Development sessions also reported they have utilized mathematics activities and strategies that were demonstrated at the Fall 2008 AAMATF professional development training in their mathematics classroom. Seventy-seven percent of these respondents strongly agreed or agreed that AAMATF professional development training has been beneficial in improving their classroom instruction as a culturally proficient educator, while only 7% of respondents disagreed or strongly disagreed.

Overall, respondents appeared to be satisfied with activities and topics covered in AAMATF training sessions. Respondents commented that the sessions were excellent, beneficial, helpful, and facilitated interesting and insightful discussions among their peers. One respondent disclosed the need for future AAMATF training sessions to be scheduled during the summer, with other professional development activities, to decrease disruptions in classroom instruction during the school year.
Program Outcomes

AAMATF program administration’s goal was to recruit 240 AAMATF middle school students (30 students from each of the eight AAMATF middle schools) to participate in the 2009 AAMATF Academic Youth Development summer academy. Twenty-five AAMATF students participated in the 2009 summer academy representing an increase in student participation from the prior 2008 summer academy when 19 AAMATF students participated.

Due to low AAMATF student participation in the summer math academy and tentative plans to expand the summer math academy program district-wide, AAMATF program management reported a likely shift in the focus of the summer math academy to serve AAMATF students transitioning from elementary to middle school, instead of middle school to high school, would be made for 2009-10.

Thirteen thousand three hundred eighty-two students took the TAKS Math at AAMATF target schools during the 2008-09 school year (6,375 middle school students, 7,007 high school students).

A comparative analysis of AAMAP overall passing rates on the 2008 and 2009 TAKS Math, which included the first, second, and third administration of the TAKS, revealed that 5 of 8 (62.5%) AAMATF middle schools and 7 of 8 (87.5%) AAMATF high schools had higher passing rates on the 2009 TAKS Math than on the 2008 TAKS Math.

AAMATF target schools’ overall student passing rate percentage on the Mathematics subtest of the 2009 TAKS was lower than student passing rate percentage at other district schools at the middle and high school levels. Figure 2 displays student passing rate percentage on the 2009 TAKS Math.

Figure 2. Student Passing Rate Percentage on the 2009 TAKS Mathematics

Though still lagging behind overall district passing rates, AAMATF African American high school students had larger average passing rate percentage point gains on the TAKS Math (2007-08 to 2008-09) than African American students at other district high schools (6.6% AAMATF high schools vs. 3.1% other district high schools). AAMATF African American middle school students’ performance on the 2009 TAKS Math resulted in an average passing rate percentage point loss of 1.7%; which was less negative than losses reported by African American students at other district middle schools (-2.2%). See Figure 3.

Summary

The main findings of this evaluation were (1) AAMATF professional development activities and strategies appeared to be relevant and implemented in AAMATF mathematics classrooms, (2) 75% of AAMATF target schools performed better on the 2009 TAKS Math than on the 2008 TAKS Math, (3) AAMATF students were outperformed by other district students on the 2009 TAKS Math, and (4) though outperformed on passing rates, AAMATF African American students outperformed other African American students at other district schools on average passing rate gains.

Figure 3. African American Student Average Passing
Rate Percentage Point Gain on the TAKS Mathematics (2007-08 to 2008-09)

Based on these findings, we recommend that African American Mathematics Achievement Task Force program administration continue to monitor and evaluate the impact of the AAMATF on the academic performance of students at target schools, and conduct additional research regarding barriers, incentives or additional services that would continue to promote academic growth and improvement among African American mathematics students.

For more information, please visit the Dallas ISD Evaluation and Accountability Department website at http://www.dallasisd.org/inside_disd/depts/evalacct/index.htm