Virginia STEM Education Advisory Board
Virtual Meeting via ZOOM

Meeting Minutes

February 7, 2025 10:00 am – 2:00 pm

In Attendance:

Board Members Present: Amy Sabarre, Dr. Padmanabhan Seshaiyer, Edward Monroe, Amy Thompson, Chris Dovi, Rashid Farrell, Amy White and Victoria Chuah

Ex-officios and Staff: Deborah Love (Office of the Attorney General), William "Billy" Reid (Secretary of Labor Office), Emily Salmon, Dr. Anne Petersen (VDOE Office of STEM & Innovation Science Coordinator), Ada Sue Siler (Science Museum of Virginia Staff), MJ Benson (Science Museum of Virginia Staff)

Topics:

1. Approval of Minutes from September 13 2024 and December 6 2024
2. Updates on Federal Appropriations Funding STEM Ecosystems: VDOE
    - Procurement update
    - Consultant proposal overview
3. Website discussion and research
    - VITA
    - Input from the STEM Advisory Board
4. Discussion: What do we as a board want to accomplish by this time next year that is outside of the STEM ecosystems project?
    - Revisit Board Goals
    - STEM Metric and Priorities
    - Subcommittees and Roles
5. Next Meeting Date
6. Public Comment

Dr. Seshaiyer opened the meeting by acknowledging that Amy Sabarre was present online, and would participate when possible. He welcomed all attendees, noted that a quorum was present, and thanked Ada for her support. He also mentioned that MJ would be managing the technical aspects of the virtual meeting.

Dr. Seshaiyer outlined the agenda, which included discussion of the legislative report submission, approval of the September and December meeting minutes, updates on procurement and the STEM ecosystem led by Anne Petersen, an extended conversation about the website, and a post-lunch session focused on revisiting board metrics and goals. The group would also consider forming subcommittees to support VDOE's work with the STEM ecosystem, finalize the next meeting date, and allow time for public comment.

A collaborative activity followed where attendees accessed a shared online slide deck and were asked to post a virtual sticky note with their name, professional background, and an interesting fact.

Following the introductions, Dr. Seshaiyer returned to the agenda. He noted that the legislative report, which had undergone minor revisions following the last board meeting, was reviewed and submitted on time by Amy Sabarre, with support from Zach from the Secretary of Education's office.

The group then moved to approve the September 23 2024 and December 6 2024 meeting minutes, which had been previously distributed by Ada Siler. Chris Dovi made the motion to approve, and Amy Sabarre interjected to ensure a discussion period occurred before the vote.

Rashid Farrell called the second for the motion. No further discussion was heard. Dr. Seshaiyer called for a vote by show of hands, all in favor, motion carried.

Dr. Seshaiyer then introduced Dr. Anne Petersen, inviting her to speak about the ongoing STEM ecosystem work associated with the Federal funding Award, which is being led by the Virginia Department of Education (VDOE).

Dr. Seshaiyer recapped the project's goals, which include:

1. Supporting the development of parameters for state STEM hubs and co-creating processes;

2. Assisting VDOE in developing a website and a STEM asset map for students, parents, and educators;

3. Securing additional funding for state STEM infrastructure.

Dr. Anne Petersen took the floor and provided an update. She explained that VDOE is nearing the end of the procurement process for hiring a consultant to support the development of a K–12 STEM vision and five-year strategic plan. Due to procurement

regulations, she could not disclose details of the proposal but noted that the selected vendor has substantial national experience in STEM education work.

The consultant's proposal includes four planned work sessions:

1. **Session One**: Identify and rank K–12 STEM priorities and develop a draft vision.

2. **Session Two** (anticipated in April): Finalize the five-year vision and discuss hub and ecosystem structures.

3. **Session Three** (planned for May): Draft the strategic plan with specific goals and outcomes.

4. **Session Four**: Finalize the hub model.

Petersen noted that the working group will consist of approximately 30 individuals, including VDOE staff, STEM Advisory Board members, educators, students, employers, and representatives from higher education and workforce organizations. She shared a preliminary list of potential participants and emphasized the importance of regional representation and involvement across various educational levels and disciplines.

Dr. Seshaiyer and Amy Sabarre discussed the importance of board members' involvement, considering the board's significant role in obtaining the original funding for the initiative. Amy Sabarre stressed that the board should remain actively engaged, despite VDOE managing the procurement and execution.

Dr. Seshaiyer questioned whether the board should form a subcommittee to support VDOE in this initiative, which could then serve as part of the 30-member working group. Amy Sabarre confirmed that the board's role is central in the grant application and encouraged members interested in participating to reach out directly to her.

Discussion then shifted to the Attorney General's office representative, Deborah Love.

Deborah Love raised legal considerations related to the Virginia Freedom of Information Act (FOIA). If three or more board members participate in the working group, it may constitute a public body, requiring meeting notices and compliance with public access laws. She noted the potential implications, such as needing a quorum and limitations on virtual participation.

Deborah Love concluded that to err on the side of transparency, the meetings should be publicly advertised if three or more board members are involved. However, formal legal guidance will be provided in writing to clarify these obligations.

The conversation continued with a discussion about FOIA (Freedom of Information Act) compliance. It is clarified that any committee or subcommittee formed by a public board must adhere to FOIA requirements, including public notice, open meetings, and minute-keeping. Members express interest in participating in a subcommittee, proposing

to send names to Dr. Anne Petersen for coordination. Dr. Petersen acknowledges this and reminds the group that final approval will come from her leadership and the governor’s office. The participants discuss how to distinguish board members from other participants in the selection process to streamline agency review.

The dialogue shifts to procurement concerns around a consultant proposal. Dr. Petersen explains that she cannot share proposal details while the procurement process is ongoing, due to agency and State procurement rules. This prompts questions about transparency and what information was previously shared. Dr. Petersen clarifies that while the solicitation and scope of work were shared earlier, the proposal itself is still under internal review. There's a lighthearted exchange about respecting procurement protocols, reinforcing the importance of legal and procedural adherence.

Attention turned to a potential virtual hub platform. Dr. Petersen introduces Terminal 4, a VITA-approved vendor experienced in working with Virginia agencies. The group discusses the platform’s interactive capabilities, like maps and data submission, and considers how to handle content vetting. Chris Dovi proposes a pre-vetting process for regional partners to ensure quality and security. Dr. Petersen notes that while Terminal 4 offers valuable features and integration with state systems, questions remain about cost, data sourcing, and long-term maintenance. The team agrees more planning is needed before moving forward.

The conversation continued around the development and sustainability of a website to support a collaborative STEM initiative across various agencies, including the Virginia Department of Education (VDOE). Chris Dovi emphasizes the importance of the board’s original mandate—to establish an independent, multi-agency-supported entity capable of fundraising and maintaining continuity, even as board membership changes. Petersen and others weigh in on technical aspects, debating whether hosting on the VDOE site limits functionality. Dr. Petersen clarifies that while the website would be linked to VDOE, it would be maintained externally, allowing for more features like interactive content and updates beyond static PDFs.

Discussion shifted toward the practical considerations of maintaining and funding the website long-term. Dr. Petersen notes that the current grant includes funding for the platform and highlights that oversight and content management must be planned out carefully. The idea of a STEM coordinator maintaining the site comes up, although concerns arise regarding the position’s permanence, especially with potential changes in administration. The group considers assigning this responsibility to board roles or contracted consultants and contemplates whether to proceed with Terminal 4 as the web developer or explore a broader request-for-proposal (RFP) process.

Members brainstormed features and roles for the website, including interactive calendars, access levels for various users, and integration with industry partnerships. They stress the importance of making it a centralized resource for internships, mentorships, and workforce development. Chris Dovi and others highlight the potential for fundraising from industry partners who benefit from the system, even if they can't host interns directly. The VTOP program is mentioned as an example of how to provide

infrastructure and funding support, especially for small employers. The conversation ends with encouragement for continued input and collaboration to shape a responsive, flexible, and future-ready digital platform.

The group clarified that the current focus of their efforts is on K-12, not higher education, though there is potential to expand later. The conversation then shifted to the ongoing procurement process for a consultant, with expectations that details would be finalized and shared within a couple of weeks. There was also a discussion about assembling a diverse group from the board to support the initiative, with members encouraged to send their names to Amy Sabarre if interested in participating. Dr. Anne Petersen emphasized that group size would need to be managed carefully and that the members suggested were not final, allowing for flexibility.

Dr. Anne Petersen also shared updates from the Virginia Department of Education (VDOE), highlighting key initiatives such as the implementation of High Quality Instructional Materials (HQIM) in math following their adoption in K-5 literacy. She also noted potential updates to the science standards, expected to go before the board in June, which would affect secondary and environmental science courses. Additionally, healthcare education was addressed, clarifying that programs like nursing fall under Career and Technical Education (CTE), though they also intersect with science curricula. The conversation touched on the importance of foundational content and how it supports career readiness efforts.

After a lunch break, the group reconvened to focus on broader STEM education goals. They revisited the Virginia STEM education metric and discussed what it means to develop a STEM mindset. Participants shared perspectives from diverse backgrounds, emphasizing problem-solving, integration, collaboration, and creativity. The concept of design thinking was introduced as a core framework for STEM education, involving empathy, problem definition, ideation, prototyping, and testing. The metric outlined three main themes: guiding principles, instructional practices, and resources/community partnerships. Board members were invited to align their interests with these themes, with many gravitating toward resources and partnerships, reflecting their varied professional expertise.

The group discussed progress and next steps for Virginia's STEM initiatives. Dr. Petersen clarified how the Virginia Performance and Support Framework evaluates high schools using the 3E framework: Enrollment, Employment, and Enlistment. The board reviewed their 2024–2026 goals, focusing on defining regional STEM hubs, developing a website, and securing long-term funding. They agreed to move forward with current inputs for the website proposal while allowing for future refinements. Several members emphasized the progress made despite limited funding and structural uncertainties, and Chris Dovi volunteered to help lead efforts to secure additional funding through proper legislative and grant channels. There was consensus on the importance of sustainability and strategic collaboration moving forward.

The group discussed a newly added board goal related to identifying and addressing gaps in STEM education and workforce readiness in Virginia. There was uncertainty

about whether this goal was part of the consultants' scope, but it was agreed that it is a long-term responsibility rather than a short-term action item. Members emphasized the importance of gathering meaningful, manageable data and possibly conducting a needs assessment through surveys or consultations. They highlighted the need for better outreach, clearer pathways for students, and increased awareness of opportunities—especially among underserved communities. Marketing and communication were flagged as essential components moving forward, along with determining actionable next steps like defining key themes and vetting community partnerships.

The discussion revolved around ongoing efforts to address STEM education and workforce development in Virginia. Participants reflect on the Virginia Office of Education Economics' efforts to analyze job market data and identify high-demand, high-wage jobs, particularly in STEM fields. They reference previous work involving job posting data and labor market analysis, noting that key individuals, like Todd Oldham from the Virginia Office of Education Economics, had provided valuable insights. There was also mention of the state's work on high-wage, high-demand job lists, with a focus on STEM.

Participants discussed the revision of Virginia's career clusters, including the removal of the dedicated "STEM cluster," emphasizing that STEM is now integrated across other disciplines. The conversation touched on the importance of connecting academic and career technical education (CTE) and how data science initiatives have influenced workforce training needs. Additionally, they reviewed updates on the Virginia Department of Education's new framework, which has been praised for its approach to career and technical education, despite concerns about removing the STEM cluster.

Towards the end of the meeting, participants discussed upcoming events and opportunities for collaboration. Amy Sabarre shared details about the STEM Day event in Harrisonburg, which is expected to attract thousands of attendees and features a variety of STEM exhibits. There was also mention of other STEM-related events, like the Future City competition, where students envision cities a hundred years into the future. The group agreed to stay in contact, with some members planning to meet in person on April 11th in Harrisonburg to further discuss these initiatives.