Virginia STEM Education Advisory Board Meeting
September 9, 2022
Science Museum of Virginia
RF&P Railroad Company Forum

Board Members present: Amy Sabarre (Chair), Casey Roberts (Vic-Chair), Dr. Padmanabhan Seshaiyer, Dr. Susheela Shanta, Zainia Tarafdar, Victoria Chuah

Virtual attendance: Madison Biedermann (Sec of Ed Office)

Ex-officios and staff present: Dr. Brendon Albon, Emily Salmon, Charles English,

Guests: Elizabeth Schultz, Ramona Taylor, Heather McKay, Todd Oldham

Welcome and Opening Remarks
Ms. Sabarre called the meeting to order at 10:11. She welcomed the Board members and guests and asked the Advisory Board to introduce themselves. Amy then asked for a more detailed introduction from Victoria Chuah, a new Board member. Afterward, she read an introductory Bio from Edward Monroe, a new Board Member that could not attend. The new Board members were only announced by the Governor's Office a week before this meeting.

Minutes (June 30, 2022)
Ms. Sabarre asked for a motion to approve the minutes from the June 30th Board Meeting. Mr. Roberts made the motion, which Dr. Albon seconded. Ms. Sabarre called for a vote, which passed unanimously with no objections.

Mr. English discussed the difference between work groups and subcommittees. The Board is officially using workgroups, therefore, does not have to worry about publicly posting meetings and taking minutes for the different work groups of the Board. Ramona Taylor (Assistant Attorney General) also defined workgroups versus subcommittees. The Board agreed we best fit the definition of work groups. Bylaws discussion later in today's meeting schedule will provide additional details.

Mr. English also brought up the need for the Secretary of Education's Office to post the Minutes for our meetings and general Board information. Madison Biedermann commented virtually that we would catch up to ensure we are within compliance.

STEM Metrics workgroup
Ms. Sabarre introduced some of the Metrics workgroup efforts. Mr. English stepped in to briefly announce a report coming out of the STEM tour he had taken with Dr. Ferrell. Ms. Sabarre then described the work and timeline of the Metric work group. The workgroup used the STEM 'bucket list' ideas that the Board had developed earlier to ensure that they included all essential topics in the metric tool. It was also mentioned that this resource is meant to be informative and supportive. Educators can identify where they are at with STEM programming and how they may elevate their work. This tool is not designed to provide a 'grade.' Emphasis was also made that we should make sure that we separate STEM education from quality general education.

Ms. Sabarre handed out draft copies of the current metric being developed. The Board received a quick run through of the document and was then given time to review, process, and provide documented comments, edits, or suggestions on the hard copies for Ms. Sabarre to collect. She would then collate these documents into the next draft to be shared with the workgroup.

Ms. Sabarre concluded the metric work by asking for comments. It provided a dialogue on the positive work done by the workgroup and a few recommendations on the next steps.

Ms. Sabarre asked for a change to the agenda. Some of the Board members had to leave after lunch. To ensure all of the members present had a chance to hear about the changes in the Bylaws, that section was moved up in the day's schedule.

STEM Bylaws (including Electronic Meetings Policy)
Ramona Taylor then started her presentation on the Bylaws. Mr. English forwarded the most recent version of the Bylaws to the Board before the meeting.
- What is a Quorum? It is based on the thirteen voting members – so seven voting members need to be present for a quorum.
- Workgroups versus subcommittees – we use a workgroup model – and it is easier for our documentation. If we create an executive subcommittee – then we need to follow FOIA regulations.
- Time limitations for Board appointments and positions – such as Chair and Vice-Chair. The Chair and Vice Chair are two-year positions; a person can only run for that position if they have at least two years left on their four-year appointment. This policy helps provides continuity within the Board. Two consecutive terms are permissible.
- Bylaws are created so they can change if needed. They are designed to align with the Board's vision and mission.
- It was recommended that we include a modified version of Robert's Rules of Order.
- Recommend that any vote or approval of the Bylaws is subject to the changes made we discussed during this dialogue.
Ramona Taylor then presented a new document on the State Board Electronic Meetings policy.
- Ability to hold virtual Board meetings – limited by how many they can have a year; an exception is workgroups, which can hold as many as they wish.
- Focused sections of the Policy:
    - Electronic Participation – certain conditions must be met.
    - Virtual – twice a year and not consecutive.
    - Emergencies

Bylaws were called to a vote. Dr. Shanta moved to approve the Bylaws subject to the changes recommended, using Ramona Taylor's advice, and Ms. Tarafdar seconded it. It passed unanimously with no objections.

Electronic Policy was moved for approval by Mr. Roberts, and Dr. Seshaiyer seconded it. It passed unanimously.

STEM Coordinator Updates

Mr. English presented on the STEM Coordinator Updates. He started with the observations he and Dr. Ferrell witnessed on the STEM Programs observed over the summer. Many of the programs were not effective STEM programs. They were fun and engaging; however, they lacked content connections. These observations justify why the Board is working on a STEM Metrics tool.

He continued with the progress of the Virginia Lab Schools. A lot of information regarding Lab Schools came out over the past couple of weeks. The STEM Advisory Board and STEM Coordinator have not been approached for any support for Lab Schools as we initially predicted. Through a discussion on the best course of action, Elizabeth Schultz recommended that we create a general letter of support for Lab Schools without supporting any specific program.

Mr. English then brought up STEM Hubs. There are currently three STEM Hubs in Virginia, either active or starting. The active STEM Hub in Newport News, COVA STEM Hub, is functioning and has regular meetings. It is run by the city, not the school district. [TIES](#) (Teaching Institute for Excellence in STEM) is a national organization helping all three groups. Richmond/Petersburg is starting a STEM Hub due to a recent NSF grant. One in northern Virginia is being formed. Mr. English learned about this STEM Hub the last two STEM Hubs within the past couple of weeks. He has not heard about progress on either location. Neither of the newer sites is official enough to announce leads. An announcement will be made public when available. Dr. Seshaiyer expressed some surprise at how this progressed without his knowledge. He has worked with many colleagues in the area. It came up that the Board may need to consider the best pathways forward for determining what should count as a STEM Hub. A discussion on TIES was brought up and how they operate.

Mr. English also brought up content partners. The STEM Coordinator's role has been working with various state and national partners to help make sure we work collaboratively with other content-focused areas, working toward collaboration rather than competition. Examples include Mr. English's work with CodeVA, the Mid-Atlantic Climate Change Educational Forum, and other Environmental Literacy groups. Are there other groups the Board should keep an eye out for so we can work together? It does not help educators if they receive such a wide variety of content concerns, from STEM to CS and EE. We need to work better together.

Lunch

Mr. English, at the request of the Board, continued a conversation around how the Board can better prepare itself to support or partner with the STEM Hubs that have started or grow STEM Hubs that are part of their network. It was also mentioned that STEM Ecosystems and TIES do not provide a stamp of approval in their process. A debate was held on the best next steps and timing for this continued discussion. Should this conversation be the lead for the scheduled next December meeting, or should we have another full meeting or workgroup before the December Meeting? We also discussed whether we invite the other STEM Hub leads to present to the Board.

STEM Occupations workgroup

Mr. Oldham from Virginia Economic Development Partnership presented their work regarding STEM Occupations. He presented a framework based on the NSF reclassification of STEM Occupations, including the Skilled Technical Workforce. Suppose VEDP and the STEM Board agree to include the Skilled Technical Workforce and STEM-related occupations. In that case, we quintuple the number of occupations tied to STEM (72 Occupations to a total of 342 and 42% of all listed occupations). The next level of potential work would be to further research the skills and mastery level of those skills needed to count as a STEM Occupation. This research would help define how we determine whether an occupation is a STEM occupation. It was also mentioned that Tod Massa from SCHEV and Dr. Jim Egenrieder from VT were consulted as part of the research for the STEM Occupation workgroup.

STEM Summit workgroup

Dr. Seshaiyer presented on the STEM Summit workgroups work. He detailed various ties, from education and education shortages to building effective connections with business and industry. We discussed the audience for the Summit, which includes science/STEM leaders, counselors, educators, students, business leaders, and tech council groups. We also discussed locations. Brightpoint (previously John Tyler) Community College is being considered as well as Community College Workforce Alliance. The audience attendance would make a difference. The dates will be June 22/23 or 27/28 this upcoming summer, 2023. The workgroup will now consider expenses and potential in-kind contributions to hold the event. The ask of the workgroup includes starting to fill out the Google Sheet Dr. Seshaiyer created on potential participants.

Legislative Report Draft

Mr. English presented the progress of the Legislative report being developed for the General Assembly. A specific date was not given for when to submit the report; however, last year, during the administrative transition, it was submitted in December and had to be resubmitted in January. No comments were received on the previously submitted report. The current draft was briefed over, and the Board commented that the report presented the work of the STEM Coordinator and the Board. It was recommended that it be paired down to only provide information regarding the Board itself. The document was made available to the Board via Google Folder. Mr. English mentioned that he would make some edits and then provide a version that Ms. Sabarre could review and submit as a new draft for the Board to approve. The Legislative Report also included a Budget with four significant items to consider, all of which require a budget.

- STEM Occupations Skills Research:
- STEM Metrics Piloting
- STEM Summit
- STEM Board and STEM Coordinator Memberships and Travel

The total request would be $150,000.00. The Board asked to go through the budgetary numbers and was satisfied with the request. Ms. Sabarre called to move the Budget part of the

report forward since it may have to be submitted before it is submitted. Mr. Roberts moved to approve the budget but not the report until it has been edited and resubmitted for approval. Ms. Salmon seconded the motion. It was approved unanimously.

New Business
- Under new business, Ms. Sabarre requested that the Board consider a new electronic meeting to discuss how the Board defines a STEM Hub before the December 9th meeting. Dr. Albon moved to hold a virtual meeting to be scheduled and held before December 9th to discuss STEM Hubs. Mr. Roberts seconded the motion, and it passed unanimously.
- A second discussion was held on whether we can ask past members of the Board to serve in an emeritus role. That can be considered and, once agreed upon, could be written into the Bylaws, according to Ramona Taylor.
- Lastly, questions were asked regarding the rotating term limits on Board members, and Mr. English provided the Board members with their remaining years of service.

Public comments
No public members were present, and Ms. Sabarre continued with the published agenda.

Closing remarks
With no further matters on the agenda, Ms. Sabarre delivered some closing remarks

Adjournment
Ms. Sabarre asked to close the meeting at 1:55. Ms. Chuah moved to close the meeting. Mr. Roberts seconded it. All voted unanimously.