

EQuIPD Grant Summer 2020 Newsletter



EQuIPD Grant Coaches Present at NSTA STEM2020



The EQuIPD Grant has three talks at the NSTA STEM2020 virtual conference to be held July 27-30, 2020.

July 27, 2020 1:09 PM

ID# 29796

Using Scratch or Scratch Jr. to Develop Concept Models in Early Elementary

Description: Engaging Quality Instruction through Professional Development (EQuIPD) is helping teachers to develop core concept models in students through improved instructional practices and use of technology, including Scratch and Scratch Jr.

Presenter(s) Seleka Kerr (EQuIPD Coach), Jared Carter (EQuIPD Coach), Leigh Arnold (EQuIPD Coach), Nancy Ruzycski (PI)

July 27, 2020 2:47 PM

ID# 29813

Creating Three-Dimensional Inquiry Lessons

Description: Engaging Quality Instruction through Professional Development (EQuIPD) is helping teachers to develop inquiry lessons that teach students to think critically and learn to solve the mysteries in the world around them using three-dimensional practices. Learn to create and use inquiry to truly engage your students in STEM. Presenter(s): Angel Danger (EQuIPD Coach), Nancy Ruzycski (PI)

July 28, 2020 6:00 PM

ID# 29804

Enhancing Inquiry Through Facilitative STEM Coaching

Description: The Engaged Quality Instruction through Professional Development (EQuIPD project) provides weeklong summer sessions for teachers. To aid teachers in implementing the project goal of increased inquiry, coaches met with teachers twice per month for one year. The coaching model used was a facilitative one. Come learn about the EQuIPD Facilitative Coaching Model and its effect on teachers and student performance.

Presenter(s): Krista Dulany (EQuIPD Coach), Xavier Rozas (EQuIPD Coach), Nancy Ruzycski (University of Florida); Julie Edmonds (SERVE Center)

Probes and Sensors in the Workplace: Virtual Field Trip



In Palm Beach County, some of the Environmental Specialists from the Department of Environmental Resources Management were able to give us an inside look at Gopher tortoise tracking. EQuIPD Intervention teachers from all over the state were able to see how the specialists track the tortoises, the technology they use, and answer questions due to the teacher field trip being virtual. This was a spectacular experience and Intervention teachers were able to see several Gopher tortoises and their burrows.

Mrs. Ruppenstein, a 3rd grade ELA teacher at Liberty Park Elementary is making strides this summer to learn and implement PBL into her classroom.

Ruppenstein and her partner teacher meet virtually regularly to plan their lessons and work towards making their lessons more cohesive and hands on. She is already planning on ways to incorporate Scratch and the sensors and probes into her lessons. Ruppenstein has also kept in mind the possibility of starting the school year remotely, which she will try to complete these lessons with more digital components and possibly recording herself doing a demonstration using the sensors or probes.

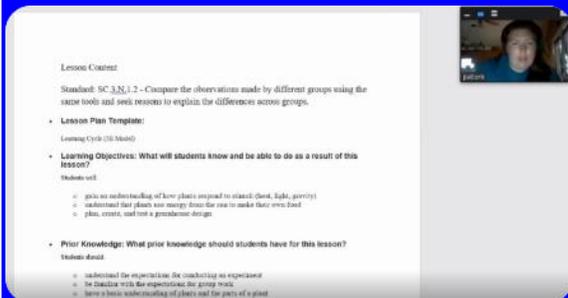
which she will try to complete these lessons with more digital components and possibly recording herself doing a demonstration using the sensors or probes. Over 50 teachers in the grant attended this field trip, even thought it was summer time.

Technology Embedded Inquiry Lessons for Students - DeSoto

Kayla Patton, a third-grade teacher at West Elementary School in DeSoto County, Florida has been busy this summer with the EQuIPD summer bootcamp. This one week, 40-hour virtual training has been designed by the team of EQuIPD instructional specialists (EIS) to help teachers answer the question, "What makes a lesson effective?" Ms. Patton recently completed this training, which culminated in an opportunity for her to share a lesson she had been working on, a greenhouse engineering design challenge. Her students will monitor the

development of plants as they grow as they learn about the importance of record-keeping and how plants respond to stimuli. After collaborating with other teachers in her cohort as well as her EIS, she has modified her lesson to incorporate more student use of technology, such as using temperature probes to monitor the temperature of the greenhouses, and using the Chromebooks to take pictures of the plants in the greenhouse to show how the plants change over time. Ms. Patton has been active in incorporating technology into lessons.

Ms. Patton was an active participant throughout the training, and we were happy to have her participate.



St Johns County Teacher on her way to the Top of her Profession

She is not victorious because of any particular talent, her intellect, physical prowess or her competitive edge. **Ms. Carden** or Coach Carden, as she is referred to by her Ketterlinus Elementary students and athletes, is victorious because she has made a commitment to the young people she works with to model the habits of mind of a champion—a relentless pursuit of improvement, courage in the face of challenges, a willingness to advocate and lead others and the wisdom to know she is only as effective as her team.

As the sole English Language Arts, elementary school educator in the St. Johns County Schools' EQuIPD Teacher Team, Ms. Carden not only brought a unique voice and perspective to the exploration of model building, systems thinking and student centered, inquiry lesson development, she also pushed her colleagues and instructional coaches to think about their responsibilities to empower, engage and amplify student voice and agency by tapping into students' intrinsic motivations, youthful curiosity and hopes for a bright future.

It is this keen sense of purpose and awareness of the social-emotional needs of her students, combined with her professional training (Education BA. & MA. in ProTeach Program at the University of Florida) that have earned her the accolades and respect of her colleagues, students and the St. Augustine community. Not only was she awarded the Rookie Teacher of the Year in 2017, she also led her students to three consecutive years of the highest iReady gains for her school and helped her ESE students move up an entire level in one year's time. While most new teachers would be satisfied with this auspicious start to a very difficult career, Ms. Carden recognized that there was an opportunity gap facing female athletes that she was in a position to address. True to form, she did something about it by starting a girls' basketball team that came in 2nd place in the St. Johns Elementary League in its first year while spearheading the creation of and directing a girl's recreational lacrosse league.

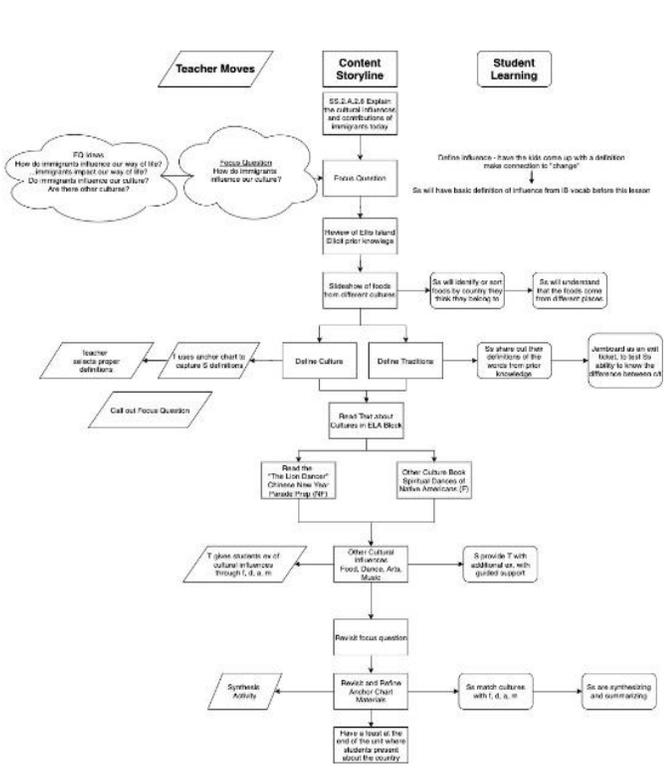
Unfortunately for St. Johns County Schools and the EQuIPD Team, McKinley's outstanding record, drive and commitment to educational improvement and equity for the most needy and under-represented students earned her a spot in the competitive Teacher Leader Program as an Expanded Impact Teacher with a placement at a consistently underperforming school in Charlotte-Mecklenburg County, NC. In her final EQuIPD coaching session of the year she reflected on her experience working with the EQuIPD team and how it impacted her professional growth. "This grant and the opportunities it offered me to get out into the field and to work and interact with teachers from different grades, content areas and schools was so amazing. I think the most valuable part of this experience has been exploring how teaching is different in different contexts, but that there are universal virtues all educators must have to be successful in the classroom."

Ms. Carden, we wish you and your new students all the best and know you will continue to embody the virtues of a teacher and a champion of those in need of an amazing teacher. It has been a pleasure being on your team.



Making the connection between AVID and EQuIPD

In many Okeechobee County schools, you will find classes devoted to Advancement Via Individual Determination (AVID). **Shirley Brown**, an EQuIPD intervention teacher at Osceola Middle School working with Coach Krista Dulany, saw that she could use a common AVID strategy, One-Pagers, to get her 7th-grade science students to begin modeling core science concepts and ideas. Before transitioning to remote learning, Shirley tested this strategy by asking some of her students to develop one-pagers on the topic of reproduction. On a single page, students were challenged to identify and define key terms they felt were important, draw graphics of the key concepts that went into reproduction, and flex their creative skills. Her students hit the ground running and created beautiful models of reproduction covering sexual and asexual reproduction methods. Students were able to explain sexual and asexual reproduction and connected the concepts of mitosis and meiosis. Another big science idea that students connected reproduction to the concept of heredity. Students created their own process map graphic of reproduction methods and what heredity means to them. We are excited to deploy this practice in the upcoming school year and watch how student models are refined and transformed as they continue to learn. the concept of heredity. Students created their own process map graphic of reproduction methods and what heredity means to them. We are excited to deploy this practice in the upcoming school year and watch how student models are refined and transformed as they continue to learn.



Example of an AVID Process Map and student Concept models for Reproduction

SERVE Center Updates – Data Collection

During the month of July our external evaluators at SERVE Center at UNC-G will be contacting you about the second of three annual data requests. For this year the evaluators will be requesting both teacher- and student-level data. The teacher-level data request will include absences, effectiveness ratings, credentials, and employment status for the 19-20 school year for all participating teachers. The student-level data request will include demographic and test score information for the current year (19-20) as well as the baseline year (18-19) for students

taught by participating teachers in the 19-20 school year. Given the impact of COVID-19 on FSA testing, the evaluators will work with your district to identify and obtain any alternative assessments, such as i-Ready, if alternative assessments are available. If you have any questions about this upcoming request please contact Bryan Hutchins (bhutchins@serve.org).

Networking Together to Help Protect Essential Workers – Manatee Teachers STEP UP!

A Manatee middle school teacher posted a video on Facebook about supporting the local first responders and essential workers with face shields. One of our elementary Engineering teachers **Dana Townson**, also from Manatee County Schools, reached out to him and said, “I have a 3D printer and access to more of them, what can I do?” After he explained Dana reached out to her own teacher network and recruited another elementary Engineering teacher from Manatee County Schools, **Danielle Owens** who is also participating in the EQuIPD grant!

Dana also reached out to her personal network for help with materials and donations began to pour in, in the form of Amazon gift cards which enabled her to purchase assembly supplies.

To date they have made over 2,000 face shields and donated them far and wide with some making it as far as NYC!

Our teachers aren't just ingenious, they're humanitarians too! We are proud of Dana and Danielle who have worked to help protect frontline workers.



Hillsborough County Teachers Share EQuIPD Leadership and Success Stories

Colleen Craven is a teacher at Colson Elementary school in Hillsborough County. She has been using skills she has learned through EQuIPD in her classroom and has seen excellent results. Her students made exceptional progress when taught conceptual models through inquiry-based lessons. Colleen has received a 3-year grant from FSU to study teaching mathematics through Cognitive Growth Instruction. Her work with the EQuIPD project has prepared her to easily incorporate the cognitive growth techniques in her lessons. Colleen has also been accepted into the Educational Leadership Master's degree program at FSU and will begin in the fall.

Alyssa Mormon is an EQuIPD middle school science teacher in Hillsborough County who has embraced the technology side of the EQuIPD grant. Alyssa has just received a \$900 grant for additional Pasco sensors and probes. She has also received a grant of \$1500 for a Dubot Magician (robotic arm). Alyssa was introduced to the Dubot during the summer 2019 boot camp and has wanted to bring this to her classroom for over a year. Alyssa has taken what she has learned in the grant and used it to provide more opportunities for her students to interact with additional technology. Alyssa is excited and can't wait to see her students using this new technology!

Nicole Golden from Hillsborough County, has been building her leadership skills. In May 2020 she graduated from the University of Tampa with a Masters in Educational Leadership with a focus on Turnaround & Transformational Leadership. This spring she completes FLA (Future Leaders Academy) which is Hillsborough County's leadership preparation course. She has accomplished all this while serving her second term as Vice President of "HABSE" Hillsborough Alliance of Black School Educators, starting a Girls Who Code club, and becoming a Nearpod Certified Educator, Flip Grid Certified Educator, Seesaw Ambassador, and Classdojo Ambassador. Nicole is a candidate for National Board Certification and has received a grant for JumpStart Aspire! A Summer Bootcamp Academy to JumpStart her journey of becoming a National Board Certified Educator.

Practicing the Process for Second Grade Lessons in Pahokee



Domenique Wilson and other Palm Beach County Teachers work through a design for a technology embedded inquiry activity for the Earth-Sun model system.

“Engaging Quality Instruction through Professional Development.”

Sometimes all it takes is a little shift in perspective to take a lesson or lesson sequence to the next level. One way that **Domenique Wilson**, an EQuIPD intervention from Pahokee Elementary School in Palm Beach County, did this was by breaking down her second-grade lesson about the *cultural influences of immigrants today* with her EQuIPD coach.

Across a series of coaching sessions, Domenique and her coach worked through the lesson to develop a detailed process map containing a lesson storyline that not only covered the content but added teacher and student perspectives. They began by stating the standard and brainstorming ideas for a focus question that pointed to the main learning goal for the lesson. The next step was to layout the flow of the lesson by identifying the beginning, middle, and end stages.

From there, they stepped through each stage and built out sections which included accessing prior knowledge, defining terms, connecting big ideas, engaging activities, and synthesizing and summarizing concepts. This included a lot of discussions and reorganization to ensure the parts flowed together creating a coherent storyline to build the model of cultural influences. Domenique and her coach then went a step further with the process map and detailed what the teacher moves, and the reciprocal student learning looked and sounded like at various steps in the process.

Domenique found that taking the time to breakdown the lesson into a process map and storyline helped her connect multiple grant goals to form a stronger understanding of EQuIPD. The small addition of perspective in this exercise has transformed her way of thinking about her lessons. She has gained a new tool that has expanded point of view beyond content in her lessons. I can already see her refining this process map to define inquiry model stages creating a powerful inquiry-based lesson.

Sarasota Teacher Goes Above and Beyond for Students Learning Remotely

Cherish Eagen, a Sarasota School District Participant recently created a set of 12 LOOM videos to help her students transition to remote learning, these tutorials include topics such as Office 365 Introduction, Using OneDrive, Finding and completing assignments in TEAMS, Using OneNote and several on the Blackboard system. EQuIPD has been working with Microsoft and TEAMS as a collaborative tool.

Cherish is an example of the great work teachers have been doing incorporating educational technology into their classrooms over the course of the grant. Many of our teacher signed up for our Webinars in March and April for supporting remote learning through use of educational technology. One example of this is LOOM which is a screen casting program for teachers to record lessons. Cherish used LOOM to record all of her lessons for students. Other examples of technology platforms we have supported teachers to transition to include nearpod, FlipGrid, Canvas, ZOOM, Simulation sites, Scratch/Jr, JamBoard to name just a few.

EQuIPD Debuts Microcredentials for Teachers

As part of the EQuIPD grant Model, teachers are encouraged to earn microcredentials, certifications and endorsements. The grant has created microcredentials aligned with grant goals and pedagogy and are debuting them for teachers this summer through the TEAMS portal.

EQuIPD Grant supports the use of microcredentials as way for teachers to continue to professionally develop on their own time and schedule.

Microcredentials consist of three Badges, each of which takes about 40 hours for a teacher to complete and includes readings, videos, journaling, activities and classroom practices. Each Badge scales in complexity of content and tasks for teachers to complete. This results in a microcredential being 120 hours of teacher time – the equivalency of a college course. EQuIPD is working with districts to try to have the Badges and microcredential accepted as PD points for teachers to use towards certification renewal.

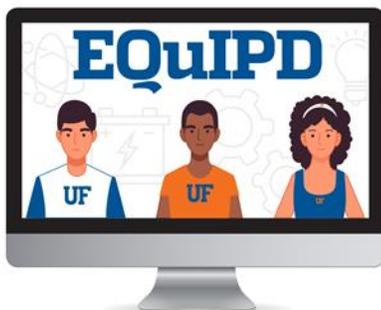
In addition the microcredentials will be made available for districts to adopt and put onto their platforms in year three so that these microcredentials and this method of professional development delivery is available to all districts to utilize for teacher training. The EQuIPD grant is offering the following microcredentials to teachers; Workforce Skills in the Classroom, System Thinking in the Classroom, Inquiry Practices in the Classroom, and Technology in the Classroom. The activities for teachers are aligned and extend what teachers are learning within the grant professional development.

Summer Technology Trainings for Teachers- Probes and Sensors, Computer Programming

This summer our two OPS Engineering College Students – **Jocelyn Hernandez (UF)** and **Hannah Huang (Georgia Tech)** have been busy delivering over 120 a month of technology training to teachers. The grant was looking for a way to provide additional hands-on learning for teachers to build additional capacity for use of sensors and probes in lessons, and to introduce teachers to new technology and new probes. The teachers are able to sign up for sessions with Hannah and Jocelyn and then are mailed the necessary sensor or probe to use in the training sessions.

Each training session is 2-3 hours long, and together the teachers and engineers work together to learn the probe by doing an experimental measurement together. Hannah and Jocelyn also have “open office hours” where teachers can come in and plan use of sensors and probes together with the engineering students. The sensor and probe classes include probes from Vernier and Pasco including temperature, light, motion, pH, CO₂, O₂, weather and energy. They are also working with TI calculators to Vernier probes and TI Rovers.

Hannah and Jocelyn have also been training teachers to work with the new Pasco Code:Node which is a multi-sensor platform allowing for coding. Hannah and Jocelyn have also been training teachers to use Micro:bits and Arduinos which are code based sensor platforms, as well as the sensor kits which can be used with these tools. There has been a lot of interest from teachers for the Micro:bits, from early elementary to middle school usage. Hannah and Jocelyn have also been training teachers for Scratch and Scratch Jr for programming within lessons. Additionally, this August we will offer trainings in Google Science Journal for remote inquiry lessons.



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