

Ohio STEM Committee

October 29, 2021

Ohio Department of Education

Committee Members Attending: Dr. Tom Schwierterman, Dr. Melissa Weber-Mayer, Dr. Krista Maxson, Jonathan Gormley, Jeff Polesovsky,

Committee Members Absent: Ellen Marrison, Stephen White Esq.

Ohio Department of Education Attending: Alex Moorman, Dr. Teresa Dempsey

Ohio STEM Learning Network Attending: Heather Sherman, Kelly Gaier-Evans

Spotlight Guest: Michele Ritchlin

Ohio Department of Education Staff Recording Minutes:

Recording Secretaries: Kyaundra Ellis and Johana Coronado

Opening:

Dr. Tom Schwierterman, Committee Chair, welcomed the STEM committee members and called the meeting to order at 9:03 a.m. *Dr. Tom Schwierterman called roll.* A quorum was present to proceed with committee. Notes from the previous meeting were approved.

Dr. Melissa Weber-Mayrer reiterated the importance of the STEM committee and the goal of committee members in providing critical feedback to the Department and the Ohio STEM Learning Network (OSLN) so that the work can continue to strengthen STEM as an approach to teaching across Ohio.

Heather Sherman, STEMx National Network Director, announced her departure from the Ohio STEM Learning Network (OSLN) and introduced Kelly Gaier-Evans, OSLN Director, to the committee. Dr. Tom Schwierterman congratulated Heather Sherman for her new role and thanked her for her time with OSLN.

Dr. Melissa Weber-Mayrer introduced Dr. Teresa Dempsey, Assistant Director for Personalized Learning and Johana Coronado, STEM Program Administrator 1 as the new STEM Team in the Office of Approaches to Teaching and Professional Learning. Additionally, Dr. Melissa Weber-Mayrer announced the search for a STEM Education Program Specialist that was recently vacated by Kimberly Bell.

Voting Item – Expanding STEM designated grade band

No fewer than six members must vote to adopt.

Springmill STEM Elementary Addendum

Dr. Tom Schwierterman acknowledged Springmill Elementary's original STEM school designation for K-3. Springmill requested to add grades 4, 5 and 6 to their designation. The school's intention is to grow the program through grade six. Heather Sherman recommended approving Springmill STEM Elementary through grade six. Dr. Krista Maxson motioned to approve the Springmill STEM elementary addendum through grade 6. Jonathan

Gormley seconded to approve. All members in attendance voted to expand Springmill STEM Elementary's grade band request from K-3 to K-6.

Open Q&A/ Comments:

Q: Dr. Weber-Mayrer asked Springmill Elementary's attending principal, Regina Sackman, to share aspects of their STEM success during the pandemic.

A: Regina Sackman shared that the students mostly attended in-person learning during the pandemic. Virtual sessions took place on Wednesdays to provide deep cleaning and disinfecting of the building. During the pandemic, Springmill received a \$10,000 grant to implement an outdoor classroom. They were able to partner with the Parks and Recreation to provide environmental education programming. Through this partnership, students discovered that the school was sitting on a mill farm which then led to a partnership with a local orchard to plant an orchard and work with students to build skills to operate and maintain an orchard. Springmill was able to reinforce their STEM process due to growth from the community wanting to keep education quality despite the pandemic.

Committee Discussion: [HB 110 Updates](#)

HB110 Legislative STEM School Updates

Alex Moormann, Legislative Liaison, Ohio Department of Education provided an overview of the revisions included in [Chapter 3326](#) of the Ohio Revised Code. [HB 110](#) passed in July of 2021. The bill included revisions pertaining to STEM designation, renewal and revocation. These revisions included the following:

- STEM Committee assisted with the STEM Initiatives that were sent over to the Governor's office,
- The budget approved STEM schools and programs which maintain a 5-year designation,
- Any issues with the proposals or the STEM schools that are not in compliance with the law or their plan, the STEM committee is able to place the schools on a one-year corrective action plan,
- Any further issues, revocation of STEM designation can also be done,
- Any standalone school not operated by a district - If a school loses their STEM designation they may no longer function as a STEM school,
- Joint and vocational school districts, CCTs and career tech education centers can apply to be a STEM program excellence, however, they would not function as a STEM school. They would lose their designation as a career tech and become a STEM program,
- Adds a provision that permits schools operating as a joint vocational school to gain a STEM designation,
- Allows for STEM schools to expand their grades and adjust their scales for grades,
- Limits their requirements to provide annual opening assurances to the Ohio Department of Education and STEM,
- Limits them to apply for designation as a STEM program of excellence,
- Eliminates authority for local schools to apply for STEM designation as a program of excellence, and
- Proposal and requirements to attain STEM designation.

To meet the requirements of STEM designation, a school must:

Employ cultural strategies that reflect innovation, entrepreneurship, inquiry, and collaboration,

Use a curriculum that emphasizes design thinking,
Engage in regular professional development,
Provide opportunities for students to engage in personalized learning, and
Acknowledge that the school will participate in regular STEM focused professional development and share knowledge of best practices.

STEM Committee membership, grants, and recommendations

- Allows agency directors who are members of the STEM Committee (Superintendent of Public Instruction, Chancellor of Higher Education, and Director of Development) to appoint a designee to serve on their behalf.
- Provides for direct state funding of STEM schools, rather than deducting funds from the students' resident school districts.
- Repeals outdated provisions regarding STEM schools.

Discussion Item: Five-Year STEM Redesignation Process

OSLN Process Proposal

Kelly Gaier-Evans presented a draft proposal outlining the Five-Year STEM Redesignation process to the committee. The proposal discussed:

Primary goals

- Importance of maintaining quality of STEM designation for all STEM schools,
- Help for STEM schools who are not on track currently,
- The vision is to build an increased sense of community among STEM designated schools,
- A roadmap to benchmark outcomes for Ohio's 5-year STEM redesignation process,
- A review of the 5-year STEM redesignation application,
- A timeline for reviewing all STEM designated schools past the 5-year window,
- Corrective action plans for schools that are not STEM redesignated, and
- A statement of STEM Designation equity aspiration.

STEM Redesignation Task Force Proposal Timeline

- November – December 2021
 - Survey existing STEM schools regarding participation in the redesignation process. The goal of the survey is to gain insight, identify a taskforce, and collect interest in being a pilot school.
 - Review and analyze the survey responses
- December – January 2022
 - Identify STEM schools that wish to pilot the STEM Redesignation process
- February – March 2022
 - Provide a STEM Redesignation pilot update to the STEM committee

Open Q&A from the STEM Committee to OSLN:

Q: Does the current STEM designation rubric put us in a better position today?

A: When we pull this taskforce together, we will take the current redesignation and apply the STEM designation rubric to determine whether there are pieces we want to add to this in comparison to schools who implement STEM and schools who don't.

Q: Do you anticipate visits to the school? Is this a core piece of the STEM redesignation process?

A: Yes, we do plan to visit schools as this is a core piece of the STEM redesignation process.

Q: Do you have any insight on some of the STEM schools who want to redesignate?

A: OLSN wants to build the STEM community buy in. When we are developing this process, we need to listen to the STEM leaders in the field and pull them in as it allows us to network and recognize the current situation our STEM leaders are in. There are some currently STEM designated schools who may not want to redesignate.

Q: You gave an example of a STEM school that has been 10 years since their STEM designation, what supports do we have in place for these schools who are past designation?

A: We pull the STEM leader community together monthly to go over best practices. Leaders can pull new leaders in as they are going through changes. We have a broad network where individuals can participate in additional STEM training or attend conferences. The key outcome is around mentorship

Q: Have we ever had in place a structured monitoring process where we can celebrate or help in any way?

A: No, once a school was STEM designated that was that – corrective action was recommended. We weren't able to take away the STEM designation.

Q: If we found funds to do an external evaluation, has this committee ever considered looking at our STEM designated schools in comparison to our traditional schools?

A: We have not done an evaluation. OLSN used to publish a report of the impact of STEM designation.

Motion made by Dr. Krista Maxson, seconded by Jonathan Gormley to approve the development plan of the STEM redesignation process. Motion approved by all members in attendance.

Committee Discussion: Working group session

Kelly Gaier-Evans requested that the STEM Committee work in groups to gather feedback to present to the first STEM Redesignation Task Force meeting. The question presented to the committee was: *What would you like this committee to learn about the Ohio STEM schools as a part of the redesignation process?* The feedback is as follows:

- Jeff Polesovsky wonders what approach the committee can take to capture the next wave of opportunities and maintain talent in the state of Ohio. Mr. Polesovsky favors a career exploration approach.
- Jonathan Gormley believes Ohio is well positioned in tech that will dominate the global economy, bio-tech, automotive and shift to electric. Mr. Gormley believes part of this plan would be best served by thinking of the ultimate destination for students. Jonathan would like to know if students have stayed in the state and what level of education they've gone to achieve. Jonathan would like to know if the STEM programs for students are able to integrate with sector leaders, sector partnerships, and industry leaders in the region.

- Dr. Tom Schwieterman wonders if there is opportunity for a Jobs Ohio collaboration with STEM programs.
- Heather Sherman believes industry partners need to be willing to engage with STEM students prior to college.
- Dr. Weber-Mayrer asked if STEM designated schools are able to share community impact data that includes outcome data, proficiency rates, standardized tests, needs assessments disaggregated by subgroups. Additionally, Dr. Weber-Mayrer wonders what the plan of action is to address differences in the data in addition to professional development for teachers that will excite and engage them with STEM.
- Dr. Tom Schwieterman would like for STEM schools to demonstrate continuous improvement to allow for more opportunities for students.
- Robin Fisher, Superintendent of Dayton Regional STEM School (public audience comment), asked for clarification regarding the STEM Redesignation taskforce.

OSLN Budget

Kelly Gaier-Evans, Director of the Ohio STEM Learning Network, presented an overview of the Ohio STEM Learning Network (OSLN) Budget.

- OSLN State Funds
 - Public-private partnership with the state of Ohio
 - Earmark of \$1.5 million to expand STEM education across Ohio

Kelly Gaier-Evans addressed the priorities of the budget to the committee.

- Priority 1: Expand free STEM programs to all Ohio schools.
- Priority 2: Create regional STEM support to target the underserved student populations and develop STEM programming within these schools.
- Priority 3: Maintain and expand STEM school designation under the recommendation of the Ohio STEM committee and the Ohio Department of Education.

Committee Discussion: HB 110 Updates Continued

Career Tech Education (CTE) Designation Communication

Heather Sherman, Director of STEMx National Network, presented the changes to [House Bill 110](#) that now include Career Tech Education Schools (CTE) as candidates for STEM/STEAM designation equivalent status.

1. CTEs are now eligible to be designated as a STEM or STEAM school equivalent,
2. CTEs can be designated as a program of excellence,
3. Program level of excellence designation reserved exclusively for CTE schools,
4. CTEs can apply using the STEM / STEAM designation application and indicate that they will be applying for the CTE program of excellence, and

Spotlight on STEM: *Lights on AfterSchool*

Michele Ritchlin, Director of the Ohio Afterschool Network presented an overview of the *Lights on AfterSchool* event. *Lights on AfterSchool* supports individuals who do the work for afterschool programs. Additionally, *Lights on AfterSchool* provides support through professional

development and resources. This Ohio Afterschool Network continuously advocates for funding afterschool programs.

Proposed STEM Committee Meetings Scheduled for the year

Kelly Gaier-Evans led a discussion around the timeframe for scheduling STEM Committee meetings for the following year.

- Friday, February 25, 2022. The location will most likely be at a STEM school site. Updates on the STEM redesignation process and pilot program will be shared at this meeting.
- May date TBD – OSLN will make recommendations for those STEM schools looking to redesignate.
- August date TBD.

Public comments:

No public comment.

Adjournment:

Dr. Tom Schwieterman adjourned the committee meeting at 10:29 AM.

Dr. Krista Maxson motioned the adjournment. Jonathan Gormley seconded the motion.