

NASA Explorer Schools Sample Responses to the Application Question 2

Question 2: Describe the educational challenges and concerns for all populations listed above. (20 points possible)

Sample response 1:

The educational concerns for the students at School X and School Y are based on several issues. The first concern is based on low standardized test scores. At School X, 8th grade students scored unacceptable or below basic skills levels on standardized tests in 2002. Although test scores for 4th grade School Y students are somewhat better, more than one-third of the students scored below the national average in all areas. Under the direction of the School System, students' test scores for 2002 were as follows:

School X: Grade 8 Scores 2002

Students Scoring Below Basic Skills

English Language Arts 53%

Mathematics 33%

Science 43%

Social Studies 36%

Students Scoring Unacceptable

English Language Arts 10%

Math 41%

Science 24%

Social Studies 23%

*Source: STATE Department of Education, Accountability Report 2002

School Y: Grade 4 Scores:

Students Scoring Below Basic

English Language Arts 33%

Mathematics 25%

Science 38%

Social Studies 26%

Students Scoring Unacceptable

English Language Arts 7%

Mathematics 14%

Science 9%

Social Studies 11%

Another concern is for students opting to dropout of school when they reach high school. The state ranks x in the United States as having the highest dropout rate in the nation. According to recent data released by the U. S. Department of Education, more than x% of the State's students will drop out of school during their 9th grade year. Based on the failing test scores of students and the high drop out rate in our state, the educational system needs a new direction. The School system believes programs such as the NASA Explorer School program will rekindle critical thinking skills and an enthusiasm for learning.

Lastly, we are concerned for the lack of family involvement among caretakers and relatives of students attending School X and School Y. The lack of family involvement is demonstrated by the low rates in return of homework assignments and a lack of participation in parent conferences, PTO meetings and volunteerism.

Sample response 2:

Our diverse student population produces different challenges for us. As we implement increased state and local standards in reading, math, social studies and science, the issue becomes adding curriculum to the same instructional time frame. The curriculum must be clearly organized around major concepts specified in the standards. More integration of aerospace topics within other subjects is needed to reduce repetition and fragmentation of content and instructional delivery.

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Although there is a great deal of excitement within our school community, we have noticed a gap among the parents and their ability to support students. Some parents appear to need more support in how to help their students participate in academic life of the school. Efforts to include all families, representing the diversity of our school, should help increase literacy, especially in science, and interaction among all family members. Our school has a few bilingual staff members that translate materials and communicate with families as needed. The challenge is to get more staff members who are bilingual to deal with the large population non-native speakers.

In addition, we must work to assure that our special education students and gifted and talented students will receive services that include aerospace/science topics. We must also remind parents that instructional support in science is available to all students through the classroom teacher as well as the science specialists.

Our science theme integrates technology in a variety of ways. The Internet is used to access news or articles, graphics and multimedia for classroom usage. Our challenge is to make certain that all students and staff have an equal opportunity to use interactive or on-line projects appropriately and promote the active use of knowledge. We must make certain that our curriculum is spiraled throughout the grade levels, particularly in grades 4, 5 and 6. We are examining several strategies to map the curriculum and develop assessment procedures to make certain that students are acquiring the prescribed knowledge and skills at the appropriate grade level.