How to Use it to Strengthen Your Program

Dr. Tracey Hunter-Doniger
College of Charleston
Six Key Factors to a STEAM Leader

Dr. Tracey Hunter-Doniger
College of Charleston
What do you think the key factors of STEAM are?

To Enhance Your Program

Write your ideas down.
Key Factors to
1. Time
2. Training
3. Stakeholder Buy-In
4. Evaluation/Recognition
5. Sustainability
To Enhance Your Program
The STEAM Project

TIME

- It takes time to train teachers in STEAM education
- It take time to plan and collaborate
- It takes time to teach
- It takes time to evaluate
- Must make time for STEAM and Time for ART!
Key Factors to STEAM TRAINING

Art Teachers as Leaders

- STEAM schools are like art infused schools
- The arts teachers are the leaders
- Not more important, equally important to classroom teachers
Key Factors to STEAM TRAINING

General Teachers

• How to use the arts (not a coloring sheet)
• How to **ASSESS** the arts
• Continual practice of using the arts properly.
• **South Carolina Arts Integration Continuum**
• Cannot just be a one time deal.
Key Factors to STEAM TRAINING

**Arts Teachers**
- Training in STEM curriculum
- Terminology: i.e. oval=ellipse
- Grade level priorities in the STEM areas
- Cannot be a one time deal.
Key Factors to STEA M Stakeholder Buy-In

Who are these Stakeholders?

- Students
- Teachers
- Administration
- General Public
- Policy Makers
Key Factors to STEAM
Stakeholder Buy-In

Stakeholder Buy-In
• Create a STEAM Culture- 100% buy-in
• Outreach- actively recruit and encourage participation in STEAM (TV, Newspapers, newsletter, blog, social media)
• STEAM Sharing- “town hall meetings”
Key Factors to STEAM
Stakeholder Buy-In

Stakeholder buy-in
Key Factors to STEAM Evaluation/Recognition

- Assessment of all areas is a MUST!
- Not just using the art... assessing
- What about the technology and engineering standards? (Pennsylvania)
- SC STEM Report on STEM used standardized tests... that is only math and science. (SAM)
- Grouped Computer science and math together- but the majority of interests were in Computer telecommunications, webpage design and programming.
STEAM allows the arts to be recognized for their importance in the curriculum. (not just FLUFF!)

All teachers have to advocate for the recognition of STEAM.

What about engineering and technology? Who advocates for these areas?
Key Factors to STEAM Sustainability

- Connection to Industry
- Provide experiences in and out of school
- Long range Planning - annual basis at grade levels and trajectory across all grades.
- Professional Development and sharing of ideas
- Assessments - Sharing of assessment strategies
- Research and Development
- Fund Raising
Key Factors to STEAM Sustainability

Collaboration

- Professional Development and sharing of ideas
- Assessments - Sharing of assessment strategies
- How often? Annual, quarterly, monthly or weekly?
Key Factors to STEAM Sustainability

- Professional Development embedded into the school year. (5-15 hrs/yr)
- Research & Development
- Fundraising- STEAM Camps
Key Factors to Enhance Your Program

1. Time
2. Training
3. Stakeholder Buy-In
4. Evaluation/Recognition
5. Sustainability