MAKER MOVEMENT

The core tenet of the maker movement is the usage of technology and new developments that have been taking place in the world to make new inventions that could be used to address further world problems. A Maker Space is an environment in which students tinker with pieces of technology such as 3D printing and woodworking to design and create their own inventions. This movement is a result of shift in pedagogical practices where instead of focusing on research and developing more technology, it is shifting to actually employing the plethora of technology that is currently available to tackle real world issues. Furthermore, it abides by the principle that it is better to learn via doing rather than simply instruction.

THE MAKER SPACE

The most fundamental aspect of the maker movement is a physical space, the 'maker space', containing multiple tools and equipment that students utilize to make their imagination into reality. Furthermore, a maker space is quite versatile in regards to its size, complexity, and purpose. For instance, it is possible to have a 'maker space' solely dedicated to woodworking with a lot of machinery and materials. On the other end of the spectrum, one could also have a maker space about robotics and all they would need are simple circuit boards and Lego sets. Maker spaces are not limited to STEM fields either. It is possible to have a literary/art space where there are multimedia projects playing, art pieces displayed, basic materials such as notebooks, pencils, and pencils. Students could critique these pieces, generate their own pieces, use other works as inspiration, or simply brainstorm ideas with each other.

"It is shifting to actually employing the plethora of technology that is currently available to tackle real world issues"

EDUCATIONAL IMPACT

A natural question that may arise is over the purpose of the 'maker space' in the educational development of children. Through maker space workshops conducted in the past, teachers expressed overwhelming support and excitement behind the maker space. In their experience, the maker space generated an actual love and enthusiasm for 'tinkering' with available resources to innovate something that could potentially serve a purpose in the community. Additionally, it answers the question: what's the point? Often students find theoretical concepts learned to be a waste of time since they do not see their direct applications till much later in time. The maker space provides a natural environment for students to employ their learnings into pragmatic projects.

RELEVANCE TO IGNITESTEM

At the conference we provide participants an opportunity to experience and witness the power of the maker movement first hand. Participants will interact with leaders within the maker movement, hold discussions with individuals who have actually implemented maker spaces within their educational institutions, and partake in a workshop inside an actual maker space. Through these immersive experiences participants will be able to decide for themselves the potential impact that the maker movement could have.