

Why STEM Education Is Important

by **Brenda Berg** - Wednesday, May 31, 2017

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STEM (Science, Technology, Engineering and Math) education is more important than ever in schools. However, many students and parents aren't sure why it needs to be encouraged in pupils of all ages. Here's why educators need to be focusing on STEM subjects more than ever.

People with STEM experience are needed

It's no secret that we're currently experiencing a STEM job crisis. According to Fast Company, it's estimated that in the future, 80% of jobs are going to require a good understanding of STEM subjects. As it currently stands though, less and less students are excelling in them. In fact, 57% of students are struggling with their basic Math skills.

STEM is needed for innovation across every industry. If we're losing experienced people in the job market, then innovation and development will grind to a halt. This is the first time since the 1950's that this has happened, and to change the tide, STEM will have to be encouraged more in schools.

Encourage critical thinking

There's a lot of skills that can be developed in students with STEM subjects. Ph.D. holder and writer Valerie Harmon from [UK dissertation](#) says, 'STEM is vital on teaching skills such as critical thinking to students. If we lose STEM subjects, then students will struggle when they're older.'

This is the crux of the matter. STEM isn't just about teaching the facts and figures to students. It's also about teaching them soft skills that they'll take with them for the rest of their lives. Critical thinking is crucial for students to learn, and learn early. Without it, they won't be encouraged to ask questions and test their ideas in order to get answers. This is something that's vital, both in and out of the workplace.

It's important to encourage boys and girls in STEM

Any good educator knows that there's currently a huge gender divide in STEM-related fields. According to Fortune research, in current roles, only 1/3 are taken up by women. That gap widens when you look at leadership roles. In fact, only 17% of recent female graduates are in STEM fields.

Many believe that this is because girls aren't given the opportunity to explore STEM fields the way boys are. With STEM being seen as a 'men's' field, girls are put off. It's the job of educators to give boys and girls equal opportunities to explore the subjects and find their talents in the field. With the job crisis, discouraging girls now would be a critical failure.

Teach STEM within the arts

Of course, STEM subjects are important. Some students, though, just won't show an interest in them as they stand. That's why STEAM (Science, Technology, Engineering, Arts and Math) has become more popular with educators.

Writer Kevin Morrison from Academized says, 'We've seen at Academized how some students just aren't as inclined to learn within STEM. They're more interested in the arts, history, and languages. To encourage them in STEM, we have to broaden our thinking.'

This means that educators must look at education not as broken up into different subjects, but as a spectrum. This means that they can approach teaching in a more blended way. For example, they can teach programming by asking students to set up a website, or teach scientific principles by having them create art pieces about them.

STEM is important because it creates a basis that a student can really grow from. It's no secret that we need more STEM-trained graduates in the future, so students need to be encouraged in STEM now. If we pay more attention to the subjects going forward, we can still keep innovating in the future.

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