

2015 Iowa STEM Summit Session Recap

“STEM Support of the ARTS – What Ideas are Circulating? How can STEM do better?”

Panel Discussion: The purpose of the session was to review the work of the group to this point and to seek input from participants on how best to support multiple areas of Arts and Culture through STEM.

Facilitator: Steve Triplett

Panelists: David Barajas Leon Kuehner
 Tim Bower Val Ruff
 Sarah Derry

Steve Triplett reviewed the charge given to the working group: Identify ways and means for the STEM Council to partner, support, and integrate with arts and culture assets and professionals (including references to “STEAM” if/when/where appropriate).

He shared the ongoing mission statement developed by the working group: “Paving the way for enriched integration of Arts and STEM to provide enhanced learning experiences and economic opportunities for Iowans.”

Opening Comments:

David Barajas: Focus was on economic and community growth viewpoint. David noted that Iowa needed a differentiation factor to keep more of our graduates in Iowa. He felt it was important to marry arts and culture with STEM. He shared that many site directors around Iowa felt that it was important to bring arts and culture into the STEM discussion. David shared information from a recent discussion at a STEM Regional meeting where UNI’s President stressed their intent to incorporate STEAM into their future efforts.

Tim Bower: Arts and culture are closely aligned to math and science. How adding alphabet letters to STEM may not be as important as the need to strengthen and align these skills into STEM careers. Arts and culture are part of the overall education program of which STEM is the core.

Sarah Derry: It is important to do what is best for kids as a well-rounded student is the best option. Important to make the general public aware that arts and culture enrich the STEM experience and vice versa.

Leon Kuehner: Arts and culture accounted for 4.3% of the Gross Domestic Product of the United States. The Iowa Alliance for Arts Education is leading the charge to add Fine Arts as a Core subject in Iowa. Creativity, Ingenuity, Problem Solving, and Critical Thinking have been central to the American story of progress. We believe that sustaining Arts Education in its own right is important, but equally important is learning from the schools that have successfully integrated the Arts into the STEM curriculum. Quotes and articles from educators were shared which highlighted successful cross-curricular practices and noted these practices bring learning alive. Leon shared that Arts and science are best together and many discoveries are fostered by arts and culture. The book “Sparks of Genius” authored by Robert and Michelle Root-Bernstein was recommended for all to read. Leon highlighted the success of the Turnaround Arts program in the Des Moines Public Schools as well as the eight additional sites across the country. Statistics concerning the outstanding gains in academic performance were shared as well as positive trends in attendance rates and parent participation.

Val Ruff: Arts are actually in STEM – need to be identified. Arts and culture want to be at the table as STEM discussions move forward. Val shared successes of her daughter as she excelled in both the STEM and Arts fields.

Input from audience:

- Add in human culture as well- example would be Native American culture
- Important to maintain community relationships. Referred to robots as “moving sculptures”. Noted work of Iowa STEAM Innovation Zone.
- Question to the panel on suggestions they might have. Responses included inclusion of fine arts as a core subject, the need to change culture and to not keep arts and STEM separate, archive examples of how Arts and STEM align. In addition it was suggested that it was important to not be afraid to tell the story.
- Example of how Amazon integrates creativity into the work day
- Credited UNI with their decision to promote STEAM as it is vital to economic development
- Important to not wait as arts and culture should be incorporated across the curriculum
- A program was shared focused on “Full STEAM Ahead”
- Kennedy Center – true to each field and had time to collaborate with professional artists
- Working with pedagogy shift – teach by phenomena. Also working with Competency Based Learning and research on the rate of learning.
- Huge advocate of problem based learning. Provides an integrated approach to education with real world ties
- Cedar Rapids Johnson STEAM Academy – now leading professional development for rest of elementary teachers focused on mindful interdisciplinary instruction
- Mistake to assume all teachers make the connection between Arts and STEM. Some keys are strong leadership, implementation in a safe environment, and learning from peers.
- Important to allow collaboration in buildings
- Recommendation of Daniel Pinks “A Whole New Mind”

The Working Group truly appreciates the input from attendees and encouraged further communications. The members will be working to have recommendations developed for the consideration of the Iowa STEM Council on July 1, 2015.