



INSTITUTE FOR TEACHING
THROUGH TECHNOLOGY AND
INNOVATIVE PRACTICES

Guiding Frameworks

- Problem-Based Learning Design (Smith, Sheppard, Johnson,
 & Johnson, 2005)
- •Profile of a Virginia Graduate (5Cs) (VDOE, 2016)
- •Communities of Practice (Barab & Duffy, 2000; Barab, Barnett, & Squire, 2002)
- •Global Science Education Continuum (Nugent, Smith, Cook & Bell, 2015)

Division	School	Total percent free and reduced lunch
1	A	50.27%
	В	45.67%
2	A	50.10%
	В	42.94%
3	A	70.59%
4	Α	68.40%
5	Α	60.02%
6	Α	59.87%
	В	59.57%
	С	65.95%
7	A	69.74%

Table 1: Virginia National School Lunch Program Free and Reduced-Price Eligibility Reports

Vignette 1

Setting: 3rd grade classroom in Virginia, USA (with virtual peers in a third grade classroom in Texas, USA)

Learning Plan: Video conference with a mystery classroom (e.g. "Mystery Skype") to ask yes and no questions to identify classroom location

Needs: Microsoft's Mystery Skype Teacher Community, Skype, computer, Internet, microphone/camera, speakers, student groups (recorders, mappers, question-ers, think-tanks, location experts) with appropriate resources (i.e. mapper needed maps an markers)

Challenges: microphone/technology not working properly, partner teacher failing to follow through

Successes: overcoming technology issues, cross-curriculum connections, new partners, students want more experiences

Global Continuum Level: Limited Collaboration

Facilitating Teachers in Implementation of Global Education Stephanie Playton

Abstract

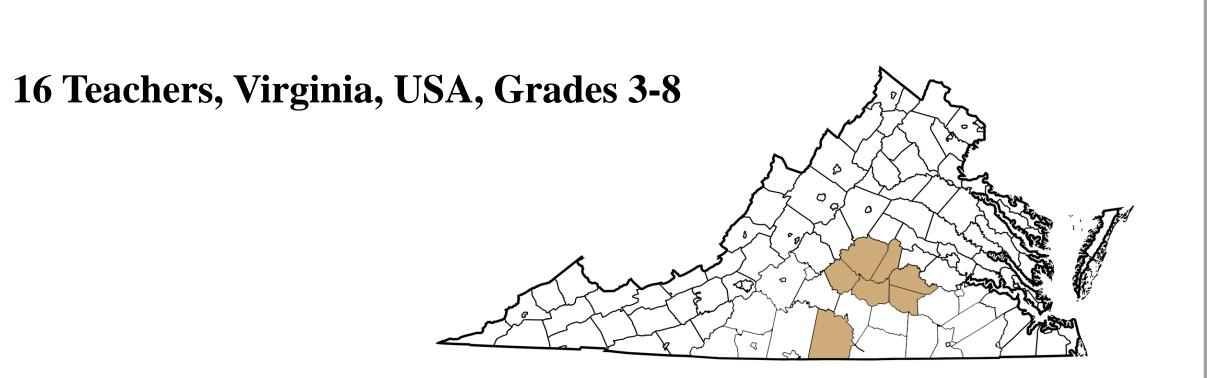
Global education is a need for today's learners to be successful in a globally competitive workforce. Educators need to know how best to facilitate global learning experiences to foster this growing need. This paper is about a cohort of teachers from multiple school districts, grade levels and teaching assignments that worked together as a community of practice to provide learning experiences to foster critical thinking, creative thinking, collaboration, communication and citizenship (i.e. "5Cs") to engage and empower students, and spearhead State initiatives in nurturing "life ready" skills. Teachers began learning and experiencing global learning through a summer institute and then worked virtually and collaboratively during a book study on steps towards global education. Teachers used a global science continuum framework to help guide different types of learning experiences.

Program facilitators mentored teachers by providing opportunities for them to use tools and resources useful for global collaborations. Teachers also kept eportfolios of progress in making incremental changes in their classroom practices as they underwent this inquiry-based professional development experience. Classroom observations and visits also supported the teachers through trying new and innovate ways to design student learning experiences needed for today's learners. While the program's goals spanned over a year-long experience, over half of the participating educators had already implemented global experiences with their classrooms at the publication of this poster. More work needs to be done in professional development to provide teachers with the tools and resources they need to implement global education into all subject areas.



Above: Students Mystery Skype with a classroom while students take on roles like "mappers" to help solve the challenge.

Teacher Participants



Vignette 3

Setting: 7th grade life science classroom in Virginia, USA (with virtual peers in New Zealand, Australia, and other classrooms within the USA)

Learning Plan: Work with students from other classrooms in groups to come up with research on a decided endangered animal and put together a presentation to share.

Needs: Flat Connections, Flipgrid, Padlet, Wikispaces, Google Docs, Voicethread, Internet, computers, microphone/camera

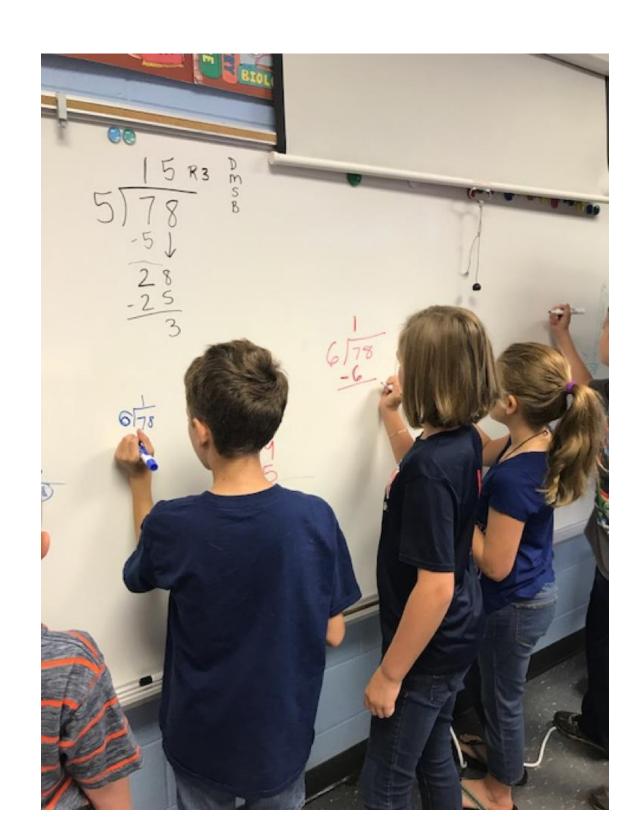
Challenges: not being able to get wearable devices to go along with the curriculum resources

Successes: activity fit into curriculum, activity was developed and moderated by global education experts, student were engaged

Global Continuum Level: Engaged Collaboration

Conclusion

Teacher and student outcomes from this ongoing initiative provides new and innovate ways that teachers are sharing and celebrating the steps they are taking to integrate global education experiences. Through a CoP, educators have been empowered to provide educational experiences that facilitate global practices to nurture global competencies needed for the global workplace. The summer professional development, book study and global education continuum provided teachers with examples and experiences to help make their classroom more engaging to students, but also provided their classrooms opportunities to practice global competencies needed for the competitive, global workplace, across multiple subject areas.



Above: Students work on mathematics equations for KidPower activity.

Professional Development Design

- 1- Year Teacher Professional Development Experience
- a) Five-Days, Face-to-Face
- b) Book Study
- Other Experiences
- a) Ongoing Observations/Classroom Visits, Support
- b) Facilitated Community of Practice
- c) Teacher Showcase

Global Continuum Level	Number of Experiences
Global Contribution	0
Engaged Collaboration	2
Limited Collaboration	7
Shared Data	1
Parallel Activity	2
Global Awareness	2

Table 2: Number of teacher integrations according to (6 months into initiative) Global Science Education Continuum (Nugent et al., 2015).

References

Barab, S. A., Barnett, M., & Squire, K. (2002). Developing an empirical account of a community of practice: Characterizing the essential tensions. *The Journal of the Learning Sciences*, 11(4), 489–542.

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Nugent, J., Smith, W., Cook, L., & Bell, M. (2015). 21st century citizen science: From Global awareness to global contribution. Science Teacher, (November), 34–38.

Smith, K., Sheppard, S., Johnson, D., & Johnson, R. (2005). Pedagogies of engagement: Classroom-based practices. Journal of Engineering Education, 94(1), 87–101.

VDOE. (2016). Progress Report on the Board of Education's Development of a Profile of a Virginia Graduate. Richmond, VA.

Vignette 2

Setting: 3rd grade classroom in Virginia, USA (with virtual peers around the world)

Learning Plan: Log physical activity that translate to food packets for those in need

Needs: KidPower wearable devices, Internet, computer

Challenges: not being able to get wearable devices to go along with the curriculum resources

Successes: online lessons and integration of mathematics curriculum, development of student empathy and awareness of waste and others' needs

Global Continuum Level: Parallel Activity