# Statement of Problem: STEM Education

*Author: Student M.C. in Spring 2017 section of English 371, Grant Writing*

The lives’ of today’s students are complex and often complicated by the factors of peer pressure, familial circumstances, as well as lack of the reassurance necessary to give students the confidence they need to succeed. It has been the experience of the Spartanburg Humane Society during their commitment to providing interactive educational experiences, that several of the students have informed educators, prior to engaging in our learning experiences that they had no idea the opportunities presented to them were accomplishable or even available to them.

This demonstrates a dire need of a project-based approach in the fields of math and science to strengthen STEM (science, technology, engineering and math) education programs, and further encourage careers in the STEM field. This is particularly significant to economically- challenged students, who without exposure to these programs are often restricted by their lack of resources, few positive role models, and lesser exposure to potential personal goals, creative opportunities, and career possibilities.

According to the US Department of Education STEM based skills and trades “… are in even greater demand as the United States confronts a fiercely competitive international marketplace where the advantage goes to companies that are the first to invent and produce innovative product.” They also cite that new job growth in the field at over three times that on the non-STEM careers. This statement is also backed by The Department of Commerce who estimate that STEM occupations will continue to grow 1.7 times faster than non-STEM professions, and only continue to gain momentum going forward. To hasten the urgency of this issue, according the Georgetown University’s Center on Education and the Workforce projects, between 2008 and 2018 there will be an approximate 779,000 jobs that will require a graduate degree in STEM fields, but based on the most current trends, only 550,000 individuals will gain the graduate degrees necessary in this time period to fill these positions. To put this into perspective, that is a deficit of 229,000 individuals to fill positions that on average pay three times more than other careers requiring an equivalent graduate degree.

An additional issue in desperate need of addressing is how South Carolina graduation and retention rates have fallen far behind the rest of the United States, with the average graduation rate for the United States is currently 73%, with South Carolina lagging behind with a current rate of only 61%. This shows a complete and utter failure of our educational system when considering the fact that even though funding to our public schools has more than doubled in the past decade, graduation rates have only risen by a measly 0.2%. Distinctly evidencing that current efforts are failing to inflict the change anticipated. However, without lessons engaging student on a one to one level, minimal classroom participation, programs highlighting science and math based program learning, and clearly defined paths to future careers, no other outcome is to be expected now or going forward.

Works Cited

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