

2019 VA STEM Summit

Cabell Library, Virginia Commonwealth University

October 11, 2019

The Virginia STEM Summit was a convening of nearly 150 multi-sector STEM education stakeholders from across the Commonwealth and nation to create a blueprint of a statewide STEM network. Included in the participant groups were the members of the Governor's STEM Education Commission. This event is part of a larger effort to provide accessible, high-quality STEM programming across the state. Supported by a grant from 4-VA, whose mission is to promote collaborations that leverage the strengths of partner universities across the Commonwealth of Virginia, this project exemplifies the contributions that public universities can make to a large-scale challenge such as ensuring a STEM-informed citizenry, as well as the needed STEM workforce for Virginia's New Economy.

Led by Virginia Tech, the university partners include George Mason University, James Madison University, The University of Virginia, and Virginia Commonwealth University. Summit sponsors are Discovery Education, Lego Education, The Steward School, Virginia Commonwealth University, and Virginia Tech. The project is supported by advisors from the Office of the Governor and the Virginia Department of Education.

The day-long program was designed to frame the intent of and issues in creating a statewide STEM network or ecosystem, as well as lay out the educational context and considerations in the Commonwealth that include available affordances as well as potential obstacles for this endeavor. Leland Melvin, former NFL football player, astronaut, and engineer, provided the audience with the story, including people and mechanisms, that enabled him to succeed in an amazing STEM career. A panel of experts in STEM education fielded a range of questions including how to create a statewide culture of STEM, the list of stakeholder groups that need to be at the table, what effective STEM education looks like, ways to create a sustainable STEM model, and the naming of specific tools that can be implemented to engage all learners. With a focus on access and inclusion, the panel provided specific ideas, concerns, strategies, and potential solutions that will be elaborated in the full evaluation report and included in the statewide STEM network blueprint. One of the clear messages was that Virginia already has many points of pride in STEM education, and that we need to build on our existing resources while creating an infrastructure to ensure that all Virginians have access.

After lunch, the participants first organized into "by sector" groups, then "multi-sector" groups to identify the key issues for Virginia and identify priorities in terms of specific activities that need to begin immediately. The groups had to identify the initiative, success metrics, implementation steps, and sectors that must be involved. Fifteen initiatives were articulated, with some having overlapping features. Our preliminary analysis indicates five priorities emerging from the participants voting on the full range of ideas. Leading the list was an initiative entitled "See it, do it, be it." This idea capitalized on the existing affordances and emphasized the creation of experiential, scaffolded, and authentic experiences for all learners, PK-career. The design emphasis is to take into account experiences that mirror skills in the

disciplines as well as the professions. Tied for the second priority were two related ideas. One is to create a Virginia ecosystem through building the multi-sector community, inventory the available resources, and make the information available and searchable for the public. The second is to engage the community in STEM, education, literacy, and careers with an emphasis on equity and access. An additional VA STEM Summit was recommended that would broaden the invitation list to include parents, teachers, faith leaders, etc. The third set of priorities focused on collaboration across sectors and revising the Commonwealth's P-20 education policies so that they are supportive of transformational change in instruction, assessment, and accreditation.

Summit evaluation data is currently being collected and will be summarized in the project's final report, with key information included in the blueprint.