ATLIS 2016 • Transformative Trends in EdTech

COLLABORATIVE SESSION SUMMARY

MINDBRIDGE PARTNERS

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COLLABORATIVE SESSION SUMMARY

MAKER MOVEMENT

GROUP 1:

OVERVIEW

TAKEAWAYS	RELATED ANECTODAL EVIDENCE FROM THE SURVEY
• Maker spaces **allow and enhance** great **learning opportunities**.	
• **A key element is to determine how to incorporate current** great **learning experiences** at your institution into maker themes.	
• **Understand institutional goals first**, and then design/develop maker movement themes.	**"[Our maker space] is modeled on the GATE Invention program found at Grayland in CO and Cardigan Mountain School in NH."** Based on the group best practice, it would be important to make sure institutional goals are identified before applying any existing model.
• **Understand and assess how students learn first**, and then adopt the maker movement accordingly. Maker movement should support learning experience.	
• Maker space **goals differ** between lower and upper elementary.	

• Semantically, "maker space" is too narrow/limiting. We need broader terms.	

TEACHERS' ROLE AND ENGAGEMENT

TAKEAWAYS	RELATED ANECTODAL EVIDENCE FROM THE SURVEY
• Classroom teachers need help to better integrate maker space into learning.	***"We have a maker lab director who works with teachers to integrate the elements of the lab into their courses."***
• **Teachers are "clueless" about how to use/integrate maker movement into curriculum. They need support.**	
• **Some teachers never "own" the process.**	***"No one will lead the charge because it requires a lot of work, and everyone believes it should [be] a paid position."***
• **Professional development is key to better integrate the maker space movement into teaching.**	***"Two teachers have been given release time work with general faculty to incorporate maker work (primarily 3D printing) into their curricula."***
• What types of equipment? 3D printers, laser cutter tools…	

GROUP 2:

OVERVIEW

TAKEAWAYS	RELATED ANECTODAL EVIDENCE FROM THE SURVEY
• Creating a team to lead and progress this effort is important. This should be viewed as a tech initiative and owned by a team, including the school administration.	***"There is a group [spearheading the makerspace movement], but strangely the IT Director is not part of it."***
• **Maintain a stance of openness.**	
• **What are teachers currently doing and how they can extend it into maker space movement?**	
• **Administrator and teacher buy-in are crucial**	***"I have been trying to get a Maker-type lab started for years. Our school says they want to evolve in this direction, but [they haven't] done anything (except talk)."*** ***"We have a few faculty members attempting to give traction to the movement with our administration with varying degrees of success."***
• One school put in a coffee shop to increase participation and it worked!	

FUNDING

TAKEAWAYS	RELATED ANECTODAL EVIDENCE FROM THE SURVEY
• Maker space/design thinking is hugely popular with donors; funding is not the issue. The issue is successful integration to enhance the learning experience and how to get (or put together) those pieces for publicity cycle. Ideas: maker day at school; make designs part of the school space; increase visual representation; open lab spaces	***However… "We believe that Design Thinking and makerspaces are a huge part of our pedagogy. We are trying to integrate it and will not likely build a dedicated space unless the need is apparent. This would only occur after widespread adoption. We are trying to break down silos and subjects, and rooms reinforce them.***
• **Developing a story that will resonate with the audience(s) is the issue; not funding**	
• **Tell the story well -** Who tells the story? Everyone: teachers, administrators, tech folks… • **"Three schools did a ribbon-cutting; so we had to it as well."**	
• **You have to sell it!**	

GENERAL REMARKS:

- Maker spaces offer a unique learning experience.
- Similar to Breakfast Club movie idea, we do not want the kids to have negative experiences, but have them engaged and concepts will develop
- We have hyper-scheduled kids – use maker spaces for them to "slow down" and feel "fail-safe"
- Should entrepreneurship be part of the maker space? May be change STEAM to Science, Technology, Entrepreneurship, Art Making

- One school partnered with Dallas Entrepreneurial Center to provide kids (a) real world feedback and (b) authentic learning experiences. Students who participated were very enthusiastic and in some ways more passionate about school work.
- Make it come to full circle: initiative - system – skills – real world experience

GROUP 3:

OVERVIEW

TAKEAWAYS	RELATED ANECTODAL EVIDENCE FROM THE SURVEY
• Agreed with previous comments.	
• **Telling the story is key! At one school, CFO was part of the initiative; he participated in vendor meetings. Involving CFO or other administrators at the front-end works. Accessibility to audiences is important.**	
• **One school took a part of the wall and put a window in for students and parents to see what's going on the space. Then they did an entire lab space which is open and it came to a full circle**	
• **Teachers are part of the "design process" already; how do you make them into the "making?"**	***"We have a teacher who teaches 3D Design, which involves printing on a 3D printer, but in general, the makerspace topic has only been discussed…nothing is set in stone."***
• **Teachers are very much part of the making as well, but they do not seem to own it.**	

ASSESSMENT OF MAKER SPACES

TAKEAWAYS	RELATED ANECTODAL EVIDENCE FROM THE SURVEY

• Do we need assess maker space effects? • What's the impact?	
• Is there a way to measure? • May be too early to measure? And, the key is not measurement itself but to show how it affects creativeness, intellectual curiosity, effectiveness.	
• At the end of the day, if schools efficiently share stories about how maker space positively affects learning and engagement; it will help to draw more students and that is the "actual assessment!"	