

Ohio STEM Committee Meeting Minutes

FEBRUARY 3, 2025

9 A.M.-12 P.M.

VALLEY STEM+ME2 ACADEMY

7300 N. PALMYRA ROAD, CANFIELD, OHIO 44406

COMMITTEE MEMBERS PRESENT

Dr. Tom Schwieterman, M.D., Vice President of Clinical Affairs and Chief Medical Officer, Midmark Corporation, STEM Committee Chair (appointed by the Ohio State Senate)

Andrew L. Aichele, Vice President of Education, COSI (appointed by the Governor)

William Ashburn, Workforce Project Manager, Ohio Governor's Office of Workforce Transformation (designee for the Director of Development)

Jana Fornario, Associate Vice Chancellor, P-16 Initiatives, Ohio Department of Higher Education (designee for the Chancellor of the Department of Higher Education)

COMMITTEE MEMBERS ABSENT

Jeremy Varner, Deputy Director, Division of Career-Technical Education and Workforce, Ohio Department of Education and Workforce (designee for Director of the Department of Education and Workforce)

Jeff Polesovsky, Vice President of Public Policy, Columbus Partnership (appointed by the Speaker of the Ohio House of Representatives)

OHIO DEPARTMENT OF EDUCATION AND WORKFORCE PRESENT

Mary Ellen Dobransky, Associate Administrator of Innovative Approaches to Teaching and Learning

Sarah Redick, Ph.D., STEM Education Program Specialist

Jenny Russell, STEM Program Administrator

OHIO STEM LEARNING NETWORK PRESENT

Kelly Gaier Evans, Director

Sandra Wilder, Ph.D., STEM Relationship Manager

Sandy Guinto, STEM Relationship Manager

OTHERS PRESENT

Lindsey McLaughlin, Bio-Med Science Academy

Erin Faetanini, St. Vincent-St. Mary High School

OHIO DEPARTMENT OF EDUCATION AND WORKFORCE STAFF RECORDING MEETING MINUTES

Jenny Russell, STEM Program Administrator

Opening

CALL TO ORDER

Dr. Tom Schwieterman called the meeting to order at 9:55 a.m. after tour of Valley STEM+ME2 Academy.

WELCOME AND INTRODUCTIONS

Dr. Tom Schwieterman welcomed Committee members, Department of Education and Workforce and Ohio STEM Learning Network staff, and guests to the meeting.

APPROVAL OF AGENDA

Motion made to approve the February 3, 2025 STEM Committee meeting agenda made by Andy Aichele, seconded by Will Ashburn.

All votes aye; none opposed. Motion approved.

APPROVAL OF OCTOBER 21, 2024 MEETING MINUTES

Motion made to approve the October 21, 2024 STEM Committee meeting minutes made by Will Ashburn, seconded by Dr. Tom Schwieterman.

All votes aye; none opposed. Motion approved.

PARTNER SPOTLIGHT

Mahoning County Career and Technical Center

SCHOOL SPOTLIGHT

Valley STEM+ME2 Academy (independent STEM school)

Dr. Tom Schwieterman shared that there is often a dichotomy between STEM education and career-technical education, and he congratulated Valley STEM+ME2 Academy and the Mahoning County Career and Technical Center on their success in showing how they can fit so well together.

Discussion Items

POLICY AND COMPLIANCE UPDATES

GROWTH PLAN PROCESS

- Dr. Sarah Redick spoke about the growth plan process, referred to as corrective action plans in statute. The five steps are:

1. STEM Committee votes to put school on corrective action plan/growth plan.
 2. Within three months of vote, the Department of Education and Workforce (DEW) and the Ohio STEM Learning Network (OSLN) meet with school to create growth plan.
 3. Progress monitoring through quarterly meetings with school, DEW, and OSLN.
 4. School submits application by uploading artifacts to SlideRoom application system for attributes identified in growth plan. Site visits scheduled as needed.
 5. STEM Committee votes to revoke designation or approve additional five years of designation.
- In the growth plan, we are only evaluating on the attributes for which the schools didn't meet the minimum requirements.
 - Dr. Tom Schwieterman asked if we are continuing with growth plans.
 - Mary Ellen Dobransky responded that it's actually in statute that if schools don't meet the requirements for redesignation, they have a year to improve (schools keep designation during that time and we provide technical supports to those schools). We are over the hump of having the pressure to "redesignate 45 schools right now."
 - Dr. Tom asked if we should rethink that.
 - Dr. Sandra Wilder said that we expected this many growth plans. We have one more year of catching up with redesignation, then we think we will have fewer schools on growth plans. We are working on supports before redesignation applications are due and early in the process; the goal is to not have schools on growth plans, but growth plans have exceeded our expectations.

STATUS OF SCHOOLS CURRENTLY ON GROWTH PLANS

- Dr. Sarah Redick told the Committee that there are currently twelve schools on growth plans (corrective action plans).
 - Four schools have had their second quarterly meeting.
 - Five schools have had their third quarterly meeting.
 - Three schools have gotten site visits.
 - We will do site visits to four more schools this spring.

HUGHES STEM HIGH SCHOOL

Dr. Sandra Wilder told the Committee that OSLN is recommending that Hughes STEM High School be removed from their corrective action plan.

She said that the school has had multiple areas of growth (eight attributes from the rubric). They currently serve grades 9-12 but have had lower grades also in the past. Their growth plan was finalized on January 16, 2024.

Dr. Jennifer Williams, the principal of Hughes STEM High School, addressed the Committee virtually. She said that she was pleased to share their progress over the past year. The growth plan has united the school in a strong culture of STEM – how they learn STEM and how they engage with others in the community. She shared that one of the key drivers of their success is the design process, which empowers students and teachers to approach problems with an analytical mindset. They advanced to the “executing” level of the rubric for project-based

learning, and they are ensuring learning experiences that reflect real-world applications. They utilize personalized learning that meets students where they are and supports growth. She reiterated that Hughes appreciates DEW and OSLN's support and they are excited to prepare the next generation of STEM leaders.

Dr. Sandra Wilder asked Dr. Williams about the biggest advantage of the growth plan. Dr. Williams said that when they first applied, there was only a small team involved. The growth plan brought the whole staff together.

Motion to remove Hughes STEM High School from their corrective action plan made by Andy Aichele, seconded by Will Ashburn. All votes aye; none opposed. Motion approved.

BIO-MED SCIENCE ACADEMY

Dr. Sandra Wilder told the Committee that OSLN is recommending that Bio-Med Science Academy be removed from their corrective action plan.

Bio-Med Science Academy is an independent STEM school; they started with high school grades, then included middle school grades, and finally included elementary school grades. Their growth plan, which was finalized on May 10, 2024, included four attributes from the rubric.

Lindsey McLaughlin, the assistant chief administrative officer/superintendent of Bio-Med Science Academy, addressed the Committee. She said that strengths of the growth plan process included support-driven, feedback-driven, timely, and transparent communication. "It was always clear where we were heading." She said that as the school moved into lower grade levels, they had to change how they discussed and did STEM. The growth plan helped them formalize some of the processes they were using.

Lindsey also shared some areas of consideration for the Committee about the growth plan process. She said that for Bio-Med, as an independent STEM school, the process is very high stakes – we exist because of our STEM designation. Other schools can lose designation and stay open; we would lose designation and be forced to close, which would affect 1,000 students. When schools are growing it's hard to keep up with all the requirements for designation. Our K-5 grade opened in 2021-2022 so it was tough (still recovering from the pandemic).

Dr. Tom Schwieterman asked how many independent STEM schools we have. Mary Ellen Dobransky answered that there are currently eight.

Dr. Tom asked if there is any work being done on providing some other support to independent STEM schools. Mary Ellen shared that in the last state budget, schools received Independent STEM Schools of Quality funding. She added that we are having ongoing conversations, including discussions with Sheila Ross, the director of the Ohio Alliance of Independent STEM Schools, around what we can do to support them.

Kelly Gaier-Evans wanted to clarify one area of concern – growing while maintaining designation. "If we zoom into this challenge a little more and work on a solution, is the concern primarily on growth?" Lindsey said that it takes time to train staff and get students to

see how they are part of the whole school. Every grade level operating to the rigor of the rubric is harder in Year Two than in Year Eight. Getting students up to speed (on the design process, etc.) just takes time. “Taking those kinds of things into consideration when you can would be great.”

Dr. Tom mentioned that he would like to know a little more about IRNs [schools operate under a single IRN even if they have multiple grade levels and multiple campuses]. At some point he would like to have a discussion on that. Sandra said that we will have two more designation addenda this year (for Metro Early College High School and Dayton Regional STEM School to add grade levels), so this is going to be coming up again.

Motion to remove Bio-Med Science Academy from their corrective action plan made by Dr. Tom Schwieterman, seconded by Andy Aichele. All votes aye; none opposed. Motion approved.

ST. VINCENT-ST. MARY HIGH SCHOOL

Dr. Sandra Wilder told the Committee that OSLN is recommending that St. Vincent-St. Mary High School be removed from their corrective action plan.

Sandra mentioned that we have a really great group of schools exiting growth plans – including St. Vincent-St. Mary, which is the only STEM-designated private high school in Ohio. Their growth plan, which was finalized on February 15, 2024, included ten attributes from the rubric.

Sandra shared that St. Vincent-St. Mary High School’s leadership turned over during their growth plan! But they used it to transform their culture and bring people together.

Dr. Erin Faetanini, the principal of St. Vincent-St. Mary High School, addressed the Committee. She said that their school has had an incredible journey and there has been lots of transformation. They have been revisioning and sharing best/foundational practices with their staff. Erin personally saw the school through the lens of a parent in the first five years of designation. The growth plan/redesignation process was part of her hiring process.

Ryan Pjesky, the STEM coordinator at St. Vincent-St. Mary High School, also spoke to the Committee. He said that it took sheer perseverance and getting to work and not looking back. It took them a long time to get a team together to work on redesignation; it started with him, then slowly one of the board members started to work with him, then Erin got on board and they started to assemble their team. They laid the groundwork in the spring, did the real work in the summer, and executed their growth plan in the fall. Staff and students developed an entrepreneurial mindset and combined that with STEM habits of mind for staff and students.

Erin said that St. Vincent-St. Mary High School is very proud of marrying STEM habits of mind with the Marianist tradition; they did a good job of involving stakeholders, staff, and students in figuring out how to do that. Establishment of a morning meeting helped because students are hearing this language over and over again. The DEW/OSLN team was super helpful and impactful, and so was Sam Cruz, the director of OSLN’s Akron hub, who sent teachers to visit the STEM-designated National Inventors Hall of Fame High School.

Ryan said that St. Vincent-St. Mary occupies a rare space as the only STEM-designated Catholic high school in the state. The Marianist principles of education and STEM habits of mind share a lot; they're both about best practices and good teaching and learning. He took part in Fostering STEM with OSLN and said that "Dr. Redick and Dr. Wilder always had somewhere to direct us" for networking. Some of the school's challenges were beginning to understand the rubric and the language. It took a while to break it down and learn it and adopt it, and for it to become natural language. It was very challenging during the school's exceptional turnover in staff.

Sandra said that the school's transformation would not have happened without the growth plan process. Their growth plan served as a guide – they didn't think of it as a "bad" thing anymore and were not nervous about it.

Andy Aichele said he was glad they talked about partnership among and across and between schools, so thank you to Sam Cruz for reaching out and offering that to St. Vincent-St. Mary. Teachers are charged with doing something different, but they don't always know how.

Kelly Gaier-Evans said that Dr. Tom Schwieterman was asking about continuing to see schools go on growth plans, and asked St. Vincent-St. Mary if they feel like they are in a place to sustain practices. Erin answered that this process forced them to put those systems in place. STEM education isn't about STEM industries, but a way of thinking. Ryan added that a Catholic school is a different place as a STEM-designated school, and maybe they can be a model for other religious schools.

Dr. Tom Schwieterman gave kudos to Sandra and Dr. Sarah Redick; the comments were great, so you are clearly making an impact. Growth plans are about building culture much more than just following the rubric.

Motion made to remove St. Vincent-St. Mary High School from their corrective action plan made by Andy Aichele, seconded by Dr. Tom Schwieterman. All votes aye; none opposed. Motion approved.

SCHOOLS UPDATES

UPDATE ON INITIAL DESIGNATION CYCLE

Mary Ellen Dobransky told the Committee that we are ready to hop into our initial design cycle, and she's excited about the cohort of schools who applied this year. Even if our response is "not yet" instead of "you're designated," we want to support schools along the way. We reached out to all schools who completed the Intent to Apply form to make sure they all had the opportunity to submit their applications before the deadline. Site visits will be happening in March and April. She reminded the Committee that schools must meet a certain number of attributes in the rubric in order to receive a site visit; schools who don't get a site visit get feedback and support.

Sixteen schools completed the Intent to Apply form – we are pleased with the regional variety. Seven schools submitted applications and are pursuing initial designation.

Dr. Tom Schwieterman asked if we are waiting for any more schools to apply. Mary Ellen Dobransky answered that not all schools who fill out the Intent to Apply form complete the application. Kelly Gaier Evans added that even if schools don't apply, they're still in the pipeline. Kelly and Dr. Sandra Wilder meet with each school that submits the Intent to Apply form.

Dr. Sandra Wilder affirmed that we want every student in Ohio to have access to STEM education. The pipeline to STEM for these schools focuses on igniting STEM and strengthening STEM, and schools are still taking advantage of the pipeline. We connect with a lot of "STEM curious" schools by encouraging them to apply for classroom grants, attend the summit...maybe teachers are ready to bring their students along in the design challenge. Whenever they're ready, OSLN leadership programs are there and hubs are there. We work with them to stay connected to the network and attend monthly meetings for support.

UPDATE ON 2018 SCHOOLS

Eight schools from the 2018 cohort submitted compliance applications for redesignation.

STEM AND STEAM SCHOOL DESIGNATION RECOMMENDATIONS

BISHOP FLAGET SCHOOL

Dr. Sandra Wilder talked about Bishop Flaget School, a private K-8 school in southeast Ohio. Their initial designation was in 2018. The practices are there with culture and partnerships but need to be scaled up to schoolwide.

Sandra told the Committee that OSLN is recommending that Bishop Flaget School be placed on a corrective action plan.

Motion to place Bishop Flaget School on a corrective action plan made by Dr. Tom Schwieterman, seconded by Andy Aichele. All votes aye; none opposed. Motion approved.

GESU SCHOOL

Sandy Guinto shared information about Gesu School. They are a private Catholic K-8 school in OSLN's Northeast Ohio hub. They were granted initial designation as a STEM school equivalent in 2018; they are seeking redesignation as a STEAM school equivalent. They are working on reinvigorating and reinvestigating what it means to be a STEM school. Their community partners are not quite there for career exploration. There is no minimum rating on the rubric for computational thinking, but Gesu has an exemplary program with computer science for all grades, K-8, which was rated at the "executing" level. It would be great for others to see.

Sandy told the Committee that OSLN is recommending that Gesu School be placed on a corrective action plan.

Motion to place Gesu School on a corrective action plan made by Will Ashburn, seconded by Dr. Tom Schwieterman. All votes aye; none opposed. Motion approved.

Dr. Sandra Wilder let the Committee know that Hawkins STEMM Academy is seeking to go from STEM designation to STEAM designation. Hawkins is part of Toledo Public Schools in OSLN's Northwest Ohio hub. They were initially designated STEM in 2023. We invited them to consider changing their designation – they have art everywhere! They have demonstrated their integration of the arts. Their formal partner is the Toledo Museum of Art.

Sandra told the Committee that OSLN is recommending that Hawkins STEMM Academy receive STEAM designation.

Motion made by Dr. Tom Schwieterman to approve Hawkins STEMM Academy's STEAM designation, seconded by Andy Aichele. All votes aye; none opposed. Motion approved.

Partnership Updates

STEM COMMITTEE MEMBER UPDATES

ANDY AICHELE

- COSI is working with so many organizations around the state. We were helping schools use the COSI ecosystem when COSI was actually closed. We drove our strategy around partnership.
- We know science is everywhere and science is for everyone.
- COSI won a 2023 National Medal for Museum and Library Service (awarded by the federal Institute of Museum and Library Services). This and other recognitions all rotated around our ability to partner.
- Ecosystem at a glance – our role as educators is to import learning in lives and communities locally and globally. COSI is excited to be able to expand to other countries (Ghana, Japan, etc.). We are connecting with schools where funding is a major challenge. We want to come alongside them and be that help. Establishing relationships is deeper than just a COSI program coming to a school. We have touched all school districts and library districts in Ohio.
- I would like to encourage the school folks here at this meeting to reach out to us and work with us.
- COSI is working to improve and encourage kids, communities, and the future workforce.
- Dr. Tom Schwieterman commented that COSI has an “impressive breadth of reach.”

WILL ASHBURN

- Update from the Governor's Office of Workforce Transformation – Lieutenant Governor Jon Husted was the face of the workforce in Ohio, but now he's a senator at the federal level.
- The governor will appoint a new lieutenant governor and both legislative houses have to confirm them.

DEPARTMENT OF EDUCATION AND WORKFORCE UPDATES

STEM TEAM OUTREACH

Dr. Sarah Redick told the Committee that the STEM team at DEW has presented at several conferences over the past few months and were able to connect with a lot of people. Sarah presented two sessions at the National Science Teaching Association Conference in November and focused on Domain One of the rubric, Culture for Learning. We were really able to spotlight Ohio on a national stage. One of the sessions was presented with the principal of a designated STEM school in Central Ohio.

Mary Ellen Dobransky spoke to the Committee about presenting at the National Consortium of Secondary STEM Schools Conference in November. Her session focused on Domain Three, Pathways to Success in Careers, and was about industry partnerships. She was able to lift up examples of Ohio schools who are using partnerships in a meaningful way. She led her group through some community asset mapping.

Sarah also presented at the SECO (Science Education Council of Ohio) Symposium in January, also about Domain Three. SECO is a teacher/instructional coach conference, and Sarah did a different spin on what Mary Ellen did in November, discussing the what and why of partnerships, how to identify partners, and how to conduct outreach to potential partners.

Sarah spoke at DEW's Office of Graduate Success' last Career Readiness Leaders Meetup, where the meeting theme was STEM, and is partnering with DEW's Office of Exceptional Children to do a presentation at the Ohio Educational Technology Conference later this month.

Mary Ellen is working with DEW staff on funding for independent STEM schools, to make sure we don't leave any stone unturned with funding. Dr. Tom Schwieterman commented that it can be financially challenging. Mary Ellen agreed and said by law, independent STEM schools can't turn any student away, but some students are coming to them with intensive needs.

Mary Ellen finished by saying, "Designation is not in everyone's journey, and that's OK." It's important to support innovative practices. Jennings Local School District in Bucyrus received a large innovation grant from the lieutenant governor's office and is working on a new space, and she's been talking to them about that. Dr. Tom Schwieterman said, "We need to acknowledge schools who have advanced in their journeys even if there's not recognition" through designation. It feels like we're so binary. Mary Ellen agreed and said that DEW tries to reach out to all schools and support all schools, and Dr. Tom remarked that the optics don't support that [way of operating]. Kelly Gaier Evans said that we are trying to figure out what that looks like and how we can sustain that.

OHIO STEM LEARNING NETWORK UPDATES

SPRING INTO STEM

Kelly Gaier Evans said that OSLN has thought hard about what the STEM journey looks like for educators and schools. Ignite – Build – Sustain. Spring Into STEM includes single-day events

and easier touchpoints. We haven't done Spring Into STEM since the pandemic. We have worked with all seven of our hubs to identify top innovative schools and coordinated STEM school tours across Ohio; we're excited to launch this and have teachers and leaders see successful schools.

Dr. Tom Schwieterman said that there is a very interesting marriage we saw here [at Valley STEM] today between vocational education and STEM education; this approach is very helpful to rural areas and benefits all students because some students want to get a Ph.D. and some want to move on to advanced manufacturing. Andy Aichele said that schools say "we have to do more with less;" the visits let them see how other schools do it in a similar situation.

Kelly said they posed two questions when thinking about the program: Who would benefit from a visit to *spark* their interest in STEM? Who might benefit from a visit to *strengthen* their STEM practice?

OSLN STEM INNOVATION SUMMIT REQUEST

Kelly Gaier Evans told the Committee that this year's STEM Innovation Summit is on June 3 at the Greater Columbus Convention Center (a Central Ohio location is easiest for a one-day trip from all around the state). Educators and leaders across the state connect and inspire one another. The "Hall of Innovation" is a brand-new experience this year; exhibits will be arranged by region and highlight what's really powerful from region to region. Save the date for the Excellence Awards Celebration dinner the evening before (June 2).

HIGH SCHOOL MANUFACTURING PATHWAYS

Kelly Gaier Evans shared that innovation grants for high school manufacturing pathways are new this year; we are doing a pilot over the next 18 months. The goal of the grants is to close the gaps to better align Ohio's existing credentials and educational pathways with the in-demand manufacturing competencies employers are seeking. OSLN is working in collaboration with DEW, JobsOhio, the Ohio Department of Higher Education (ODHE), etc.

The RFP was released January 6. Up to ten high schools will be selected (and notified on February 17). Approximately \$1,850,00 will be available to fund the pilot schools for 18 months. The grants will be used for technical service providers to support schools in marketing/communications, industry partnerships, higher education partnerships, and implementation support *plus* equipment, so that schools that have no experience will get everything they need to get this off the ground.

Jana Fornario mentioned that she wants to make sure they are aligned with ODHE as things are changing very quickly. Sandy Guinto said, "Ohio Excels is on it."

DESIGN CHALLENGE STATE SHOWCASE

Sandy Guinto spoke about the showcase at Battelle on March 4. The top 21 scorers across the state will be at the showcase, which will include an awards ceremony and lunch. A lot of schools who don't do much STEM engage in this way; it's an entry point. They can enter and sustain practices with school participation, and it's also good for industry partners to do.

STEM Committee Meeting Schedule

Mary Ellen Dobransky spoke about the upcoming STEM Committee meeting schedule. The next meeting will be held on Monday, May 12 at the Department of Education and Workforce in Columbus. That meeting will be jam-packed because we will go over all our initial designation recommendations. The summer meeting will be held on Monday, July 14 at a location yet to be determined (summer meetings are usually at partners since schools are closed).

Public Comments

None

Closing

In closing, Dr. Tom Schwieterman said, “I’m struck by the diversity of personalities and cultures we’ve seen in STEM (healthcare, agriculture, etc.); I don’t know if that gets communicated.” STEM designation is kind of rigid and isn’t that well known. We need to spread awareness to schools that “you can make STEM your own.” Mary Ellen Dobransky added “that’s called STEM identity and it makes each school unique.” The team does a good job of helping schools figure that out.

Dr. Tom said that we have seen a sea change here politically in the last couple of months. At some point he’d like to understand a little bit more about what that looks like. Because it certainly doesn’t feel like business as usual – he’d like some perspective – maybe a public session about state support.

Mary Ellen said it’s something we’re kind of navigating as we go. That’s something we can talk to agency leadership about and maybe collaborate with ODHE on something. Dr. Tom affirmed that we “want to make sure we’re as aware as we can be.” Jana Fornario said that the budget really shapes everything, so once it’s passed in June we’ll know more. That’s a major policy vehicle. Since we’re all cabinet agencies now, once that happens, if there are any major shifts they would be conveyed in the budget, either directly or via trickle-down impact. Kelly Gaier Evans thinks that’s an opportunity to invite the director or the chancellor in to discuss, and Jana added that maybe a few members of the legislative team would be really informative.

Adjournment

Motion to adjourn the STEM Committee meeting made by Andy Aichele, seconded by Dr. Tom Schwieterman. All votes aye; none opposed. Motion approved.

Dr. Tom Schwieterman adjourned the meeting at 11:42 a.m.

The next STEM Committee meeting will be held on Monday, May 12 at the Department of Education and Workforce in Columbus.