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**MINUTES**

Name of Organization: Integrating Arts & Culture into STEM (IACS)  
Subcommittee of the Science, Technology, Engineering  
and Mathematics (STEM) Advisory Council

Date and Time of Meeting: Monday, March 27, 2017, 9:00 A.M.

Place of Meeting: Governor's Office of Science Innovation and  
Technology (OSIT)  
100 North Stewart Street, Suite 220  
Carson City, NV 89701

Please use the following numbers to join the conference call:

North: 775-687-0999 or  
South: 702-486-5260

Access Code: 70987 push #

- I. Call to Order/Roll Call  
Aimee Allen - Chair

Chair Allen called the meeting to order at 9:01 A.M.

Members Present: Aimee Allen, Dave Brancamp, MaryJane Dorofachuk, Tia Flores, Sarah Gobbs-Hill, Craig Rosen, Candy Schneider

Members Excused: Marisa Cooper, Jeneane Harter, Meghan Schiedel, Tifferney White

Staff Present: Brian Mitchell; Debra Petrelli

- II. **Public Comment** (No action may be taken upon a matter raised under public comment period unless the matter itself has been specifically included on an agenda as an action item.)

There was no public comment.

- III. **Welcoming Remarks**  
Aimee Allen – Chair

Chair Allen welcomed everyone and said she was delighted with everyone's feedback.

- IV. **Proposed State and Federal Policies / Budget:** (For information only)
1. Nevada: SB 241
  2. Federal Legislation and Budget for STEM / Arts Education  
Candy Schneider, Vice President of Education and Outreach at the Smith Center, Las Vegas, Nevada  
Aimee Allen - Chair

Chair Allen referred the Subcommittee to Nevada Legislative Senate Bill 241 (SB241), which provides for the establishment of the State Seal of STEM (Science, Technology, Engineering and Mathematics) Program and the State Seal of STEAM (Science, Technology, Engineering, the Arts and Mathematics) Program, specifically for high school graduates. Mr. Mitchell updated the Subcommittee on SB241. He said it was introduced on March 7, 2017, and would establish criteria for students to either get a seal on their diploma for STEM or STEAM. It would also require the Board of Education to establish the process. He said there has been discussion to make some slight tweaks to the requirements in the bill as it was introduced. He requested any feedback the Subcommittee may have regarding the bill, which could be passed along to the bill's sponsors.

Chair Allen said she had previously spoken with Subcommittee members, Candy Schneider and Marisa Cooper about the bill. Some feedback from those conversations included the required credits regarding the Arts. She said they are folded into a general, either Arts or Humanities, set of credits. She said this Subcommittee should advocate for distinction of that definition of Humanities and what constitutes Humanities, because currently the definition is fairly broad within state requirements for high school graduation. She added if a student has this seal on their high school diploma suggesting they have had various expose in what constitutes STEAM, she suggested there be some distinction for what that actually is. Ms. Dorofachuk added if we are looking at Arts into STEM, we need to be more specific about those four credits. Ms. Flores said we need to define further what classes need to be offered or taken to receive that certificate or seal. She added Humanities classes are important, but not sure how they integrate into STEAM.

Mr. Mitchell suggested changing the wording from “Arts and Humanities” to “Fine Arts,” and asked if that would be an improvement. The Subcommittee agreed it would make an improvement. Chair Allen said particularly because of the efforts that have gone into getting the National Art Standards acquired by the State. Ms. Gobbs-Hill asked whether any specific experiences would be excluded by using “Fine Arts” and asked whether photography or music are considered Fine Arts. Ms. Flores responded both of those disciplines are considered Fine Arts. She added, media arts are also included such as graphic design.

Mr. Brancamp said SB241 is still in the drafting phase and added that Legislators know there are changes in the works and agreed with Mr. Mitchell that using “Fine Arts” in place of “Arts and Humanities” would work better. Ms. Schneider said she agrees the “Fine Arts” component is better as opposed to “Arts and Humanities.” She also added the integration piece may be the most important and believes it defines STEAM. She said the bill speaks strongly for the end result of a seal on a graduation diploma. Chair Allen referred to a report put together by this group prior to becoming a permanent Subcommittee, and said it makes a clear, concise distinction to the value and merit of the Arts and STEM and would provide Mr. Mitchell a copy of that report. She added we still need to define why Fine Arts is important to the community.

Chair Allen brought to the attention of the Subcommittee some federal legislation that could have an effect on a number of education bills regarding repealing the mandate for the Elementary and Secondary Education Act (ESEA). Just be aware, as it may affect recommendations that we make. She said she would send an e-mail with more information to each member of this Subcommittee on this topic.

V. Strategic Priorities: (For information only)

1. Defining our Goals and Objectives: Mission, Audience, Impact  
Aimee Allen – Chair  
Craig Rosen, GreenPower Education Administrator, Desert Research Institute (DRI)

Chair Allen said this section is very important as it defines our goals and objectives. It is important that we start considering what capacity and impact our group will have. She said we will accomplish this by looking at some short-term and/or long-term goals that may help structure this group. Mr. Rosen pointed out to the Subcommittee, because we are now operating under the formal structure of the STEM Advisory Council, it is important to have some type of charter or mission we can collectively agree to and keep us moving towards what we want to achieve. Our goals should be something realistic, something we can truly achieve and look back on and be proud of. He added one idea he would like to see this Subcommittee continue to work towards is producing more teacher training and opportunities for teachers to

really understand STEAM and get a feel for bringing it into their classrooms. Ms. Gobbs-Hill said she would like to see some sort of measurable objective such as leveraging partnerships.

Ms. Dorofachuk, referring to the “Key Strategies and Priorities” in the STEM Strategic Plan, said for “Equity and Access” not all of the Arts are accessible to all students in Nevada. She said she is currently working on an Access to Arts Education Survey with students from the University of Nevada, Las Vegas (UNLV), and believes this might be something to start with and build on later. She added that priority one for the STEM Advisory Council is, “Equity and Access,” and by focusing on equitable access first, we insure all children have the same opportunities to learn science, technology, engineering and math. She said that for her, that might be a base priority. She added there was also some good verbiage in the Every Student Succeeds Act, on the national level, that points to how the Arts support STEM learning, especially in regards to access.

Mr. Mitchell referred the Subcommittee to “Goal 4: Increase Scope” Strategy 1: Integrate Arts, Culture and Computer Science programs, activities, and curricula into STEM, both during the school day and after school. This area in the Strategic Plan is where the STEM Advisory Council specifically decided to call out the Arts and Culture in terms of increasing the scope of what we do. He added there are a variety of goals in the Strategic Plan. He said in terms of an action statement, he would suggested two ideas:

- 1) If the Arts can be used as a means to increase performance in STEM, perhaps look at increasing the number of students who participate in quality STEAM related programs both during and after school. Then measure student outcomes (i.e. certain standardized test scores, number of students enrolling in certain classes in high school, students enrolled in certain majors). The goal is to increase the number of college graduates, in either a four-year or two-year university with STEM skills, and how a STEAM program can help to accomplish that goal; and
- 2) What we need to do in high school, middle school and elementary school with STEM to help maintain kid’s interest.

Mr. Rosen said one challenge for the state was coming up with the definition for what STEAM education is. He said there are so many different definitions out there, he believes if one is adopted by this Subcommittee, it might improve the chance of moving this conversation forward within the state. Chair Allen suggested this be the immediate first short-time goal for this Subcommittee. She said this is a really specific direction for the Subcommittee.

Chair Allen pointed out topics discussed so far include professional development and bridging the gaps into leveraging organizational capacity and impact, students and creating different audiences and increasing the programmatic access. She said we also have this new suggestion, the need

for some type of metrics, not only what our goal is, but how we know when we achieve it. We will not get there until we have this working definition of STEAM education. Therefore, I believe this is the obvious short-term goal for this Subcommittee.

Ms. Gobbs-Hill referring to the Strategic Plan priorities of outcomes and strategies, asked what this Subcommittee's level of specificity should be. She said with all the work already done, our work might be duplicative in nature. Mr. Mitchell said the STEM Advisory Council views this document, the STEM Strategic Plan, as a very high-level document with some broad ideas on where it should go. The specifics on how we get there is what the STEM Advisory Council will rely on this Integrating Arts and Culture into STEM Subcommittee to figure out. He added we would rely on this group to add specifics into an action plan that the STEM Advisory Council could then direct, which might be specific recommendations to the legislature, the different school districts, or perhaps the informal learning community or non-profit community. He said this Subcommittee has more specific expertise when it comes to the Arts than the overall STEM Advisory Council and does not believe this would be duplicative but rather an enhancement to the work already done. He pointed out that in addition to this Subcommittee, there is a subcommittee on Community Partnerships, which is working on increasing the interaction between businesses and schools to have greater partnerships. They are working on how we give schools the "tool-kits" to reach out to business, as well as how we give businesses the awareness to know what is going on in our schools and to interact with our schools.

Chair Allen asked if there is a very specific directive the STEM Advisory Council would like to give this Subcommittee. She asked what specific population of the key priorities should they target and whether the goal is to actually bring in a specific audience. Mr. Mitchell replied the STEM Advisory Council wants this document to be broad enough that it does not constrain the Subcommittee and be so specific that it would limit good ideas. He suggested, but not limited to, the following:

- Come up with standards for a definition of "STEAM" or "Quality STEAM." It would be valuable to see what quality STEAM looks like. The STEM Advisory Council could then take that, not only to school districts but also informal educators, by providing examples of what this would look like.
- Develop some recommendations for school districts to incorporate STEAM into their classrooms or the overall way of educating students.

Ms. Dorofachuk asked whether they could use the STEM Strategic Plan as an outline. Mr. Mitchell said anywhere in this document where you feel STEAM could be a means or strategy to accomplish those goals, then that is exactly what you want to do. Chair Allen said she is looking for language from this Subcommittee to be really digestible for the people who need a functioning, working definition of what professionals and practitioners in the field know as

what best practices in STEAM look like. Ms. Dorofachuk said we are looking at doing a working definition and also looking at the STEM Strategic Plan to talk about equity and access, quality programming, and professional development at the strategy level. She said she is thinking about what the Arts Council's role would be and how it could possibly lead to some changes in how she does Art in Education grants. She asked whether she should have specific initiatives regarding grants. Ms. Schneider said this goes back to the inherent title of this Subcommittee, "Integrating Arts and Culture into STEM." Mr. Rosen said priority number one is to come up with this definition of what STEAM is for our state and priority number two is looking at how we are proposing integration of the arts and culture into STEM.

Chair Allen, referring to a break-out session with members of this Subcommittee, asked Mr. Mitchell if they could conduct a telephone conference without making their way through an agenda, but making the information public. Mr. Mitchell said the Open Meeting Law, as he understands it, provides that at any time any recommendations are made and decided upon, that needs to be in an open public meeting. If this group was to get together and discuss, debate and deliberate on the definition of STEAM, then you would need to have that in an open public meeting. However, you could have a telephone call with one another and express ideas to each other. That would not need to be made public, as long as you do not have a majority of the members of this Subcommittee participating in any one of these meetings or phone calls, you would be fine. Then, at the next meeting of this Subcommittee, without any decision or recommendation being made, present the body of your conversation or discussion to the Subcommittee during that meeting. This would allow any member of the public to have input before any decision is made.

Chair Allen said she would start circulating proposed language for the working definition of STEAM, casually, to each member of this Subcommittee for individual feedback. Mr. Mitchell recommended she bcc (blind carbon copy) the members individually so those responses can only come back to her as opposed to going to all members, complying with the Open Meeting Law. Chair Allen agreed.

VI. Additional Partnerships and Participants (For information only)  
Aimee Allen - Chair

Chair Allen said the wording "Additional Partnerships and Participants" was a bit vague on this agenda item. She said she was referring to the direction this Subcommittee should go in trying to get language established. She said we remain as a group still missing an in-class arts instructor as a member. To develop language, this needs to be addressed. Chair Allen requested suggestions for an in-class arts instructor.

Ms. Schneider suggested Susan DeHart, former Elementary Fine Arts Coordinator through the Clark County School District (CCSD) and music specialist, she was responsible for both music and visual arts. She served on Any Given Child initiative and is now a formal member of Partners in Education as well as being involved with Arts Integration ConFABulation.

Ms. Dorofachuk recommended Julie Neal, a Fine Arts Specialist in Washoe County School District (WCSD), with a music background, and was on the standards committee for the Nevada Arts Council. She also suggested rural representation would be very important. Ms. Schneider suggested it be someone who has an understanding of what STEAM is and have some experience either with professional development or have some experience in implementing that and understanding the power of integrating the arts into STEM education.

Ms. Flores suggested Candace Garlock, Visual Arts Instructor at Truckee Meadows Community College (TMCC) and for many years was at Galena High School in Reno, which had a STEAM and arts integrated program. It was also mentioned she is on the Board of Directors for Doral Academy, which is promoted as an arts integrated STEAM school.

Chair Allen asked Ms. Dorofachuk to reach out to Julie Neal on the Subcommittee's behalf and asked Ms. Schneider if she could make the introduction to Susan DeHart and asked Ms. Flores if she could make the introduction to Candace Garlock. All Subcommittee members agreed.

Chair Allen asked Mr. Mitchell about the timeline on SB241. Mr. Mitchell responded it should be fairly soon, probably by end of day today for thoughts or comments. The issue of replacing "arts and humanities" with "fine arts" is something that had been previously discussed and pointed out he was glad this Subcommittee agreed.

VII. Consider Agenda Items for the Next Meeting (For information only)  
Aimee Allen - Chair

Chair Allen suggested it will be beneficial to the Subcommittee to get an update on SB241 at the next meeting from Mr. Mitchell. She said we also need to address the language item regarding STEAM. Mr. Rosen suggested Continuing Professional Development as an item.

Mr. Mitchell pointed out the STEM Advisory Council meets each summer in person either in Las Vegas or in Reno and are currently looking at potential dates for this summer, 2017. He said it occurred to him there is significant overlap between some of the Subcommittees and the work they are doing for the STEM Advisory Council. For example, The Integrating Arts and Culture into STEM Subcommittee overlapping with the Informal STEM Learning Environment Subcommittee. He invited all of the Subcommittee members to

participate in that “In-person” meeting so to get a better understanding of what each other is working on, as well as a good opportunity for collaboration. This meeting would be teleconferenced between Las Vegas and Carson City, so not everyone would have to travel. Chair Allen asked if that date will be available by this Subcommittee’s next meeting. Mr. Mitchell responded at the next STEM Advisory Council’s meeting on April 18, 2017, we should know. He invited members of the Subcommittee to attend that council meeting, as well.

- VIII. Next Meeting Date will be determined at this meeting (For information only)  
Aimee Allen - Chair

Chair Allen said the call-in conference call information for our meetings will always be included on the agenda and meeting information can be accessed for this Subcommittee on the Governor’s Office of Science, Innovation and Technology (OSIT) website at:

<http://osit.nv.gov/Meetings/STEM/2017/Meetings/>

She said a Doodle Poll will be sent out for possible dates for the next meeting.

- IX. Public Comment (No action may be taken upon a matter raised under public comment period unless the matter itself has been specifically included on an agenda as an action item.)

There was no public comment.

Mr. Rosen made the announcement that at the last STEAM Teacher Training, they were invited by the National Science Teachers Association (NSTA) to present at a workshop taking place in Los Angeles next week. He said he accepted that invitation on their behalf and he will be going to the NSTA conference for collaboration on STEAM ideas for advancing STEAM forward. Chair Allen asked Mr. Rosen to be on the lookout for any specific strategies or approaches. She said California is being very innovative in this area as far as with legislation, staffing within the district at a problematic level, plus they have some terrific organizations. She added we will make room on the next agenda for you to report back to the Subcommittee.

- X. Adjournment

Chair Allen adjourned the meeting at 10:05 a.m.