THE SPARK! PROGRAM
Students Preparing for Academic Rigor and Knowledge
California State University, Dominguez Hills
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Executive Summary

The SPARK! Program is a pilot retention program begun the summer of 2003. However, the planning for the program began during the late spring of 2002 under the direction and conceptualization of Dr. Selase Williams, Dean of the College of Arts and Sciences. Dr. Margaret Blue, Associate Professor of Political Science and former Director of Academic Student Support Programs, was selected by Dean Williams to be the Director of the program.

The program borrowed some of the elements from the “Toro Experience Program,” a first year freshmen experience program, which Dr. Blue and Mr. Randy Zarn, Associate Vice President of Student Affairs had begun several years earlier. The primary impetus for the program, however, was Dr. Mel Levine whose book *A Mind at a Time* emphasized the concept of individualized learning and positive reinforcement of existing abilities to successfully develop further skills.

The SPARK! Program incorporated the use of peer mentors, intrusive academic advising, specially selected faculty, and a summer bridge program. The summer program consists of three courses, all required for graduation, developmental English if required based on English Placement Test (EPT), CAS 101 (now UNV 101) Personal, Social and Intellectual Development and AFS 212 Comparative Ethnic and Global Societies. Additionally, there are orientation meetings with parents and students, focus groups throughout the program, regular surveys conducted with the SPARK! participants and similar non-SPARK! students. For summer 2006, students are required to take only the developmental English course and the UNV101 due to funding cutbacks.

Students in the program receive priority registration each semester and are cohorts into two of their classes each semester for the first year of the program. One of the hallmarks of the program is the ability to uncouple the developmental math and English courses. Chancellor’s Executive Order 665 requires freshmen to begin taking whatever developmental courses, based on their scores on the mathematics and English placement tests, in those areas from their first semester.

Peer mentors are used extensively in the program. During the summer, they are expected to drop by the students’ classes, establish regular meeting times with the assigned students and generally keep in touch via telephone and email and make themselves available as needed. Additionally, they attend regular bi-weekly meeting with the director and any other staff of the program.
During the academic year the mentors are each assigned one of the classes that the SPARK! students are enrolled in. Additionally, they establish regular hours for study groups where the mentors are available to assist students with their course work in the SPARK! Mentors’ Office. They assist students in registering for their classes each semester.

Currently, there have been three cohorts progressing through the program. What follows is the analysis of the data that has been gathered overtime on the three cohorts and comparison data for non-SPARK! students.

Return rates, for all 3 cohorts
Mean return rate at end of AY 05-06 for cohort 1, cohort 2, cohort 3, plus comparison groups (students who entered as first-time freshmen in 03-04, students who entered as first-time freshmen in 04-05, students who entered as freshmen in 05-06)

- cohort 1: 3-year return rate (i.e., enrolled in Spring 06) = 24/31 (77.4%)
  comparison group (freshmen entered same term) = 371/667 (55.6%)
  *** SPARK! significantly better return rate, $\lambda^2(1) = 5.73$, $p < 0.05$

- cohort 2: 2-year return rate (i.e., enrolled in Spring 06) = 37/47 (78.7%)
  comparison group (freshmen entered same term) = 468/728 (64.3%)
  *** SPARK! significantly better return rate, $\lambda^2(1) = 4.05$, $p < 0.05$

- cohort 3: 1-year return rate (i.e., enrolled in Spring 06) = 26/27 (96.3%)
  comparison group (freshmen entered same term) = 646/758 (85.2%)
  no significant difference, $\lambda^2(1) = 2.59$, $p = 0.11$, n.s.

College GPAs, for all 3 cohorts
Mean GPAs at end of AY 05-06 for cohort 1, cohort 2, cohort 3, plus comparison groups (students who entered as first-time freshmen in 03-04, students who entered as first-time freshmen in 04-05, students who entered as freshmen in 05-06)

- cohort 1:
  mean CSUDH GPA (end of Spring 06) = 2.57 (sd = 0.57) (includes drop outs)
  comparison group (freshmen entered same term) = 2.45 (sd = 0.73)
  no significant difference, t(671) < 1, $p = 0.34$, n.s.
  mean CSUDH GPA (end of Spring 06) = 2.67 (sd = 0.44) (remaining students only)
  comparison group (freshmen entered same term) = 2.68 (sd = 0.53)
  no significant difference, t(393) < 1, $p = 0.70$, n.s.

- cohort 2:
  mean CSUDH GPA (end of Spring 06) = 2.37 (sd = 0.64) (includes drop outs)
  comparison group (freshmen entered same term) = 2.46 (sd = 0.73)
  no significant difference, t(724) < 1, $p = 0.37$, n.s.
  mean CSUDH GPA (end of Spring 06) = 2.44 (sd = 0.56) (remaining students only)
  comparison group (freshmen entered same term) = 2.68 (sd = 0.54)
*** Comparison students significantly higher GPAs, t(503) = -2.65, p < 0.01

cohort 3:
mean CSUDH GPA (end of Spring 06) = 2.64 (sd = 0.62) (includes drop outs)
comparison group (freshmen entered same term) = 2.43 (sd = 0.83)
no significant difference, t(717) = 1.28, p = 0.20, n.s.
mean CSUDH GPA (end of Spring 06) = 2.68 (sd = 0.60) (remaining students only)
comparison group (freshmen entered same term) = 2.47 (sd = 0.81)
no significant difference, t(658) = 1.33, p = 0.18, n.s.

Credits (units) completed, for all 3 cohorts
Mean no. of units completed at end of AY 05-06 for cohort 1, cohort 2, cohort 3, plus comparison groups (students who entered as first-time freshmen in 03-04, students who entered as first-time freshmen in 04-05, students who entered as freshmen in 05-06)

cohort 1: mean units completed (end of Spring 06) = 69.0 (sd = 27.9)
comparison group (freshmen entered same term) = 45.9 (sd = 28.6)
*** SPARK! significantly more units completed, t(672) = 4.39, p < 0.001

cohort 2: mean units completed (end of Spring 06) = 44.4 (sd = 20.3)
comparison group (freshmen entered same term) = 34.6 (sd = 18.3)
*** SPARK! significantly more units completed, t(732) = 3.55, p < 0.001

cohort 3: mean units completed (end of Spring 06) = 24.7 (sd = 9.0)
comparison group (freshmen entered same term) = 16.1 (sd = 8.3)
*** SPARK! significantly more units completed, t(723) = 5.32, p < 0.001

SAT scores, for all 3 cohorts
Mean SAT for cohort 1, cohort 2, cohort 3, plus comparison groups (students who entered as first-time freshmen in 03-04, students who entered as first-time freshmen in 04-05, students who entered as freshmen in 05-06)

cohort 1: mean SAT score = 855 (sd = 144)
comparison group (freshmen entered same term) = 831 (sd = 153)
no significant difference, t(515) < 1, p = 0.46, n.s.
cohort 2: mean SAT score = 843 (sd = 133)
comparison group (freshmen entered same term) = 847 (sd = 148)
no significant difference, t(561) < 1, p = 0.98, n.s.
cohort 3: mean SAT score = 796 (sd = 118)
comparison group (freshmen entered same term) = 832 (sd = 148)
no significant difference, t(597) = -1.03, p = 0.30, n.s.

High school GPAs, for all 3 cohorts
Mean high school GPA for cohort 1, cohort 2, cohort 3, plus comparison groups (students who entered as first-time freshmen in 03-04, students who entered as first-time freshmen in 04-05, students who entered as freshmen in 05-06)

- cohort 1: mean HS GPA = 3.07 (sd = 0.39)
  comparison group (freshmen entered same term) = 3.06 (sd = 0.42)
  no significant difference, t(695) < 1, p = 0.86, n.s.
- cohort 2: mean HS GPA = 3.04 (sd = 0.36)
  comparison group (freshmen entered same term) = 3.04 (sd = 0.42)
  no significant difference, t(773) < 1, p = 0.91, n.s.
- cohort 3: mean HS GPA = 3.09 (sd = 0.41)
  comparison group (freshmen starting same term) = 2.94 (sd = 0.44)
  no significant difference, t(782) = 1.80, p = 0.07, n.s.

Additionally, a series of questionnaires were administered to samples from SPARK! cohorts (Cohorts 1 through 3) as well as to groups of comparison students at each of the corresponding grade levels (Freshmen, Sophomore, and Juniors). The main results of the analyses are as follows. First, when comparing SPARK! students to comparable students at the same grade level on an item-per-item basis, it was found that

- in every significant result, save one, the effect favored the SPARK! program over the comparison group,
- the newest cohort showed some year 1 effects, including library-related activities, and using peer mentors,
- in year 2 of the middle cohort, the positive effects included talking with instructors, using peer mentors, valuing learning and reading in courses, and
- there were still positive SPARK! effects after the 3rd year, including self-rated levels of time management and academic progress.

Second, when conducting an analysis of overall effects of SPARK! participation (across all cohorts and years), it was found that SPARK! students reported significantly higher gains in many academic areas.
• In self-rated abilities, SPARK! students show an advantage over comparison students, especially on presenting and becoming aware of other points of view.

• SPARK! students grew in their estimates of self-rated abilities as time went on, whereas the comparison students stayed at the same level.

• SPARK! students made less negative predictions about their academic futures, especially regarding needing extra time to complete the degree and transferring to another college before graduating.

• SPARK! students are more likely to expect to have frequent discussions with their teachers outside of class and to talk to their teachers outside of class.

• SPARK! students were more likely to engage in a wide variety of college-related activities, especially doing readings outside of class, reading in the library, checking out library books, using the library catalog, preparing a bibliography, browsing the library stacks, talking informally with an instructor, discussing personal problems with an instructor, and looking for information on student events.