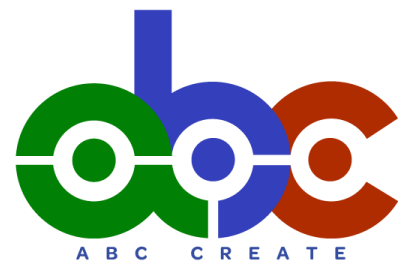




Educator Participation, Collaboration, and Professional Learning

A Report for the Collaborative | January 21, 2019



Prepared by

sevenzo

INTRODUCTION

Alle-Kiski Best Practices Collaborative CREATE Lab Satellite Network (ABC CREATE) is a K-12 incubator of curriculum and project design with a vision to be a change agent for the Alle-Kiski Valley by investing in innovative STEAM education for its students. Fourteen member districts together serve more than 26,000 students. Since ABC CREATE was formed in 2015, teacher learning and action has been a priority and valued mechanism for change. While the idea of engaging “teacher champions” has been part of the collaborative’s plans from the beginning, ABC CREATE currently does not have a good understanding of the landscape in which teacher peer-led learning is occurring.

Thus, this report focuses on one particular lever for change that cuts across the collaborative’s strategic goals: educator participation, collaboration, and professional learning. The report aims to help ABC CREATE better understand the current state of educator peer learning and collaboration within the collaborative, and to outline potential opportunities for enhancing future engagement and impact. Written by Sevenzo in the winter of 2019, this report captures feedback from individuals within the collaborative school districts, and offers recommendations to the network’s leadership to help meet strategic goals.

ABC CREATE Three Year Goals

1. Better communication, sharing of information, and storytelling across the network
2. Increased interactions between and among ABC CREATE educators, CREATE Lab Satellite Network Partners, the CREATE Lab, Remake Learning network members and opportunities, Schools of Education faculty and pre-service teachers, and business partners
3. Heightened awareness of research strategies and practices shown to further the interest in and development of STEAM skills for students who are typically underrepresented in STEAM
4. Defined outline of K-12 STEAM Learning Pathways
5. Targeted engagement with pre-service project led by an ABC CREATE educator with support from the CREATE Lab

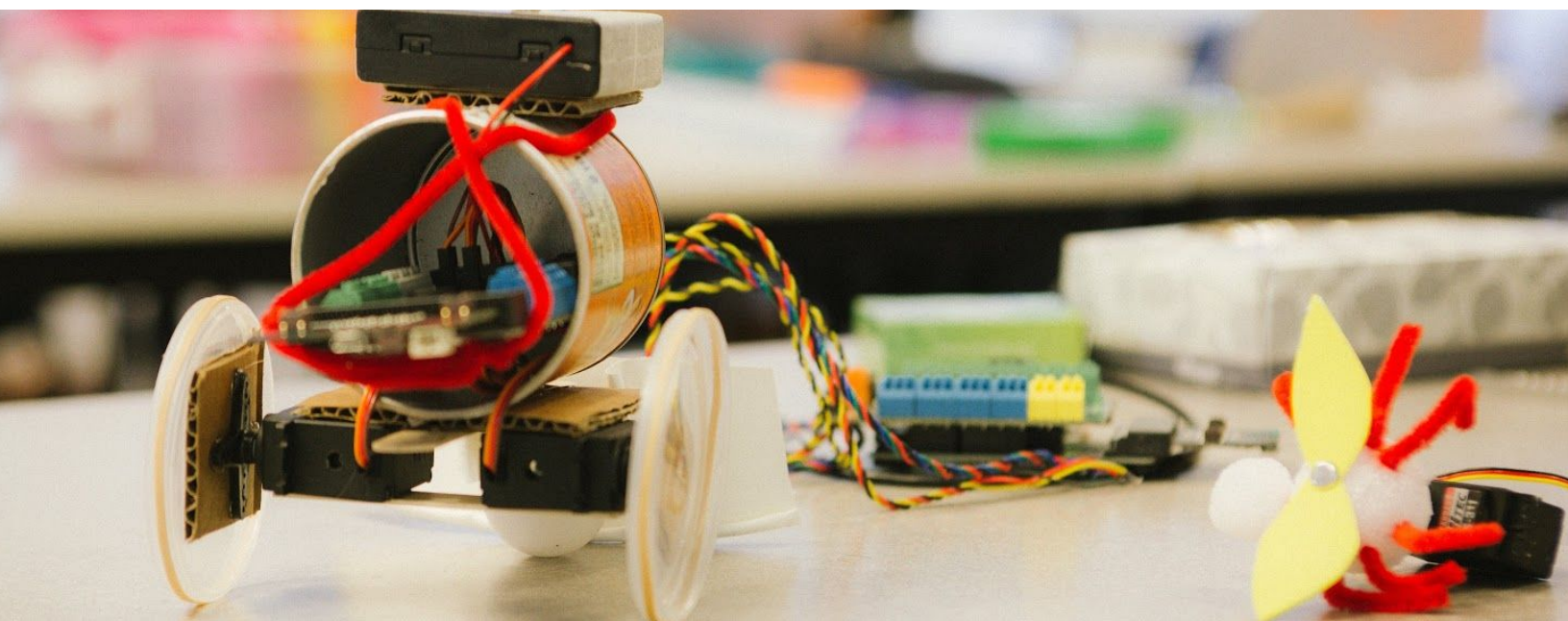


Photo by Nico Segall Tobon for Remake Learning, August 2018

SUMMARY OF METHODOLOGY

Feedback and insights were collected in November and December 2018 through an administrator survey, teacher and non-instructional school staff survey, set of interviews, and observations of two ABC CREATE convenings. Eight of the collaborative's 14 districts responded to the district and school administrator survey. These include: Allegheny Valley, Apollo Ridge, Armstrong, Kiski, Leechburg, New Kensington Arnold, Plum Boro and Riverview. Not represented in these results are Burrell, Deer Lakes, Fox Chapel, Franklin Regional, Freeport, and Highlands.

Roughly 480 educators from the same eight network districts responded to the teacher and non-instructional staff survey, with Kiski and Plum Boro both achieving over 50% staff participation in the survey. Not represented in these results are Burrell, Deer Lakes, Fox Chapel, Franklin Regional, Freeport, and Highlands.

In addition, we interviewed staff from seven districts to add depth to the survey results and gain additional context. Represented were: Armstrong, Allegheny Valley, Kiski, Freeport, Highlands, Leechburg and Riverview. We interviewed four classroom educators and three district and school leaders (e.g., technology coaches and directors). These individuals represent a range of experience in their current roles and in subject areas and grade levels for those in teaching positions. Their engagement with ABC CREATE ranges from 1-4 years.

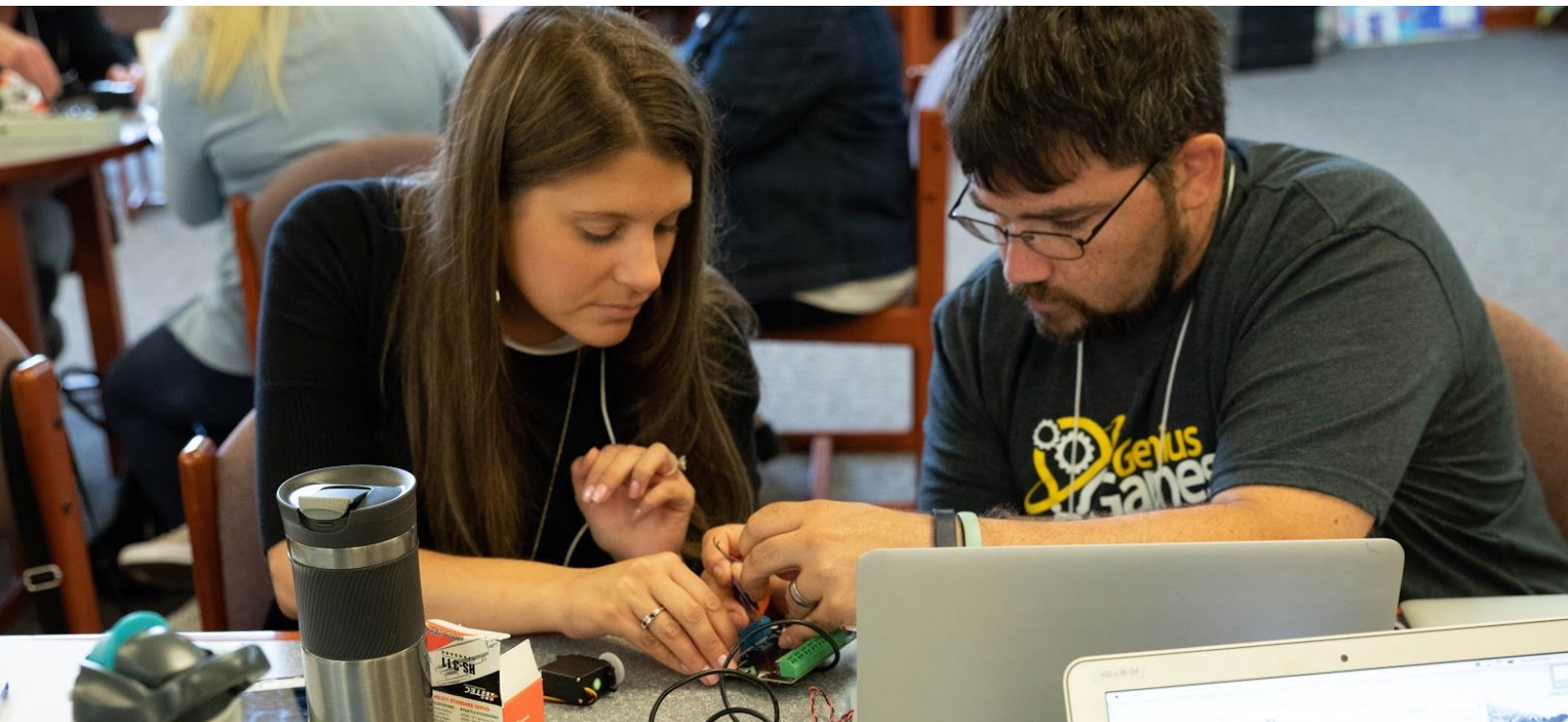


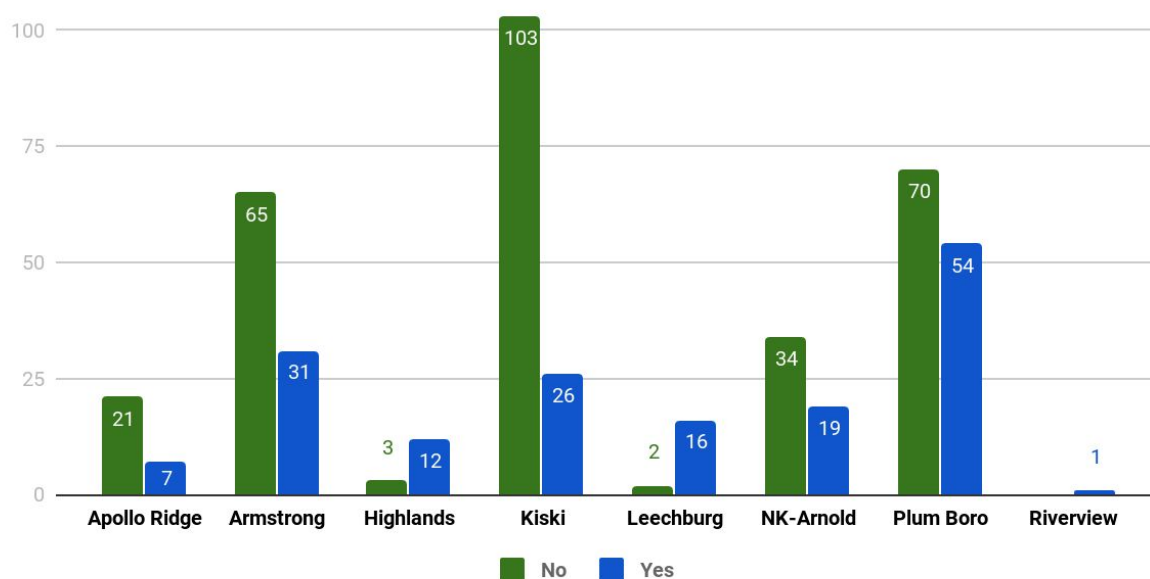
Photo by Rebecca Dletrich for Penn State New Kensington

KEY THEMES AND REFLECTIONS

1. Awareness of the ABC CREATE collaborative, and the resources and opportunities it provides, varies across districts, grade levels and subject areas.

The majority of school and district administrators (77% of respondents) were aware that their districts were a part of the ABC CREATE collaborative. However, as might be expected, across participating districts, the majority of educators and non-instructional staff who responded to the survey (64%) were not aware of their district's participation in the ABC CREATE collaborative. Technology, library, media, business, science, and world language teachers were more often aware of ABC CREATE than teachers of other subject areas.

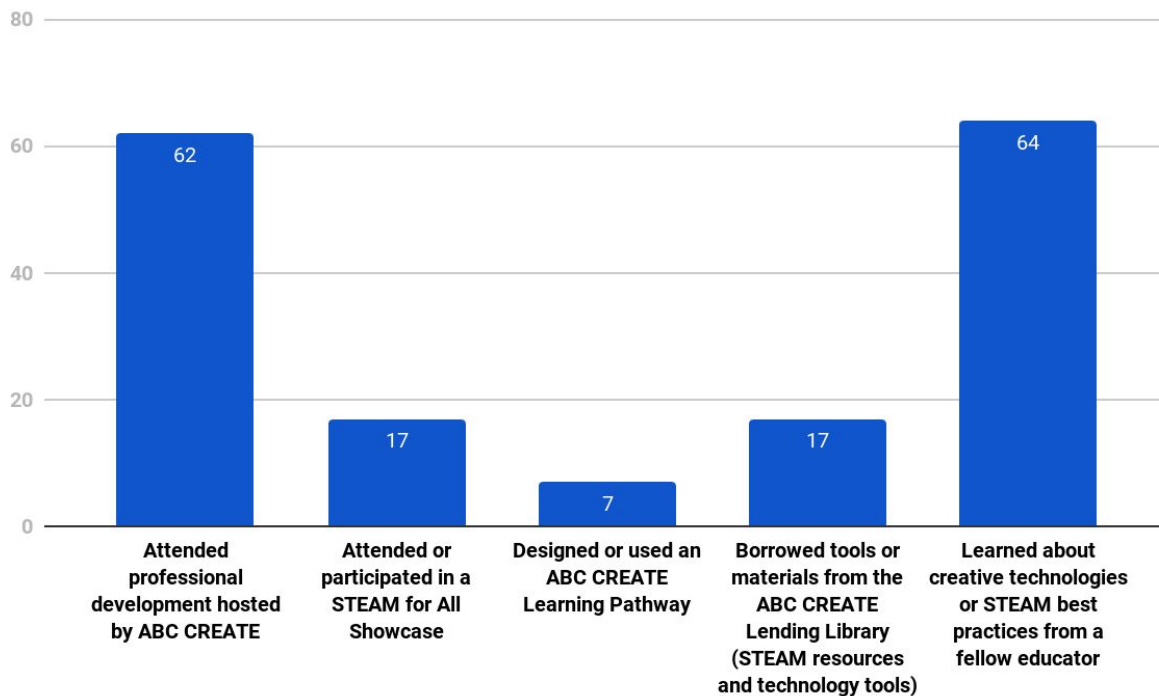
Q: Prior to receiving this survey, were you aware that your district is a participant in ABC CREATE? (educator responses)



Source: ABC CREATE winter 2018 teacher and NIS survey

Educators also responded to a question about their participation in the professional learning opportunities provided by the collaborative. The two most frequently cited opportunities were attending a professional development hosted by ABC CREATE and learning about creative technologies and STEAM best-practices from a fellow educator.

**Q: Have you participated in any of the following professional learning opportunities?
(educator responses)**



Source: ABC CREATE winter 2018 teacher and NIS survey

2. Each district has their own strategy for recruiting educators to get involved in the ABC CREATE collaborative.

The majority of classroom educators expressed that they got involved in ABC CREATE after being invited by a supervisor (i.e., principal or superintendent). The option to participate in opportunities is one that most often filters top-down. Communication about these opportunities, both from ABC CREATE to districts and from districts to educators, is inconsistent.

The communication of opportunities varies from district to district, with some forwarding opportunities to all staff, and others targeting specific educator groups or individuals based on prior knowledge of their interests. Some educators cited receiving emails directly from ABC CREATE, while others only receive messages from leadership. In addition, recruitment by a supervisor, who is able to communicate that participation is a priority or signal that educators have permission to join, often makes educators feel more comfortable prioritizing the network trainings and events.

"I usually get every [communication]. Some things go to my superintendent and the principal. Sometimes they send it out and sometimes it won't come from the principal, and sometimes I'll send it. Recently the superintendent is more active and will send things out. [There is] no-one to disseminate that information consistently. [Sometimes] they'll send things out to full staff." — Educator

3. The most commonly cited benefits of participation in the collaborative are cross-district collaboration and access to tools and training.

From the administrators' perspective, benefits of participating in the collaborative include:

- opportunities to collaborate with local districts,
- networking opportunities,
- sharing best-practices, and
- gaining knowledge from peers.

Administrators also cited **access to technology tools and the training to support their use** and overall **benefit to students** as incentives for participation. About half of district and school administrators who responded to the survey (46%) indicated they have taken resources or information back to their districts to share.

Educators found **collaboration with peers outside of their schools to be inspiring and helpful to their learning**. One participant stated that they didn't have to *"pursue Twitter to find that nugget of gold when you can just talk to someone you know who has tried something and knows it works."* Others shared that **they gained confidence to try new things in the classroom**, and they felt safe to fail and try again in the classroom.

"The connections that you make between districts [is the biggest benefit]. This is unheard of. It doesn't happen normally that you have rival school districts working together to be better at something. I saw the value immediately in what I've done in my classroom." — Educator

"ABC Create is a wonderful tool for teachers and is growing; it takes time to change and innovate as the wheels move slowly in educational settings." — Educator

"This is a great initiative and one that is truly unique. [We] need to keep growing and working together." — School administrator



4. Explicit focus on STEAM and use of creative technology tools varies by district, and when educators receive support it is usually from a trusted peer.

Administrators in a majority of responding districts shared that they did have a focus on STEAM, but **interpretation of goals around STEAM varied widely**. Some made a connection to specific grade levels and curriculum updates, while others focused on meeting the needs of the future workforce. Across half of districts represented in the survey data, there was some administrator disagreement about whether or not there is an explicit focus on STEAM in their district. Similarly, educators showed in the survey results that they were divided on whether or not their district had a focus on STEAM. This may indicate a challenge in communication about new initiatives, or in terminology used to describe these initiatives. It also presents an opportunity to anchor on shared language that might better allow educators to realize the value in ABC CREATE learning opportunities as aligned to district goals.

The majority of educators (53%) cited that they had access to opportunities to collaborate with peers during the school day. Interviewed educators cited that they felt safe introducing a new technology tool that might benefit students, even if there wasn't an explicit focus on STEAM in their school or district. These efforts were described by most as experiments that were safe to try. Indicators that a focus on STEAM and use of creative technologies in the classroom were impactful were harder for educators to describe, but most cited **increased student engagement in lessons**.

"[Our district goals is] to provide exposure to STEAM concepts in multiple different content areas and use those skills to make connections to real world situations." — Administrator

"I am excited about teaching STEAM projects and co-teaching STEAM projects with my peers. Thank you for including the "A" for Art." — Educator

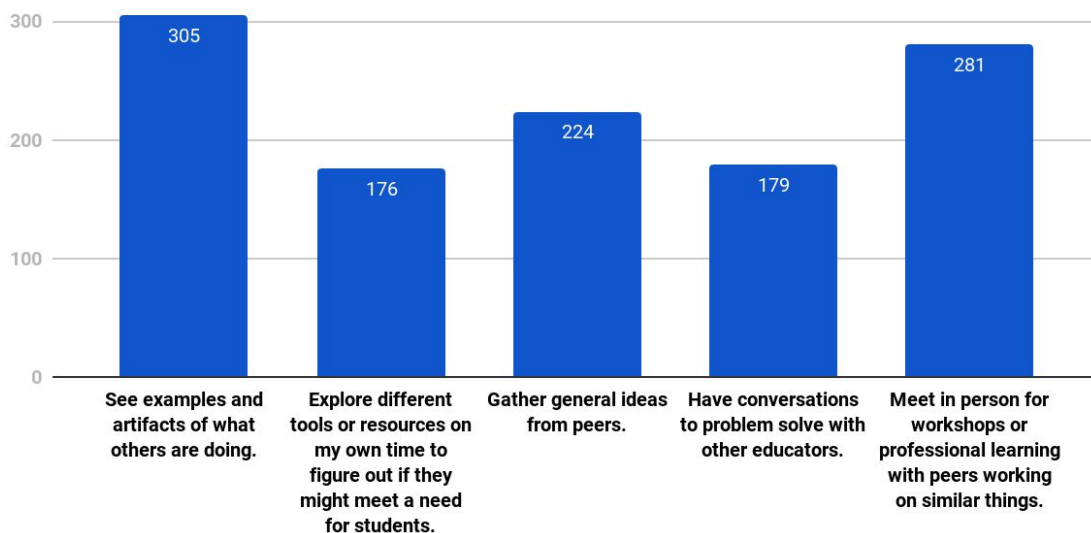
"With tech stuff it can be a little intimidating but [other educators] really supported me." — Educator

5. Interest in peer-led learning and PD experiences that are relevant to meeting classroom needs is high among educators.

Interview participants described looking for **professional development experiences where there is choice, relevance, and something concrete to take back to the classroom**. Additionally, participants cited the importance of administrative support as a signal that there is value in taking advantage of this professional learning opportunity, as compared to other opportunities available. Participants shared the belief that **being selected to participate in PD** based on personal interest and skill set showed that someone in administration was making an investment in an individual's personal growth, and this was empowering.

In survey results, educators cited that they most often learned about creative technologies or STEAM best-practices from a fellow educator. When asked what types of professional learning experiences they preferred, educators most often cited that they like to see examples of what others are doing, meet in person with peers, and gather general ideas from peers. Learning needs to be relevant for meeting the needs of their students

Q: What types of professional development activities do you prefer? (educator responses)



Source: ABC CREATE winter 2018 teacher and NIS survey

"Whatever I'm doing has to somehow benefit my students. I'm doing something that changes how I act in the classroom." — Educator

"I would do anything as long as it was worthwhile and possible to use in the classroom." — Educator

"When you're going to miss [a day of class] you want to make sure what you're missing for is really worth it. You don't want it to be a wasted day and you want to know what you'll be taking back to the classroom." — Educator

6. Opportunities for educator collaboration and peer learning exist in many districts, which might present a unique opportunity for ABC CREATE.

Educators most often cited professional learning communities (PLCs) that meet regularly and opportunities for collaboration during the school day, such as in instructional team meetings or through shared planning time, as being types of learning opportunities that are currently available to them in their district. It's important to keep in mind that teachers were not asked to describe the specific areas of focus, activities, or use of time with PLCs, which would be something to investigate moving forward. Of those interviewed, only one stated that there was structured peer-led learning in place in their district, in this case in the form of professional learning communities. These within-the-workday formats might be popular due the use of strategic scheduling and staffed building substitutes who are available to float as needed between classrooms, as opposed to out-of-school workshops that require on-demand substitutes. When offered an option to share their biggest barriers, 78% of district and school administrators cited a **lack of substitutes as the biggest barrier to educators attending professional development** that takes place out of their school and classroom during the school day. This was also cited by some as a growing problem in the region with no immediate solution.

From an educator's perspective, too much PD is spent on mandated trainings for full staff. By contrast, the majority of educators cited that the most important factor considered when making decisions about which professional learning to attend is **alignment to goals for students**. Respectively, the two professional learning formats of most interest to educators are: (1) workshops that share implementation plans and resources, and (2) collaboration with peers in PLCs. Educator participants are looking for to walk away from any professional development experience with something practical. Participants described **peer support and collaboration** as a primary benefit to getting involved in the collaborative. Participants also cited that the **opportunity to learn in a "safe to fail" environment**, like a training in the summer, helps them build confidence.

Availability is another factor for consideration. Teachers cited that they are **most often available to participate in PD during in-service days and during the work day when substitutes can be secured**, and many indicated that they already have access to PLCs or other opportunities for educator collaboration in their schools. Only about 25% of respondents said they were available before school, after school, and/or during the summer for professional learning, so there are many who won't be reached by a summer institute or an after school training.

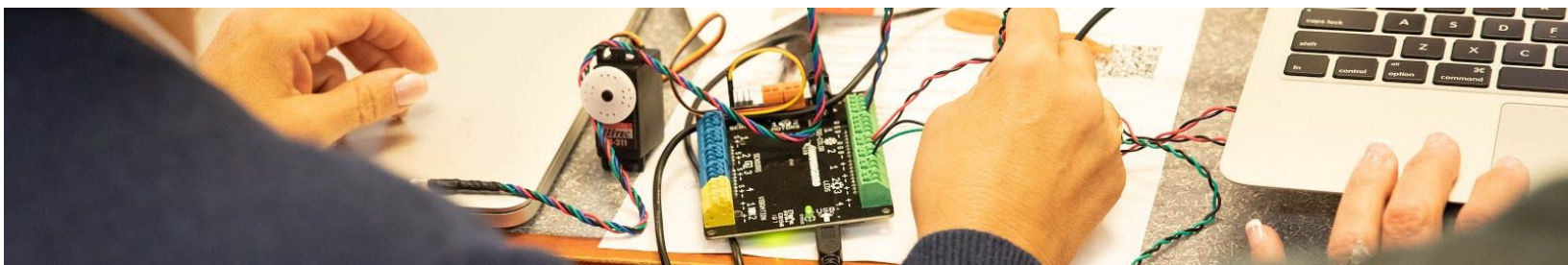


Photo by Rebecca Dietrich for Penn State New Kensington

7. In addition to learning in community, educators like to see examples and resources created by peers.

Educators are engaging in within-school learning, and having **resources to support that learning** is important. Survey respondents shared that the top way they like to learn is through artifacts and examples of what others are doing (65% of educators who responded to this question selected this option). This demonstrates the value in **creating and sharing examples like the learning pathways**, and housing them online where educators and PLCs can have access.

"[I] would love lesson plans online -- like how Brainbird Technologies has lesson plans on their website, separated by grade and subject area." — Educator

"I would need assistance with the steps needed to use the resources." — Educator

"We have a vision of having a repository of all this information of documents and handouts and tips, and it's really time consuming to make that happen." — Educator

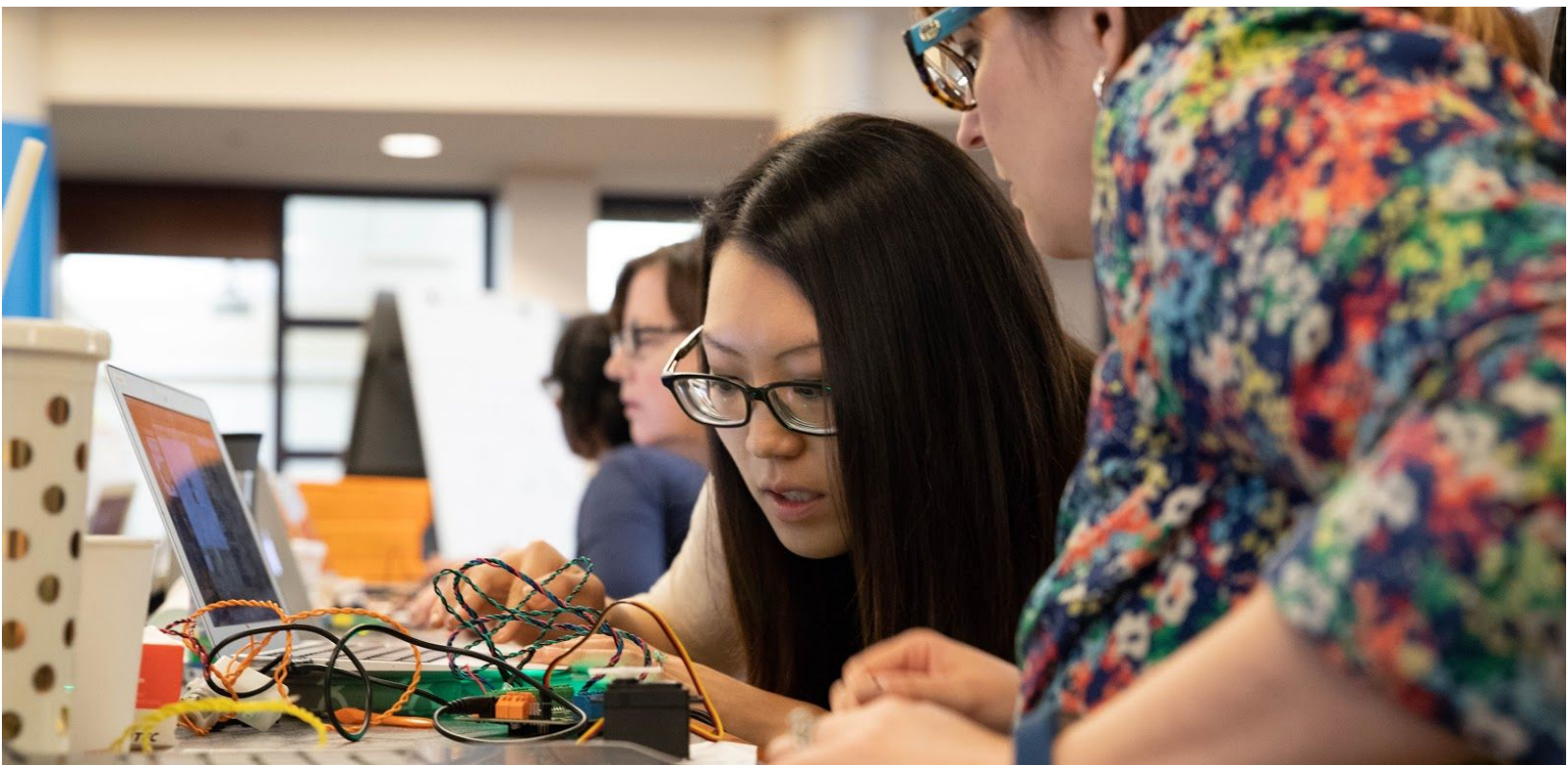


Photo by Rebecca Dietrich for Penn State New Kensington

RECOMMENDATIONS ALIGNED TO ABC CREATE GOALS

Focus Area #1: Enhance infrastructure to allow for increased communication and interactions between teachers, and ensure that all students are provided equitable opportunities to develop STEAM skills and sustained interest in furthering that development.

Teachers and administrators both cited these challenges with infrastructure and communications across the collaborative:

- Inconsistency in how and with whom information about the collaborative and its offerings are shared with staff, sometimes limiting who becomes aware of opportunities
- Varying levels of awareness of district participation in the collaborative among teachers, and even among district and school administrators
- Timing of communication about offerings is sometimes shared close to the events themselves, making it difficult for districts and participating educators to invite and recruit participants
- Varying messages about the purpose and benefits of joining the collaborative (for example, some learn how trainings relate to district or classroom goals while others are not clear about what they can expect or take away from an event)
- Participation in collaborative offerings without specific goals in mind, making it a challenge to measure satisfaction and overall classroom impact

These challenges present opportunities to improve communication about what the collaborative offers, and who might be a good fit to attend trainings. Participants cited collaboration with peers as one of the major benefits, so communications should highlight such opportunities for educators to make strong connections with colleagues.

Opportunities

Be explicit and consistent in communication with administrators about STEAM and creative technology trainings and how ABC CREATE offerings can support STEAM learning goals. Consider indicating how each training would be well-suited for a specific type of teacher (e.g., experience level, grade levels, subject areas) to target participants.

Share sample recruitment content and materials that make it easier for administrators, principals, and peers to communicate the benefits of attending ABC CREATE events. These might highlight past success stories, tie participation to broad district goals around STEAM, and allow for consistent messaging to reach educators. This might be in the form of a template describing ABC CREATE offerings that each district could customize to reflect connections to their own STEAM goals, or a general flier that could be included in emails about ABC CREATE opportunities.

Extend the planning timeline to be more forward-thinking, so districts can make opportunities known further in advance. Consider a year-out calendar at the start of the year, or a view of the semester ahead. With the calendar, consider adding suggestions regarding good fit by grade band, subject area, and level of experience so district leadership can target teachers for participation more effectively.

Make it easier for educators to find one another and connect outside of scheduled trainings and meetings. This could mean adding an educator directory to the website or a feature board where educators can find those who have a shared interest in the network. Social media, such as a Facebook group or Twitter chat, might serve as another way educators can connect across districts.

Consider featuring educators using a technology tool in their classroom in a given month, as well as those who have previously used the tool, as part of the existing website that facilitates the resource lending library to make it easier for educators to find one another for support.

Ensure the advisory committee includes educators representing each district (if possible), because leadership transitions often take place and continuity is valuable. Further, educators can provide meaningful feedback and ideas related to communication and feasibility of offerings.

Buddy-up district and school leaders for onboarding new administrators so the value of the collaborative can be shared. When leadership changes take place, onboarding can engage new administrators, bolstering an understanding of how ABC CREATE can support their goals and increasing the likelihood of a district or school's ongoing participation.

Continue to be explicit about the cost-savings to districts who want to test out new technology tools in classrooms without a huge investment. ABC CREATE's lending library is an incredible resource for administrators to access innovative tools without a large financial investment, and for educators to test new tools that meet their students' needs. Give administrators a voice in what is purchased each year, and use this benefit to encourage educators to participate in other ways in the collaborative.



Photo by Nico Segall Tobon for Remake Learning, August 2018

Focus Area #2: Offer ongoing training that builds upon teachers' engagement and understanding of STEAM, increases the number of classroom implementations of creative technology and/or project/challenge-based projects, and furthers student progress with STEAM learning.

Key challenges include:

- Barriers to educator participation in professional learning generally, including the availability of substitutes to free up teachers during the work day, availability of teachers outside of the work day, teacher willingness to try new things, and money to send educators to PD out of the classroom
- Not all teachers (e.g., ELA teachers) see how STEAM or creative technologies can support student learning within their content area

Of those who participated in the survey, only 17% of educators (81 out of 483) shared that they had used at least one of the creative technology tools supported by ABC CREATE, or something similar (e.g., 3D printers). This presents an opportunity for additional support, ongoing training, and ultimately greater classroom implementation as educators grow more aware of and confident in the use of these tools. Seventy percent of educators (57 of 81) who reported using any of these technologies stated that they did have support to learn how to use these tools with students.

Opportunities

Consider a virtual option for educators to join trainings, preferably one that positions teacher(s) who have tried something in their classroom as leaders who will help others learn what went well and what was challenging. Capitalize on high levels of interest in peer-to-peer learning, availability of low- to no-cost virtual tools (e.g., Zoom), and help address substitute challenges by rethinking the timing and delivery mode of trainings.

Support educators with resources that support STEAM learning within existing structures, such as PLCs or shared planning time at interested schools. This might take the form of a discussion guide that could be used to facilitate a PLC meeting, or protocol for navigating a learning pathway and discussing as a group what worked and what was challenging.

Consider allowing trained educators or technical experts to serve as coaches when a technology is checked out for the first time to help educators effectively use it with their students. This could be done by phone, by video conference, or in person.

Consider ways to push trainings or learning pathway development into existing PLC structures within schools. If educators have structures that support their learning, and are already learning about STEAM and creative technology use from peers, perhaps there is an opportunity to deepen that learning by partnering with select PLCs and asking that they test the learning pathways and offer feedback together, or inviting a partner who leads trainings on creative technology tools to visit a school and support a PLC with their use. This could enrich the learning pathways and allow for knowledge of these tools to spread through an existing school-based structure.

Focus Area #3: Expand on the work that is currently underway with creating and disseminating K-12 Learning Pathways of STEAM skills across all grade levels within the ABC CREATE schools.

Educators who had helped construct the learning pathways saw value in them, but also cited challenges with their development. Additionally, very few survey participants had heard of the pathways, even among those who had participated in ABC CREATE trainings in the past.

It was also cited that it's a challenge to develop learning pathways without a road map for what they might look like and with so many contextual differences across districts. Learning pathway development has stalled in some areas due to availability of educators to come together and write, and loss of momentum around a pathway area of focus.

Opportunities

Consider structuring virtual and in-person educator collaboration around the learning pathways in ways that support productivity and maintain momentum. For example, assign or recruit a volunteer lead educator, and partner educators to reflect different contexts and insights into what implementation might look like in the classroom. Educators could decide to meet at convenient times and make that time public via the ABC CREATE website or emails to anyone else interested in joining.

Make work sessions a regular part of each calendar year and anchor those dates well in advance to increase the likelihood of educator availability and participation.

Consider what incentives are available to educators for working on the learning pathway(s), and pull in people who will put themselves out there to share what they've tried. While monetary incentives may be limited, explicitly stating the value of connecting with peers across districts or working with leadership to nominate educator participants across districts might yield increased participation. Another option may be to look for sponsors, such as the local businesses that attended The Digital Revolution convening, who might be willing to offer small stipends or gift cards to educators for the development of pathways that align to Industry 4.0 skills.

APPENDIX

District and School Administrators Survey Results

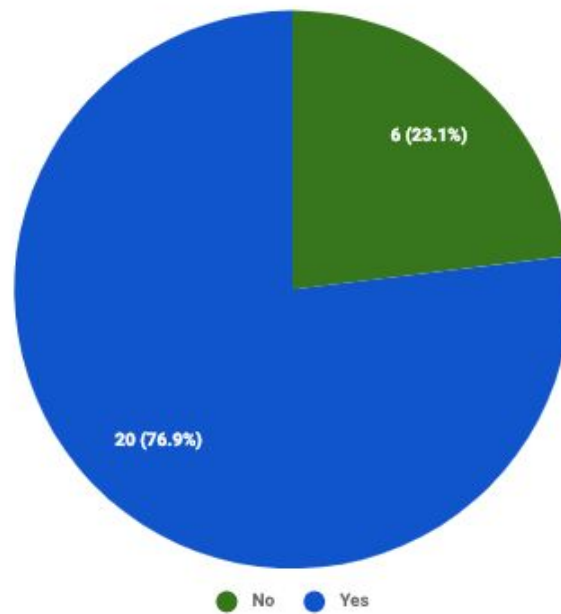
Districts Represented:

	Count
Allegheny Valley	1
Apollo Ridge	4
Armstrong	5
Kiski	5
Leechburg	3
New Kensington-Arnold	1
Plum Boro	6
Riverview	1
Allegheny Valley	1
Total	26

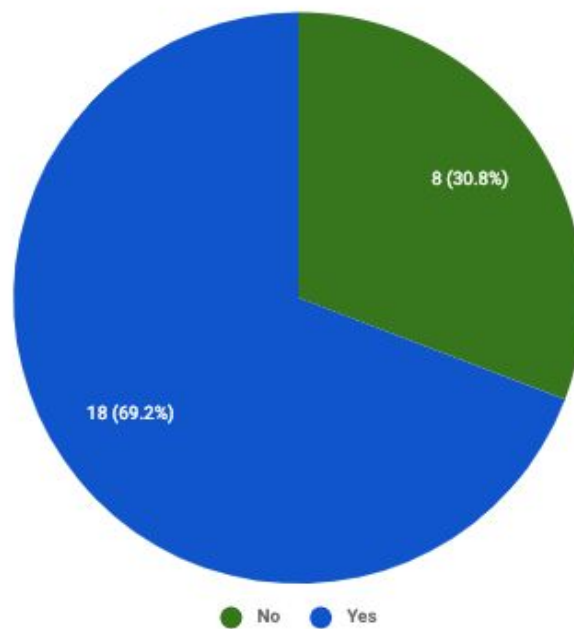
Roles Represented:

	Count
District academic support	4
District executive leadership	3
District other support services	2
School leadership	17
Grand Total	26

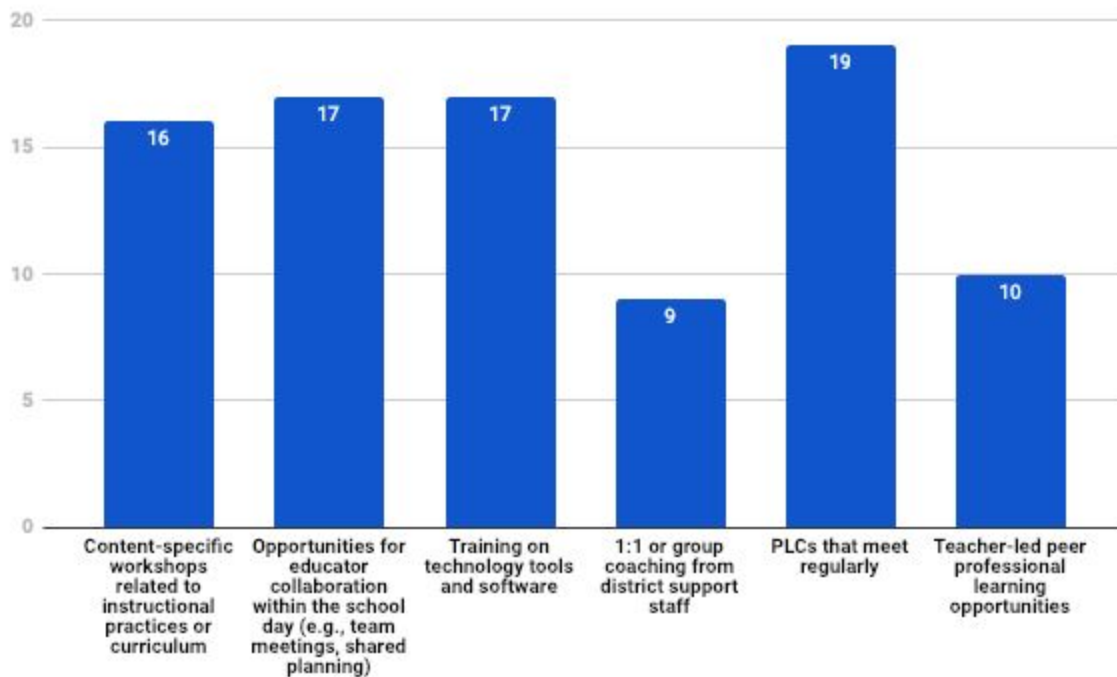
Prior to receiving this survey, were you aware that your district is a participant in ABC CREATE?



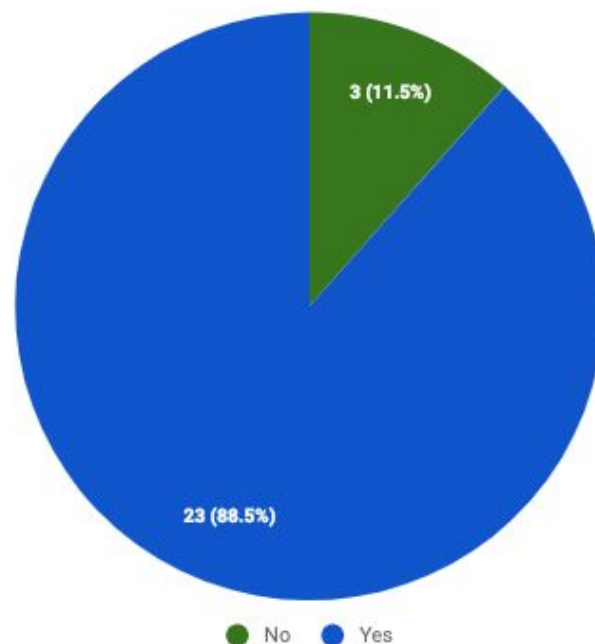
Does your district have an explicit focus on STEAM?



What type of professional development do you offer and/or support in your district?



Are there any barriers to educator participation in professional learning (e.g., securing substitutes that would allow teachers release time)?



**Note, when asked to specify, common responses included: substitutes (20), time (e.g., generally, competing demands, balancing need for teachers to be in the classroom) (3), finances (3), teacher willingness (2).*

Teachers and Non-Instructional School Staff Survey Results

Districts Represented:

	Count
<i>Skipped question</i>	15
Apollo Ridge	29
Armstrong	96
Highlands	15
Kiski	130
Leechburg	18
New Kensington-Arnold	54
Plum Boro	125
Riverview	1
Total	483

Roles Represented:

	Count
<i>Skipped question</i>	3
Non-instructional school staff	32
Other instructional school staff	8
Teacher	440
Total	483

Grade Bands Represented:

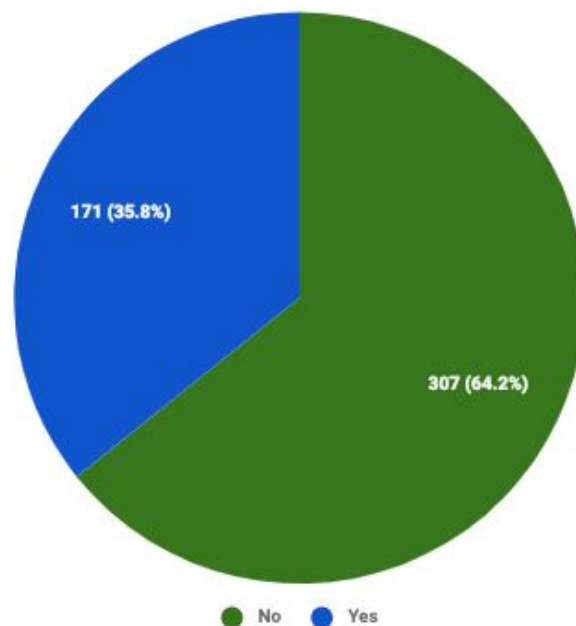
	Count
<i>Skipped question</i>	3
PK-6	174
PK-8	27
6-8	83
6-12	35
9-12	151
PK-12	10
Total	483

Subject Areas Represented:

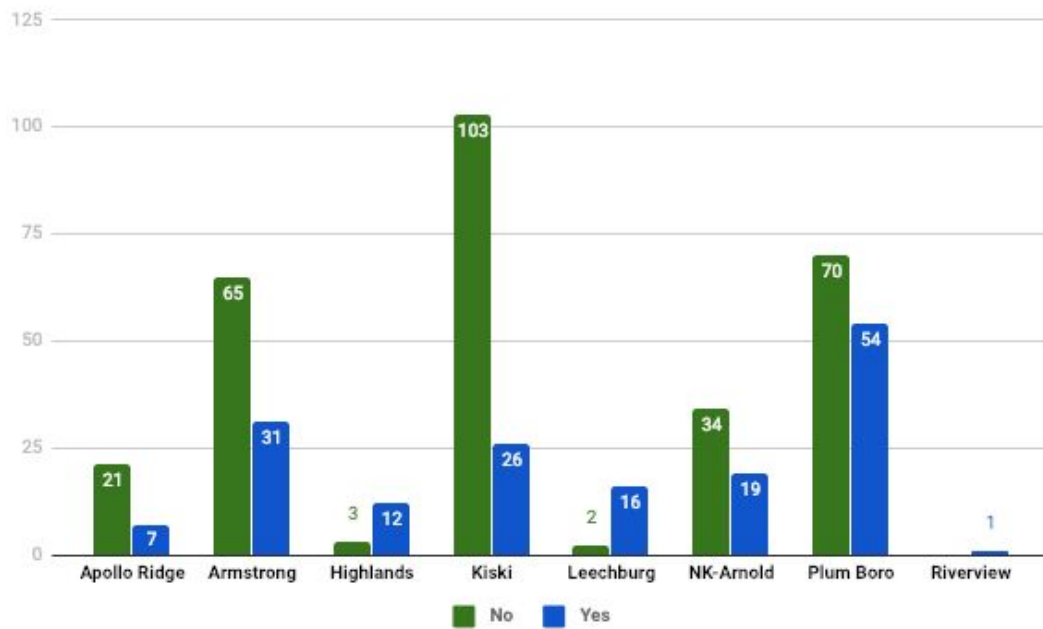
	Count
English Language Arts	183
Mathematics	174
Science	128
Social Studies, History, and/or Geography	124
Arts and/or Music	32
World Language	15
Physical Education and/or Health	22
Special Education	17
Technology Education	14
Library, Media, Instructional Technology, and/or Computers	8
Business	5

**Note, educators could select more than one subject area and many did. Other common responses: school counseling (8), family and consumer sciences (4), computer science (3), STEAM or STEAM (4), speech or language support (3).*

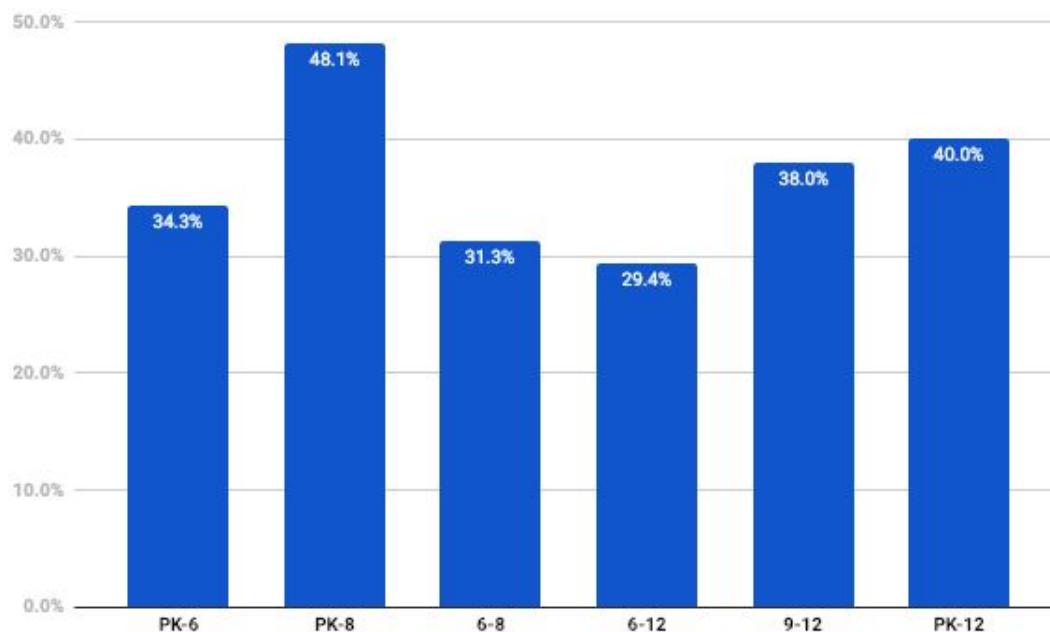
Prior to receiving this survey, were you aware that your district is a participant in ABC CREATE?



Disaggregated by district: Prior to receiving this survey, were you aware that your district is a participant in ABC CREATE?

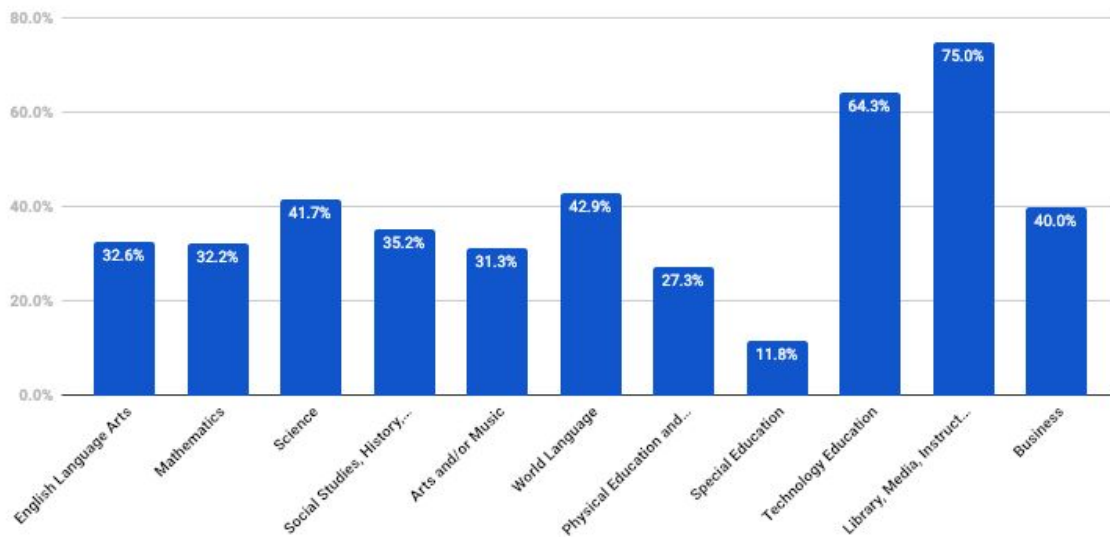


Disaggregated by grade band: Prior to receiving this survey, were you aware that your district is a participant in ABC CREATE?



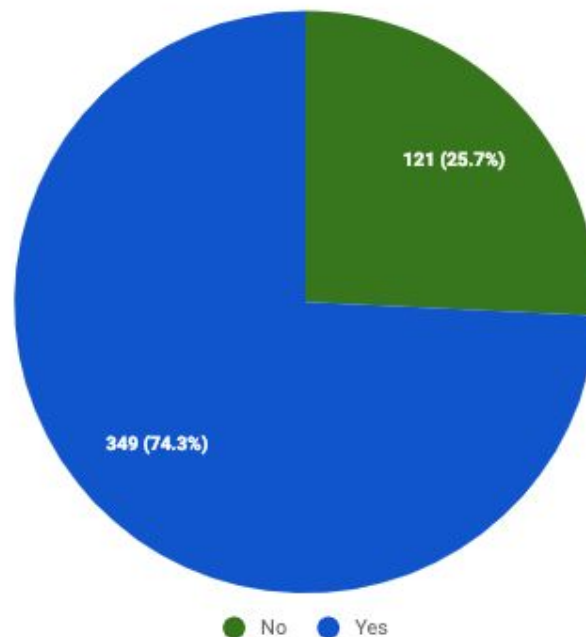
**Note, 476 responses are represented here. The survey asked respondents to select PK-5, 6-8, 9-12, or other. Due to there being a diversity of school configurations and cross-school teaching assignments, results were combined into the grade bands shown here. These are not mutually exclusive.*

Disaggregated by subject area taught: Prior to receiving this survey, were you aware that your district is a participant in ABC CREATE?

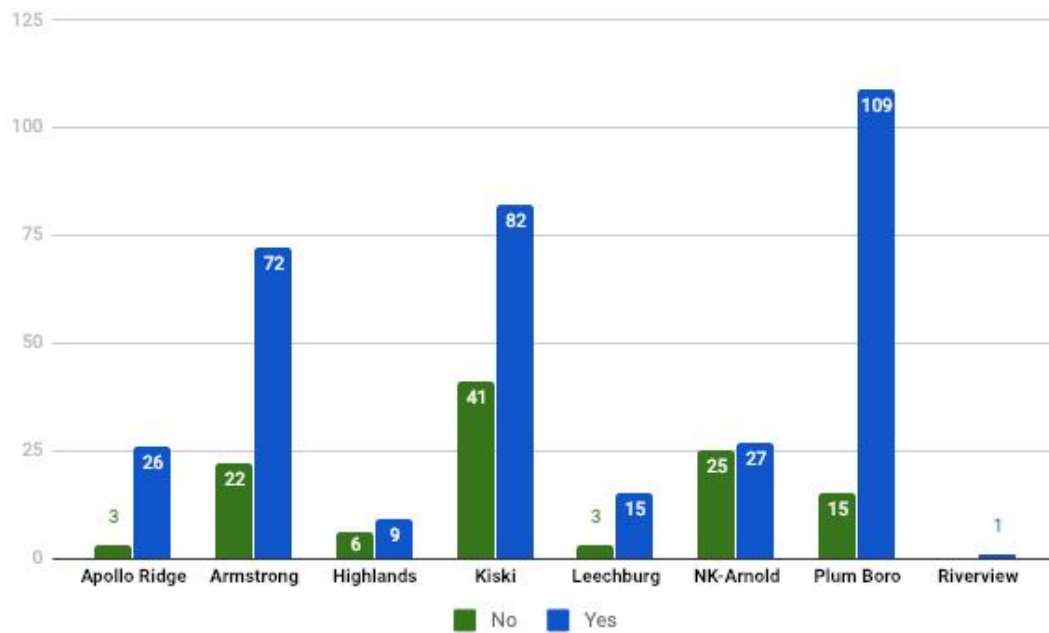


**Note, many respondents indicated that they teach more than one subject area, in which case their response about awareness is represented in each subject area taught.*

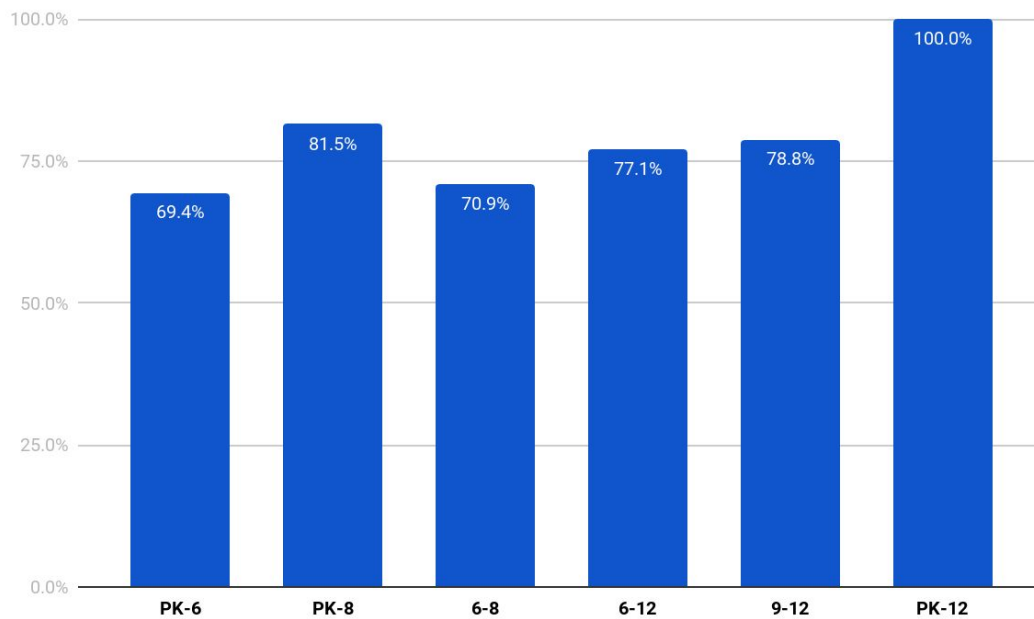
To the best of your knowledge, does your district have a focus on STEAM?



Disaggregated by district: To the best of your knowledge, does your district have a focus on STEAM?

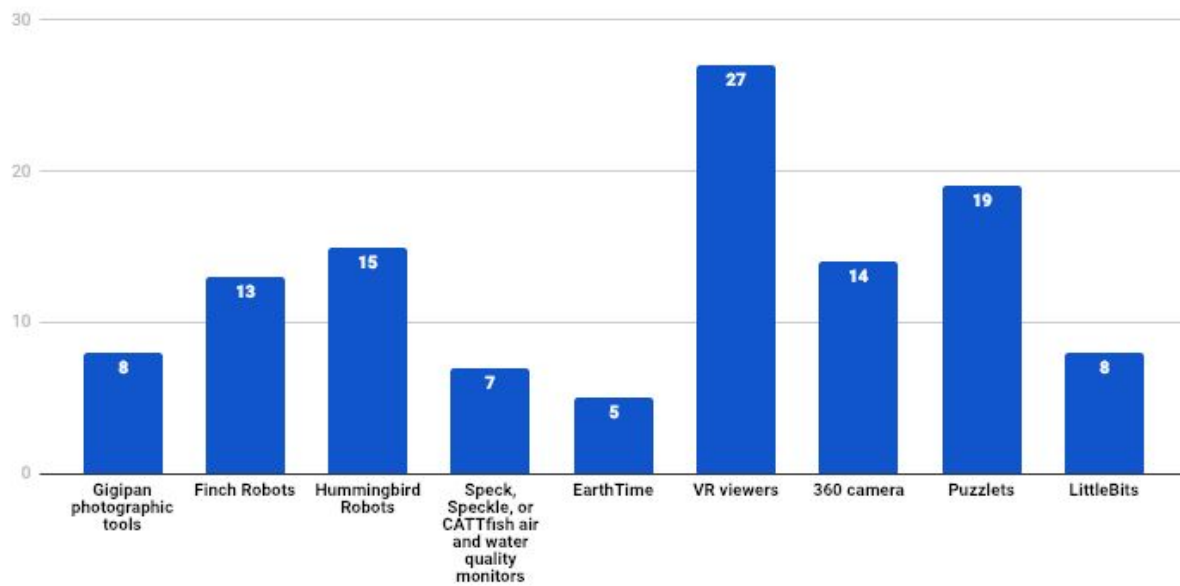


Disaggregated by grade band: To the best of your knowledge, does your district have a focus on STEAM?



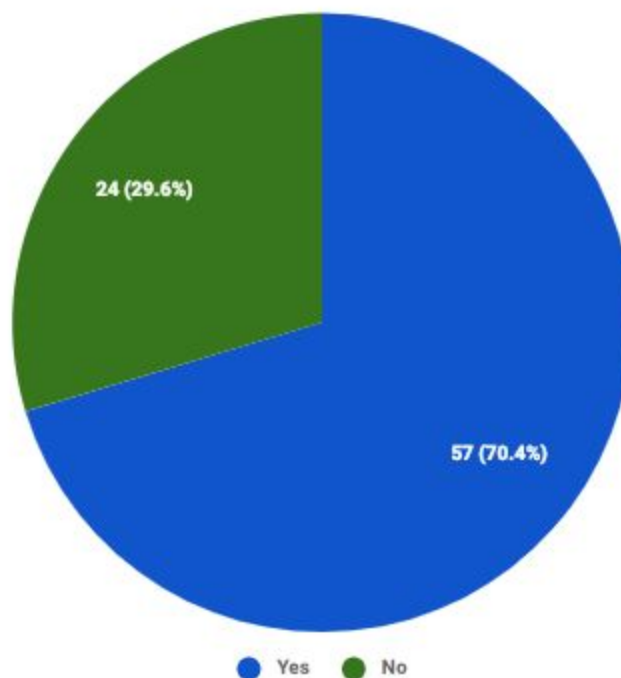
**Note, 470 responses are represented here. The survey asked respondents to select PK-5, 6-8, 9-12, or other. Due to there being a diversity of school configurations and cross-school teaching assignments, results were combined into the grade bands shown here. These are not mutually exclusive.*

Have you used any of the following resources in your classroom?



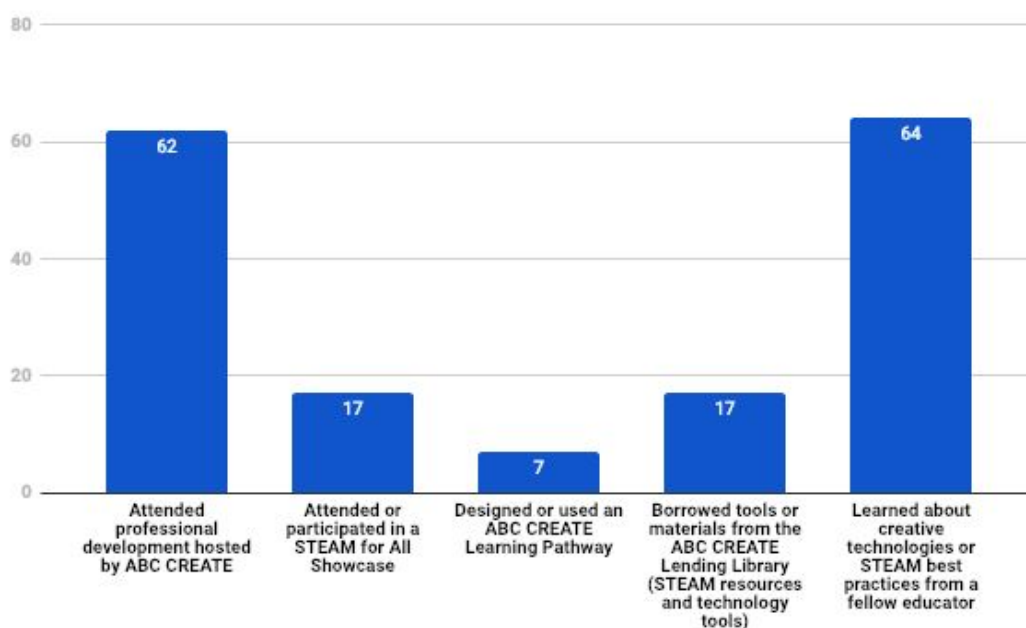
**Note, other common responses: 3D printers (6), various other robots (6), Osmos (3), Makey Makey (2), Stikbots (2), and Vex robots (2).*

If you used any of these resources, did you have access to support to learn how to use these tools with students?



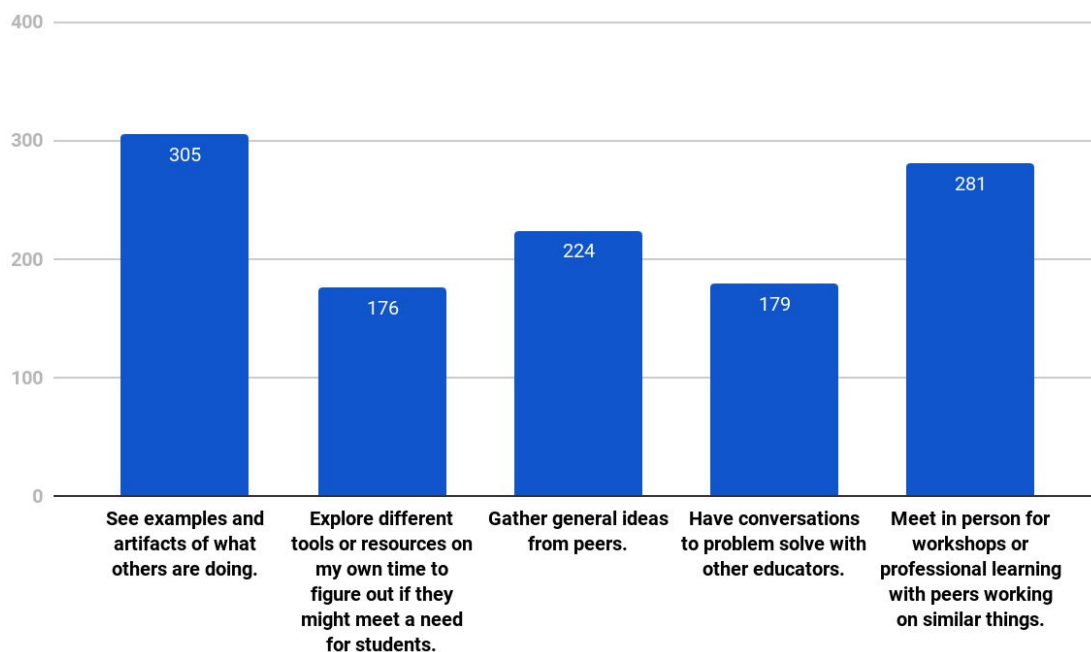
**Note, 81 "yes" and "no" responses given by individuals who indicated they had used any of these or other resources.*

Have you participated in any of the following professional learning opportunities?



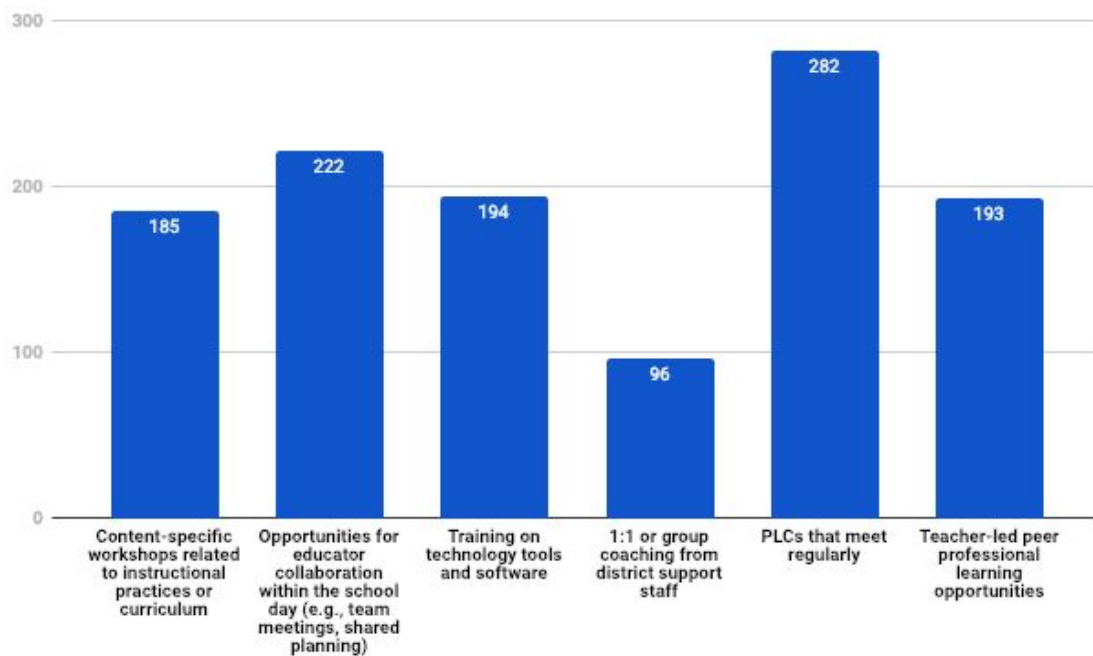
**Note, 139 total responses. Participants could select more than one response. Other common responses given as open response: Pittcon (3) and AIU (3).*

What types of professional development activities do you prefer?



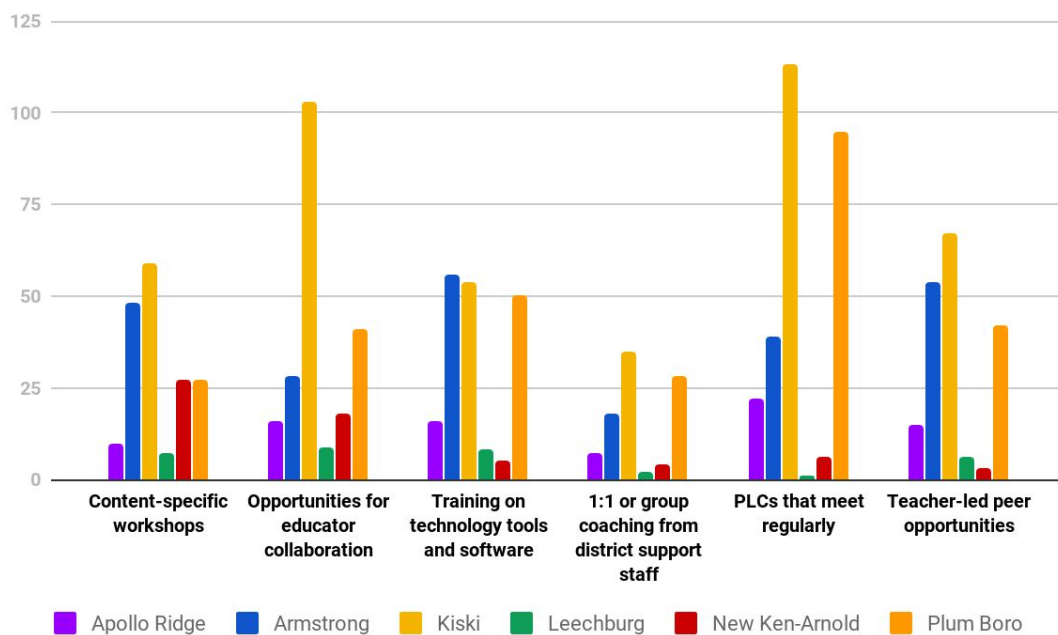
**Note, 466 total responses. Participants could select more than one response.*

Which of the following learning opportunities are currently available within your school district?



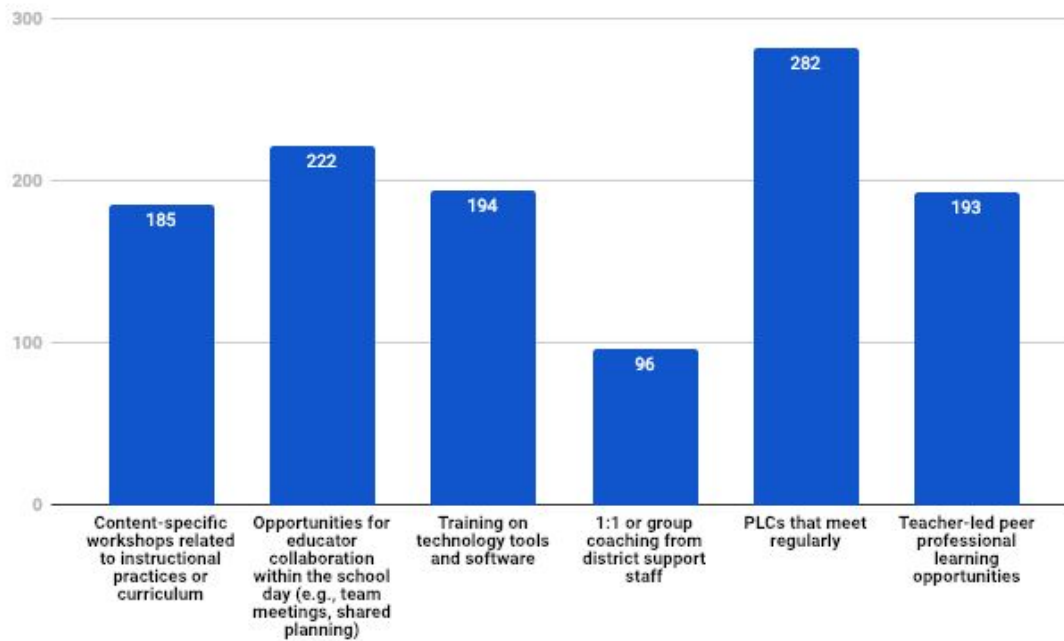
**Note, 421 total responses. Participants could select more than one response.*

Disaggregated by district: Which of the following learning opportunities are currently available within your school district?



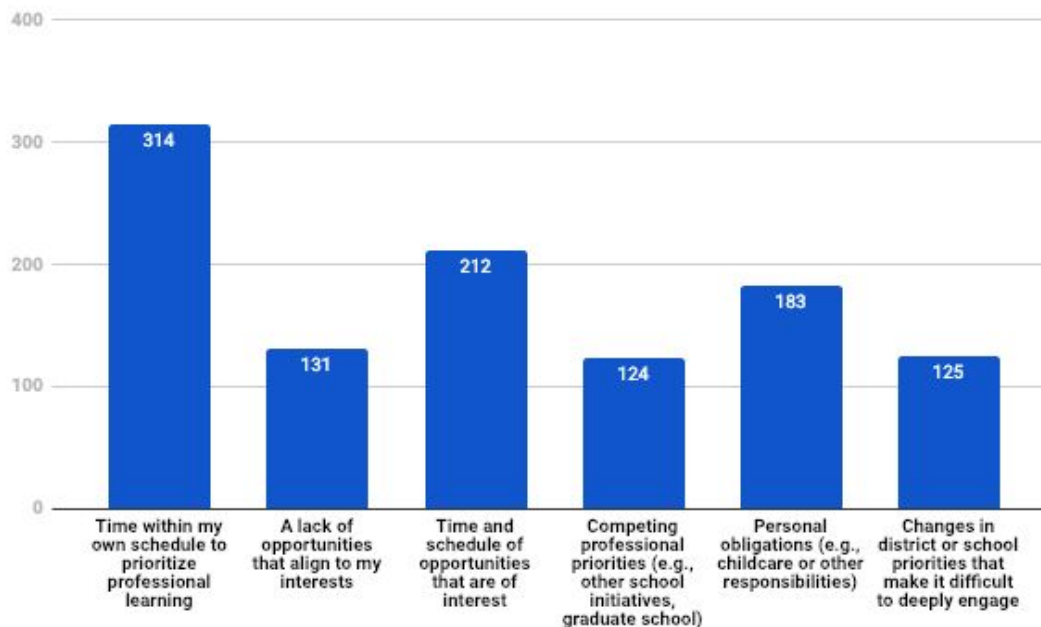
**Note, not showing responses from Highlands, Riverview, of cases of district unknown due to small response groups.*

Which of the following learning opportunities interest you?



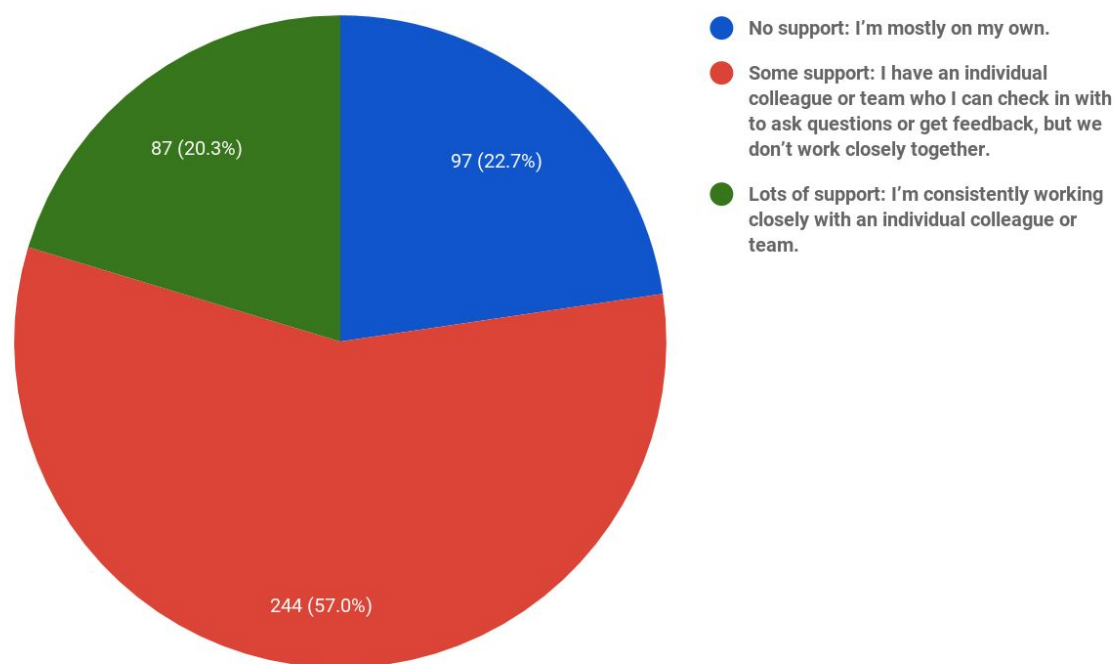
**Note, 441 total responses. Participants could select more than one response.*

Which of the following would you identify as barriers to your own professional learning?



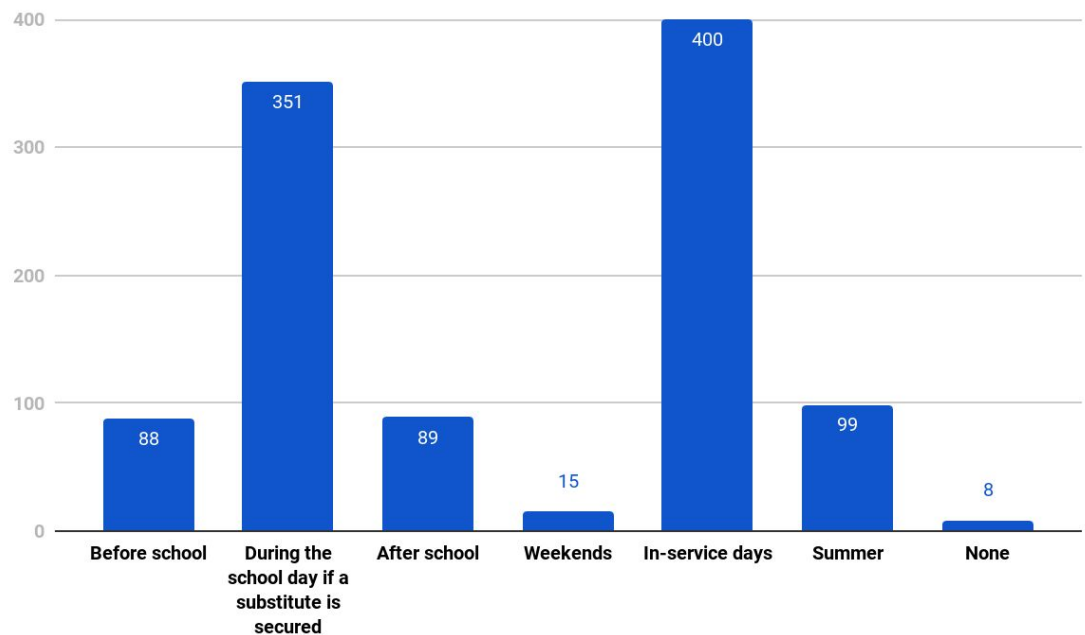
**Note, 447 total responses. Participants could select more than one response.*

Related to STEAM best practices and use of creative technologies, which of the following best describes the level of support you have from colleagues within your school or district?



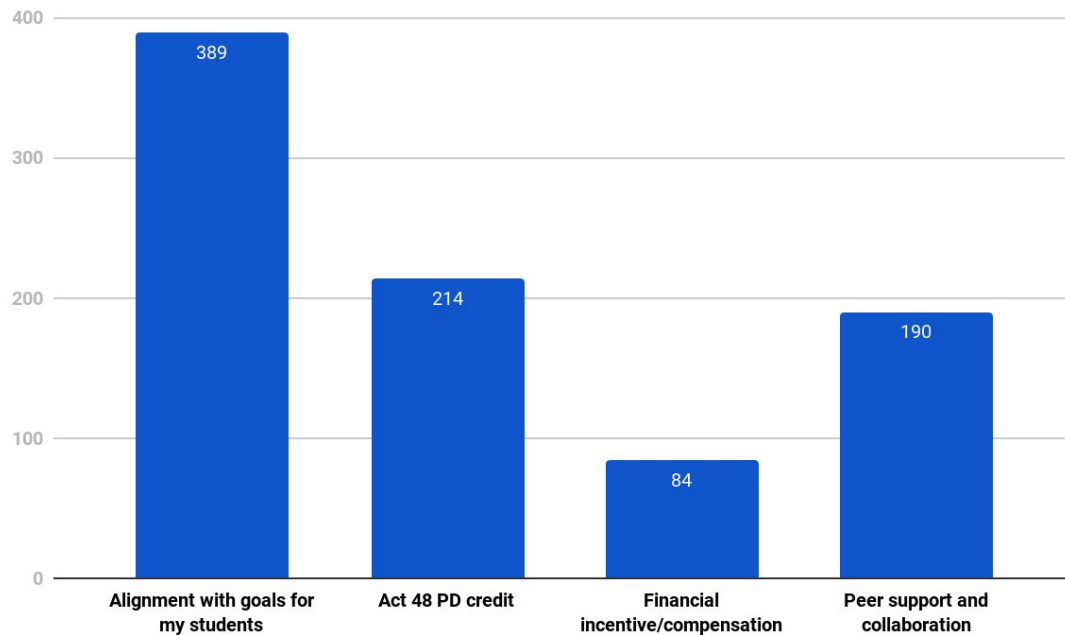
**Note, 428 total responses.*

During which of the following times are you available to participate in professional learning? Please select all that apply.



**Note, 474 total responses. Participants could select more than one response.*

What factors do you consider when making decisions about which professional learning to attend? Please select the two (2) that are most important.



**Note, 459 total responses. Participants were asked to select 2 responses, but some selected more. Other common responses given as open response: administrative approval (2), PD is typically assigned (5), relevance for my students/content area (5).*