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Three Strategies for Building Successful Global STEAM Partnerships

By Guest Blogger on October 16, 2015 2:16 PM

STEM or STEAM (STEM + Arts) continues to be a hot topic in education as the shortage of workers with skills in this area remains. **Neesha**Rahim, Co-Founder, Level Up Village (LUV), shares how STEAM can be combined with global collaboration to promote design thinking on realworld problems.

By guest blogger Neesha Rahim

Move over Flat Stanley. Teaching global citizenship has come a long way from the days of mailing a paper cut-out around the world.

In today's complex and interconnected world, events such as the recent flood of Syrian refugees into Europe, the devaluation of the Chinese yuan, and last year's Ebola outbreak in Africa have a far-reaching global impact. Juxtaposed against these geopolitical events is the rise of the "Do Something Generation," more commonly known as Gen Z. They are entrepreneurial, mobile, digital natives who want to make a positive impact on our world. To prepare Gen Z for the future, we must provide them with the global experiences they need, combined with the positive social impact they crave.

Forward-thinking educators are taking up the challenge. Using today's classroom technology and Wi-Fi connectivity, they are building global partnerships with schools in other countries using services such as **Skype in the Classroom**, **Global Nomads**, and Level Up Village. Students are learning and working together with peers from diverse backgrounds and cultures on projects that focus on current events, human rights, literature, science, or technology, while simultaneously developing global citizenship skills in an authentic and meaningful way.

At Level Up Village, we are focused on building global partnerships that center on STEAM (STEM + arts). Our goal is to empower students to make a difference in the world by learning and applying design thinking to real-world problems. Our US school partners also directly sponsor STEAM education in the developing world through our "Take a Class, Give a Class" model: when they run a Level Up Village course, the same course is donated to students at one of our Global Partner organizations, many of whom are living on less than \$2 a day.



Here are three strategies to building successful global STEAM partnerships:

1. Make it relevant

Projects with real-life significance are a tremendous motivator for students. This is particularly true for girls, who tend to value projects that make an impact or help others in some way. Thus, presenting a real-world context for the application of STEAM skills inspires all students to engage.

In our **Global Inventors/3D printing course**, for instance, US students learn that their global partners are often living in energy-poor areas, where they are impacted by practices such as load shedding or rolling blackouts. After studying electricity and the engineering design process, they work together to design and 3D print a solar-powered light source that their partners can use to study at night when the power goes out. By engaging in this type of project, albeit on a small scale, students can learn what it means to tackle real-life issues using engineering and collaboration skills.

2. Facilitate the Collaboration

Whether they're communicating live via Skype, emailing, or exchanging video messages, students may feel shy at first, or not sure what to talk about with a global partner from another country. To ensure the success of cross-cultural collaboration, educators need to facilitate the discussion.

One way to do this is to have students on both ends follow the same curriculum so they come to the table ready to discuss the issue of the day. Teachers should prepare students for the collaboration by first having them engage in some research about the country and culture of their global partners. Students can also prepare a list of questions to ask, as well as facts to share about their own lives and cultures. These opportunities to learn and share about each other's culture can be arranged by topic and distributed throughout the collaboration. Students may need to have their messages to each other subtitled, so that they can communicate despite language differences or accents.

3. Let them fail

Educators and parents need to let children fail so they can learn to dust themselves off and try again. By learning from their failures, students will develop the resilience and grit they will need to navigate an increasingly complex and interconnected world. Teach students that failure is an essential step in the iterative process by using the examples of scientists and inventors such as Thomas Edison, who failed numerous times before experiencing success. Whether students are coding a game, learning computer-aided design (CAD) or building an app, students often fail at their initial attempts, but they learn that these failures help inform their new, improved designs. Furthermore, they discover that their global partners may have very different ideas for how to modify a design, based on their own experiences. This process of give and take, failure and reinvention, gives students on both ends the chance to learn how to collaborate successfully with someone who may have an entirely different perspective and worldview.

With eight out of ten jobs of the future expected to be in STEAM fields, schools must act now to improve and expand the opportunities they're offering students in STEAM subjects, starting at a young age. Cross-cultural collaborative learning with an emphasis on STEAM will not only equip Gen Z with cutting-edge skills, but also help them develop the global mindset they will need to navigate, succeed and ultimately make a difference, in an increasingly interconnected world.

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