**Stanford University Comm106/206 Research Questions and Hypotheses**

**Research Question:**

“Do students in the DreamCatchers’ program with just one tutor throughout the year have better improvement in the classroom than those students who have multiple tutors?”

**Hypothesis 1:** In a comparison of improvement of individual grades across the period of a year students having one tutor across the period of a year will be more likely to have improvement in their academic performance than those having multiple tutors across the period of a year.”

**Hypothesis 2:** In a comparison of a student’s overall performance in the classroom those having one tutor across the period of a year will be more likely to have improvement in overall performance in the classroom than those having multiple tutors across the period of a year.

**Hypothesis 3**: In a comparison of the student’s personal opinion of their performance in the classroom those having one tutor across the period of a year will be more likely to feel like they have made improvements than those having multiple tutors across the period of a year.

**Research Question:**

Does a student having a better rapport with their tutor lead to higher academic performance during the course of their time at DreamCatchers?

**H1:** In a comparison of grades, those having a good rapport with their tutor over the course of their time at DreamCatchers will be more likely to have higher grades than will those having bad rapport with their tutor;

**H2:** In a comparison of grades, those having an increasingly good rapport with their tutor over the course of their time at DreamCatchers will be more likely to have increasingly higher grades than those having bad rapport with their tutor;

**H3:** In a comparison of grades, those having a good rapport with their tutor will be more likely to have higher grade improvement than will those having a having bad rapport with their tutor.

**Research Question:**

Does a student’s middle school and **home environment** affect how well afterschool programs such as DreamCatchers work to help students **succeed**?

**H1:** If the Palo Alto and East Palo Alto school districts correlate with academic performance, then the DreamCatchers middle school students in Palo Alto will perform at a higher rate of academic success than students attending East Palo Alto middle schools. **H2:** In a comparison of students in the DreamCatchers programs those attending a school in Palo Alto will be more likely to improve than a student attending a school in East Palo Alto.

**H3:** In a comparison of students in the DreamCatchers programs those who attend a school in East Palo Alto and also come from a split home will have a lower rate of academic success than Palo Alto students.

**Research question:**

Do higher levels of involvement in DreamCatchers by different family

structures improve students’ academic performance?

**H1:** In a comparison of students, those with two-parent households with higher levels of

involvement will be more likely to have better academic performance than will those

with two-parent households with lower levels of involvement.

**H2:** In a comparison of students, those with one-parent households with higher levels of

involvement will be more likely to have better academic performance than will those

with one-parent households with lower levels of involvement.

**H3:** In a comparison of students, those with two-parent households will be more likely to have better academic performance than will those with one-parent households with the

same level of involvement as the two-parent households.

**Research Question:**

Do students with parents that exhibit greater involvement in their children’s enrollment in Dream Catchers have better academic success than students with parents that exhibit less involvement?

**H1:** In a comparison of parental involvement, those students having parents that attend a higher rate of parent inclusive educational nights will have a higher overall GPA than those students having parents that attend a lesser rate of educational nights.

**H2:** In a comparison of parental involvement, those students having parents that attend a higher rate of parent inclusive educational nights will experience a higher rate of improvement in GPA compared to those students having parents that attend a lesser rate of educational nights.

**Research Question:**

Do humanities majors produce the most successful tutors in the DreamCatchers program?

**H1:** Tutors who are humanities majors have students who have greatly improved their GPAs from the time of enrollment to their current report card status (given that they have been with the program for at least one semester).

**H2:** Humanities majors remain with DreamCatchers as tutors longer than Engineering majors.

**H3:** Tutors who are humanities majors have students who report higher levels of happiness and closeness with their tutor.

**Research Question:**

Does participation in DreamCatchers have a lasting effect on a child’s value of education?

**H1:** We expect to see students with exposure to the DreamCatchers’ tutoring program to have a higher GPA on average (GPA recorded every semester) throughout high school than those who did not participate in DreamCatchers.

**H2:** We expect to see students with exposure to the DreamCatchers tutoring program will be more likely to complete and graduate from high school than children of the same socioeconomic background in the same high school that were not exposed to the DreamCatchers program

**H3:** We expect to see students with exposure to the DreamCatchers’ tutoring program and additional resources to enroll in more difficult classes in high school every year, in comparison to children of the same socioeconomic background were not exposed to the DreamCatchers program.

**Research Question:**

To what extent does parental involvement impact the student’s academic success, and to what extent does parental involvement impact the student’s rate of academic growth?

**H1:** In a comparison of parental involvement, those students having parents that attend a higher rate of parent inclusive educational nights will have a higher overall GPA than those students having parents that attend a lesser rate of educational nights

**H2:** In a comparison of parental involvement, those students having parents that attend a higher rate of parent inclusive educational nights will experience a higher rate of improvement in GPA compared to those students having parents that attend a lesser rate of educational nights.

**Research Question:**

How does the level of funding that Dreamcatchers receives affect the scholastic performance of its students?

**H1**: The students’ test scores are directly proportional to the amount of funding received by Dreamcatchers.

**H2**: Students’ test scores will increase if more funding is received, but will plateau after a certain amount of funds received.

**Research Question:**

Does matching a tutor and student according to their shared ethnic and/or racial background result in higher academic performance for students?

**H1:** In a comparison of DreamCatchers students, those having tutors who share the same racial/ethnic background will be more likely to have higher academic performance than those who are taught by tutors from a different racial/ethnic background.

**H2:** In a comparison of DreamCatchers students, those having tutors who share the same racial/ethnic background will be more likely to be more confident and positive in class than those who are taught by tutors from a different racial/ethnic background.

**Research Question:**

Does a child’s participation in the Dreamcatchers program have a positive effect on their social and classroom behaviors?

**H1:** In a comparison of children participating in DreamCatchers, those having spent more time in the program will be more likely to have better social skills and classroom behaviors than will those having spent less time in the program.

**H2:** In a comparison of students who have been participating in DreamCatchers, those who have spent more time in the program will be less likely to receive disciplinary action in the classroom than those having spent less time in the program. The concept of being less likely to receive disciplinary actions is defined as the extent to which participants.

**Research Question:**

Does participation in DreamCatchers increase the likelihood that students pursue higher education after high school?

**H1:** Students who participate in DreamCatchers are more likely to be accepted to a higher education program than similar students who did not attend DreamCatchers.

H1a: Students who participate in DreamCatchers are more likely to be accepted to a higher education program, but may have financial restraints that prevent them from attending the four-year college that they have been accepted to.

**H2:** Students who participate in DreamCatchers are more likely to attend a higher education program than similar students who did not participate in DreamCatchers.

**Research Question:**

What is the most accurate predictor of students’ readiness to graduate from the DreamCatchers program?

**H1:** In a comparison of students in the DreamCatchers program, those having a positive attitude towards school will be more ready to graduate DreamCatchers than will those having negative attitudes toward school.

**H2:** In a comparison of students in the DreamCatchers program, those having greater self-motivation will be more ready to graduate DreamCatchers than will those having less self-motivation.

**H3:** In a comparison of students in the DreamCatchers program, those exhibiting greater productivity on their assignments will be more ready to graduate DreamCatchers than will those exhibiting less productivity and focus.

**H4:** In a comparison of students at DreamCatchers, those having spent more time in DreamCatchers will be more likely to graduate Dreamcatchers than will those having spent less time in the program.