SmartStart:

The 3 C's for Cyber Success

Final Evaluation Report

June 30, 2022

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Introduction

On November 20, 2019 Broome – Tioga BOCES (BT BOCES), in collaboration with 14 public school districts in, or contiguous to, the BT BOCES region submitted a five-year request for funding to the New York State Education Department (NYSED) in response to the SmartStart competitive Request for Proposals. On February 12, 2021, BT BOCES received word that the aforementioned proposal had been selected for funding in the amount of $402,432.00 annually beginning April 1, 2021. Following is a list of participating public school districts (SD) representing a total K-12 enrollment of approximately 31,000 students:

Binghamton City SD	Maine-Endwell Central SD	Union-Endicott Central SD
Chenango Valley Central SD	Norwich City SD	Vestal Central SD
Deposit Central SD	Sidney Central SD	Whitney Point Central SD
Harpursville Central SD	Susquehanna Valley Central SD	Windsor Central SD
Johnson City SD	Tioga Central SD	Chenango Forks Central SD

The stated purpose of this initiative is to develop, implement and share innovative programs that provide professional development and support to increase expertise in computer science and/or educational technology among teachers in grades K-12. In this region, pursuit of this purpose is facilitated through a regional professional development model wherein the Professional Learning and Innovation Center (PLIC) at BT BOCES provides elements of coordination, oversight, resource management, communication and evaluation for this project, while CYBER.org, acting under contract with BT BOCES, provides the hands-on professional development and continuing support for this initiative via online synchronous and asynchronous interaction with participating teachers and related school staff. Our professional development vendor, CYBER.org, is the current recipient of the Department of Homeland Security's Cybersecurity Education and Training Assistance Program grant and has been designated the DHS national model for STEM, cyber, and computer science curriculum development.

Specific goals for this initiative are as follows:

Goal #1: Develop regional integrated curricula for Grades K-8 that will target the knowledge and skills included in the NYS Computer Science and Digital Fluency Standards to ensure students are future-ready and well-equipped for college and career opportunities.

Goal #2: Increase teachers' knowledge and skills, and ultimately their confidence and comfort to teach computer science concepts (coding, computational thinking, and cybersecurity awareness)

Goal #3: Integrate Computer Science and Digital Fluency Standards into content areas to increase engagement and learning, resulting in increased 3-8 ELA and Math state assessment scores to close the gap of regional scores to the state.

Goal #4: Create a foundation for a school-to-career cyber workforce pipeline.

Project Scope

This project has been, and will be henceforth, implemented by voluntarily engaging unique cohorts of teachers and other school professional educators in one-year learning experiences designed to ultimately achieve the goals stated above in a sustainable and systemic fashion. This cycle will be replicated annually over the five-year project period projected for this effort. Each one-year implementation cycle targets the recruitment of 100-120 educators. These participants are grouped into three annual cohorts representing specific grade levels: k-2, 3-5 and 6-8. Each participant engages in ONLY one annual cycle. **Attachment 1** presents the target numbers for recruitment in each of the participating districts alongside the actual year 1 numbers for each respective district and cohort. Participants were each compensated financially for participating per their individual district's employment contract. Compensation was parsed out in such a way that participants had to meet certain engagement targets for each phase of the learning experience in order to access 100% of their compensation package. The total experience including PD delivery, communication, archiving of deliverable artifacts and documentation of engagement was facilitated via a popular, online Learning Management System called "Canvas" (https://www.instructure.com/k-12)

The annual professional development cycle for this project included four core components: * **A Virtual Summer Institute:** Three-day professional development institute for the three cohorts of teachers referenced above; * **Community of Practice:** Online community and discussion board through CYBER.org's Canvas platform; * **Collaborative Curriculum Development:** As teachers progressed through the year, developing concrete pedagogical skills and an increasing sense of self-efficacy, they worked collaboratively to develop at least one integrated lesson per grade level per year, and a * **Peer Review/Final Reflection:** Each cohort ultimately participated in a LIVE end-of-the-year "peer review" session prior to submitting their lessons for publication, and a reflection on their personal and collaborative learning experience. **Attachment 2** provides a more detailed look at the specific activities and deliverables that together comprise the SmartStart annual professional development experience.

In general terms, the summer institute provided the "launch point" for the project and subsequent continuous learning was provided using the Canvass online learning Management System as the platform for a regional, "Community of Practice". Participating school staff were assigned a number of "tasks" to complete and a timeline for their completion. These tasks consisted of both output and outcome deliverables such as the creation and sharing of student lessons and the exchange of knowledge, experience and inquiry between and among other participants. Throughout the experience, participants continued to function as members of distinct cohorts although the Canvass system does allow for broader viewing/sharing of certain deliverable products and curriculum materials in keeping with NYSED funding requirements. A sperate website for the project has also been created and is available at https://www.btboces.org/SmartStartProject.aspx Evaluation reports will be archived at this site periodically during the entire period of project operation.

Evaluation Parameters

Efforts to measure and document the relative success of the " 3 C's for Cyber Success" project were carried out in parallel with the implementation of the project in a manner consistent with the "continuous Improvement" approach utilized in project implementation. The primary purpose of the evaluation is to document and measure the degree to which the project achieved the stated goals of the project. The evaluator, a retired BOCES administrator, works closely with the PD provider and the project coordinator to gather and provide feedback at regular intervals during the annual implementation cycle. This report presents both quantitative and qualitative data captured during the period July 1, 2021- June 30, 2022.

The project was launched with planning and recruitment activities taking place during the first half of the 2020/21 academic year. The first major engagement activity was a series of three, three-day summer institutes which were provided virtually over Zoom by CYBER.org staff in August 2021 with BT BOCES handling teacher recruitment and coordination activities. Ultimately a total of 68 unique individuals participated in one of the three institutes in cohorts representing grade levels k-2, 3-5 and 6-8. The year-long initiative was evaluated utilizing an online, multi-question pre/post survey activity utilizing SurveyMonkey – an industry standard and highly customizable data collection tool. The pre-institute, post-institute and final survey instruments were designed to engage participants in self-reflection regarding their relative level of comfort with, and perceived level of knowledge/mastery of, the curricular elements targeted in the proposed goals for the project. Each administration of the survey was implemented for each cohort by providing them with a URL for the survey. The first administration occurred during the first hour of the summer institute experience. Likewise, the post-institute survey was administered in similar fashion during the final hour of the 3-day experience. A final survey was implemented in May of 2022 during the final hour of the culminating activity for the year which was a live day-long "peer Review" and reflection session. The survey instruments were designed in such a way that all questions required an answer prior to final submission. (**Attachments 3, 4 and 5**) All three surveys were administered anonymously, however, a unique ID was developed for each respondent in order to facilitate pre/post survey pair matching. The pre-institute, post-institute and final instruments were NOT identical, but rather contained questions designed to gather demographic and experiential information for the PD providers and feedback about the summer experience with respect to the PD providers performance, responsiveness, delivery, etc. along with questions designed to measure change in self perceptions among the participants themselves in the context of the stated goals for this initiative.

The initiative collectively enrolled a total of 68 unique individuals from across the consortium in year 1. An additional 8 members of the BT BOCES administrative and professional development staff also participated. Thus, approximately 68% of the targeted number of school staff was engaged in the first round of SmartStart training from across the BT BOCES region (BOCES staff were neither surveyed nor counted in the participation count. They participated in the learning experience so that they might support other teachers in the region in engaged in parallel efforts) Enrollment in each of the three cohorts was moderately proportional with 24, 24 and 19 non-BOCES enrollees across the grade-leveled cohorts respectively.

Evaluation Findings

A. the Summer Institute: Documentation of change as a result of the summer institute was facilitated by statistically analyzing participants responses to five identical questions contained in both surveys utilizing matched pair T-testing (P value), pre/post survey analysis. Each cohort (k-2, 3-5 and 6-8) was analyzed individually, however, the survey instruments used for each cohort were identical. Rather than burden the reader with individual cohort analysis of responses to ALL questions included in the Pre and Post Institute surveys, the following table provides links to those summary data which can be perused at the reader's convenience.

group	Pre-institute Survey results	Post-Institute Survey results
Cohort 1: K-2	https://www.surveymonkey.com/results/SM-XT2BN6PC9/	https://www.surveymonkey.com/results/SM-K9KWH6PC9/
Cohort 2: 3-5	https://www.surveymonkey.com/results/SM-kgU7NYp2eU3Hh9aGfsnl5g_3D_3D/	https://www.surveymonkey.com/results/SM-ZDTC866C9/
Cohort 3: 6-8	https://www.surveymonkey.com/results/SM-69PCG6PC9/	https://www.surveymonkey.com/results/SM-V77R66PC9/

Ultimately, analysis of responses to the 5 identical questions as referenced above indicate that there was substantial positive change in virtually every participant's individual levels of comfort with, and knowledge of, the curricular elements addressed during the PD experience and in the cohort as a whole. This shift occurred across all cohorts in general and, upon being subjected to twin-tale T testing, the changes detected were found to be statistically significant at relatively high levels of confidence in all but one instance. The only instance in which statistically significant change was not detected was the in the 6-8 cohort (cohort 3) response to the question: "**How would you rate your level of confidence in your ability to integrate cyber content into your classroom?".** It may be worth noting that, in this instance, the stated level of confidence among cohort 3 members was (and perhaps logically so given the advanced grade levels involved) higher than those of cohorts 1 and 2 at baseline. Analysis also indicated that there was a substantial reduction in the standard deviation around the mean between the pre-institute and post-institute surveys. This phenomenon MAY suggest that participants came closer to holding similar beliefs and perceptions about their levels of comfort and knowledge over the course of the summer institute.

The following charts present the summary data and analysis for the Summer Institute experience for each of these three cohorts.

Cohort 1	Number of Participants: 29	Number of Matched Pairs: 23	Margin of Error = +/- 1.68%

How would you rate your current level of content knowledge related to the computer science and digital fluency standards

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	17.4%	0.0%	34.8%	4.4%	26.1%	43.5%	21.2%	43.5%	0.0%	8.7%	2.52	3.57	1.02	0.71

Two-tailed P-value = 0.0002; statistically indicating an EXTREMELY significant change from the pre-survey mean to the post-survey mean

How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	17.4	4.4	43.5	4.4	21.7	43.5	13.0	39.1	4.5	8.7	2.43	3.43	1.06	0.88

Two-tailed P-value = 0.0011; statistically indicating a VERY significant change from the pre-survey mean to the post-survey mean

How would you rate your current level of confidence in your ability to facilitate student learning involving basic computer coding

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	17.4	0.0	34.5	4.4	21.7	26.1	17.4	52.2	8.7	17.4	2.65	3.85	1.20	0.76

Two-tailed P-value = 0.0002; statistically indicating an EXTREMELY significant change from the pre-survey mean to the post-survey mean

How would you rate your level of confidence in effectively integrating other disciplines with next generation science standards?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	17.4	0.0	30.4	13.0	34.8	34.8	13.0	47.8	4.35	4.35	2.57	3.43	1.06	0.77

Two-tailed P-value = 0.0029; statistically indicating a VERY significant change from the pre-survey mean to the post-survey mean

How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	4.4	0.0	30.4	4.4	39.1	30.4	17.4	39.1	8.7	26.1	2.96	3.87	1.00	0.85

Two-tailed P-value = 0.0018; statistically indicating a VERY significant change from the pre-survey mean to the post-survey mean

Cohort 2	Number of Participants: 28	Number of Matched Pairs: 22	Margin of Error = +/- 8.02%

How would you rate your current level of content knowledge related to the computer science and digital fluency standards

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	40.9%	0.0%	13.6%	4.6%	27.3%	36.4%	18.2%	45.5%	0.0%	13.6%	2.23	3.68	1.17	0.76

Two-tailed P-value = 0.0001; statistically indicating an EXTREMELY significant change from the pre-survey mean to the post-survey mean

How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	22.7%	0.0%	18.2%	4.6%	22.7%	27.3%	27.3%	45.5%	9.1%	22.7%	2.82	3.86	1.30	0.81

Two-tailed P-value = 0.0027; statistically indicating a VERY significant change from the pre-survey mean to the post-survey mean

How would you rate your current level of confidence in your ability to facilitate student learning involving basic computer coding

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	22.7%	0.0%	18.2%	0.0%	22.7%	27.3%	31.8%	50.0%	4.6%	22.7%	2.77	3.95	1.24	0.71

Two-tailed P-value = 0.0004; statistically indicating an EXTREMELY significant change from the pre-survey mean to the post-survey mean

How would you rate your level of confidence in effectively integrating other disciplines with next generation science standards?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	13.6%	0.0%	18.2%	4.6%	31.8%	22.7%	27.3%	45.5%	9.1%	27.3%	3.00	3.95	1.17	0.82

Two-tailed P-value = 0.0033; statistically indicating a VERY significant change from the pre-survey mean to the post-survey mean

How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	4.6%	0.0%	31.8%	0.0%	31.8%	27.3%	22.7%	40.9%	9.1%	31.8%	3.00	4.05	1.04	0.77

Two-tailed P-value = 0.0005; statistically indicating an EXTREMELY significant change from the pre-survey mean to the post-survey mean

Cohort 3		Number of Participants: 21		Number of Matched Pairs: 19						Margin of Error = +/- 4.17%			
How would you rate your current level of content knowledge related to the computer science and digital fluency standards													
Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	21.1%	0.0%	57.9%	0.0%	5.3%	42.1%	5.3%	52.6%	5.3%	5.3%	2.21	3.63	1.06	0.58
Two-tailed P-value = 0.0001; statistically indicating an EXTREMELY significant change from the pre-survey mean to the post-survey mean														
How would you rate your current level of comfort in using the "Engineering Design Process" with your students?														
Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	21.1%	5.3%	26.3%	10.5%	36.8%	26.3%	10.5%	42.1%	5.3	15.8	2.53	3.53	1.09	1.04
Two-tailed P-value = 0.0064; statistically indicating a VERY significant change from the pre-survey mean to the post-survey mean														
How would you rate your current level of confidence in your ability to facilitate student learning involving basic computer coding														
Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	21.1%	0.0%	21.1%	10.5%	21.1%	26.3%	31.6%	57.9%	5.3%	5.3%	2.79	3.58	1.24	0.75
Two-tailed P-value = 0.0229; statistically indicating a significant change from the pre-survey mean to the post-survey mean														

How would you rate your level of confidence in effectively integrating other disciplines with next generation science standards?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	5.3%	0.0%	21.1%	15.8%	57.9%	42.1%	15.8%	41.1%	0.0%	5.3%	2.84	3.37	0.74	0.81

Two-tailed P-value = 0.0029; statistically indicating a significant change from the pre-survey mean to the post-survey mean

How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	10.1%	0.0%	5.3%	10.1%	36.8%	10.6%	31.6%	57.9%	15.8%	21.1%	3.37	3.89	1.13	0.85

Two-tailed P-value = 0.1177; statistically indicating NO significant change from the pre-survey mean to the post-survey mean

A more graphic representation of these data is available with this report as **Attachments 6.1, 6.2 and 6.3.**

B. The Community of Practice: Evaluation of the outcomes and efficacy of the Community of Practice and curriculum development activities associated with this project was more challenging, Through the CANVAS online learning management system participants were provided with opportunities and a forum for the exchange of questions, ideas and resources. They were also given a calendar of "assignments" intended to extend, deepen and institutionalize their learning. The evaluator notes that the CANVAS online learning management system indicated that 100% of teacher participants signed up and interacted with the online learning system in some way since the August launch of the initiative. Rates of completion for Community of Practice assignments, however, declined month-to-month over the post institute period of September 1- April 1, 202, followed by a resurgence of activity and unique ID log-ons in April and May, 2022. Please be aware that participants had the ability to participate in more than one cohort in the post-institute experience and several elected to do so. It must also be noted that there was no adverse consequence to participants for not completing assignments by the date they were due. There is ample evidence that numerous participants completed assignments over the mid-term recess in December 2021 and again just prior to the final Peer Review/Day of Reflection gathering in May of 2022.

Word mapping, heat mapping and other ethnographic analysis of the online dialog between and among participants yielded no noteworthy indications of change/growth perhaps due to the small size of the cohorts involved and the relative infrequency or variability of frequency with which participants engaged with the CANVAS platform. The nature, scope and depth of the various threads of dialog may account for some of this difficulty. In general, in the opinion of this evaluator, it is not possible to make inference or draw conclusions regarding the on-line portion of the post-institute experience in any cohort-segregated fashion.

C. The Peer/Review – Final Reflection: The Peer Review and Final Reflection event was not evaluated as a separate element of the year-long experience. However, a final survey gave participants an opportunity to provide reflective commentary and was administered in the final hour of the day-long culminating event. **(Attachment 7)** The survey instrument included the "five essential questions" that were asked on both the pre and post Summer Institute surveys as referenced earlier in this narrative, along with other qualitative questions which were contained on all three surveys as well. The results of the Five essential questions from the final survey are presented in the following tables:

Cohort 1		Initial Participant Count: 24		Completed Participant Count: 21								Completion Rate: 88%	
		Post Institute Survey Count: 23		Final Survey Count: 17									
How would you rate your current level of content knowledge related to the computer science and digital fluency standards													
Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	Final	Post	Final	Post	Final	Post	Final	Post	Final	Post	Final	Post	Final
	0.0%	0.0%	4.4%	5.9%	43.5%	29.4%	43.5%	58.9%	8.7%	5.9%	3.57	3.65	0.71	0.68
P value = 0.7219														
no statistically significant difference detected														
How would you rate your current level of comfort in using the "Engineering Design Process" with your students?														
Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	4.4	0.0%	4.4	5.9%	43.5	47.1%	39.1	35.3%	8.7	11.8%	3.43	3.53	0.88	0.78
P value = 0.7116														
no statistically significant difference detected														
How would you rate your current level of confidence in your ability to facilitate student learning involving basic computer coding														
Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0	0.0%	4.4	0.0%	26.1	17.7%	52.2	64.7%	17.4	17.7	3.85	4.00	0.76	0.59
P value = 0.5030														

no statistically significant difference detected

How would you rate your level of confidence in effectively integrating other disciplines with next generation science standards?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0	0.0%	13.0	0.0%	34.8	29.4%	47.8	58.9%	4.35	11.8%	3.43	3.82	0.77	0.62

P value = 0.0944

no statistically significant difference detected

How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0	0.0%	4.4	0.0%	30.4	11.8%	39.1	58.9%	26.1	29.4%	3.87	4.18	0.85	0.62

P value = 0.2109

no statistically significant difference detected

Cohort 2		Initial Participant Count: 24		Completed Participant Count: 18				Completion Rate: 75%	
		Post Institute Survey Count: 22		Final Survey Count: 17					

How would you rate your current level of content knowledge related to the computer science and digital fluency standards

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0%	0.0%	4.6%	0.0%	36.4%	17.7%	45.5%	76.5%	13.6%	5.9%	3.68	3.88	0.76	0.47

Insufficient data for analysis

How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0%	0.00	4.6%	17.7%	27.3%	29.4%	45.5%	25.2%	22.7%	17.7%	3.86	3.53	0.81	0.98

Insufficient data for analysis

How would you rate your current level of confidence in your ability to facilitate student learning involving basic computer coding

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0%	0.0%	0.0%	5.9%	27.3%	23.4%	50.0%	41.2%	22.7%	29.4%	3.95	3.94	0.71	0.87

Insufficient data for analysis

How would you rate your level of confidence in effectively integrating other disciplines with next generation science standards?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0%	0.0%	4.6%	0.0%	22.7%	41.2%	45.5%	47.1%	27.3%	11.8%	3.95	3.71	0.82	0.67

Insufficient data for analysis

How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0%	0.0%	0.0%	0.0%	27.3%	35.3%	40.9%	52.9%	31.8%	11.8%	4.05	3.76	0.77	0.64

Insufficient data for analysis

Cohort 3			Initial Participant Count: 19				Completed Participant Count: 10				Margin of Error = +/-		Completion Rate: 53%	
			Post Institute Survey Count:19				Final Survey Count: 9							
How would you rate your current level of content knowledge related to the computer science and digital fluency standards														
Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0%	0.0%	0.0%	0.0%	42.1%	22.2%	52.6%	77.8%	5.3%	0.0%	3.63	3.78	0.58	0.42
Insufficient data for analysis														
How would you rate your current level of comfort in using the "Engineering Design Process" with your students?														
Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	5.3%	0.0%	10.5%	22.2%	26.3%	22.2%	42.1%	55.6%	15.8	0.0%	3.53	3.33	1.04	0.82
Insufficient data for analysis														
How would you rate your current level of confidence in your ability to facilitate student learning involving basic computer coding														
Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0%	0.0%	10.5%	11.1%	26.3%	22.2%	57.9%	66.7%	5.3%	0.0%	3.58	3.56	0.75	0.68
Insufficient data for analysis														

How would you rate your level of confidence in effectively integrating other disciplines with next generation science standards?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0%	0.0%	15.8%	0.0%	42.1%	44.4%	41.1%	55.6%	5.3%	0.0%	3.37	3.56	0.81	0.50

Insufficient data for analysis

How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Rating: expressed as % of total pool	1 = Minimal		2		3		4		5 = Extensive		Mean		Standard Deviation	
	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final	Post	final
	0.0%	0.0%	10.1%	0.0%	10.6%	11.1%	57.9%	77.8%	21.1%	11.1%	3.89	4.00	0.85	0.47

Insufficient data for analysis

The evaluator found no statistically significant differences in the mean values of participant responses for cohort 1, suggesting that changes in perception noted as a result of the summer institute may have been maintained over the course of the experience. Unfortunately, with significant "drop-off" in the numbers of individuals who completed the entire year-long PD experience in cohorts 1 and 2, versus the numbers of those who started the journey in August of 2021, the evaluator was unable to find a statistical test for significance with respect to the differences in means of responses exhibited between the post-institute survey in August 2021 and the Final survey administered in May of 2022. At the macro level (all three cohorts combined) no statistically significant differences were detected between the means for responses to the five essential questions as well. Testing of data from the final survey yielded margins of error in excess of +/- 10% in these instances. Gross observation of the mean values of responses between those two surveys MAY, however, suggest that the increases in teacher self-assessed confidence and knowledge documented between the pre-institute and post-institute surveys were at least maintained throughout the entire learning experience and, in some cases, may even have increased slightly by year's end. Even under the best of circumstances, however, it would be difficult to produce a statistically valid statement of change over the year-long experience given all the variables participating teachers experienced during that time. These experiences present themselves as uncontrolled variables essentially invalidating any attempt at significance testing in such small populations.

Cohort	Started	Completed	Rate
K-2	24	21	87.5%
3-5	24	18	75.0 %
6-8	19	10	52.6%
TOTAL	67	49	73.1%

Participants were also asked three questions in an attempt to explore the degree to which classroom practice was linked to SmartStart initiative objectives in the areas of classroom integration of cyber concepts into the curriculum, cyber careers and cybersecurity. Specifically, at the end of the Summer Institute, they were asked how often they intended to integrate cyber concepts into their regular classroom lessons, how often they planned to talk to their students about cybersecurity and digital safety in the year ahead; and how often they planned on talking to their students about Cybersecurity career opportunities. In May, teachers were then asked to estimate how often they actually DID undertake these activities. With respect to integration of cyber concepts, teachers projected that they would integrate cyber concepts into their regular lesson plans one or twice per week at the end of the Summer Institute in August 2021 (index value = 3.16) and, in fact, did so in the months that followed (index value = 3.14 in May 2022.) In the case of cybersecurity and safety, teacher responses indicated they planned on engaging students on these issues once or twice per week (index value=3.00 in August) and subsequently reported that the met this goal as of May 2022 (index value =3.06) Likewise, teachers estimated that they intended to work with students on cybersecurity career options twice per year (index value = 1.86) and met, or perhaps slightly exceeded, this goal by May (index value = 2.24).

Finally, teachers were asked a series of qualitative survey questions in May 2022 at the culminating event for year 1 of this initiative. These questions focused on perceived barriers to application of the knowledge, skills and resources acquired as part of their SmartStart experience; the use and usefulness of the Canvas LMS, and their reflections regarding perceived

strengths and areas for improvement of the Broome-Tioga BOCES SmartStart model. Findings from these questions were as follows:

1. Main barriers to classroom implementation
    a. Time 51%
    b. Lack of appropriate materials or technology 12%

2. Teacher comfort with using the Canvas LMS: (on a scale of 0-100 where 0 = not at all and 100 = completely comfortable) teachers reported being moderately comfortable (index value = 64)

3. Strengths of the Canvas LMS system: (rank order of frequency)
    a. Well organized
    b. Easy to navigate
    c. Easy to submit assignments
    d. Support staff/PD providers were very responsive

4. Weaknesses of the Canvas LMS system: (rank order of frequency)
    a. Difficult to navigate
    b. Steep initial learning curve
    c. Issues with receiving notifications
    d. None

5. What did you feel were the overall strengths of the SmartStart model?
        a. Asynchronous delivery
        b. Flexibility of timeline for assignments/tasks and deliverables
        c. Opportunities for teacher:teacher collaboration
        d. Learning about new, curriculum linked technology resources
        e. Abundance of online resources made available by the PD provider

6. What do you think would be areas for improvement for the SmartStart Initiative?
        a. None
        b. Shorter timeframe
        c. More time for collaborative lesson development
        d. Better communication about expectations
        e. More hands-on time with new technology resources

Curricular Deliverables: Concurrent with the Peer Review activities that occurred at the day-long culminating event in May 2022, teachers were provided the opportunity to upload their peer-reviewed and revised lesson plans to a repository on the Canvas LMS. These lesson plans were constructed using a uniform guidance template provided by Cyber.org. **(Attachment 8)** This act, in combination with documented completion of all the asynchronous tasks/assignments presented by the PD providers as follow-up ongoing PD after the Summer Institute, represented the final obligation for teachers participating in the SmartStart initiative. After teachers submitted their final lessons, SmartStart staff and PD providers from Cyber.org reviewed and, if

necessary, revised lesson plans to render them into uniformly formatted documents and, subsequently mounted them in PDF format on the Broome-Tioga BOCES SmartStart project website via a link to: https://sites.google.com/btboces.org/bt-boces-smart-start-lessons/home

Closing Comments

The penultimate measure of success for this project is in the degree to which it met the stated goals and objectives for it. To that end, a goal-by-goal analysis of outcomes is as follows:

Goal #1: Develop regional integrated curricula for Grades K-8 that will target the knowledge and skills included in the NYS Computer Science and Digital Fluency Standards to ensure students are future-ready and well-equipped for college and career opportunities.

> A total of 49 peer-reviewed lessons linked to the Computer Science and Digital Fluency standards were archived to the BT BOCES SmartStart website in May 2022. (k-2=21; 3-5=18 and 6-8= 10) The target number for year 1 was 100. This goal was partially met as numbers of final products fell below target values.

Goal #2: Increase teachers' knowledge and skills, and ultimately their confidence and comfort to teach computer science concepts (coding, computational thinking, and cybersecurity awareness)

> In the opinion of participants, this goal was well met given data from the Summer Institute and final surveys.

Goal #3: Integrate Computer Science and Digital Fluency Standards into content areas to increase engagement and learning, resulting in increased 3-8 ELA and Math state assessment scores to close the gap of regional scores to the state.

> Progress in achieving this goal cannot be assessed at this time.

Goal #4: Create a foundation for a school-to-career cyber workforce pipeline.

> Much curricular effort was placed on engaging students in awareness activities focused on cyber security careers during this project. While it will take the five-year duration of the project and beyond to obtain quantitative data linked to this goal, the effort to engage students in related dialog is well documented within the lesson plans submitted, educator assignments and posts shared in the Canvas LMS.

In broad terms, it appears that changes in self-perceived levels of confidence regarding THE skills and knowledge teachers felt they acquired as a result of the Summer Institute may well have persisted throughout the academic year that followed.

Participants and providers alike identified several "tweaks" that should be considered in an effort to improve the implementation of this initiative moving forward. Evaluation findings suggest that teachers believe that more face-to-face time would improve the quality of the curriculum products and further the sub-goal of creating and sustaining a regional "Community of Practice". Feedback from participants also suggests that more time/emphasis on learning to effectively use the Canvas LMS, more frequent and more focused communication from the PD providers and an overall shorter project period would also be beneficial. Per generally accepted professional practice, providers may wish to provide participants with a rubric against which to assess the

relative quality of individual lessons as part of the Peer Review process. Special emphasis must be placed on hitting future annual teacher recruitment targets as a matter of meeting NYSED grant requirements and, secondarily, providing the critical mass necessary to support statistical analysis of evaluation data.

The evaluation methodology itself should be modified such that participants are provided with opportunities to identify relative strengths and weaknesses of each of the four components of the experience (Summer Institute, Community of Practice, curriculum development and peer review/reflection) individually as well as the experience as a whole. Individual case study and guided journaling opportunities should also be added to the matrix of evaluation activities.

Smart Start 2021-22
August 2021 Participation in 3-Day Institute

District	Grades						Total # of Teachers Cohort 1 (21-22)	
	K-2		3-5		6-8			
	Aug 3-5		Aug 10 - 12		Aug 17 - 19			
	Estimate	Actual	Estimate	Actual	Estimate	Actual	Estimate	Actual
Binghamton	7	3	7	2	4	1	18	6
BT IP	0	0	0	0	0	1	0	1
Chenango Forks	0	2	0	2	0	2	0	6
Chenango Valley	2	1	2	2	2	2	6	5
Deposit	1	0	1	0	1	0	3	0
Harpursville	1	1	1	0	1	1	3	2
Johnson City	3	1	3	1	2	1	8	3
Maine-Endwell	3	3	3	3	2	2	8	8
Norwich	2	2	2	0	2	0	6	2
Sidney	1	1	2	2	2	2	5	5
Susquehanna Valley	2	2	2	2	2	2	6	6
Tioga	1	0	2	0	2	0	5	0
Union-Endicott	5	1	5	1	2	1	12	3
Vestal	5	6	5	4	2	2	12	12
Whitney Point	2	0	2	0	2	1	6	1
Windsor	2	2	2	5	2	1	6	8
TOTALS	37	25	39	24	28	19	104	68

ATTACHMENT 1

SmartStart 3 Day Institute

August 2021

Generic Agenda

Day 1	Tuesday August 3rd
9:00 – 10:30	Introductions and Welcome Canvas Overview for this Course Introduction to Dash or Micro:bit Basic Coding with Dash or Micro:bit
10:30 – 11:30	Downloading software and setting up your device Exploring the Wonder or MakeCode platforms
12:00 – 1:30	Morning Review and Share Cybersecurity Introduction Introduction to NY K-12 CS and Digital Fluency Learning Standards Sample lessons from Palo Alto Content
1:30 – 2:30	Deeper Dive into Cybersecurity Application Look at the Standards on Your Own Sign up for CYBER ACES resources Explore Net Smartz Kids Assignment – How can you use Dash or Micro:bit in your classroom?
2:30 – 3:00	Brainstorm and Share Lesson Plan Ideas Review Canvas Resources Overview for the next two days Time for Q & A

Day 2	Wednesday August 4th
9:00 – 10:30	Review Apps for Dash and Learn Programs on Micro:bit Share more resources and tutorials Sample Lessons from Coding Basics with Code.org Breakout Rooms to meet new people and discuss standards
10:30 – 11:30	Coding Lesson Plan Development Continue to Explore Dash or Micro:bit
12:00 – 1:30	Computational Thinking 2 Sample Lessons Computational Thinking Course by CYBER.ORG
1:30 – 2:30	Individually explore grade appropriate lessons from Computational Thinking Consider a lesson or unit you will teach in the upcoming school year that can adapt to include computational thinking skills and practices. Describe how you will adapt a lesson or unit in the upcoming school year to include computational thinking.
2:30 – 3:00	Share Lesson Plan Ideas Group Brainstorming time Time for Q & A

Day 3	Thursday August 5th
9:00 – 10:30	Discuss Classroom Management Breakout Rooms to discuss potential challenges with Dash or Micro:bit Coding Practice – block-based coding as a group Growth Mindset Review of how to use the discussion board
10:30 – 11:30	Individually Post to the Discussion Board Continue to learn new coding activities Turn in a screenshot of your progress
12:30 – 1:30	Robots and Engineering Design Discussion about the NY K-12 CS and Digital Fluency learning standards Digital Literacy and Palo Alto Example Lesson
1:30 – 2:30	Self-Reflection Assignment Finish any incomplete assignments Work on lesson planning and classroom application
2:30 – 3:00	Week in Review Next Steps Q & A Post-Institute Survey

Year A 2021-2022 School Year Smart Start Ongoing Professional Learning Plan
Invite Only:
Communication regarding course expectations will be conveyed by Cyber.org through the Canvas LMS.

Month	Assignment	Criteria For Success	Notes
October 21, 2021 3:30-4:30 PM Zoom	Topic: Integrating the NY Computer Science and Digital Fluency Learning Standards Zoom: 1 hour Zoom- Standards Integration/Lesson Plan Format; 1 hour (It will be recorded for those who can not attend). Reflection / Discussion Board- Which concept area(s) of the NY Computer Science and Digital Literacy Standards are you considering for your lesson plan submission and why?	Attend the Zoom meeting if possible, or watch the recording afterward. Assignment: Post a reflection to the discussion board by October 20, and reply to two other teachers' posts by October 31. Worth 2 hours of Credit	**Format:** Hybrid: Synchronous Zoom meeting with asynchronous follow-up (2 hours of credit) There will be a separate zoom for K-5 and 6-8
November	Topic: Central Learning Focus of the Lesson Plan Assignment: What is the Central Learning Focus of the Lesson? • What is the goal of the lesson? • What are the learning objectives? • What standards are you going to address? Subject you teach (ex. Library or science) connection, Core (ELA or MATH) Standard Connection, Computer Science and Digital Fluency Standard Connection Reflection/Discussion Board - Post your central learning focus elements of your lesson plan, and provide a brief overview of your lesson ideas and how you will integrate relevant standards.	Assignments: Due by November 30th 1) Complete the Lesson Title and Central Learning Focus sections of the lesson plan template on your Google Doc. 2) Make sure your sharing settings are set to: anyone with the link can comment. Turn in your lesson plan Google Doc link under Assignments with Lesson Title and Central Learning Focus sections complete. 3) Post and reply to the related Discussion Board topic. Worth 3 hours of Credit	**Format:** Asynchronous (3 hours of credit)
December	Topic: Student Engagement in Computer Science and Digital	Assignments: Due by December 31st	**Format:** Asynchronous

	Literacy Assignment: How will you engage students in computer science and digital literacy? • Complete the "Lesson Launch" section of the lesson plan template. • Use the Dash/Micro:bit in your classroom. Looking Forward: Think about how you will add student engagement to present key concepts in your lesson plan.	1) Complete the "Lesson Launch" section of the lesson plan template on your Google Doc. 2) Turn in your lesson plan Google Doc link under Assignments with "Lesson Launch" sections complete. 3)Use the Dash/Micro:bit in your classroom. Worth 3 hours of Credit	(3 hours of credit)
January	Topic: Instructional Strategies Aligned with Lessons Assignment: • Complete the Instructional Strategies sections in the lesson plan template. Please help make each lesson plan a great quality by providing good suggestions and comments. Looking Forward: What lesson considerations will you include in your lesson (ex. Misconceptions, key vocabulary, prior knowledge)?	Assignments: Due by January 31st 1) Complete the Scaffolded Mini Lessons and Closure/Discussion Extension sections of the lesson plan. 2) Turn in your lesson plan Google Doc link under Assignments with the Instructional Strategies sections complete. 3) Complete the assigned peer review of another teacher's Instructional Strategies in their lesson design.	**Format:** Asynchronous (3 hours of credit)
February	Topic: Cyber Connections Assignment: Career Exploration Day • Invite someone virtually to your classroom to talk about how technology helps with their career, or incorporate a career connection into your lesson plan if you have not	Assignments: Due by February 28th. 1) Do something to explain technology careers to your students. 2) Submit a reflection (1 page or less) including	**Format:** Asynchronous (3 hours of credit)

	yet, or show a video of someone explaining what they do in their job. Reflection/Discussion Board - Post about your Career Exploration Day and student reaction. Looking Forward: How can you add a Cyber Career Connection to your lesson plan?	what you choose to do and what reaction the students had.	
March	Topic: Assessment Strategies Aligned to Lessons Zoom: Assessment Formative and Summative - What digital artifact is the student going to produce? Assignment: • Complete the Assessment section of the lesson plan template.	Assignments: Due by March 31st 1)Attend the Zoom meeting. If not possible, watch the recording afterward and complete a short reflection. 2)Complete the Assessment section of the lesson plan template.	**Format:** Hybrid - Synchronous Zoom with Asynchronous Follow-up (3 hours of credit) Possibly March 11
April	Topic: Lesson Considerations/Review & Feedback Assignment: • Post a correction to your lesson plan as a reply to the previous discussion. Please help make each lesson plan a great quality by providing good suggestions and comments.	Assignments: Due by April 29th 1)Post a correction to your lesson plan as a reply to the previous discussion. 2) Complete the assigned peer review of another teacher's lesson plan with feedback.	**Format:** Asynchronous (3 hours of credit)
May	Topic: Final Reflection & Lesson Presentation Final Touches on Lesson Plans Maybe on Zoom or ideally In-Person Please try to attend this one if at all possible. It will be an entire day, and	Assignment: You will work in teams to help everyone have a great lesson to share with Share out stories/lessons/student products	**Format:** Final Reflection Day Synchronous (6)hours of credit) **in Person/JCLC 1 day K-2*

	will include 6 hours.		*1 day 3-5* *1 day 6-8* *Or one venue on one day-larger place*

Smart Start: Computer Science and Digital Fluency Infused Lesson Plan Template (Adapted from edTPA)

Rename the template: Smart Start Lesson Plan

Computer Science and Digital Fluency Lesson Plan Template (edTPA)

- Add career connection to lesson plan template
- Address their current standards
- Applicable ELA or math standards
- NY CS and DL standards

- Can help by highlighting some standards

Chunk the lesson plan around the goals of the grant.

Can base this year's lesson off of another lesson (cite original source).

Integrate standards into ELA and MATH (or the subject that you are already teaching)

Career Connection - invite a guest to talk about their career

We'd like to know . . .

The New York State Education Department requires that we conduct an evaluation of the SmartStart grant initiative. In order to meet that requirement, we will ask you to answer survey questions periodically throughout the coming year. Your responses to the following questions will help us establish a baseline of information regarding your engagement with certain elements of the Next Generation Science Standards and related pedagogy. All responses will remain anonymous.

BOCES and Cyber will also use a few pieces of information to create a "unique project ID" for you so we can track your responses over time WITHOUT tagging you by name. The first two questions below are for that purpose.

Please click "ok" to advance through each section of the survey. Thank you for participating in this effort!

* 1. Please select your cohort number from the list below.

- 01
- 02
- 03
- 04
- 05
- 06
- 07
- 08
- 09
- 10
- 11
- 12
- 13
- 14
- 15
- BOCES PLIC TEAM

* 2. Please create a unique **SEVEN DIGIT** ID using the following format. Enter the FIRST letter of your LAST name, followed by the month, day and LAST TWO DIGITS of the year of your birth. Please do NOT include spaces, slashes or dashes (for example " Doe, February 10 1974" would be D021074):

* 3. Please tell us the grade level you typically teach (please check all that apply)

- [ ] K-2
- [ ] 3-5
- [ ] 6-8
- [ ] other

* 4. What subject(s) do you teach?

* 5. Which of the following best describes your school setting?

- rural
- town
- suburban
- urban

* 6. Is your school a Title 1 school?

- yes
- no
- not sure

Please answer the next 8 questions using a 1-5 scale, where 1 = very low/minimal and 5 = very high/extensive

* 7. How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

1 = very low/minimal	2	3	4	5 = very high/extensive

* 8. How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

1 = very low/minimal	2	3	4	5 = very high/extensive

* 9. How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

1 = very low/minimal	2	3	4	5 = very high/extensive

* 10. How would you rate your level of confidence in effectively integrating other disciplines with the Next Generation Science standards?

1 = very low/minimal	2	3	4	5 = very high/extensive

* 11. How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

1 = very low/minimal	2	3	4	5 = very high/extensive

* 12. How would you rate your current level of confidence in your depth/scope of knowledge of the Next Generation Science Standards?

1 = very low/minimal	2	3	4	5 = very high/extensive
○	○	○	○	○

* 13. How would you rate your current comfort level in facilitating learning through student collaboration involving the Next Generation Science Standards?

1 = very low/minimal	2	3	4	5 = very high/extensive
○	○	○	○	○

* 14. How would you rate you level of comfort with participating in online Professional Learning Communities?

1 = very low/minimal	2	3	4	5 = very high/extensive
○	○	○	○	○

Please answer the following six questions with: 0 = no days per week; 1 = 1 day per week; 2 = 2 days per week; 3 = 3 days per week, or 4 = 4 says per week or everyday

* 15. How often do you utilize small group instruction to deliver STEM related instruction?

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4

* 16. How often to you use project-based learning to address the Computer Science and Digital Fluency Standards?

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4

* 17. How often do you use robotics in your classroom?

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4

* 18. How often do you talk to your students about digital safety and basic cybersecurity?

- 0
- 1
- 2
- 3
- 4

* 19. How often do you talk to your students about cyber career opportunities?

- 0
- 1
- 2
- 3
- 4

* 20. How often do you teach students technical cybersecurity skills?

- 0
- 1
- 2
- 3
- 4

* 21. Before attending this workshop, how familiar were you with CYBER.ORG?

- Extremely familiar
- Very familiar
- Somewhat familiar
- Not so familiar
- Not at all familiar

* 22. Which of the following best describes your gender identity?

- Male
- Female
- Prefer not to say
- Another identity

* 23. Which of the following best describes your racial/ethnic identity?

- American Indian or Alaskan Native
- Asian or Asian American
- Black or African American
- Hispanic or Latino/a/x
- Multiracial or Biracial
- Native Hawian or other Pacific Islander
- White or Caucasian
- Prefer not to say
- Another race/ethnicity not listed above

So - how's it going so far? . . .

Now that your SmartStart journey is underway, we'd like to ask you a few questions about your experiences and perceptions to date. Some of these questions will look familiar and we will ask them a couple more times during the next several months. However, some questions will be new/different each time you take the survey so please read each question carefully before responding.

Unfortunately, we need to ask you to answer two "unique ID" questions below again in order to anonymously track your data over time. The first two questions below are for that purpose. These two questions will be the same each time you take one of surveys related to this project.

Please click "ok" to advance through each section of the survey. Thanks again for being a part of this project!

* 1. Please select your cohort number from the list below.

- 01
- 02
- 03
- 04
- 05
- 06
- 07
- 08
- 09
- 10
- 11
- 12
- 13
- 14
- 15
- BOCES PLIC TEAM

* 2. Please create your unique **SEVEN DIGIT** ID using the following format. Enter the FIRST letter of your LAST name, followed by the month, day and LAST TWO DIGITS of the year of your birth. Please do NOT include spaces, slashes or dashes (for example " Doe, February 10 1974" would be D021074):

Please answer the next 5 questions using a 1-5 scale, where 1 = very low/minimal and 5 = very high/extensive

* 3. How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

1 = very low/minimal	2	3	4	5 = very high/extensive

* 4. How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

1 = very low/minimal	2	3	4	5 = very high/extensive
○	○	○	○	○

* 5. How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

1 = very low/minimal	2	3	4	5 = very high/extensive
○	○	○	○	○

* 6. How would you rate your level of confidence in effectively integrating other disciplines with the Next Generation Science standards?

1 = very low/minimal	2	3	4	5 = very high/extensive
○	○	○	○	○

* 7. How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

1 = very low/minimal	2	3	4	5 = very high/extensive
○	○	○	○	○

Please indicate your level of agreement with the following statements.

8. I learned more about cybersecurity as a result of attending this workshop.

Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
○	○	○	○	○

9. I would feel comfortable following up with my instructors now that this workshop is over.

Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
○	○	○	○	○

10. This workshop aligned with the priorities of my school district leadership.

Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
○	○	○	○	○

During the next year, how often do you plan to . . .

11. Talk to students about digital safety and cybersecurity?

Never	Once or twice a year	Once or twice a month	once or twice a week	Daily
○	○	○	○	○

12. Talk to you students about cybersecurity careers?

Never	Once or twice a year	Once or twice a month	once or twice a week	Daily
○	○	○	○	○

13. Integrate cyber concepts into your regular lesson plans?

Never	Once or twice a year	Once or twice a month	once or twice a week	Daily
○	○	○	○	○

During the next year, how LIKELY are you to . . .

14. Encourage students to participate in extracurricular cyber activities?

Not likely at all	somewhat likely	Likely	Extremely likely
○	○	○	○

15. Teach CYBER.ORG content in your classrooom?

Not likely at all	somewhat likely	Likely	Extremely likely
○	○	○	○

16. Promote cybersecurity education in your school building, school district or state?

Not likely at all	somewhat likely	Likely	Extremely likely
○	○	○	○

17. What are the main barriers that might prevent you from using CYBER.ORG content in your classroom this year (check all that apply)

- ☐ I don't have enough time to incorporate CYBER.ORG content into my lessons.
- ☐ I don't have appropriate supplies or technology.
- ☐ I don't have support from my school building/district administration.
- ☐ I don't feel comfortable teaching CYBER.ORG content.
- ☐ The curriculum doesn't interest my students.
- ☐ I don't anticipate any barriers to teaching CYBER.ORG content in my classroom.

Other (please specify)

Using the scale below, how likely are you to . . .

18. Recommend CYBER.org workshops to a friend or colleague?

1=not at all	2	3	4	5	6	7	8	9	10=definitely
○	○	○	○	○	○	○	○	○	○

19. Recommend CYBER.ORG's curricula to a friend or colleague?

1=not at all	2	3	4	5	6	7	8	9	10=definitely
○	○	○	○	○	○	○	○	○	○

And finally . . .

20. What would you say were the strengths of this workshop?

21. Do you have any suggestions for improving future CYBER.ORG workshops?

So - now that your SmartStart Journey is Coming to a Close . . .

Now that you are in the final phase of your SmartStart experience, we'd like to ask you a few questions about your perceptions to date. Some of these questions will look familiar because we have asked them more than once over the past 10 months. Some of these questions are designed to measure change over time. Please read every question carefully before you respond.

Unfortunately, we also need to ask you to answer two "unique ID" questions as we did back in August in order to anonymously track your unique set of responses over time. The first two questions below are for that purpose.

Please click "ok" to advance through each section of the survey. Thanks again for being a part of this project!

* 1. Please select your cohort number from the list below.

- ◯ 01
- ◯ 02
- ◯ 03
- ◯ 04
- ◯ 05
- ◯ 06
- ◯ 07
- ◯ 08
- ◯ 09
- ◯ 10
- ◯ 11
- ◯ 12
- ◯ 13
- ◯ 14
- ◯ 15
- ◯ BOCES PLIC TEAM

* 2. Please create your unique **SEVEN DIGIT** ID using the following format. Enter the FIRST letter of your LAST name, followed by the two digit month, two digit day and LAST TWO DIGITS of the year of your birth. Please do NOT include spaces, slashes or dashes (for example " Pat Doe, February 10, 1974" would be D021074):

Thinking about your SmartStart experience specifically; Please answer the next 5 questions using a 1-5 scale, where 1 = very low/minimal and 5 = very high/extensive.

* 3. How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

1 = very low/minimal	2	3	4	5 = very high/extensive
◯	◯	◯	◯	◯

* 4. How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

1 = very low/minimal	2	3	4	5 = very high/extensive
◯	◯	◯	◯	◯

* 5. How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

1 = very low/minimal	2	3	4	5 = very high/extensive
◯	◯	◯	◯	◯

* 6. How would you rate your level of confidence in effectively integrating other disciplines with the Next Generation Science standards?

1 = very low/minimal	2	3	4	5 = very high/extensive
◯	◯	◯	◯	◯

* 7. How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

1 = very low/minimal	2	3	4	5 = very high/extensive
◯	◯	◯	◯	◯

Please Indicate your level of agreement with the following statements.

8. I learned more about cybersecurity as a result of my SmartStart experience.

Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
◯	◯	◯	◯	◯

9. My SmartStart experience aligned with the priorities of my school district leadership.

Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
◯	◯	◯	◯	◯

During the PAST school year, how often did you . . .

10. Talk to students about digital safety and cybersecurity?

Never	Once or twice a year	Once or twice a month	once or twice a week	Daily
◯	◯	◯	◯	◯

11. Talk to you students about cybersecurity careers?

Never	Once or twice a year	Once or twice a month	once or twice a week	Daily
◯	◯	◯	◯	◯

12. Integrate cyber concepts into your regular lesson plans?

Never	Once or twice a year	Once or twice a month	once or twice a week	Daily
◯	◯	◯	◯	◯

During the NEXT school year, how LIKELY are you to . . .

13. Encourage students to participate in extracurricular cyber activities?

Not likely at all	somewhat likely	Likely	Extremely likely
○	○	○	○

14. Teach CYBER.ORG content in your classrooom?

Not likely at all	somewhat likely	Likely	Extremely likely
○	○	○	○

15. Promote cybersecurity education in your school building, school district or state?

Not likely at all	somewhat likely	Likely	Extremely likely
○	○	○	○

16. What are the main barriers that might prevent you from using CYBER.ORG content in your classroom this year (check all that apply)

- ☐ I don't have enough time to incorporate CYBER.ORG content into my lessons.
- ☐ I don't feel comfortable teaching CYBER.ORG content.
- ☐ I don't have appropriate supplies or technology.
- ☐ The curriculum doesn't interest my students.
- ☐ I don't have support from my school building/district administration.
- ☐ I don't anticipate any barriers to teaching CYBER.ORG content in my classroom.

Other (please specify)

17. Using the slider scale below, how comfortable are you with using the Canvas online learning management (LMS) system as the primary form of sharing and communication for this project?

not especially comfortable — pretty comfortable — very comfortable

18. What would you consider the strengths of using the Canvas LMS for this project?

19. What would you consider the weaknesses of using the Canvas LMS for this project?

Using the scale below, how likely are you to . . .

20. Recommend CYBER.org workshops to a friend or colleague?

1=not at all	2	3	4	5	6	7	8	9	10=definitely
○	○	○	○	○	○	○	○	○	○

21. Recommend CYBER.ORG's curricula to a friend or colleague?

1=not at all	2	3	4	5	6	7	8	9	10=definitely
○	○	○	○	○	○	○	○	○	○

And finally . . .

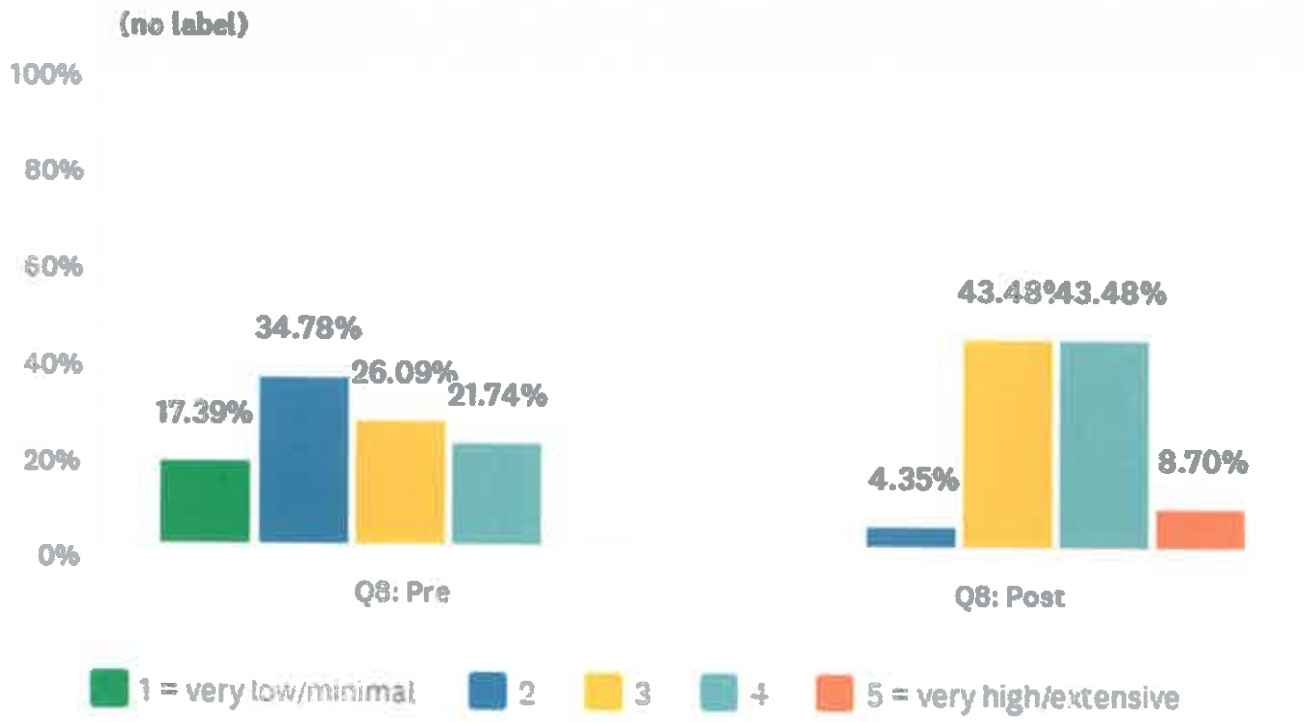
22. What would you say were the strengths of this learning experience?

23. What changes would you suggest we consider making in offering the SmartStart experience to future cohorts?

Pre-Institute / Post-Institute
Survey Comparison
Cohort 1

Q3: How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

Answered: 46 Skipped: 0



Q3: How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

Answered: 46 Skipped: 0

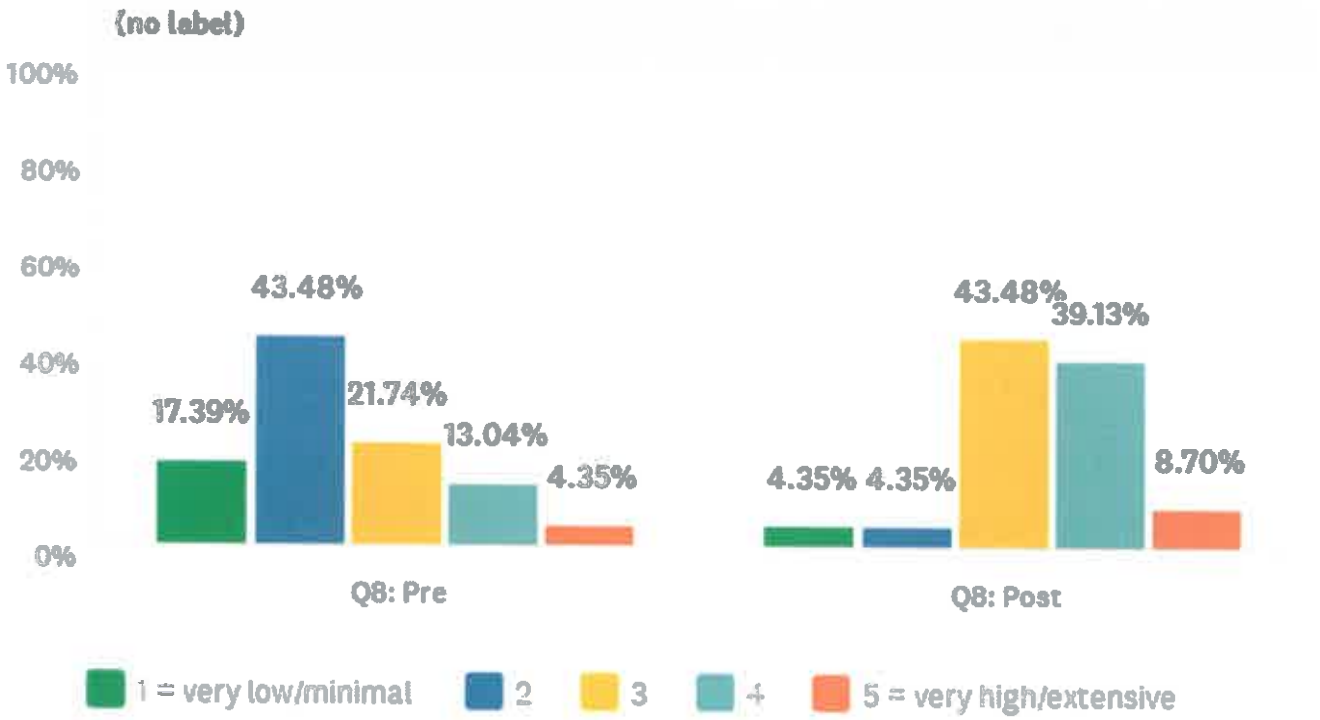
(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	17.39% 4	34.78% 8	26.09% 6	21.74% 5	0.00% 0	50.00% 23	2.52
Q8: Post (B)	0.00% 0	4.35% 1	43.48% 10	43.48% 10	8.70% 2	50.00% 23	3.57

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	4.00	2.00	2.52	1.02
Q8: Post (B)	2.00	5.00	4.00	3.57	0.71

Q4: How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

Answered: 46 Skipped: 0



Q4: How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

Answered: 46 Skipped: 0

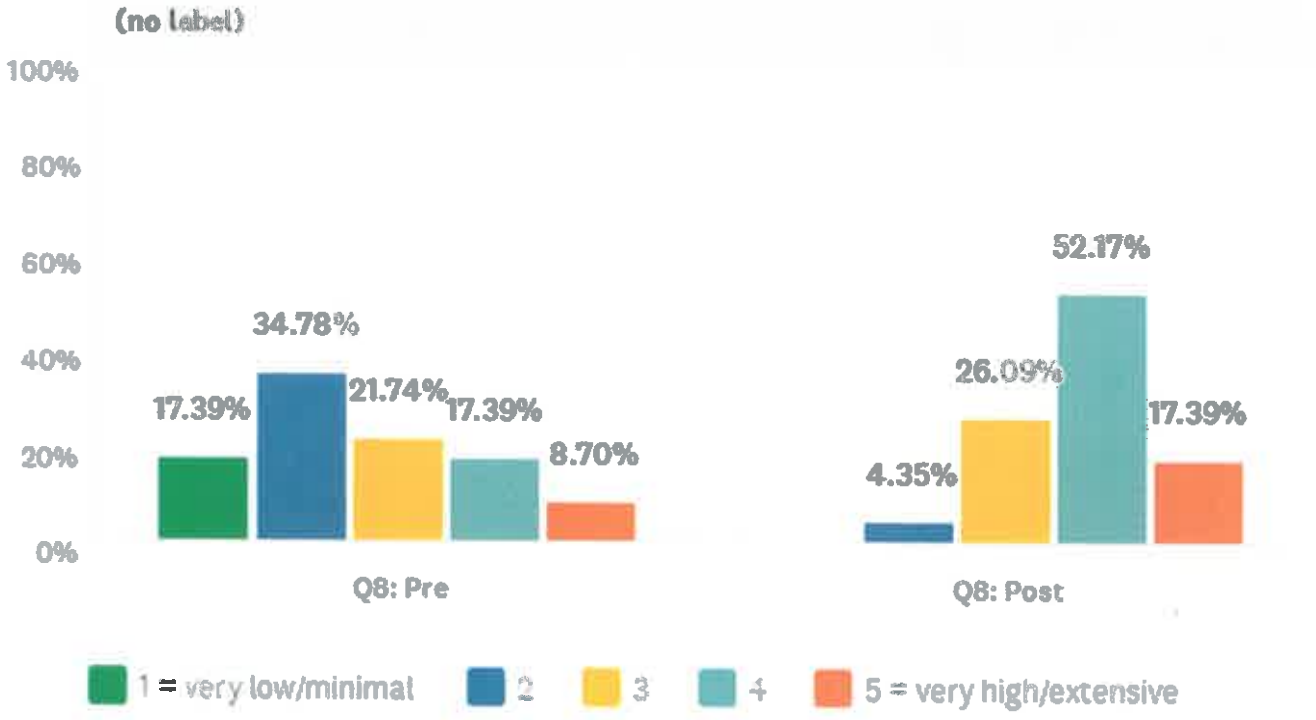
(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	17.39% 4	43.48% 10	21.74% 5	13.04% 3	4.35% 1	50.00% 23	2.43
Q8: Post (B)	4.35% 1	4.35% 1	43.48% 10	39.13% 9	8.70% 2	50.00% 23	3.43

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	2.00	2.43	1.06
Q8: Post (B)	1.00	5.00	3.00	3.43	0.88

Q5: How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

Answered: 46 Skipped: 0



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Q5: How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

Answered: 46 Skipped: 0

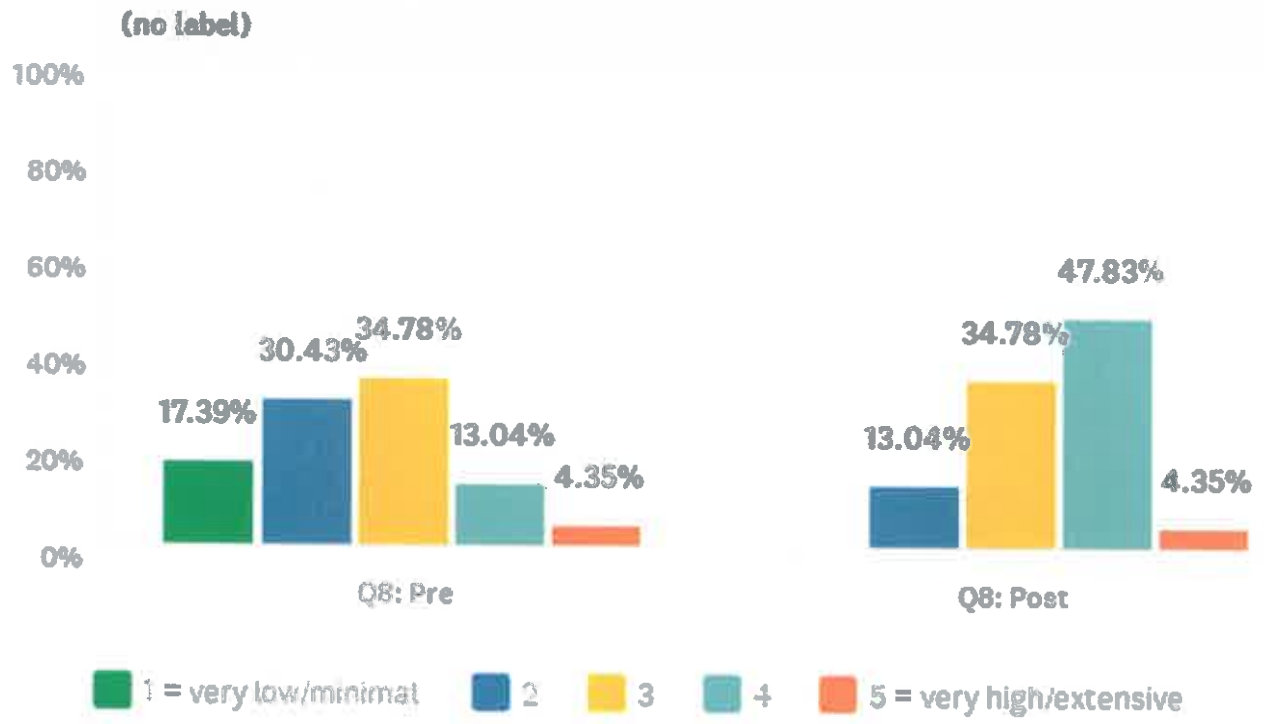
(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	17.39% 4	34.78% 8	21.74% 5	17.39% 4	8.70% 2	50.00% 23	2.65
Q8: Post (B)	0.00% 0	4.35% 1	26.09% 6	52.17% 12	17.39% 4	50.00% 23	3.83

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	2.00	2.65	1.20
Q8: Post (B)	2.00	5.00	4.00	3.83	0.76

integrating other disciplines with the Next Generation Science standards?

Answered: 46 Skipped: 0



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integrating other disciplines with the Next Generation Science standards?

Answered: 46 Skipped: 0

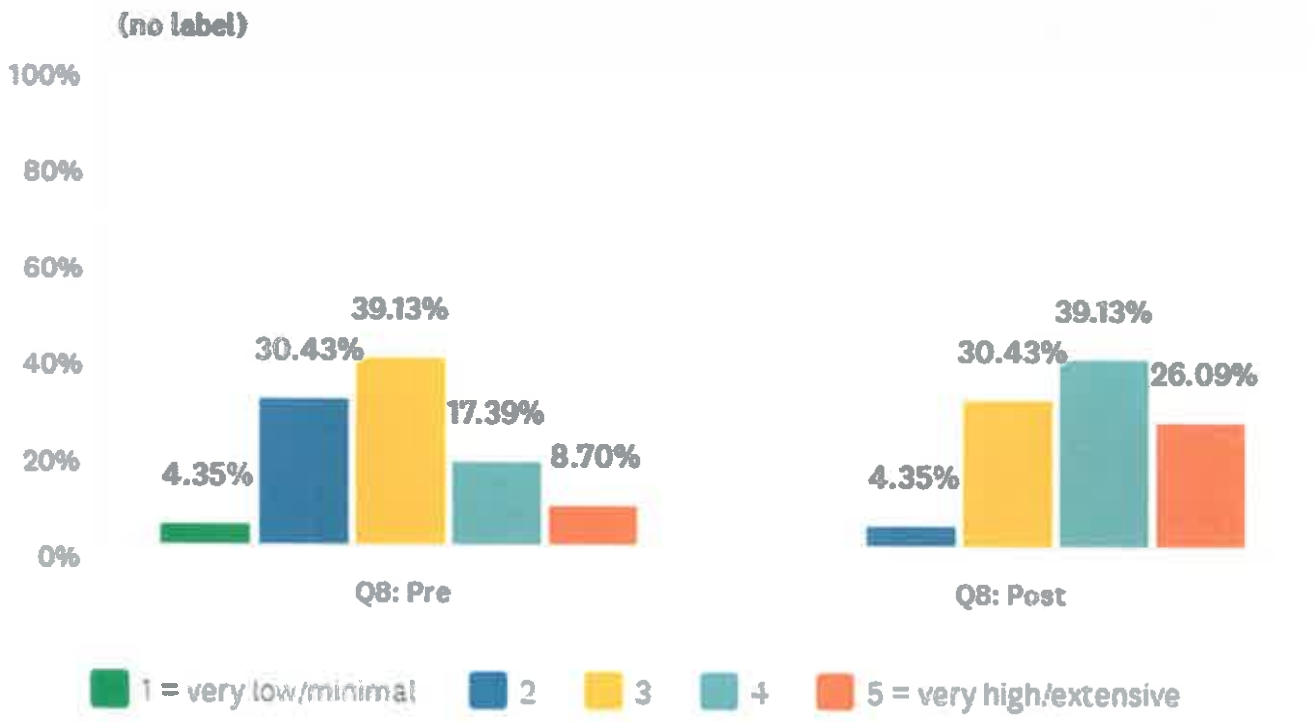
(no label)

	1 - VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 - VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	17.39% 4	30.43% 7	34.78% 8	13.04% 3	4.35% 1	50.00% 23	2.57
Q8: Post (B)	0.00% 0	13.04% 3	34.78% 8	47.83% 11	4.35% 1	50.00% 23	3.43

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	3.00	2.57	1.06
Q8: Post (B)	2.00	5.00	4.00	3.43	0.77

Q7: How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Answered: 46 Skipped: 0



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Q7: How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Answered: 46 Skipped: 0

(no label)

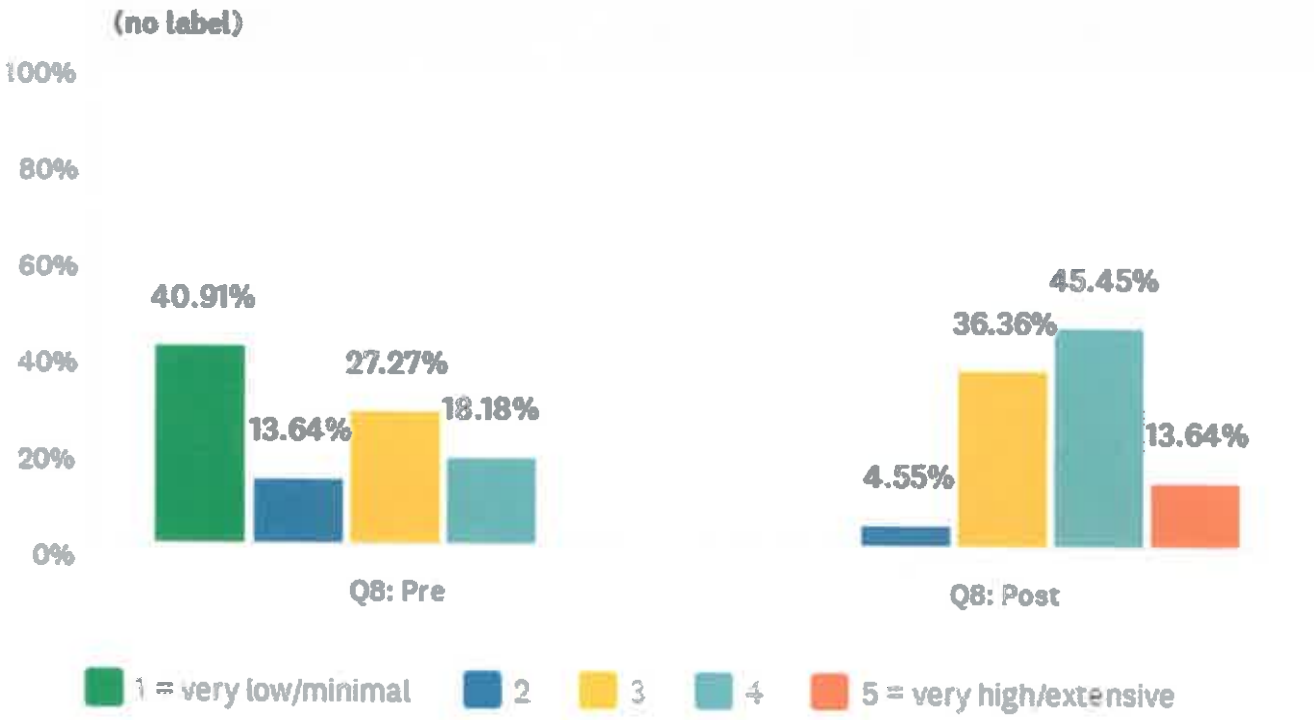
	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	4.35% 1	30.43% 7	39.13% 9	17.39% 4	8.70% 2	50.00% 23	2.96
Q8: Post (B)	0.00% 0	4.35% 1	30.43% 7	39.13% 9	26.09% 6	50.00% 23	3.87

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	3.00	2.96	1.00
Q8: Post (B)	2.00	5.00	4.00	3.87	0.85

Pre-Institute / Post-Institute
Survey Comparison
Cohort 2

Q3: How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

Answered: 44 Skipped: 0



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Q3: How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

Answered: 44 Skipped: 0

(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	40.91% 9	13.64% 3	27.27% 6	18.18% 4	0.00% 0	50.00% 22	2.23
Q8: Post (B)	0.00% 0	4.55% 1	36.36% 8	45.45% 10	13.64% 3	50.00% 22	3.68

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	4.00	2.00	2.23	1.17
Q8: Post (B)	2.00	5.00	4.00	3.68	0.76

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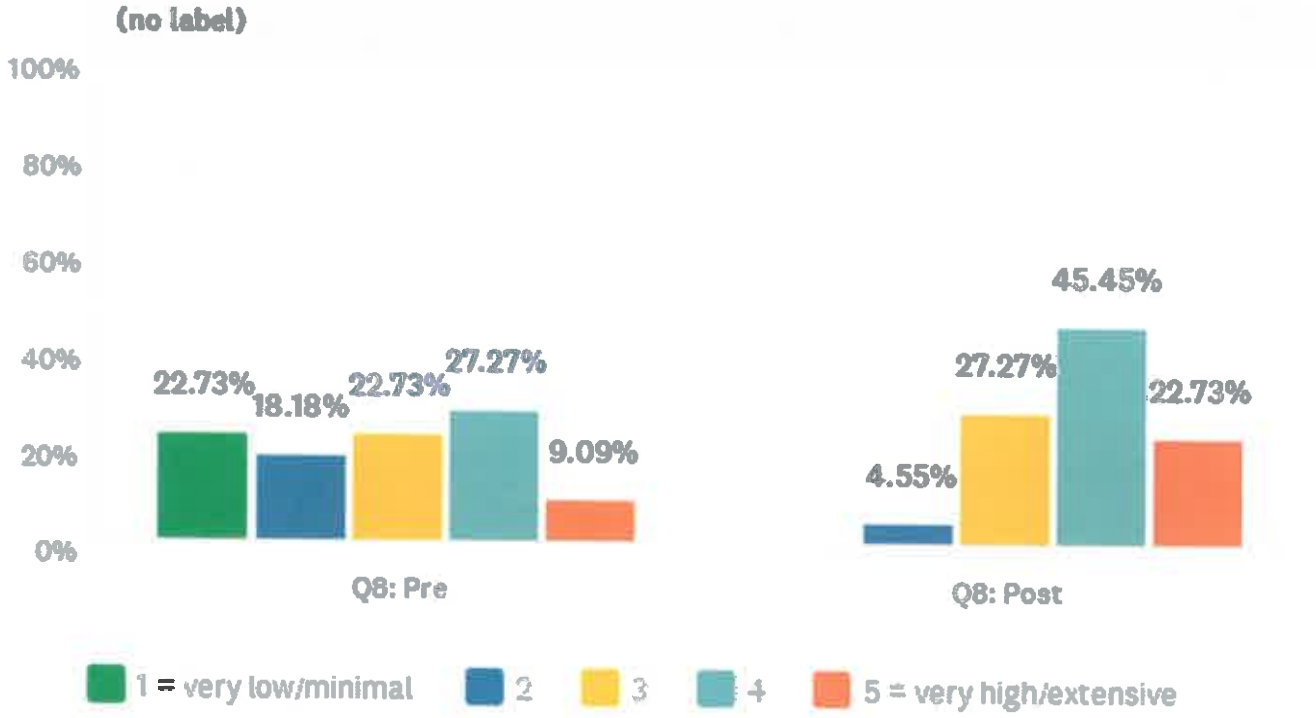
Q4: How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

Answered: 44 Skipped: 0



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Q4: How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

Answered: 44 Skipped: 0

(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	22.73% 5	18.18% 4	22.73% 5	27.27% 6	9.09% 2	50.00% 22	2.82
Q8: Post (B)	0.00% 0	4.55% 1	27.27% 6	45.45% 10	22.73% 5	50.00% 22	3.86

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	3.00	2.82	1.30
Q8: Post (B)	2.00	5.00	4.00	3.86	0.81

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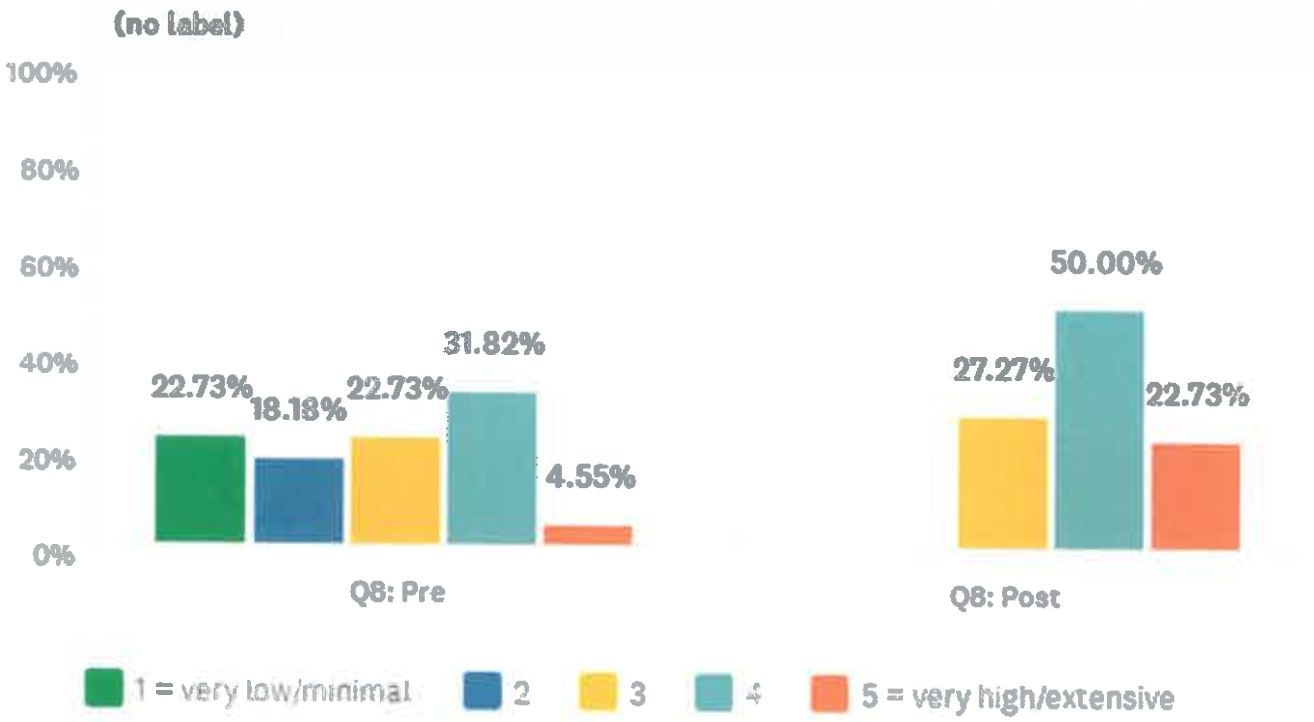
Q5: How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

Answered: 44 Skipped: 0



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Q5: How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

Answered: 44 Skipped: 0

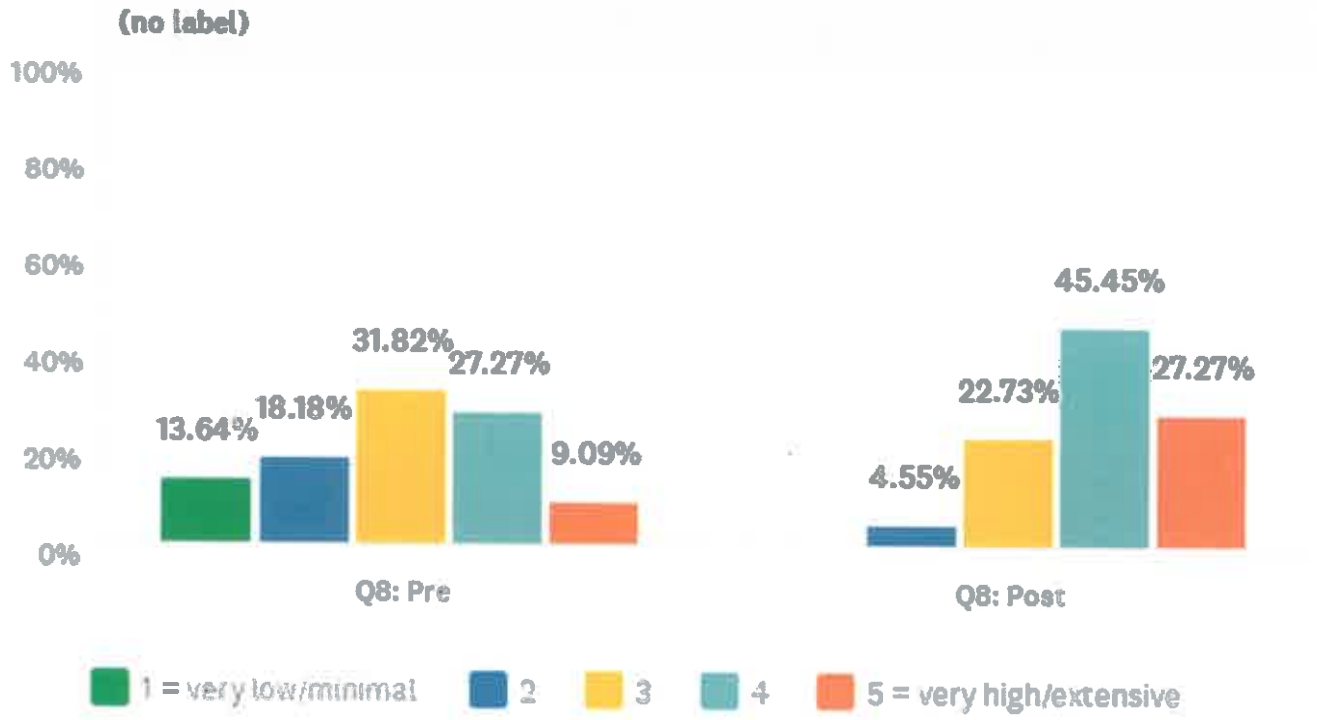
(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	22.73% 5	18.18% 4	22.73% 5	31.82% 7	4.55% 1	50.00% 22	2.77
Q8: Post (B)	0.00% 0	0.00% 0	27.27% 6	50.00% 11	22.73% 5	50.00% 22	3.95

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	3.00	2.77	1.24
Q8: Post (B)	3.00	5.00	4.00	3.95	0.71

integrating other disciplines with the Next Generation Science standards?

Answered: 44 Skipped: 0



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integrating other disciplines with the Next Generation Science standards?

Answered: 44 Skipped: 0

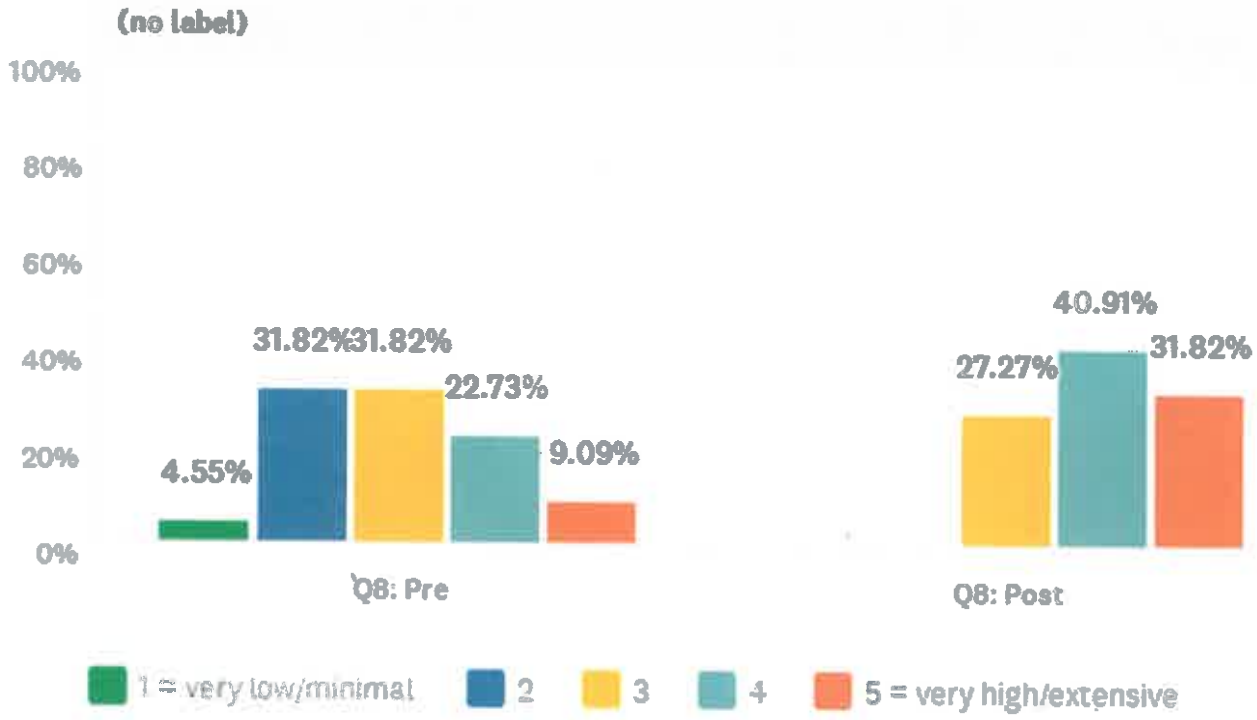
(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	13.64% 3	18.18% 4	31.82% 7	27.27% 6	9.09% 2	50.00% 22	3.00
Q8: Post (B)	0.00% 0	4.55% 1	22.73% 5	45.45% 10	27.27% 6	50.00% 22	3.95

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	3.00	3.00	1.17
Q8: Post (B)	2.00	5.00	4.00	3.95	0.82

Q7: How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Answered: 44 Skipped: 0



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Q7: How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Answered: 44 Skipped: 0

(no label)

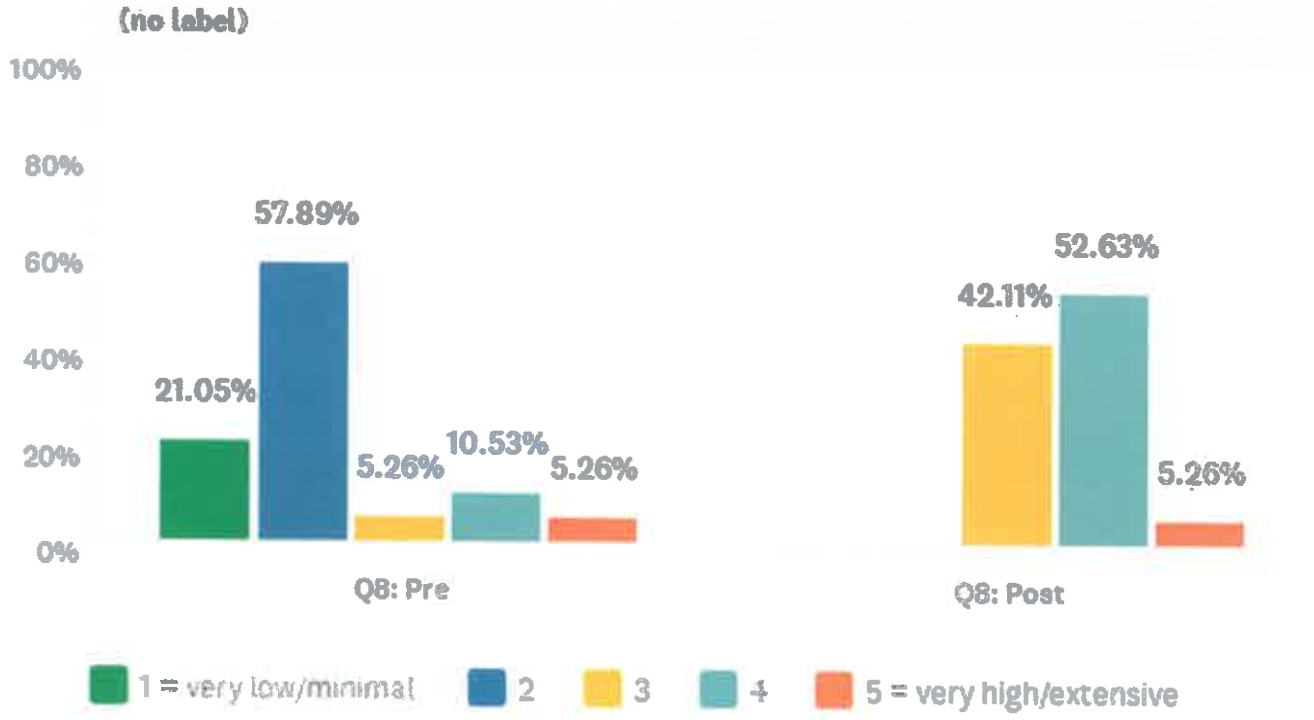
	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	4.55% 1	31.82% 7	31.82% 7	22.73% 5	9.09% 2	50.00% 22	3.00
Q8: Post (B)	0.00% 0	0.00% 0	27.27% 6	40.91% 9	31.82% 7	50.00% 22	4.05

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	3.00	3.00	1.04
Q8: Post (B)	3.00	5.00	4.00	4.05	0.77

Pre-Institute / Post-Institute
Survey Comparison
Cohort 3

Q3: How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

Answered: 38 Skipped: 0



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Q3: How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

Answered: 38 Skipped: 0

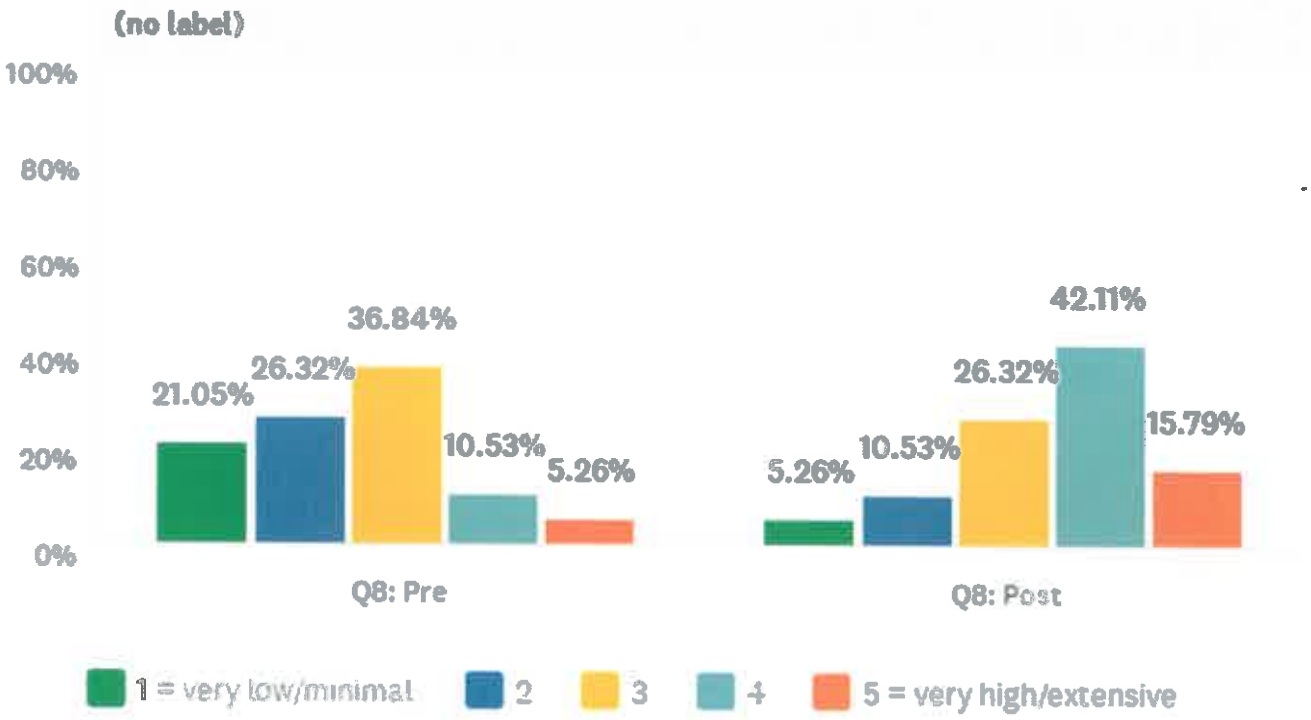
(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	21.05% 4	57.89% 11	5.26% 1	10.53% 2	5.26% 1	50.00% 19	2.21
Q8: Post (B)	0.00% 0	0.00% 0	42.11% 8	52.63% 10	5.26% 1	50.00% 19	3.63

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	2.00	2.21	1.06
Q8: Post (B)	3.00	5.00	4.00	3.63	0.58

Q4: How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

Answered: 38 Skipped: 0



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Q4: How would you rate your current level of comfort in using the "Engineering Design Process" with your students?

Answered: 38 Skipped: 0

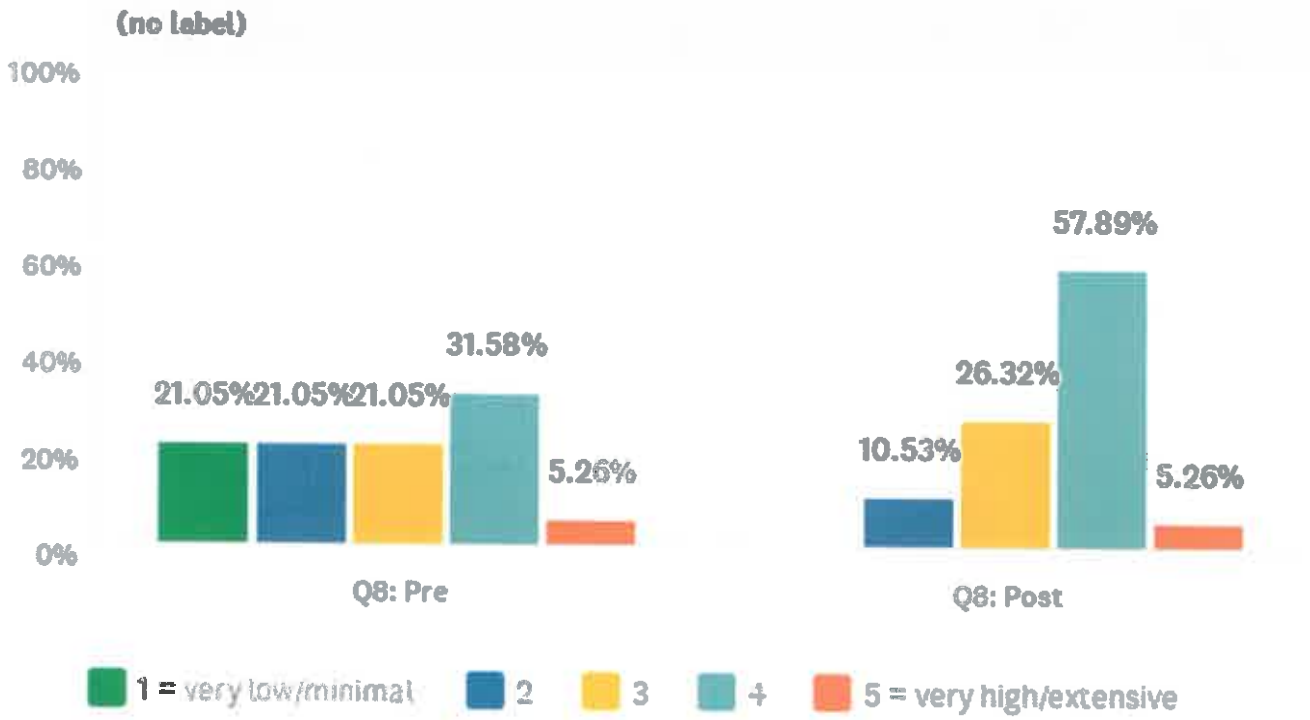
(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	21.05% 4	26.32% 5	36.84% 7	10.53% 2	5.26% 1	50.00% 19	2.53
Q8: Post (B)	5.26% 1	10.53% 2	26.32% 5	42.11% 8	15.79% 3	50.00% 19	3.53

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	3.00	2.53	1.09
Q8: Post (B)	1.00	5.00	4.00	3.53	1.04

Q5: How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

Answered: 38 Skipped: 0



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Q5: How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

Answered: 38 Skipped: 0

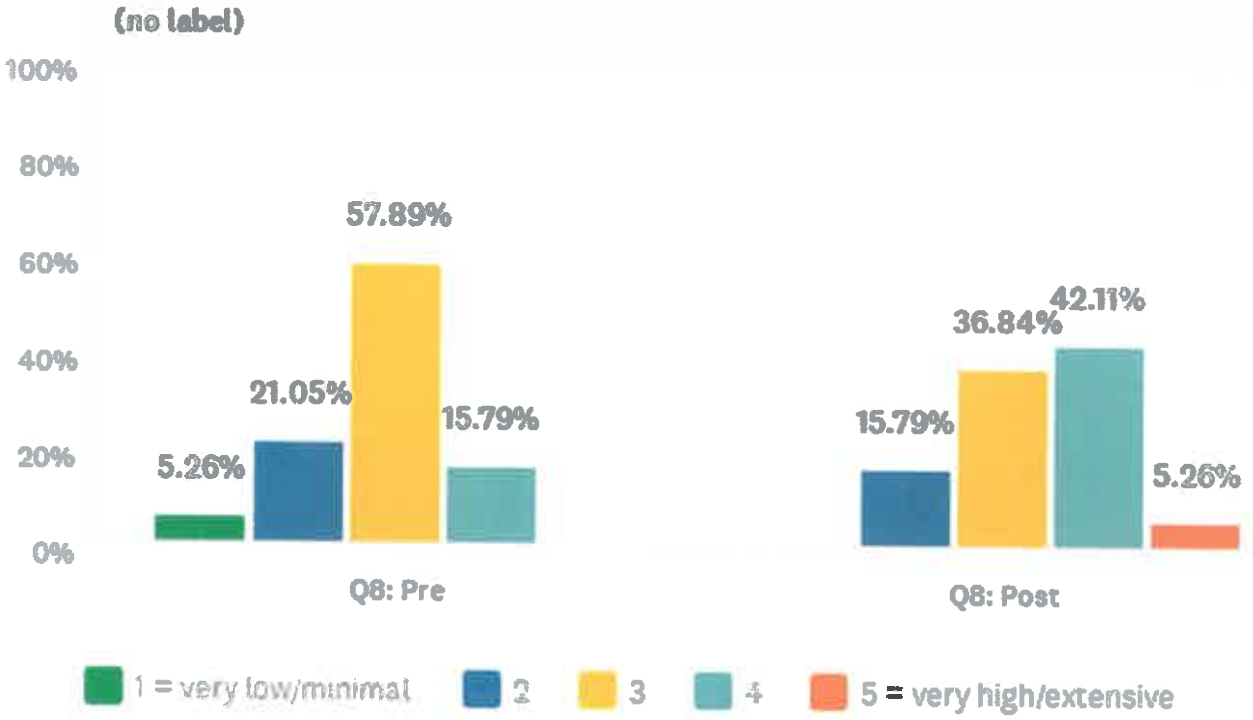
(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	21.05% 4	21.05% 4	21.05% 4	31.58% 6	5.26% 1	50.00% 19	2.79
Q8: Post (B)	0.00% 0	10.53% 2	26.32% 5	57.89% 11	5.26% 1	50.00% 19	3.58

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	3.00	2.79	1.24
Q8: Post (B)	2.00	5.00	4.00	3.58	0.75

integrating other disciplines with the Next Generation Science standards?

Answered: 38 Skipped: 0



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integrating other disciplines with the Next Generation Science standards?

Answered: 38 Skipped: 0

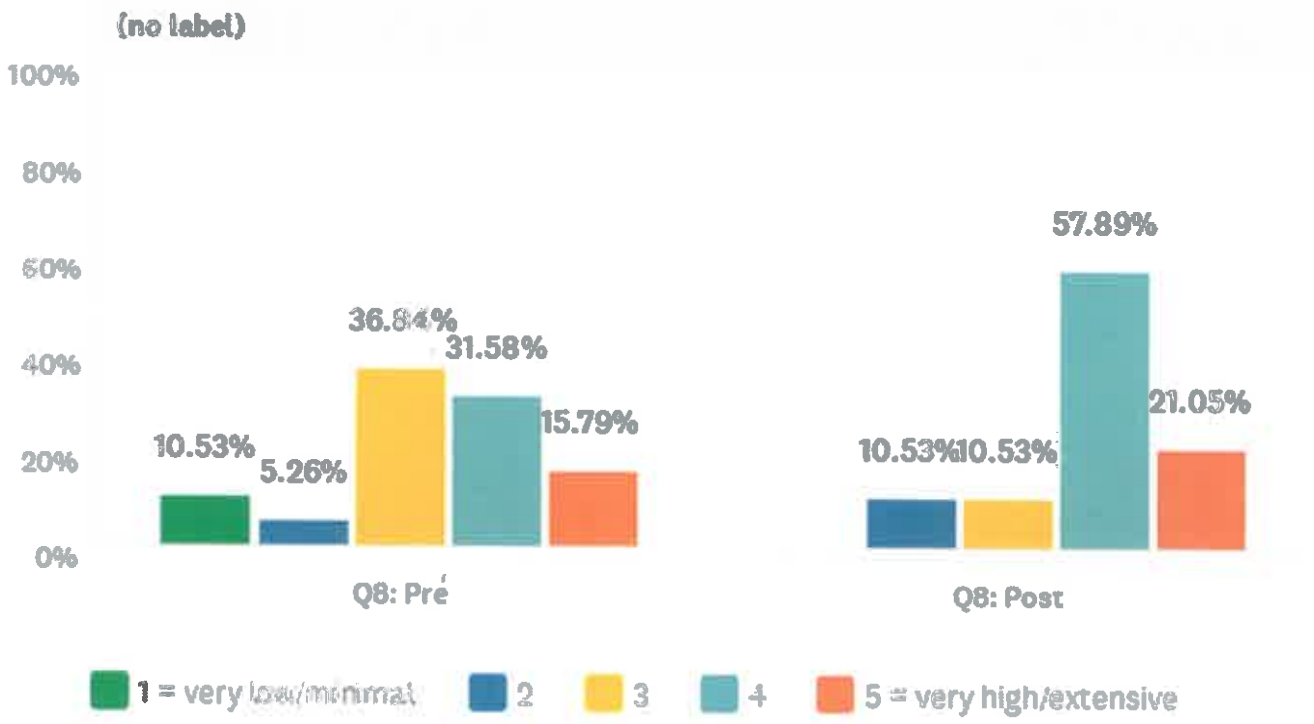
(no label)

	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	5.26% 1	21.05% 4	57.89% 11	15.79% 3	0.00% 0	50.00% 19	2.84
Q8: Post (B)	0.00% 0	15.79% 3	36.84% 7	42.11% 8	5.26% 1	50.00% 19	3.37

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	4.00	3.00	2.84	0.74
Q8: Post (B)	2.00	5.00	3.00	3.37	0.81

Q7: How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Answered: 38 Skipped: 0



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Q7: How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Answered: 38 Skipped: 0

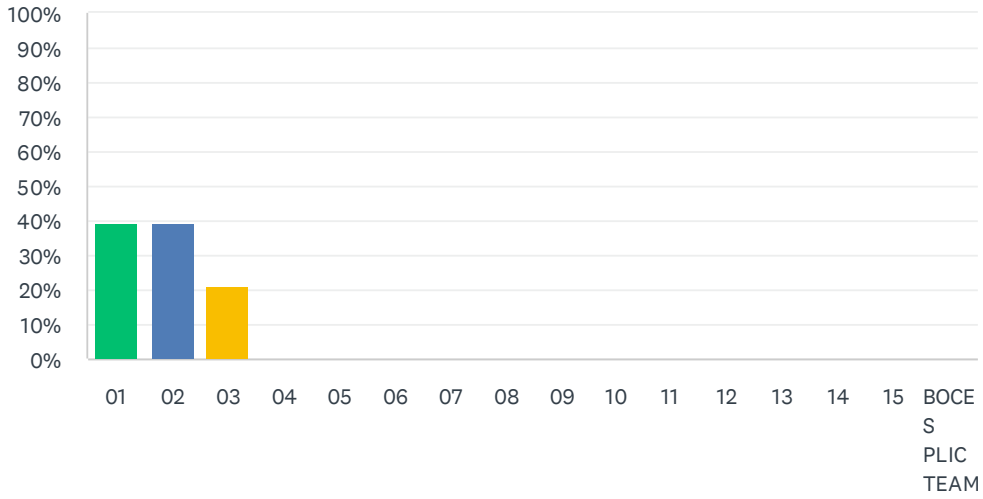
(no label)

	1 - VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
Q8: Pre (A)	10.53% 2	5.26% 1	36.84% 7	31.58% 6	15.79% 3	50.00% 19	3.37
Q8: Post (B)	0.00% 0	10.53% 2	10.53% 2	57.89% 11	21.05% 4	50.00% 19	3.89

BASIC STATISTICS	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Q8: Pre (A)	1.00	5.00	3.00	3.37	1.13
Q8: Post (B)	2.00	5.00	4.00	3.89	0.85

Q1 Please select your cohort number from the list below.

Answered: 43 Skipped: 0



ANSWER CHOICES	RESPONSES	
01 (1)	39.53%	17
02 (2)	39.53%	17
03 (3)	20.93%	9
04 (4)	0.00%	0
05 (5)	0.00%	0
06 (6)	0.00%	0
07 (7)	0.00%	0
08 (8)	0.00%	0
09 (9)	0.00%	0
10 (10)	0.00%	0
11 (11)	0.00%	0
12 (12)	0.00%	0
13 (13)	0.00%	0
14 (14)	0.00%	0
15 (15)	0.00%	0
BOCES PLIC TEAM (16)	0.00%	0
TOTAL		43

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	3.00	2.00	1.81	0.76

Q2 Please create your unique SEVEN DIGIT ID using the following format. Enter the FIRST letter of your LAST name, followed by the two digit month, two digit day and LAST TWO DIGITS of the year of your birth. Please do NOT include spaces, slashes or dashes (for example " Pat Doe, February 10, 1974" would be D021074):

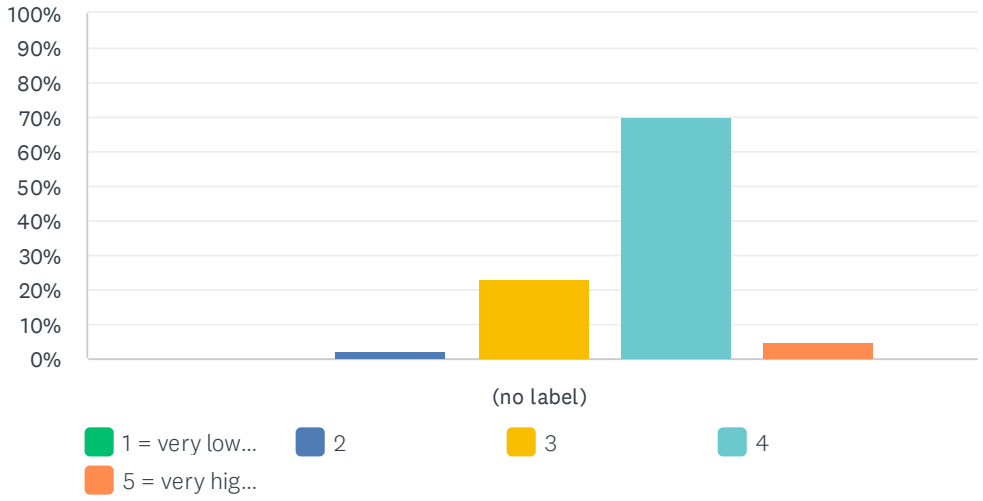
Answered: 43 Skipped: 0

#	RESPONSES	DATE
1	W101177	5/31/2022 8:47 AM
2	z100387	5/25/2022 9:11 PM
3	C091880	5/25/2022 2:37 PM
4	S091190	5/25/2022 2:34 PM
5	S101668	5/25/2022 2:30 PM
6	B102080	5/25/2022 2:30 PM
7	C080294	5/25/2022 2:28 PM
8	G020297	5/25/2022 2:28 PM
9	H041991	5/25/2022 2:25 PM
10	c070490	5/24/2022 2:27 PM
11	g061091	5/24/2022 2:24 PM
12	N030682	5/24/2022 2:23 PM
13	S072278	5/24/2022 2:23 PM
14	BT010882	5/24/2022 2:22 PM
15	D01011982	5/24/2022 2:22 PM
16	Y12211977	5/24/2022 2:21 PM
17	a010565	5/24/2022 2:21 PM
18	R042298	5/24/2022 2:19 PM
19	D120479	5/24/2022 2:19 PM
20	R042575	5/24/2022 2:19 PM
21	B052422	5/24/2022 2:19 PM
22	C120892	5/24/2022 2:19 PM
23	T032162	5/24/2022 2:19 PM
24	h070585	5/24/2022 2:19 PM
25	B092486	5/23/2022 2:26 PM
26	r112277	5/23/2022 2:17 PM
27	n072658	5/23/2022 2:16 PM
28	H052286	5/23/2022 2:16 PM

29	V022877	5/23/2022 2:15 PM
30	L042994	5/23/2022 2:15 PM
31	P042365	5/23/2022 2:15 PM
32	C123173	5/23/2022 2:15 PM
33	d09061983	5/23/2022 2:15 PM
34	L051085	5/23/2022 2:14 PM
35	M040381	5/23/2022 2:14 PM
36	B031692	5/23/2022 2:14 PM
37	g102867	5/23/2022 2:13 PM
38	G121495	5/23/2022 2:12 PM
39	C091295	5/23/2022 2:12 PM
40	O021978	5/23/2022 2:01 PM
41	M021179	5/23/2022 1:58 PM
42	C052868	5/23/2022 1:53 PM
43	M032885	5/23/2022 1:52 PM

Q3 How would you rate your current level of content knowledge related to the Computer Science and Digital Fluency standards?

Answered: 43 Skipped: 0

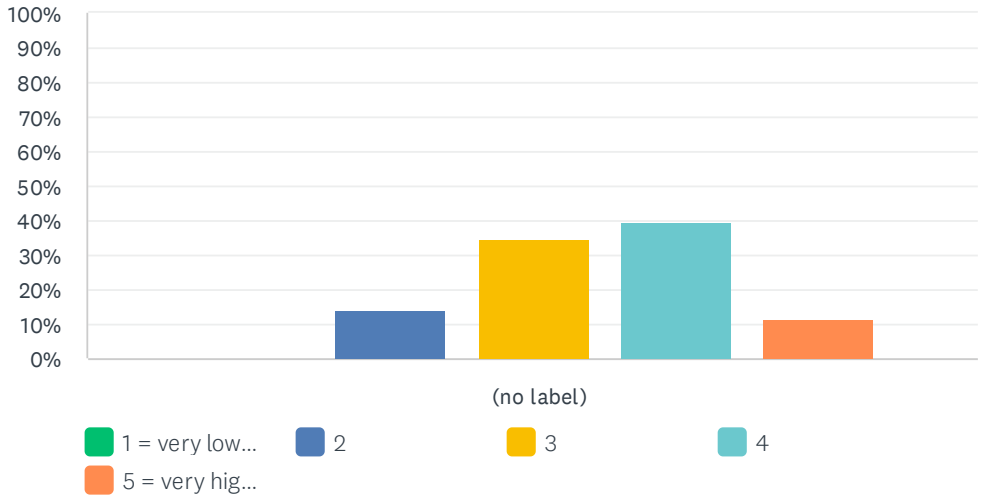


	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	2.33% 1	23.26% 10	69.77% 30	4.65% 2	43	3.77

BASIC STATISTICS				
Minimum 2.00	Maximum 5.00	Median 4.00	Mean 3.77	Standard Deviation 0.56

Q4 How would you rate your current level of comfort in using the “Engineering Design Process” with your students?

Answered: 43 Skipped: 0

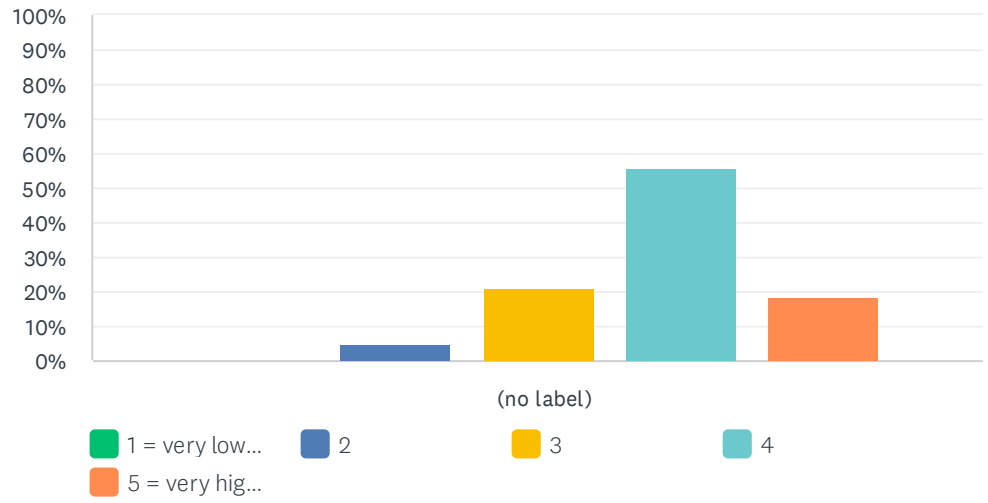


	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	13.95% 6	34.88% 15	39.53% 17	11.63% 5	43	3.49

BASIC STATISTICS				
Minimum 2.00	Maximum 5.00	Median 4.00	Mean 3.49	Standard Deviation 0.87

Q5 How would you rate your level of confidence in your ability to facilitate student learning involving basic computer coding?

Answered: 43 Skipped: 0

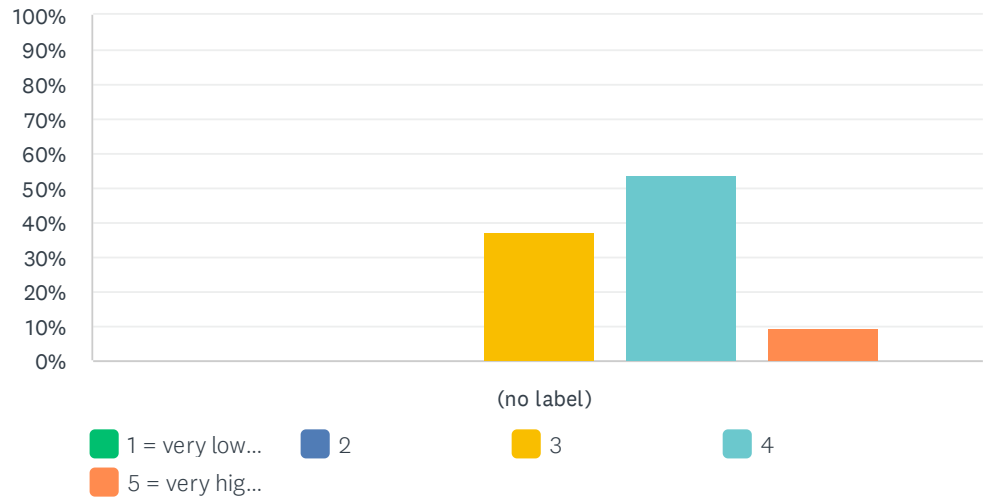


	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	4.65% 2	20.93% 9	55.81% 24	18.60% 8	43	3.88

BASIC STATISTICS				
Minimum 2.00	Maximum 5.00	Median 4.00	Mean 3.88	Standard Deviation 0.75

Q6 How would you rate your level of confidence in effectively integrating other disciplines with the Next Generation Science standards?

Answered: 43 Skipped: 0

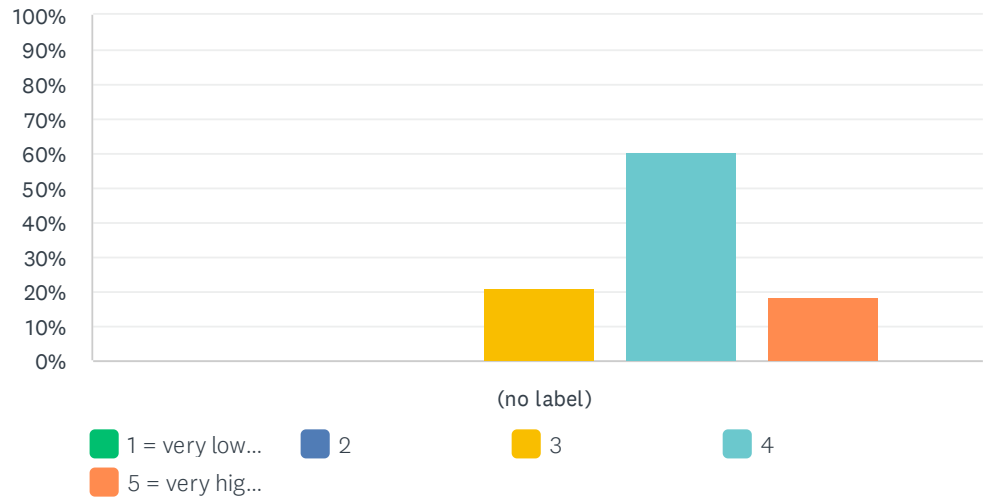


	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	0.00% 0	37.21% 16	53.49% 23	9.30% 4	43	3.72

BASIC STATISTICS				
Minimum 3.00	Maximum 5.00	Median 4.00	Mean 3.72	Standard Deviation 0.62

Q7 How would you rate your level of confidence in your ability to integrate cyber content into your classroom?

Answered: 43 Skipped: 0

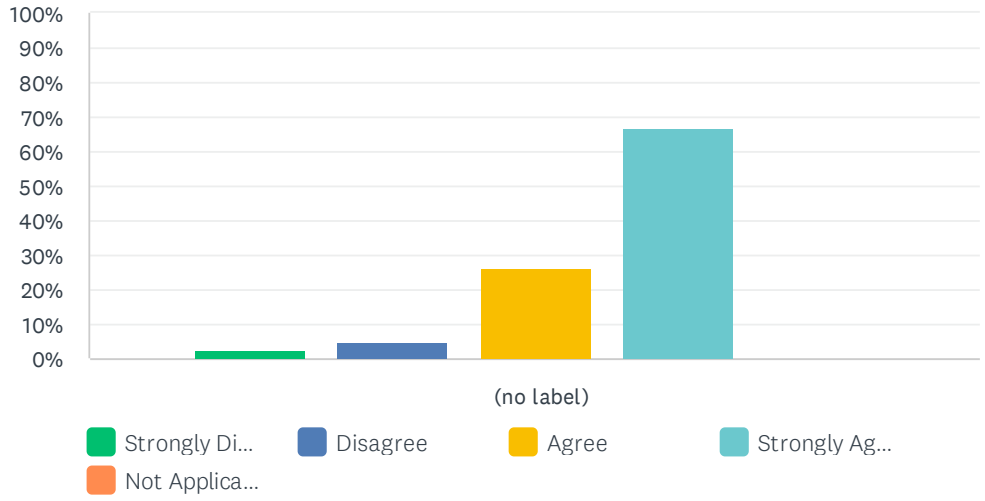


	1 = VERY LOW/MINIMAL (1)	2 (2)	3 (3)	4 (4)	5 = VERY HIGH/EXTENSIVE (5)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	0.00% 0	20.93% 9	60.47% 26	18.60% 8	43	3.98

BASIC STATISTICS				
Minimum 3.00	Maximum 5.00	Median 4.00	Mean 3.98	Standard Deviation 0.63

Q8 I learned more about cybersecurity as a result of my SmartStart experience.

Answered: 42 Skipped: 1

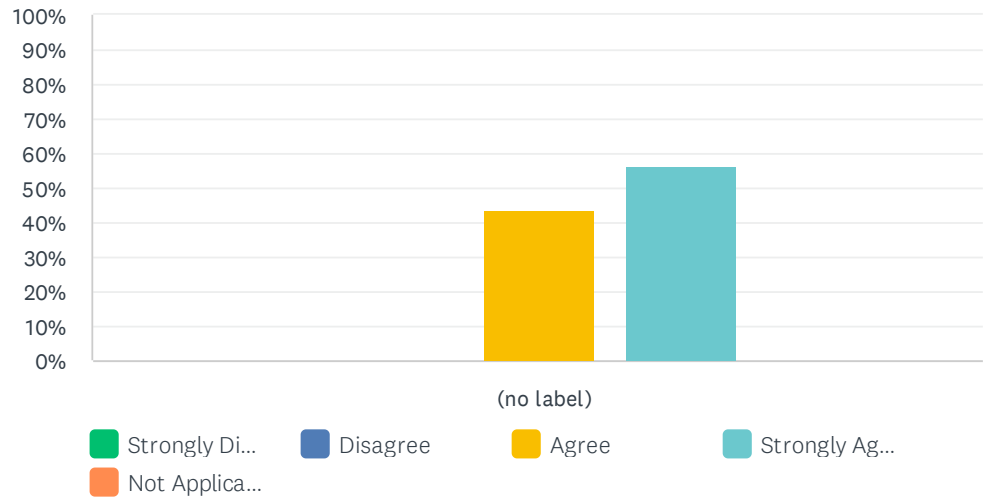


	STRONGLY DISAGREE (1)	DISAGREE (2)	AGREE (3)	STRONGLY AGREE (4)	NOT APPLICABLE (5)	TOTAL	WEIGHTED AVERAGE
(no label)	2.38% 1	4.76% 2	26.19% 11	66.67% 28	0.00% 0	42	3.57

BASIC STATISTICS				
Minimum 1.00	Maximum 4.00	Median 4.00	Mean 3.57	Standard Deviation 0.69

Q9 My SmartStart experience aligned with the priorities of my school district leadership.

Answered: 41 Skipped: 2



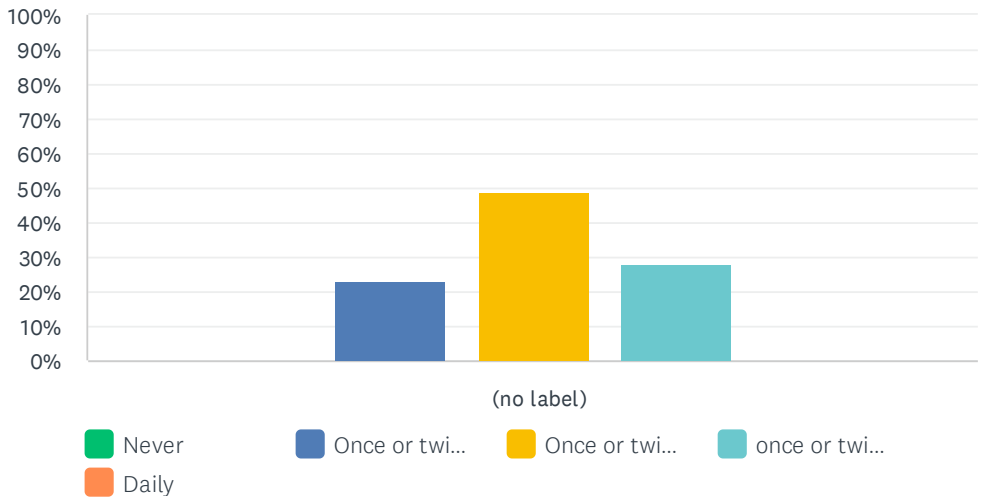
	STRONGLY DISAGREE (1)	DISAGREE (2)	AGREE (3)	STRONGLY AGREE (4)	NOT APPLICABLE (5)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	0.00% 0	43.90% 18	56.10% 23	0.00% 0	41	3.56

BASIC STATISTICS

Minimum	Maximum	Median	Mean	Standard Deviation
3.00	4.00	4.00	3.56	0.50

Q10 Talk to students about digital safety and cybersecurity?

Answered: 43 Skipped: 0

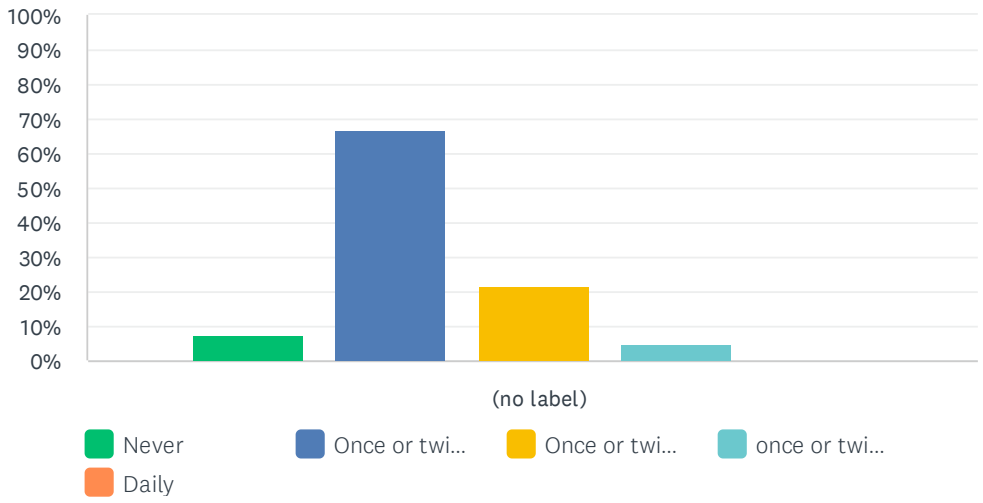


	NEVER (1)	ONCE OR TWICE A YEAR (2)	ONCE OR TWICE A MONTH (3)	ONCE OR TWICE A WEEK (4)	DAILY (5)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	23.26% 10	48.84% 21	27.91% 12	0.00% 0	43	3.05

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
2.00	4.00	3.00	3.05	0.71

Q11 Talk to you students about cybersecurity careers?

Answered: 42 Skipped: 1

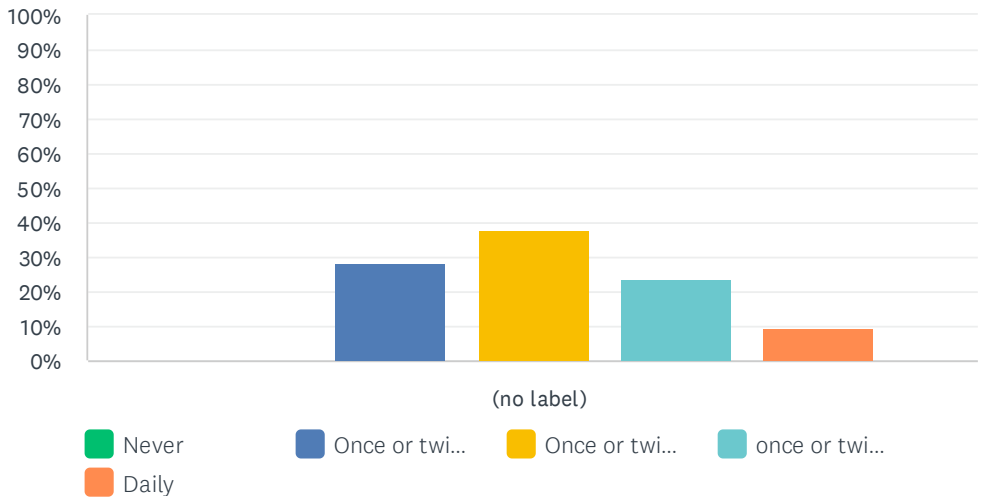


	NEVER (1)	ONCE OR TWICE A YEAR (2)	ONCE OR TWICE A MONTH (3)	ONCE OR TWICE A WEEK (4)	DAILY (5)	TOTAL	WEIGHTED AVERAGE
(no label)	7.14% 3	66.67% 28	21.43% 9	4.76% 2	0.00% 0	42	2.24

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	4.00	2.00	2.24	0.65

Q12 Integrate cyber concepts into your regular lesson plans?

Answered: 42 Skipped: 1

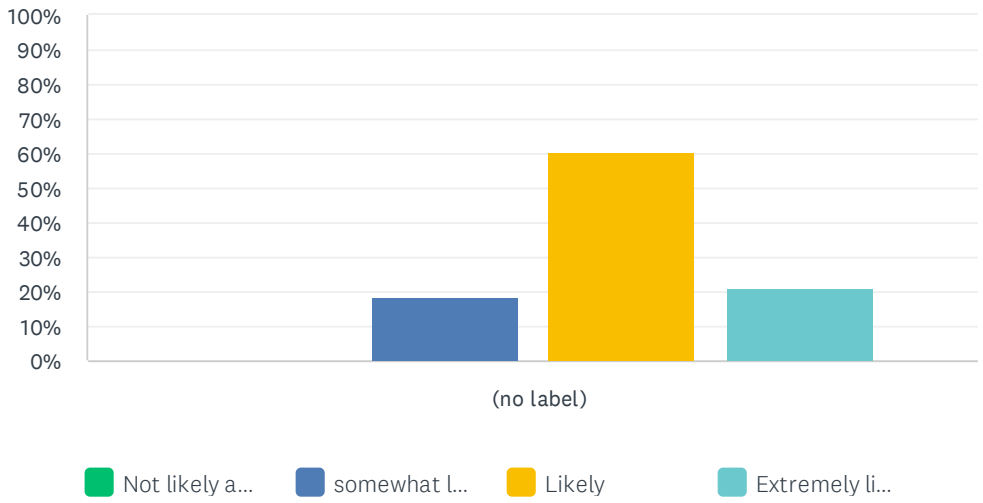


	NEVER (1)	ONCE OR TWICE A YEAR (2)	ONCE OR TWICE A MONTH (3)	ONCE OR TWICE A WEEK (4)	DAILY (5)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	28.57% 12	38.10% 16	23.81% 10	9.52% 4	42	3.14

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
2.00	5.00	3.00	3.14	0.94

Q13 Encourage students to participate in extracurricular cyber activities?

Answered: 43 Skipped: 0

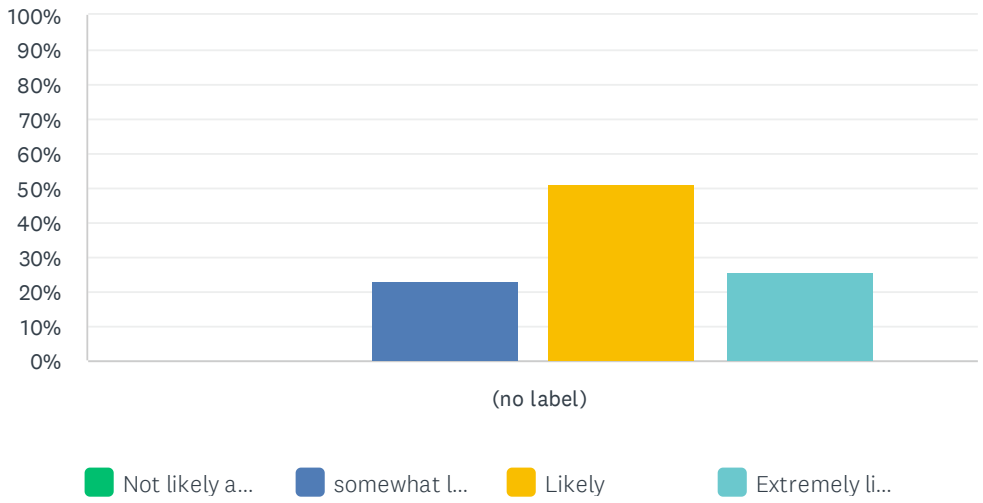


	NOT LIKELY AT ALL (1)	SOMEWHAT LIKELY (2)	LIKELY (3)	EXTREMELY LIKELY (4)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	18.60% 8	60.47% 26	20.93% 9	43	3.02

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
2.00	4.00	3.00	3.02	0.63

Q14 Teach CYBER.ORG content in your classrooom?

Answered: 43 Skipped: 0

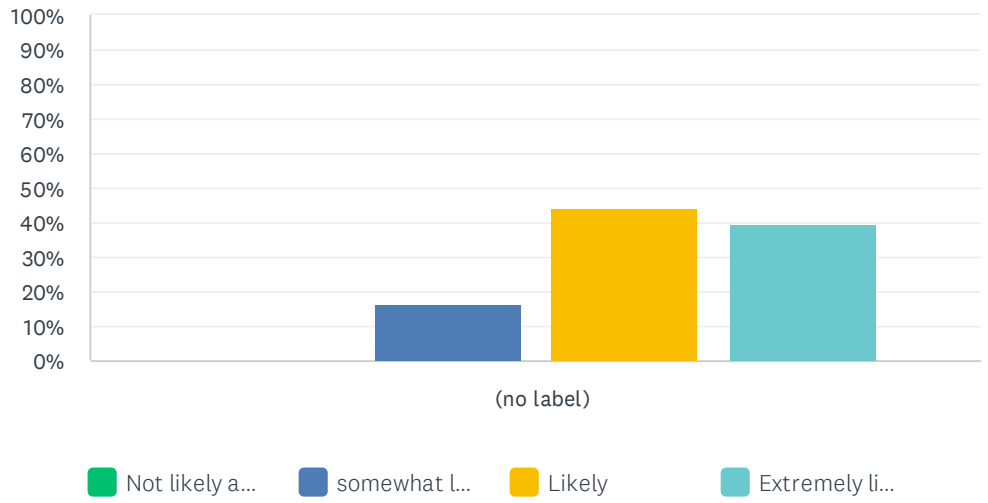


	NOT LIKELY AT ALL (1)	SOMEWHAT LIKELY (2)	LIKELY (3)	EXTREMELY LIKELY (4)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	23.26% 10	51.16% 22	25.58% 11	43	3.02

BASIC STATISTICS				
Minimum 2.00	Maximum 4.00	Median 3.00	Mean 3.02	Standard Deviation 0.70

Q15 Promote cybersecurity education in your school building, school district or state?

Answered: 43 Skipped: 0

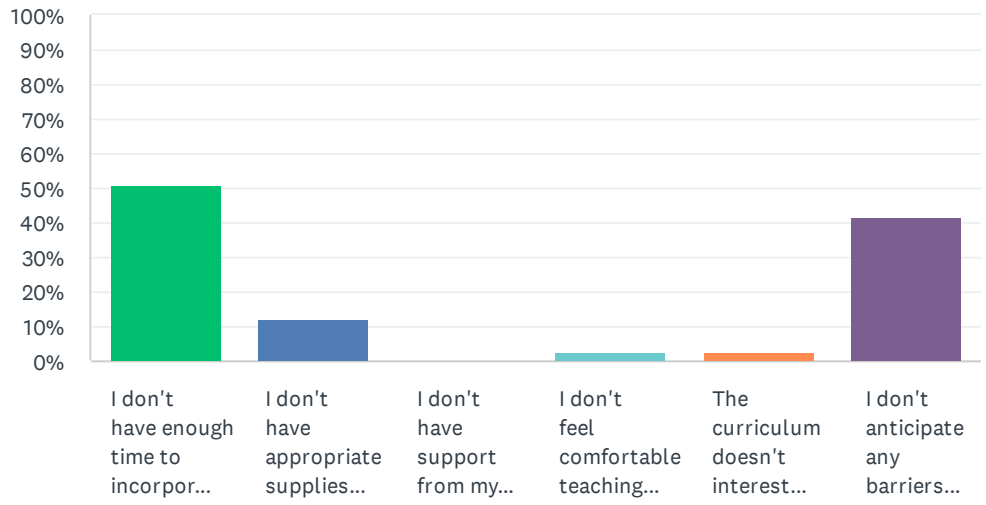


	NOT LIKELY AT ALL (1)	SOMEWHAT LIKELY (2)	LIKELY (3)	EXTREMELY LIKELY (4)	TOTAL	WEIGHTED AVERAGE
(no label)	0.00% 0	16.28% 7	44.19% 19	39.53% 17	43	3.23

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
2.00	4.00	3.00	3.23	0.71

Q16 What are the main barriers that might prevent you from using CYBER.ORG content in your classroom this year (check all that apply)

Answered: 41 Skipped: 2



ANSWER CHOICES	RESPONSES	
I don't have enough time to incorporate CYBER.ORG content into my lessons. (1)	51.22%	21
I don't have appropriate supplies or technology. (2)	12.20%	5
I don't have support from my school building/district administration. (3)	0.00%	0
I don't feel comfortable teaching CYBER.ORG content. (4)	2.44%	1
The curriculum doesn't interest my students. (5)	2.44%	1
I don't anticipate any barriers to teaching CYBER.ORG content in my classroom. (6)	41.46%	17
Total Respondents: 41		

BASIC STATISTICS

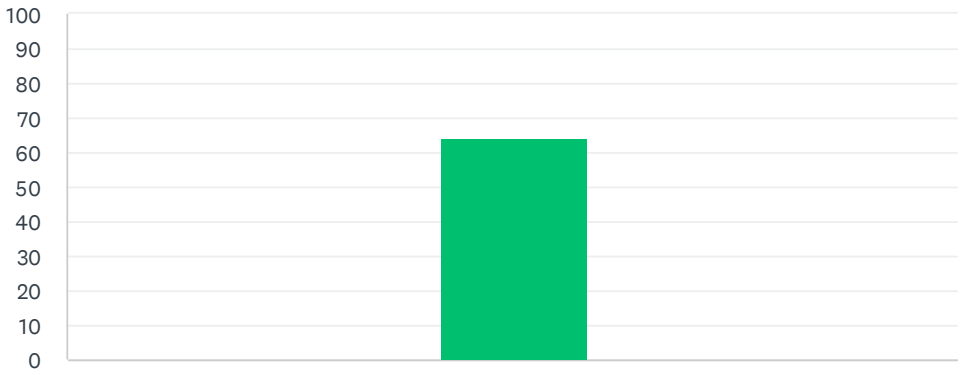
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	2.00	3.16	2.34

#	OTHER (PLEASE SPECIFY)	DATE
1	Time is a factor	5/25/2022 9:11 PM
2	I am a special education co-teacher so my lessons are more curriculum based for ELA and Math, but my co-teachers are open to incorporating it.	5/24/2022 2:27 PM
3	More of a needed reminder or push to incorporate into regular routines and practice in addition to explicit teaching.	5/24/2022 2:23 PM
4	I need a personal iPad back	5/24/2022 2:19 PM
5	Not necessarily a barrier but maybe incorporating more young student friendly videos to explain in their language would help :)	5/23/2022 2:26 PM
6	I am not sure if I am teaching or support teaching next year	5/23/2022 2:13 PM

7	We don't have any ipads for Dash	5/23/2022 1:52 PM

Q17 Using the slider scale below, how comfortable are you with using the Canvas online learning management (LMS) system as the primary form of sharing and communication for this project?

Answered: 43 Skipped: 0



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	64	2,757	43
Total Respondents: 43			

BASIC STATISTICS

MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
2.00	100.00	70.00	64.12	23.57

#		DATE
1	53	5/31/2022 8:47 AM
2	100	5/25/2022 9:11 PM
3	85	5/25/2022 2:37 PM
4	100	5/25/2022 2:34 PM
5	70	5/25/2022 2:30 PM
6	50	5/25/2022 2:30 PM
7	80	5/25/2022 2:28 PM
8	50	5/25/2022 2:28 PM
9	100	5/25/2022 2:25 PM
10	81	5/24/2022 2:27 PM
11	53	5/24/2022 2:24 PM
12	75	5/24/2022 2:23 PM
13	53	5/24/2022 2:23 PM
14	48	5/24/2022 2:22 PM

15	80	5/24/2022 2:22 PM
16	51	5/24/2022 2:21 PM
17	83	5/24/2022 2:21 PM
18	39	5/24/2022 2:19 PM
19	48	5/24/2022 2:19 PM
20	80	5/24/2022 2:19 PM
21	20	5/24/2022 2:19 PM
22	75	5/24/2022 2:19 PM
23	99	5/24/2022 2:19 PM
24	2	5/24/2022 2:19 PM
25	98	5/23/2022 2:26 PM
26	30	5/23/2022 2:17 PM
27	57	5/23/2022 2:16 PM
28	80	5/23/2022 2:16 PM
29	78	5/23/2022 2:15 PM
30	52	5/23/2022 2:15 PM
31	70	5/23/2022 2:15 PM
32	26	5/23/2022 2:15 PM
33	83	5/23/2022 2:15 PM
34	48	5/23/2022 2:14 PM
35	65	5/23/2022 2:14 PM
36	74	5/23/2022 2:14 PM
37	40	5/23/2022 2:13 PM
38	33	5/23/2022 2:12 PM
39	49	5/23/2022 2:12 PM
40	75	5/23/2022 2:01 PM
41	77	5/23/2022 1:58 PM
42	100	5/23/2022 1:53 PM
43	47	5/23/2022 1:52 PM

Q18 What would you consider the strengths of using the Canvas LMS for this project?

Answered: 40 Skipped: 3

#	RESPONSES	DATE
1	It's organized well	5/31/2022 8:47 AM
2	Easy to submit assignments.	5/25/2022 9:11 PM
3	I appreciate that there are separate tabs/sections with assignments, grades, agendas, etc. The organization of the course was simple to navigate	5/25/2022 2:37 PM
4	It was well organized, and I like that it wasn't on the same platform that we use for teaching at our school, which made it easier for me to stay organized.	5/25/2022 2:34 PM
5	Easy to log in and find assignments.	5/25/2022 2:30 PM
6	I like that all the materials and user interface are consolidated into one place, no other apps/sites are necessary.	5/25/2022 2:30 PM
7	The people were very friendly and knowledgeable.	5/25/2022 2:28 PM
8	Clear and organized. Smooth integration	5/25/2022 2:28 PM
9	It's very user friendly and easy to use.	5/25/2022 2:25 PM
10	The organization and ease of access to discussions and assignments.	5/24/2022 2:27 PM
11	It was pretty straightforward. I didn't experience many issues, if at all.	5/24/2022 2:24 PM
12	Very comfortable using Schoology as LMS, so skills navigating are fairly transferable.	5/24/2022 2:23 PM
13	Submitting assignments was easy. Having a easy place to find the new standards. Using the discussion board for questions and sharing with others.	5/24/2022 2:23 PM
14	Was pretty helpful during COVID. SOmetimes hard to tell whether you completed the assignment or not.	5/24/2022 2:22 PM
15	It is accessible from multiple locations, and pretty user friendly.	5/24/2022 2:22 PM
16	Finding other courses with links to lessons and ideas to implement withing my classroom lessons.	5/24/2022 2:21 PM
17	Some of the strengths were there was many different resources.	5/24/2022 2:19 PM
18	Visual/text balance. Minimal layout	5/24/2022 2:19 PM
19	It is great for students to learn	5/24/2022 2:19 PM
20	A lot of resources!	5/24/2022 2:19 PM
21	The ease of use and speed of recognition	5/24/2022 2:19 PM
22	Canvas truly was the biggest barrier to this year. It did not seem user friendly.	5/24/2022 2:19 PM
23	I like that you can go back and double check your work and communicate with others and their comments.	5/23/2022 2:26 PM
24	Everything in one place. Easy to contact other teachers as well as staff developers.	5/23/2022 2:16 PM
25	I get notifications when something is posted. So it makes it very easy to keep track of and log in and respond as needed.	5/23/2022 2:16 PM
26	Easy to post Organization makes sense	5/23/2022 2:15 PM
27	Quick feedback and ease of communicating with others in the cohort.	5/23/2022 2:15 PM

28	It is easy to use and there was great support to ensure success.	5/23/2022 2:15 PM
29	feedback is quick	5/23/2022 2:15 PM
30	Easy to submit assignments. Nice way to review and comment on colleagues lessons.	5/23/2022 2:15 PM
31	Easy to submit assignments.	5/23/2022 2:14 PM
32	visually appealing and laid out organized	5/23/2022 2:14 PM
33	It was easy to use and I knew what to do each month to complete my assignments.	5/23/2022 2:14 PM
34	cooperative learning	5/23/2022 2:13 PM
35	Everything was labeled specifically.	5/23/2022 2:12 PM
36	Easy to navigate	5/23/2022 2:12 PM
37	everything all in one place	5/23/2022 2:01 PM
38	The ability to share and discuss with cohort.	5/23/2022 1:58 PM
39	It is very structured	5/23/2022 1:53 PM
40	It was a predictable place to go each month. It was nice to have the discussion boards too.	5/23/2022 1:52 PM

Q19 What would you consider the weaknesses of using the Canvas LMS for this project?

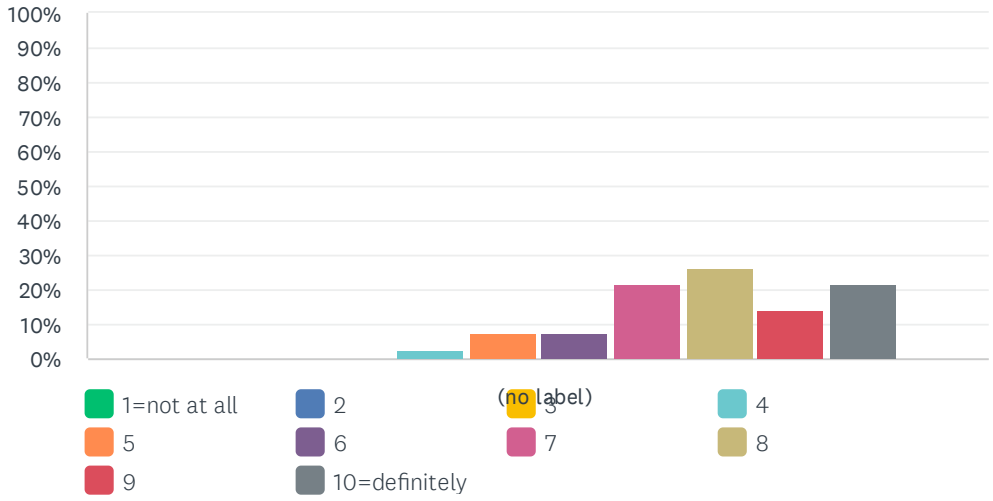
Answered: 41 Skipped: 2

#	RESPONSES	DATE
1	Lack of comfort using it. I just need to play around with it more.	5/31/2022 8:47 AM
2	Could be difficult to navigate at times.	5/25/2022 9:11 PM
3	None!	5/25/2022 2:37 PM
4	None!	5/25/2022 2:34 PM
5	Sometimes hard to follow the upload process when assignments were completed.	5/25/2022 2:30 PM
6	Can be a bit bulky depending on what/how many courses the user might have available.	5/25/2022 2:30 PM
7	It was hard to keep up to date with the monthly assignments. I think it might be easier to just submit the entire lesson plan in december or have one lesson plan for december and one for the end of the year. It may make it easier to use these lessons into the current school year.	5/25/2022 2:28 PM
8	N/A	5/25/2022 2:28 PM
9	I don't see any weaknesses with Canvas.	5/25/2022 2:25 PM
10	It is new to me and just requires a few extra clicks to navigate.	5/24/2022 2:27 PM
11	n/a.	5/24/2022 2:24 PM
12	Should have enabled reminders in settings to provide updates on posted or overdue assignments.	5/24/2022 2:23 PM
13	I have never used it before. I am already using 3 other LMS and wish I didn't have to add another to keep tract of.	5/24/2022 2:23 PM
14	I like the collaboration that the in person gave me rather than on Zoom	5/24/2022 2:22 PM
15	I am pretty tech savvy and had trouble finding where and how to upload my assignments.	5/24/2022 2:22 PM
16	It was difficult to navigate and find the assignments and discussions. It took me several weeks to become familiar with the program.	5/24/2022 2:21 PM
17	It was difficult to navigate.	5/24/2022 2:19 PM
18	Many names are similar "cyber" "digital" Limit by grade level, need more for younger grades	5/24/2022 2:19 PM
19	Having the right technology in the classroom	5/24/2022 2:19 PM
20	It's a learning curve to figure out.	5/24/2022 2:19 PM
21	none	5/24/2022 2:19 PM
22	Canvas is not as user friendly and simple as other LMS that we use regionally (schoology, google classroom)	5/24/2022 2:19 PM
23	At times, seeing everyone's responses could be distracting.	5/23/2022 2:26 PM
24	Discussion boards are difficult to follow. Too overwhelming	5/23/2022 2:17 PM
25	A little difficult to navigate at first.	5/23/2022 2:16 PM
26	It is another username and password to remember. But so far, not a problem with that.	5/23/2022 2:16 PM
27	A lot of course choices, helpful to see the only course I am enrolled in	5/23/2022 2:15 PM
28	unsure.	5/23/2022 2:15 PM

29	none	5/23/2022 2:15 PM
30	At times, was confused at navigating the site. Due to my own lack of tech skills	5/23/2022 2:15 PM
31	At first, tricky to navigate.	5/23/2022 2:15 PM
32	Learning to navigate it at first.	5/23/2022 2:14 PM
33	none	5/23/2022 2:14 PM
34	There was a lot of stuff at once that could overwhelm someone at first.	5/23/2022 2:14 PM
35	none	5/23/2022 2:13 PM
36	There were many folders to look in, one assignment was listed in discussions and not in the 'main' home page where assignments were listed.	5/23/2022 2:12 PM
37	Unfamiliar to most people. Often forget to check canvas, however email notices do help	5/23/2022 2:12 PM
38	none	5/23/2022 2:01 PM
39	Learning curve at the beginning	5/23/2022 1:58 PM
40	Too much information at one time.	5/23/2022 1:53 PM
41	The communication was week. I rarely got the notifications to my email, and as a busy busy teacher and coordinator, it did not occur to me to check Canvas regularly for updates and announcements.	5/23/2022 1:52 PM

Q20 Recommend CYBER.org workshops to a friend or colleague?

Answered: 42 Skipped: 1

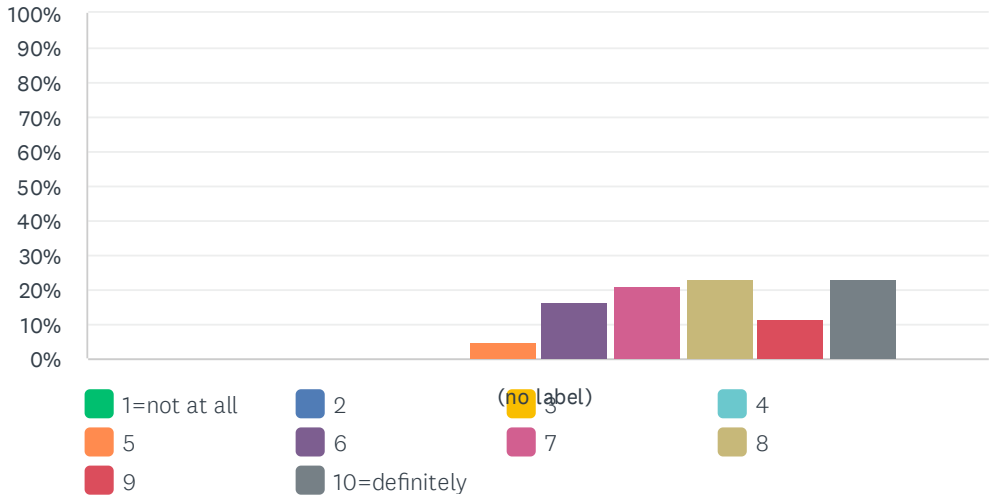


	1=NOT AT ALL (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10=DEFINITELY (10)	TOTAL	WEI AVE
(no label)	0.00% 0	0.00% 0	0.00% 0	2.38% 1	7.14% 3	7.14% 3	21.43% 9	26.19% 11	14.29% 6	21.43% 9	42	

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
4.00	10.00	8.00	7.90	1.59

Q21 Recommend CYBER.ORG's curricula to a friend or colleague?

Answered: 43 Skipped: 0



	1=NOT AT ALL (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10=DEFINITELY (10)	TOTAL	WE AV
(no label)	0.00% 0	0.00% 0	0.00% 0	0.00% 0	4.65% 2	16.28% 7	20.93% 9	23.26% 10	11.63% 5	23.26% 10	43	

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
5.00	10.00	8.00	7.91	1.52

Q22 What would you say were the strengths of this learning experience?

Answered: 43 Skipped: 0

#	RESPONSES	DATE
1	The flexibility of getting things done.	5/31/2022 8:47 AM
2	It being asynchronous was very helpful.	5/25/2022 9:11 PM
3	The asynchronous course work and the ability to collaborate with others at the same grade level was important. I appreciate the synchronous and asynchronous, virtual and in-person components. Keep that if possible!	5/25/2022 2:37 PM
4	The in-person sessions were wonderful for learning how other teachers were implementing this in the classroom. I also really enjoyed the synchronous parts of this program during the summer; I feel like that was really helpful for getting the basics in cybersecurity, coding, and the computer science standards down before trying to implement them all year. Thanks!	5/25/2022 2:34 PM
5	Hands on experience with micro:bits. The presenters were very positive, knowledgable, and helpful.	5/25/2022 2:30 PM
6	It was nice to look at a side of education that I normally do not have any access/experience with. It made me feel as though I could do this with relative ease.	5/25/2022 2:30 PM
7	I liked that we were able to meet in person for the final meeting. The Cyber employees were very helpful and were able to help with many different skills and had great ideas.	5/25/2022 2:28 PM
8	Being mainly asynchronous allowed me to participate on my own time. Provided resources to be successful in integrating the lessons we were learning and creating. Providing additional resources and lesson materials to further integrate the things that we have learned.	5/25/2022 2:28 PM
9	I liked that the work was asynchronous but there were a lot of resources available to us through Cyber.org.	5/25/2022 2:25 PM
10	The teamwork and collaboration across districts. The introduction of new learning tools and digital standards.	5/24/2022 2:27 PM
11	The teachers were great. They were very knowledgeable about the topic and very sociable and professional, and clearly enjoy their profession and excel at it.	5/24/2022 2:24 PM
12	The presenters remained enthusiastic and consistently supportive in adapted hybrid learning model.	5/24/2022 2:23 PM
13	I feel more confident in teaching coding and digital literacy lessons	5/24/2022 2:23 PM
14	I learned a lot personally about Cyber Security, passwords and just more about coding. It would be something I wouldn't have pushed without more knowledge myself.	5/24/2022 2:22 PM
15	I liked that we were virtual at first, because it allowed my to participate from home without getting a babysitter for my kids.	5/24/2022 2:22 PM
16	Being able to collaborate with others from throughout the area to share and brainstorm ideas.	5/24/2022 2:21 PM
17	Communication	5/24/2022 2:21 PM
18	I liked being able to collaborate with other teachers and hear their ideas.	5/24/2022 2:19 PM
19	I was pleasantly surprised to learn the vast array of lessons I was able to learn about. There are so many ways to incorporate these standards.	5/24/2022 2:19 PM
20	Online, well-paced throughout the year	5/24/2022 2:19 PM
21	Getting new and interesting materials for the classroom	5/24/2022 2:19 PM
22	There are a TON of resources to use that help blend the standards into lessons that are already being done in the classroom without adding in extra days/time.	5/24/2022 2:19 PM

23	The ability to interact with many different educators.	5/24/2022 2:19 PM
24	asynchronous work	5/24/2022 2:19 PM
25	I really liked being able to use the technology while learning about it and also having it hybrid made it much easier to manage throughout the school year.	5/23/2022 2:26 PM
26	Robots received as part of the training	5/23/2022 2:17 PM
27	Hands on experiences with tech. Discussions with other educators--even at different levels.	5/23/2022 2:16 PM
28	I learned that it really isn't that hard to add the new standards into what we already teach. I really enjoyed learning new technology.	5/23/2022 2:16 PM
29	Working with other people Having the technology to go with the lessons	5/23/2022 2:15 PM
30	I learned about new technology and how to incorporate it into my classroom. It was nice to meet people from other districts and share ideas with each other.	5/23/2022 2:15 PM
31	I know so much more....my technology toolbelt is much fuller!	5/23/2022 2:15 PM
32	Getting acquainted with may different facets of technology.	5/23/2022 2:15 PM
33	Connecting to so many colleagues and hearing their ideas integrating technology into the classroom. There are so many engaging tech ideas and programs available that I was unaware of prior to this course. Thank you.	5/23/2022 2:15 PM
34	I liked getting to dive in and learn about the new digital literacy and computer science standards. I loved getting ideas from other teachers that ranged from ways we are already incorporating the standards to getting exposed to brand new ways to integrate technology into other curriculum areas.	5/23/2022 2:14 PM
35	that our learning community was comprised of teachers from our district and community	5/23/2022 2:14 PM
36	I was able to see the use of digital technology in all content areas and the need for teaching cyber concepts.	5/23/2022 2:14 PM
37	the support was great, the cooperative learning awesome	5/23/2022 2:13 PM
38	Meeting together in person & having my PLIC (Emily Koval) help me along the way!!	5/23/2022 2:12 PM
39	An abundance of resources and tools were provided. The materials provided were very appropriate for the given grade levels	5/23/2022 2:12 PM
40	meeting teachers from other schools and grade levels...working at my own pace	5/23/2022 2:01 PM
41	Learning to use and implement new materials.	5/23/2022 1:58 PM
42	The hands on activities with technology. Talking with others in the same or similar field as me.	5/23/2022 1:53 PM
43	The in-person collaboration is essential.	5/23/2022 1:52 PM

Q23 What changes would you suggest we consider making in offering the SmartStart experience to future cohorts?

Answered: 40 Skipped: 3

#	RESPONSES	DATE
1	I feel that I lost or forgot things from month to month. I would have preferred the assignments & meetings be closer together.	5/31/2022 8:47 AM
2	No changes.	5/25/2022 9:11 PM
3	Great - thank you.	5/25/2022 2:37 PM
4	If possible, I think it would be helpful to have more content about ways to incorporate the cyber skills into our own subject area, during the year. I really benefited from having that over the summer, and it would be nice to have that during the year a little bit too.	5/25/2022 2:34 PM
5	Chance to do more work in teams - planning lessons and so on.	5/25/2022 2:30 PM
6	Maybe reassure the new members that they have time to work on these materials throughout the process and not be overwhelmed thinking it is going to take up huge amounts of time outside of their classes and normal activities.	5/25/2022 2:30 PM
7	I mentioned this previously but possibly do two different lesson plans-have one due mid way through the year and one at the end of the year. This might help to have more student data and different things that worked well or that we could change if we wanted to do the lesson again.	5/25/2022 2:28 PM
8	N/A	5/25/2022 2:28 PM
9	I don't have any suggestions right now.	5/25/2022 2:25 PM
10	I am unsure.	5/24/2022 2:27 PM
11	I actually enjoyed the online aspect of the training. If possible, I think you should keep that as an option moving forward.	5/24/2022 2:24 PM
12	The opportunity to meet and collaborate in person earlier in the program to work together on lesson planning and development.	5/24/2022 2:23 PM
13	Clear instructions that this is a full year commitment and that lessons would be posted on a public site. Have colleague feedback on our lessons earlier in the school year, not just on the last day	5/24/2022 2:23 PM
14	In person was the best, although I know you couldn't control last summer's restrictions.	5/24/2022 2:22 PM
15	As a third grade teacher, I would love to have access to the K-2 robots, so we can hit the ground running in September and then transition to the microbits mid year.	5/24/2022 2:22 PM
16	none	5/24/2022 2:21 PM
17	none	5/24/2022 2:21 PM
18	I would like more time with the microbit.	5/24/2022 2:19 PM
19	Nothing I can think of	5/24/2022 2:19 PM
20	Nothing it was great	5/24/2022 2:19 PM
21	More time with the microbits actually being used in the classroom.	5/24/2022 2:19 PM
22	none	5/24/2022 2:19 PM
23	more time to play with microbits, perhaps program it then share out like we did with the lesson plans. Or one monthly assignment using microbits in the classroom and coming back together to talk about it.	5/24/2022 2:19 PM

24	Maybe (if possible) more than 1 in person meeting for the introduction of technology while still keeping it hybrid.	5/23/2022 2:26 PM
25	commitment in summer was unclear that this was a year long plan.	5/23/2022 2:17 PM
26	Move Dash to the 3-5 cohort. more goodies :-)	5/23/2022 2:16 PM
27	Be sure that they understand that it is a full year commitment. Our cohort didn't know that going into it, so it was a bit of a surprise. I think that communication has been ironed out though. Also, the set of Indis we received were fantastic and I can't wait to use them next year. It is very beneficial to have multiple so it makes it easier to lead an activity with them, versus just one Dash.	5/23/2022 2:16 PM
28	In person meetings for the summer sessions :)	5/23/2022 2:15 PM
29	none	5/23/2022 2:15 PM
30	none	5/23/2022 2:15 PM
31	More in person training so that hands on experience can be done prior to classroom integration.	5/23/2022 2:15 PM
32	I think it would almost be easier and would be very beneficial to have people create a mini unit or series of 5 or so lessons instead of just 1 just to show how we would scaffold learning.	5/23/2022 2:14 PM
33	none	5/23/2022 2:14 PM
34	For this cohort k-2. It would be beneficial to give the indi sphero cars first versus the dash robots. They were more age appropriate for our students.	5/23/2022 2:14 PM
35	giving the fun stuff sooner to try before the first class	5/23/2022 2:13 PM
36	Not sure:)	5/23/2022 2:12 PM
37	Providing some sort of syllabus at the start of the course. Many were unaware of the ongoing learning components.	5/23/2022 2:12 PM
38	More time spent breaking down the standards. More defined expectations regarding the lesson--our group was unclear about what grade level it had to be for and whether or not we were expected to use the Dash or Indi robots as part of our plan.	5/23/2022 1:58 PM
39	More in person events	5/23/2022 1:53 PM
40	Ensure that there are regular, pre-selected meeting dates, for teachers to work together with the gadgetry as well as the lesson planning process. Give the products to the teachers at these meetings- no mystery packages! In a lot of ways this just felt like monthly homework this year because we were not well connected with our cohort and the meeting dates were not predictable for the zooms- I missed a lot of announcements because the notifications did not come through my email like it was set up to do.	5/23/2022 1:52 PM

Smart Start: Computer Science and Digital Fluency Infused Lesson Plan

Lesson Title	
Content Area	
Grade Level	

Central Learning Focus

Central Focus What is the goal or focus question of the lesson?	
Learning Objectives What are the specific student learning objectives in this lesson? **NOTE:** *Use observable language with measurable verbs.*	
Learning Standards What standards are most relevant to the central focus and objectives? **NOTE**: *Include content area standards, applicable ELA and/or Math standards, as well as relevant NY Computer Science and Digital Fluency Standards.*	

Lesson Considerations

Academic Language What academic language/key vocabulary will be highlighted in the lesson?	
Prior Knowledge What prior knowledge, skills or academic language must students already have in order to optimize the lesson's success?	
Support What are the instructional supports for the lesson that address diverse learning needs in order for all students to successfully meet lesson objectives? Instructional supports can include accommodations, modifications, and differentiation strategies for the lesson, materials, and/or assessments.	

Misconceptions What are common misconceptions regarding the concepts addressed in this lesson and how will they be addressed? **NOTE**: *Think through possible misconceptions in student understanding. Think about both the content area misconceptions and the Computer Science/Digital Fluency misconceptions.*	
Resources/Materials/Acknowledgment What instructional resources and materials will be used to engage students in learning? **NOTE:** *If ideas in this lesson were based on work from others, acknowledge your sources*.	

Instructional Strategies and Learning Tasks

Lesson Plan Details Write a detailed outline of the lesson including instructional strategies, learning tasks, and conclusion. Your outline should be detailed enough that another teacher could use them. Include what the teacher and students will be doing during each lesson phase. Include a few key time guidelines. **NOTE:** *Attach any relevant handouts, PPTs, etc. that are referenced and used in this lesson.*	
Lesson Launch How will you launch the lesson? What will you do to engage the students at the beginning of the lesson? What is your "hook"/anticipatory set? How will you activate and build on prior knowledge and experiences related to the topic?	
Scaffolded Mini-lesson(s) How will you **explicitly** present the principle ideas/content knowledge to the students? How will you engage students in active meaning making of key concepts and ideas? How will you model this strategy/skill for your students? How will you provide opportunities for guided practice? How will students independently practice using the strategy and the skill it targets? **NOTE**: *Multiple mini-lessons (3-5) may be required to achieve your central focus.*	
Closure/Discussion/ Extension How will you bring closure to the lesson and/or extend it?	

Assessments

Assessment Type and Purpose

Describe the assessments that will be used in this lesson to monitor students' understanding of the lesson objectives (ex. Formative and summative, informal and formal).

NOTE: *You need to not only name the type of formative and/or summative assessment, but what you will do with this assessment information to inform instruction. Also, keep in mind that assessments should be in the area of content knowledge and in the area of Computer Science/Digital Fluency.*

ADD MORE ASSESSMENT STRATEGY ROWS AS NEEDED.

Assessment Strategy: Describe assessment strategy here.	**Alignment with Objectives:** Describe how this assessment is aligned to your stated objectives. Which objective(s) is it assessing?
	Evidence of Student Understanding: Describe how this assessment strategy provides evidence of student understanding of the concepts being taught. **NOTE:** How will students apply what they have learned? How will they demonstrate their knowledge?
	Student Feedback: Describe how you will provide feedback to students on this assessment.

Cyber Connections

Cyber Career Connection What connection to cyber careers will be included in this lesson?	
Digital Artifact What digital artifact will students create?	