

BRIAN SANDOVAL
Governor



BRIAN L. MITCHELL
Director

STATE OF NEVADA
Governor's Office of Science, Innovation and Technology
100 North Stewart Street, Suite 220
Carson City, Nevada 89701
775.687.0987 Fax: 775.687.0990

MINUTES

Name of Organization: Informal STEM Learning Environments (ISLE)
Subcommittee

Date & Time of Meeting: Monday, September 15, 2017 at 9:00 A.M. (PST)

Place of Meeting: Grant Sawyer State Office Building
555 East Washington Ave
Suite 5100
Las Vegas, Nevada 89101

This meeting will be video conferenced to the following location:
Nevada State Library and Archives
100 North Stewart Street
Conference Room C (2nd Floor)
Carson City, Nevada 89701

If you are unable to join the meeting in person, please use the following conference call numbers:

Northern Nevada: 775-687-0999
Southern Nevada: 702-486-5260
Access Code: 70987 then push #

I. Call to Order / Roll Call
Aaron Leifheit, Co-Chair

Co-Chair Leifheit called the meeting to order at 9:04 A.M.

Members Present: Aaron Leifheit, Craig Rosen, Andy Hart, Sean Hill, Jessica Snaman

Members Excused: Amy Page, Kristoffer Carroll, Judy Kraus

Guests Present: Brandi Planet, Public Relations & Communications

Staff Present: Debra Petrelli, OSIT

- 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 and Introductions *(For information only)*
Aaron Leifheit, Co-Chair

Co-Chair Leifheit welcomed everyone. Everyone introduced themselves; Aaron Leifheit, Education Director at Outside Las Vegas Foundation; Craig Rosen, Community Outreach, Engagement and Special Development at Desert Research Institute (DRI); Brandi Planet, Public Relations for Government and Technology clients; Sean Hill, Sierra Nevada Journeys; Jessica Snaman, Nevada Outdoor School; Andy Hart, Southern Nevada Conservancy.

- IV. Approval of the Minutes from the May 9, 2017 meeting *(For possible action)*
Aaron Leifheit, Co-Chair

Mr. Rosen made a motion to approve the Minutes of May 9, 2017. Mr. Hart seconded the motion. The motion passed unanimously.

- V. Recap of July Presentation to the STEM Advisory Board *for information only*
Aaron Leifheit, Co-Chair

Co-Chair Leifheit commented on his and Amy Page's presentation to the Governor's STEM Advisory Council on July 7. They pointed out ISLE represents informal educators throughout the state to include museums, non-profits, government organizations, parks, and others that work to support science within the state. He also commented on ISLE's concept paper, which details who ISLE is, our strengths, and our goals to support science education, in general, within the state. He said as a first product of our subcommittee, the paper was well received by the Council, they all agreed they liked it and asked good questions, and seemed supportive of the direction ISLE is headed. He added it appears that ISLE may have taken a more planning and strategic-based direction than some of the other subcommittees presenting at the meeting. Mr. Hill commented it is good to have the Governor's STEM Advisory Council supporting our efforts.

- VI. Present FINAL White Paper on Informal STEM to Group and Agree to Submit for Ratification
Aaron Leifheit, Co-Chair

Co-Chair Leifheit said we would like to present the final white (concept) paper today. He commented the paper still needs to be ratified by the STEM Advisory Council. Mr. Rosen asked whether the white paper had been circulated to other stakeholders for feedback prior to us sending it on to the STEM Advisory Council. Co-Chair Leifheit replied the white paper has only been distributed to the ISLE Subcommittee. Mr. Rosen suggested it would be prudent to get feedback from

others within the field before it is ratified by the Governor's office as an official document. Mr. Hart said he believes this subcommittee has been curated to represent the best interest collectively of the industry within the state and does not expect to get very much feedback if the white paper is circulated. The dynamic intention of ISLE was discussed, including seeking out involvement and support of other similar organizations in the state. At this point the final document has not been made public. It was suggested the white paper be made public to open it up to additional public comment for just a small period of time prior to its ratification, by the STEM Advisory Council. Mr. Rosen commented he believes the community should have final input. It was clarified this document could wait for another month for ratification, as there is no current deadline. Co-Chair Leifheit said he does not want to stall the process as it is so close to completion.

Co-Chair Leifheit commented on Connecting Hands Offering Lifelong learning Adventures (CHOLLA), a collection of informal educators in Southern Nevada, having a meeting next week, wherein he will present the white paper for their comments. Mr. Hill said he would circulate it to Growing Resources for Environment Education in Nevada (GREENevada), as well. It was agreed that at least 75% of the major stakeholders have seen the white paper. It was suggested that a deadline be given to all outside organizations for comment, so there are no further holdups on the document's progress. It was agreed the deadline for comments would be the end of October, 2017.

Co-Chair Leifheit said a second part to the white paper is the section on "Best Practices" for informal STEM education. He pointed out that some members of this subcommittee have also been involved with the STEMworks Subcommittee. Mr. Hill commented that a proposal was submitted by STEMworks through Change The Equation (CTE). There was discussion on how ISLE's best practices relate to the best practices the STEMworks subcommittee is working on. It was pointed out, that in the last ISLE meeting there had been discussion on creating our own set of best practices for informal education for members to follow, or whether we should just adopt best practices of the CTE organization. Mr. Rosen, who is on the review team for CTE, gave an overview of what CTE does. He said it is a national organization that compiles best practices from various stakeholders. The STEM Advisory Council adopted this process to review STEM collaborators and providers in assisting the State with a list of approved STEM program vendors. He commented on the extensive application process and whether the ISLE subcommittee should adopt the same process with their providers. He pointed out that the CTE process is extremely rigorous and may be too difficult or extensive for ISLE providers to complete. There was further discussion on the CTE application process. Mr. Hill commented on other entities within the state doing informal education that this might not apply to and asked whether there are programs out there that are not necessarily standards-based. If so, perhaps this is not the best method to judge all programs.

There was further discussion that the CTE application is a really high-level goal and could take a couple of years down the road for most organizations within

Nevada to complete. ISLE may need to create their own standard for informal education in the state. The group discussed the CTE rubric as the top or highest level and whether ISLE should create other levels that are not as rigorous allowing programs to apply for the level that best matches their resources.

There was further discussion on the STEMworks Subcommittee which focuses on certification and how it coalesces with CTE and their method to certify STEM providers in the state. The group questioned whether they want to work on identifying “Best Practices” just for informal education or adopt the CTE rubric as “Best Practices.”

There was discussion on programs that may not apply to CTE “Best Practices.” It was mentioned this would leave out most of the providers in this state. With the limited number of people within some of these programs, it could take years to complete the CTE application. There is a lot of information requiring support documents. If you do not have the right documentation in place, it becomes extremely difficult to complete. Most of the informal STEM providers in the state do not have those support documents, which may put them at a disadvantage if the “gold” standard with CTE is adopted.

The group further discussed using the three levels of CTE already in place consisting of “Goal Achieved,” “Goal Almost Achieved,” or “Not Achieved,” or possibly creating ISLE’s own level: i.e. Level 1: For any provider in the State that wants to be recognized at some level by submitting a 2-3 page document that overviews their program (ISLE would create what goes into the document).

A good step in the right direction would be to educate groups in Nevada, perhaps coaching organizations to understand the items outlined in the CTE application are things they should be thinking about. This could be a good starting point for ISLE. We need to allow groups to look at these applications so they can see where they fall in best practices. A statewide informal educational conference may be required focusing on these organizations moving in the right direction. Education is key, possibly a 3 – 5 year plan wherein ISLE can help Nevada’s informal STEM providers. We also need to sell to providers, our reasons for applying for this designation within the state, and whether there is funding or opportunity available through the state for informal STEM providers. The group discussed what they want their visibility to be, i.e. an informal education association with credentials or possibly presentation of certificates.

Co-Chair Leifheit commented on CHOLLA and the resources they have. They evaluate and provide recommendations for programs that CHOLLA members are interested in, however, there has never been a baseline to review the programs on. GREENevada was also commented on. They have regular meetings and are currently hosting an event for informal education providers. Perhaps with support from leadership of these two groups ISLE can develop a type of informal STEM provider recognition within the state. It was agreed that CTE is “Grade A” or “top of the line” for organizations in Nevada. It was also agreed to take a smaller version of those best practices and come up with what that looks like,

with a goal for informal educators throughout the state to get a certification from CHOLLA or GREENevada, or some type of combination of those groups, certifying them as a provider of informal education in the state, just not at the level as CTE. It was discussed that the certification would need to come with clout, with the ultimate goal of getting our institutes and organizations the ability to get public funding. There was discussion on embarking on a huge campaign to educate the community, as a goal for ISLE. It may be more realistic to ask groups to register with ISLE, just for recognition, with only the CTE program available. It was pointed out that an intermediate step would be nice showing an organization was on the path to pursuing recognition by CTE. Providing the information on the application to organizations for review could also get them on the right track.

It was agreed to move forward with ISLE's "Best Practices" for informal education that are less intensive than Change the Equation.

VII. Discuss Draft Logic Model and Make Suggestions for Action Items *(For possible action)*

Aaron Leifheit, Co-Chair
Sean Hill

Mr. Hill introduced the logic model. He said this document will help to better understand the purpose of the ISLE Subcommittee. We looked at two documents, The STEM Strategic Plan and Nevada Academic Content Standards for Science (NVACCS) Implementation Guide. The logic model was reworked with that perception in mind. We need to determine if the impacts are what we want to focus on. The first is to increase the number of high-quality informal/after school STEM programs. The second impact is to identify and support the best informal and out-of-school STEM learning opportunities that challenge students to develop critical thinking, problem solving, collaboration, and teamwork skills. The third impact is, Advocate for informal STEM at the highest levels of State Government. Mr. Rosen stated he believes Advocacy is our number one goal. We advocate for our profession by doing the second and third impact. It was agreed. Basically our white paper is the platform for which we advocate for our profession.

It was asked whether "Impact" on the logic model would lead to increased funding and recognition for our profession and our institutions so we can serve the entire state. Mr. Hill commented on "Advocate for Informal STEM at the highest levels of State government" line is not written as a true impact. To be a goal we will need to modify it making the impact actually a community where non-profits are funded. We need to identify that goal. It was discussed that impact is a much larger picture than what is outlined in this document. Impact is a state of being, once you have reached your goal. It was agreed that Nevada is a community that values and funds these programs at this level, and may be a better impact statement. Impact is the state of being, i.e. Nevada will be a happy healthy community; Nevada will be a leader in informal STEM education.

Mr. Rosen commented that Nevada's understanding of science is measurably enhanced as a result of visits and participation with informal education provider's sites. That is a huge impact that we are advancing and enhancing science by participating in our programming. That is something we could presumably measure.

Impacts that should be included on the logic model:

- Nevada's understanding of science is measurably enhanced as a result of informal STEM experiences.
- Nevada's informal STEM providers have a pathway to recognition certification and funding.

Mr. Hill commented that the section under "Outcomes" will discuss what the pathways are. The group further discussed that another goal of this subcommittee could be to decide what the elements are in the state that are important to evaluate. Once we decide what those elements were, we could help different organizations in getting there. Currently we do not have statewide information on what is going on in our field. Another item for "Output" could be to identify things that we would like everyone to evaluate and encourage others to collect similar data across the entire state.

Mr. Hill volunteered to do some additional work on the logic model and resend it out to the subcommittee for additional feedback. The group agreed.

VIII. Consider Agenda Items for the Next Meeting *(For possible action)*
Aaron Leifheit, Co-Chair

Co-Chair Leifheit said we are proposing a meeting for the end of October, 2017. The white paper will be a good agenda item, as it will have been sent out to CHOLLA and GREENevada asking for their comments to be returned by the end of September. In October, we should be able to incorporate any feedback from those two groups. The goal would be to get the ISLE white paper on the next STEM Advisory Council's Agenda for ratification. Other agenda items should include, Progress on Best Practices and discussion on the Logic Model. As another item, Co-Chair Leifheit announced that he will be hosting a CHOLLA meeting next week, in which they will be having a section on the ISLE Subcommittee and what we are doing. He said he will present the white paper to CHOLLA at the meeting and collect some of their opinions and report back at the next ISLE meeting.

IX. Next Meeting Date will be Determined at this Meeting *(For possible action)*
Aaron Leifheit, Co-Chair

The group decided upon Thursday, October 26, 2017 at 1:00 P.M., for the next ISLE meeting, which will be a telephone conference meeting.

X. 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.

XI. Adjournment

Co-Chair Leifheit adjourned the meeting at 10:40 A.M.

DRAFT