

# Texas 21<sup>st</sup> Century Community Learning Centers

## Annual Report 2006-07

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# TEXAS 21<sup>ST</sup> CENTURY COMMUNITY LEARNING CENTERS ANNUAL REPORT FOR 2006-07

## Executive Summary

The 21<sup>st</sup> Century Community Learning Centers (21<sup>st</sup> CCLC) program is authorized by the No Child Left Behind Act of 2001 and provides out-of-school time opportunities for academic enrichment to help students meet state and local performance standards in core academic subjects. Programs and activities are designed to reinforce and complement the regular academic program of participating students. Families of students are offered opportunities for literacy and related educational development.

The purpose of this study was to examine the impact of 21<sup>st</sup> CCLC participation on student outcomes and to investigate possible mediating, moderating, or other explanatory variables associated with successful programs. The specific evaluation tasks were:

1. To provide an analysis of the impact of 21<sup>st</sup> CCLC participation on student-level achievement outcomes;
2. To investigate the variables that mediate or moderate the relationship between program participation and student-level outcomes;
3. To develop and conduct statewide survey assessment to attain a better understanding of the nature of existing programs;
4. To determine specific programmatic features associated with the various student achievement outcomes included in the evaluation; and
5. To develop a profile and description of 21<sup>st</sup> CCLC programs, operations, staffing patterns and students served.

To complete these tasks, data were analyzed from several sources. Texas Assessment of Knowledge and Skills (TAKS) scores were examined for the past four school years to study program impact on student-level achievement. To develop a profile and description of 21<sup>st</sup> CCLC programs, data were collected directly from 21<sup>st</sup> CCLC grantees via a web-based data collection tool maintained by the Texas Education Agency (TEA). To determine specific programmatic features associated with the various student achievement outcomes, data collected by TEA from the 21<sup>st</sup> CCLC grantees were used, including student background characteristics and program emphasis.

## *Student Participants*

This study included students who were in Grades 6 through 11 during the 2006-07 school year, and who attended any 21<sup>st</sup> CCLC activity during the 2004-05, 2005-06, or 2006-07 school years, and who participated in reading or mathematics activities at the center during these three years. This study also included *comparison* students who were in Grades 6 through 11 and who attended 21<sup>st</sup> CCLC feeder schools during the 2006-07 school year, but who did not attend 21<sup>st</sup> CCLC activities during the 2004-05, 2005-06, and 2006-07 school years. For both sets of students, only those with four years of TAKS English-version test scores, demographic information, and 21<sup>st</sup> CCLC records (for 21<sup>st</sup> CCLC students) were included in subsequent analyses.

## Results

*Task 1: To provide an analysis of the impact of 21<sup>st</sup> CCLC participation on student-level achievement outcomes*

Key results were as follows:

### *Reading.*

- Cumulative 21<sup>st</sup> CCLC reading activity attendance had a statistically significant, positive association with trends in student reading performance relative to *comparison* students.
- Students who attended 60 or more reading activities (*high intensity*) over the three-year period had higher gains in TAKS reading scores than *comparison* students.
- In terms of progress on TAKS tests relative to state norms, *high intensity* students outpaced *comparison* students across grade-level cohorts.

### *Mathematics.*

- *High-intensity* students (91 or more mathematics activities over the three-year period) outpaced *moderate-* (30-90 activities), *low-* (less than 30 activities) and *comparison* groups.
- *High-intensity* students made more progress toward state norms than did *comparison* students across grade levels; *moderate-intensity* students also made more progress than *comparison* students, but to a lesser degree than *high-intensity*.

In terms of the generalizability of the findings, the primary limitation of this study is that longitudinally matched TAKS scores were generally not available for special education and LEP students, which resulted in the exclusion of many of these students from the analyses. The findings are pertinent to students who are similar to those who participated in the study.

*Task 2: To investigate the variables that mediate or moderate the relationship between program participation and student-level outcomes*

*Task 4: To determine specific programmatic features associated with the various student achievement outcomes included in the evaluation*

Key results were as follows:

### *Programmatic features associated with the various student achievement outcomes included in the evaluation*

- Economically disadvantaged students scored lower than not-disadvantaged students.
- LEP status students scored lower than non-LEP students.
- There were no significant differences between Special Education status students and non-Special Education status students.
- Gifted students surpassed non-gifted students.
- The higher the 2006 TAKS score, the higher the 2007 TAKS score tended to be.

- Females scored higher than males.
- African American students scored lower than non-African American students.
- Hispanic students scored lower than non-Hispanic students.

*Programmatic Features of Centers Moderating the Relationship between Program Participation and Student-level Outcomes*

- The relationship between the number of reading tutoring sessions attended and the 2007 TAKS reading scores was positive and statistically significant for students attending centers that served predominately elementary and middle school students.

*Center Variables Moderating the Relationships between Student Characteristics and Academic Achievement*

*Reading.*

- Economically disadvantaged students who attended 21<sup>st</sup> CCLCs that (a) served elementary grades only or (b) middle grades only, or (c) offered *Mostly Enrichment* programming scored lower on the 2007 TAKS reading test than did economically disadvantaged students who attended other program types.
- More success with LEP students in reading scores was associated with centers serving lower (elementary-level) grades

*Mathematics.*

*Programmatic Features Associated with Student Achievement Outcomes*

- All student-level predictors were statistically significant and in the same direction described above for TAKS reading scores.

*Programmatic Features Moderating the Relationship between Program Participation and Student-level Outcomes*

- The lack of a statistically significant relationship between attendance and achievement was consistent across center grade levels served and across program cluster type variables (six cluster types identified in Task 5).

*Variables Moderating the Relationships between Student Characteristics and Academic Achievement*

- LEP students and special education students who attended the “*Recreation, Careers, and Leadership*” program type performed substantially lower on the 2007 TAKS mathematics test than similar students attending other types of programs.

*Task 3: To develop and conduct statewide survey assessment to attain a better understanding of the nature of existing programs*

To supplement and augment data gathered on an annual basis through the TEA's administrative data system, statewide surveys of 21<sup>st</sup> CCLC grantee directors, center directors, and center staff were developed. After piloting and refinement, the surveys will be administered during the spring of 2008. These surveys will generate rich data that will serve to both fill out the statewide profile of the 21<sup>st</sup> CCLC program and to create quality implementation scales for use in models of program impact on student achievement. In addition to simple descriptive data, psychometric validation and scaling techniques will be employed to create scale scores on the various constructs of program quality. These scale scores can be used both for comparisons and tests of difference as well as for inclusion in models of impact on student achievement.

*Task 5: To develop a profile and description of 21<sup>st</sup> CCLC programs, operations, staffing patterns and students served*

An overview was provided of the programmatic characteristics associated with 21<sup>st</sup> CCLCs operating in Texas during the summer of 2006 and the 2006-07 school year. Particular attention was given to grantee characteristics, the role and nature of center activities, operations, staffing, and student attendance.

Centers could be classified into six primary clusters based on the relative emphasis given to offering certain categories of activities:

1. Centers mostly providing recreational activities
  2. Centers providing mostly enrichment and tutoring
  3. Centers providing mostly enrichment and Supplemental Educational Services
  4. Centers providing mostly enrichment activities
  5. Centers providing mostly career/job training, leadership, and recreational activities
  6. Centers providing mostly enrichment and recreation activities
- Centers that primarily serve elementary students are more apt to emphasize academic enrichment programming while centers serving secondary students tend to emphasize recreational programming.
  - When program cluster is considered along with the relative maturity of the grantee (i.e. *New*, *Mature*, or *Sustaining*) and the total number of participation hours offered at a given site, there is some evidence to suggest that over time, centers increasingly move toward emphasizing academic enrichment programming irrespective of program cluster. They also seem to become less dependent on recreational and homework help activities to fill their programming slate.
  - A higher average rate of attendance in almost all core academic and non-core subject areas was noted among students attending centers operated by school-based grantees as compared to non-school-based grantees.
  - A preponderance of evidence showed that centers in the mostly enrichment cluster demonstrated both the highest absolute number of days attended and the highest rate of attendance in core and non-core activities.

- Student grade level, the number of months since a grantee received its award, and the percentage of total activity hours dedicated to providing academic enrichment activities were all found to be significant predictors of the rate of student attendance in 21<sup>st</sup> CCLC programming.

### *Conclusions*

This study provides rigorous evidence that cumulative participation in subject-specific 21<sup>st</sup> CCLC activities tended to have a positive effect on TAKS achievement in reading and mathematics. From a practical perspective, the results of this study suggest that 21<sup>st</sup> CCLC students who regularly attend approximately one subject-specific tutoring session per week for three years will make modest, but measurable gains in the subject for which they receive tutoring. Not surprisingly, minimal or sporadic participation in these activities was not associated with academic gains. Thus, we recommend that 21<sup>st</sup> CCLC centers adopt practices that would enhance regular, sustained student participation in subject-specific tutoring activities. These practices might include providing incentives for student participation and improving communication with feeder schools and parents. While 21<sup>st</sup> CCLC effects in Texas were not large enough to close the achievement gap relative to the state average, they seem reasonably large to warrant strong consideration of program continuation.

For both reading and mathematics, the “*Enrichment and Tutoring*” program cluster type was associated with lower overall TAKS achievement after controlling for student characteristics. This finding may reflect a tendency for centers to offer this type of programming where the population served is struggling academically. Thus, the negative result is not necessarily due to poor programming but could reflect attempts to deal with more at-risk students. More investigation of program quality is suggested to answer this question.

Negative relationships between LEP, special education, and African American status with reading and mathematics achievement were markedly more negative for centers predominately offering “*Recreation, Careers, and Leadership*” programs. Relative to their peers attending other types of centers, African American students were significantly less successful in reading achievement, and LEP and special education students were significantly less successful in TAKS mathematics achievement. Programs with the “*Recreation, Careers, and Leadership*” emphasis may offer too few opportunities for direct academic support to these students, although other explanations for these findings cannot be ruled out due to the correlational nature of the design. Regarding the identification of six primary clusters based on the relative emphasis given to certain categories of activities, there is a fair degree of heterogeneity in terms of how centers in Texas are structuring their programs. Such diversity also may suggest that state-supported efforts to improve the quality of after-school programming may need to be varied and nuanced in light of the programmatic approach a given center has adopted in relation to serving its target student population.

In terms of a movement toward emphasizing academic enrichment programming irrespective of program cluster, it may be interesting to explore the extent to which this movement is driven (1) by program monitoring and support strategies employed by TEA and (2) by a realization among center staff of what constitutes effective programming both in terms of

attracting and retaining students and in terms of meeting desired center outcomes. We would recommend that TEA withhold judgment on the appropriateness of centers that have opted to adopt a program model where the provision of academic enrichment activities appears secondary in importance until further efforts may be undertaken to explore the degree to which such programs are able to cultivate certain types of desired youth outcomes.

It is also important to note that at this point in time in the project, we have not collected or analyzed any data that indicates the extent to which Texas 21st CCLCs have adopted the types of practices and processes associated with positive youth outcomes. Statewide program surveys—scheduled for administration in spring 2008—are intended to yield this information.. These data may be valuable in the exploration and possible explanation the variation in the outcomes of interest for 21st CCLC, including attendance and student achievement.