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S. Ed. Instructional Technology

Professional Learning for Educator on Google Applications

**SETTING AND CONTEXT**

This capstone project will provide a select group of teachers in grades Pre-K – 8 in the Coffee County School System the opportunity to complete professional learning on Google Applications. The training will give teachers the experience of collaborating with other teachers through the use of Google Apps. The teachers will be able to share resources and create projects to support and improve student engaged learning. This training will be directed around Google Apps for Education because Coffee County System is a participant. It will also help build capacity of learning through Google to enhance blended learning in grades 3-8.

The Coffee County School System is composed of eight elementary schools (pre-kindergarten through grade five), one middle school (grades six through eight), a ninth-grade academy, one senior high school (grades ten through twelve), and one alternative school (grades six through twelve). The school system is governed by a five-member board of education elected for a four-year term on a non-partisan basis. The school superintendent is appointed by the board and serves as the chief executive officer. The system serves approximately 7,400 students in kindergarten through grade twelve. Fifty percent of the students are white, thirty percent are black, sixteen percent are Hispanic, and the remaining are multi-racial, Asian, or American Indian. The pre-kindergarten program serves 442 students or about two-thirds of the four-year-old population. Seventy-six percent of the students receive free or reduced-price lunch services. The school system employs 536 K-12 classroom teachers, 104 leadership and support personnel, and 455 classified employees. The student to teacher ratio is 14:1. Seventy percent of classroom teachers hold a master’s or higher degree. The teacher turnover rate has declined from nine percent in 2007-08 to four percent in 2011-12.

**CAPSTONE PROBLEM OR NEED**

 Professional learning is essential for educators to improve student learning, support instructional framework and give educators the opportunity to grow professionally. This is very important, now more than ever, because of the Teacher Effectiveness Measurement (TEM) score that results from a combination of performance evaluations and student growth measures. After all of the state and local budget cuts, professional learning provided through outside sources have been limited causing a lack of technology trainers. The Coffee County School System supports the use of Google Apps for Education. These apps include Gmail as the email service provider and things like Google Docs, Spreadsheets and Presentations for content creation. Google Drive offers all the storage you could ever need, at no cost. There are no advertisements in Google Apps for Education services. Additionally, in K-12 schools using Google Apps for Education, users do not see ads when they use Google search. All teachers and students have accounts and access to Google, this allows for good communication and discussion between teacher and student. After consulting with Logan Evans, Instructional Technology Specialist, and Wendy Jowers, Principal of Westside Elementary School, we have determined that there is a need for professional learning to help educators build confidence in using Google Applications as classroom tools. Logan Evans conducted a needs assessment survey with the principal to assess technology training priorities. The results indicate that Google Drive and Classroom training is a priority at Westside Elementary School. I am developing a professional learning course designed for educators to enhance the knowledge on Google Apps and for teachers to improve their classroom instruction through collaborative planning and the use of technology. I want to help teacher embrace Google Classroom as a digital tool to implement blended learning.

**OBJECTIVES AND DELIVERABLES**

 Based on the need for technological training for educators in the use of Google Apps, I plan to accomplish the following goals:

* Allow teachers to demonstrate the knowledge, skill, and dispositions to effectively integrate technology into their teaching practice and to collaboratively plan with and assist other educators in utilizing technology to improve teaching, increase student engagement, and improve assessment with the use digital tools.
* Develop and implement technology-based professional learning that aligns with national and state learning standards, providing step-by-step handouts.
* Design and model technology training courses to promote the use of Google Apps to support lesson development that integrates critical thinking skills to improve student engaged learning.
* Develop, model, and facilitate the use of Google Classroom to promote blended learning and flip classroom.
* Design and implement training evaluations to determine the effectiveness of the professional learning on the teachers’ willingness to embrace technology and improve pedagogical skills, increasing engagement of the students.
* Model and promote strategies for achieving equitable access to digital tools and resources and technology-related best practices for all students and teachers.

According to Web Digest going Google in education is about four things: 1) Empowerment: being able to discover a world of infinite resources and change the role of the teacher from simply disseminating information to coaching and supporting students as they explore the information accessible to them to solve real-world problems. 2) Choice: using the right device anytime, anywhere. We want professors and students to use the right device, whether it’s a laptop, tablet, phone or desktop, regardless of platform and manufacturer, in school, at home or on-the-go. 3) Teamwork: working together in real time. Using Google’s collaborative productivity suite is often cited by educators as the most profound change in the way they teach and the way students learn. Collaboration fosters teamwork, problem-solving and organization—key skills for the modern world. 4) Scale: being affordable and easy to manage. Device and content management are equally important to keep the total cost of ownership low and to allow IT teams to efficiently and effectively manage all the different elements, from network to applications to devices (Google Benefits, 2014). Dessoff (2010) proclaims, “Professional development of faculty and staff is key to making the most of the programs.”

 One type of blended learning is flipped-classroom. According to See & Conry (2014), “The concept of a flipped-classroom entails moving traditional lecture and content outside the classroom and freeing up classroom time for active learning, including application of content in the form of case studies, discussions, or simulation experiences. The flipped-classroom model of teaching focuses on moving content that fits in the lower levels of Bloom’s Taxonomy (understanding and remembering) outside class, reserving in-class time for the higher order levels (creating, evaluating, analyzing, and applying). In a flipped-classroom, the teacher operates as a facilitator and works side by side with the students.”

The PSC/ISTE Instructional Technology/Coaching Standards exemplified by this proposal are:

**PSC STANDARDS**

PSC Standard 1: Visionary Leadership Candidates demonstrate the knowledge, skills, and dispositions to inspire and lead the development and implementation of a shared vision for the effective use of technology to promote excellence and support transformational change throughout the organization.

Element 1.1 Shared Vision Candidates facilitate the development and implementation of a shared vision for the use of technology in teaching, learning, and leadership.

Element 1.4 Diffusion of Innovations & Change Candidates research, recommend, and implement strategies for initiating and sustaining technology innovations and for managing the change process in schools.

Standard 2: Teaching, Learning, & Assessment Candidates demonstrate the knowledge, skills, and dispositions to effectively integrate technology into their own teaching practice and to collaboratively plan with and assist other educators in utilizing technology to improve teaching, learning, and assessment.

Element 2.1 Content Standards & Student Technology Standards Candidates model and facilitate the design and implementation of technology enhanced learning experiences aligned with student content standards and student technology standards.

Element 2.2 Research-Based Learner-Centered Strategies Candidates model and facilitate the use of research-based, learner-centered strategies addressing the diversity of all students.

Element 2.3 Authentic Learning Candidates model and facilitate the use of digital tools and resources to engage students in authentic learning experiences.

Element 2.4 Higher Order Thinking Skills Candidates model and facilitate the effective use of digital tools and resources to support and enhance higher order thinking skills (e.g., analyze, evaluate, and create); processes (e.g., problem-solving, decision-making); and mental habits of mind (e.g., critical thinking, creative thinking, metacognition, self-regulation, and reflection).

Element 2.5 Differentiation Candidates model and facilitate the design and implementation of technology-enhanced learning experiences making appropriate use of differentiation, including adjusting content, process, product, and learning environment based upon an analysis of learner characteristics, including readiness levels, interests, and personal goals.

Element 2.6 Instructional Design Candidates model and facilitate the effective use of research-based best practices in instructional design when designing and developing digital tools, resources, and technology enhanced learning experiences.

Element 2.7 Assessment Candidates model and facilitate the effective use of diagnostic, formative, and summative assessments to measure student learning and technology literacy, including the use of digital assessment tools and resources.

Element 2.8 Data Analysis Candidates model and facilitate the effective use of digital tools and resources to systematically collect and analyze student achievement data, interpret results, communicate findings, and implement appropriate interventions to improve instructional practice and maximize student learning.

Standard 3: Digital Learning Environments Candidates demonstrate the knowledge, skills, and dispositions to create, support, and manage effective digital learning environments.

Element 3.1 Classroom Management & Collaborative Learning Candidates model and facilitate effective classroom management and collaborative learning strategies to maximize teacher and student use of digital tools and resources.

Element 3.2 Managing Digital Tools and Resources Candidates effectively manage digital tools and resources within the context of student learning experiences.

Element 3.3 Online & Blended Learning Candidates develop, model, and facilitate the use of online and blended learning, digital content, and learning networks to support and extend student learning and expand opportunities and choices for professional learning for teachers and administrators.

Element 3.5 Basic Troubleshooting Candidates troubleshoot basic software and hardware problems common in digital learning environments.

Element 3.6 Selecting and Evaluating Digital Tools & Resources Candidates collaborate with teachers and administrators to select and evaluate digital tools and resources for accuracy, suitability, and compatibility with the school technology infrastructure.

Element 3.7 Communication & Collaboration Candidates utilize digital communication and collaboration tools to communicate locally and globally with students, parents, peers, and the larger community.

Standard 4: Digital Citizenship & Responsibility Candidates demonstrate the knowledge, skills, and dispositions to model and promote digital citizenship and responsibility.

Element 4.1 Digital Equity Candidates model and promote strategies for achieving equitable access to digital tools and resources and technology-related best practices for all students and teachers.

Element 4.2 Safe, Healthy, Legal & Ethical Use Candidates model and facilitate the safe, healthy, legal, and ethical uses of digital information and technologies.

Element 4.3 Diversity, Cultural Understanding & Global Awareness Candidates model and facilitate the use of digital tools and resources to support diverse student needs, enhance cultural understanding, and increase global awareness.

Standard 5: Professional Learning & Program Evaluation Candidates demonstrate the knowledge, skills, and dispositions to conduct needs assessments, develop technology-based professional learning programs, and design and implement regular and rigorous program evaluations to assess effectiveness and impact on student learning.

Element 5.1 Needs Assessment Candidates conduct needs assessments to determine school-wide, faculty, grade-level, and subject area strengths and weaknesses to inform the content and delivery of technology-based professional learning programs.

Element 5.2 Professional Learning Candidates develop and implement technology-based professional learning that aligns to state and national professional learning standards, integrates technology to support face-to-face and online components, models principles of adult learning, and promotes best practices in teaching, learning, and assessment.

Element 5.3 Program Evaluation Candidates design and implement program evaluations to determine the overall effectiveness of professional learning on deepening teacher content knowledge, improving teacher pedagogical skills and/or increasing student learning.

Standard 6: Candidate Professional Growth & Development Candidates demonstrate the knowledge, skills, and dispositions to engage in continuous learning, reflect on professional practice, and engage in appropriate field experiences.

Element 6.1 Continuous Learning Candidates demonstrate continual growth in knowledge and skills of current and emerging technologies and apply them to improve personal productivity and professional practice.

Element 6.2 Reflection Candidates regularly evaluate and reflect on their professional practice and dispositions to improve and strengthen their ability to effectively model and facilitate technology-enhanced learning experiences.

Element 6.3 Field Experiences Candidates engage in appropriate field experiences to synthesize and apply the content and professional knowledge, skills, and dispositions identified in these standards.

ISTE 1. Visionary Leadership. Technology Coaches inspire and participate in the development and implementation of a shared vision for the comprehensive integration of technology to promote excellence and support transformational change throughout the instructional environment. Technology Coaches:

a. Contribute to the development, communication, and implementation of a shared vision for the comprehensive use of technology to support a digital-age education for all students

b. Contribute to the planning, development, communication, implementation, and evaluation of technology-infused strategic plans at the district and school levels

c. Advocate for policies, procedures, programs, and funding strategies to support implementation of the shared vision represented in the school and district technology plans and guidelines

d. Implement strategies for initiating and sustaining technology innovations and manage the change process in schools and classrooms

2. Teaching, Learning, & Assessments. Technology Coaches assist teachers in using technology effectively for assessing student learning, differentiating instruction, and providing rigorous, relevant, and engaging learning experiences for all students. Technology Coaches:

a. Coach teachers in and model design and implementation of technology-enhanced learning experiences addressing content standards and student technology standards

b. Coach teachers in and model design and implementation of technology-enhanced learning experiences using a variety of research-based, learner-centered instructional strategies and assessment tools to address the diverse needs and interests of all students

d. Coach teachers in and model design and implementation of technology-enhanced learning experiences emphasizing creativity, higher-order thinking skills and processes, and mental habits of mind (e.g., critical thinking, meta-cognition, and self-regulation)

f. Coach teachers in and model incorporation of research-based best practices in instructional design when planning technology-enhanced learning experiences

g. Coach teacher in and model effective use of technology tools and resources to continuously assess student learning and technology literacy by applying a rich variety of formative and summative assessments aligned with content and student technology standards

h. Coach teachers in and model effective use of technology tools and resources to systematically collect and analyze student achievement data, interpret results, and communicate findings to improve instructional practice and maximize student learning.

3. Digital-Age Learning Environments. Technology coaches create and support effective digital-age learning environments to maximize the learning of all students. Technology Coaches:

a. Model effective classroom management and collaborative learning strategies to maximize teacher and student use of digital tools and resources and access to technology-rich learning environments

b. Maintain and manage a variety of digital tools and resources for teacher and student use in technology-rich learning environments

c. Coach teachers in and model use of online and blended learning, digital content, and collaborative learning networks to support and extend student learning as well as expand opportunities and choices for online professional development for teachers and administrators

e. Troubleshoot basic software, hardware, and connectivity problems common in digital learning environments

f. Collaborate with teachers and administrators to select and evaluate digital tools and resources that enhance teaching and learning and are compatible with the school technology infrastructure

g. Use digital communication and collaboration tools to communicate locally and globally with students, parents, peers, and the larger community

4. Professional Development & Program Evaluation. Technology coaches conduct needs assessments, develop technology-related professional learning programs, and evaluate the impact on instructional practice and student learning. Technology Coaches:

a. Conduct needs assessments to inform the content and delivery of technology-related professional learning programs that result in a positive impact on student learning
b. Design, develop, and implement technology-rich professional learning programs that model principles of adult learning and promote digital-age best practices in teaching, learning, and assessment

c. Evaluate results of professional learning programs to determine the effectiveness on deepening teacher content knowledge, improving teacher pedagogical skills and/or increasing student learning

5. Digital Citizenship. Technology coaches model and promote digital citizenship. Technology Coaches:

a. Model and promote strategies for achieving equitable access to digital tools and resources and technology-related best practices for all students and teachers

b. Model and facilitate safe, healthy, legal, and ethical uses of digital information and technologies

c. Model and promote diversity, cultural understanding, and global awareness by using digital-age communication and collaboration tools to interact locally and globally with students, peers, parents, and the larger community

6. Content Knowledge and Professional Growth. Technology coaches demonstrate professional knowledge, skills, and dispositions in content, pedagogical, and technological areas as well as adult learning and leadership and are continuously deepening their knowledge and expertise. Technology Coaches:

a. Engage in continual learning to deepen content and pedagogical knowledge in technology integration and current and emerging technologies necessary to effectively implement the NETS•S and NETS•T

b. Engage in continuous learning to deepen professional knowledge, skills, and dispositions in organizational change and leadership, project management, and adult learning to improve professional practice

c. Regularly evaluate and reflect on their professional practice and dispositions to improve and strengthen their ability to effectively model and facilitate technology-enhanced learning experiences.

**PROJECT DESCRIPTION**

 The Coffee County School District has been using the Google Apps for Education since 2014. Many educators are still not using the digital tools effectively. Educators have numerous digital resources available at their fingertips, but have not been trained to use them. A technology training needs assessment was given recently and many principals respond that their teachers/faculty’s staff needed training on using Google Apps and Chromebook.

 The professional learning classes I will be leading will provide step-by-step, hands-on training for getting familiar with Google Apps and Chromebook in a series of training classes. The training will take place during planning days and during the scheduled planning times. The classes will give the participants the opportunity to create documents they could use to improve or enhance their instruction. The participants will create a Google classroom page. I will also provide training on embedding videos to be used to implement blended learning. The participants will be able to collaborate with each other to build a strong network promoting student-centered learning. I will provide step-by-step handouts to make it easy for the participants to follow and to use as a resource for future use. The training will be videoed so that they can serve as tutorials for any participants needing a second look.

 The participants will have to complete a series of tasks to prove implementation of Google Apps. The participants of the Google classroom training will have to share their pages and show how the use of the resources have increased/enhanced student learning. They will have to add links for their documents (homework, newsletters, and any additional resources).

 The participants will complete an evaluation of training to provide appropriate feedback on the effectiveness of the training. The main goal of the training is to help the participant build the confidence needed to implement Google Apps into their instruction. I want the participants to have enough knowledge and confidence about the resources to lead them in the direction of blending learning. I will assist any participant in creating videos of their lectures and teacher-led instructions to help implement blended learning. Blended learning will benefit the students and their teachers. The students will have authentic learning that is highly encouraging. The teachers will be able to show growth as proficient and exemplary teachers on their teacher effectiveness measurement, (TEM) from both teacher performance and student growth. The participants will also be able to implement instruction that has technology integrated with multiple contents.

**Timeline for Project:**

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| January 2016 | Meet with administrators to choose participants for project and advise. |
| February  | Meet with participants ObservationsInitial professional development (Google Docs) |
| March  | Follow-up meeting |
| April | Professional development (Google Sheets) |
| May | Professional development (Google Classroom) |
| August | Follow-up meeting |
| September | Survey participants |

**EVALUATION PLAN**

 My personal learning goals for conducting this training with Google Apps are:

1. Understanding and applying skills to support my district in their implementation of Google Apps.
2. Creating and learning professional learning.
3. Effectively coaching others in instructional technology.

Through this project, I will be able to support teachers in using Google classroom to implement blended learning and increase collaboration for technology use in the classroom. This project can also help my district provide the needed training (Google) to more teachers.

The completion of this project is important for the teacher to demonstrate understanding by implementation of Google Applications to enhance student engaged learning. The teachers will complete an evaluation sheet on the effectiveness of the training. Some of the questions will be:

1. How can you get the most out of this training?
2. What did you learn from this training?
3. How does this training benefit you and your students?
4. In what ways will you apply this training?
5. How can you use this training to help your colleagues and students?

References

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