

Professional Development Proposal

Nabin Timilsina

Adams State University

Endeavor STEM Teaching Certificate Project

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Introduction

The title of my professional development is 'Project-Based Learning'. This professional development is intended for educators from K-8. Participants will be STEM educators of an elementary and middle school located in Miami, Florida. Approximately 23 educators will attend this professional development which will take place in AcadeMir Miller campuses from 8 am to 2 pm with a lunch break at 11 am. All these educators are STEM instructional staff of miller campuses (elementary and middle) where there are roughly 800 students in total. As the Science Curriculum Specialist, Instructional Coach, and Assessment Coordinator of these schools, I will be creating and facilitating this professional development training session in order to shift the widely used teacher-centered and test driver instructional approach to more toward learner centered approach. The main focus of this PD is to empower participants with needed knowledge to effectively implement certain ways to ensure that project-based learning is implemented in the right way. All participants will have access to all the required materials for the PD along with a healthy breakfast and coffee in the morning.

As the Science Coach at these schools, I've taken the responsibility to completely change the way we teach science. Although the mission of AcadeMir states that these schools are Science and Math schools, nothing was evident to support this. One of the things that I brought to these school was state of the art Science lab, new curriculum for all grade levels, digital learning and assessment platform for science, science and math clubs, and various other projects that actually contribute to producing innovation students who are critical thinkers and problem solvers. The goal of this PD is to introduce how project-based learning could be our strongest

tool as we produce next generation of scientists, mathematicians, and engineers. This PD will play an important role in converting a tradition classroom to a PBL classroom by def

Use of Endeavor/NASA Resource

Over the last two years in this course as an M.A.Ed. and STEM Leadership student at Endeavor/ASU, I was fortunate that I had access to plethora of resources that I need to develop my professional development trainings for educators. As a classroom science teacher, I used almost every single one of those activities and projects found on JPL's website. Then when I got promoted to administration as a STEM Curriculum/Instruction coach, these resources became my best friends. I loved doing these in my classroom with my students, and now I love doing these with my 17 science teachers in both the schools. These resources are very cost efficient and highly effective, and we will continue using these in our science classrooms. In addition to that, the size of professional network I have created through this program is very impressive. I am connected to several of my fellow Endeavor classmates, and I am hoping to collaborate even after we're done with this program.

Feedback and Follow-up

A survey has already been done among STEM educators at my school regarding the professional development that they would like the administration to facilitate. Majority of our teachers have reported PBL or SEL. We've chose PBL for now. There will be several surveys that will be conducted over the weeks. One of those will occur before the PD to test the prior knowledge of the participants. Another one will be after the end of the PD to check the effectiveness of the PD. Then there will be multiple checkpoints moving forward to ensure the effective implementation and effectiveness of the PD in the school. All of this data collection will be done by the STEM instruction coach.

Expectations

I am also given the responsibility to oversee the gradebook and lesson plans of all the science teachers. My big plan as the curriculum/instruction coach and assessment coordinator will be to ensure that the core of our STEM curriculum is problem solving, collaboration, critical thinking, and Emotional Intelligence. With the school-wide implementation of PBL, I am looking at giving consistency in these innovation pedagogical approaches and replacing traditional teaching and test-driven culture in our schools.

Florida Science Standards

<https://www.cpalms.org/Public/search/Standard>