The partnership of University, Industry and K-12 Schools to improve awareness of STEM fields

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Abstract

While there has been much debate about the existence of a shortage of future workers in science, technology, engineering and math (STEM), in certain sectors, America will need more engineers with advanced skill sets to address 21st

generate knowledge of the impact of partnerships as

who can bring new skills to their work. However, districts and schools may encounter policy barriers. For example, schools that have been placed in program improvement status because of

Chicago algebra initiative, which was designed to increase the number of students taking algebra

Workshop, while programs with an estimated duration of 6 months are mostly competitions such as West Virginia DOT's West Point Bridge Design Competition that engage student teams throughout most of the school year. Programs lasting more than six months also include the development of transportation-related modules that

Industries bring the real life situations into students academic life to show them how they function facing crucial challenges in their daily affairs. They demonstrate the procedures, the steps in the methodology they follow in making their products or carrying out their services within their industry.

Governments, whether State or Federal also help K-12 students in making them understand about the Science and Transportation Engineering programs. Especially DOTs programs are very useful in forging great partnership with K-12 schools to achieve STEM awareness among the young minds.

Partnerships develop rapidly and successfully when the partners focus on spreading the science and engineering related knowledge continuously among the students of K-12 schools with proper follow-up activities to keep the interest level high at all grades from 1st grade to 12th grade.

Also, it would be better if the students, teachers and partnership players are rewarded for their participation in the STEM related activities to accomplish something noteworthy for the success of the awareness of STEM fields among the youth.

More and more rewards and accolades are to be provided to the high achieving STEM faculty at K-12 and higher education schools. The salary and benefits need to be increased to attract more and more talented workforce that are ready to apply for STEM fields.

At the K-12 school level, the reasons as to why there is poor response towards picking up STEM fields has to be found out by conducting surveys which include questions to be asked to the senior and experienced STEM faculty.

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