DreamIT Project

Being a math and science technology teacher at a Chicago Public School with K-8 grade level students, I teach five days a week from 8:30a.m. to 2:45p.m. Different students come to my class every hour and come at least once a week. My students work online with math programs such as Compass Learning Odyssey, which is aligned with NWEA (Northwester Evaluation Assessment) and Mathletics another website program aligned with their grade level curriculum instructions. Sometimes, students bring their own activities and work recommended by their teachers.

Each classroom is composed of a fifteen minute mini-lesson before students enter any website, in these fifteen minutes I plan to develop the DreamIT project. My idea is to ratify the concepts that they learned in their classroom by means of activities that happens in real life and nature. The purpose of these activities will be to help students develop and expand the concepts promoting investigation, and to prepare them for the next grade level.

My plan is to take current, ordinary situations and discuss them with the class. All the events are interconnected. For example they all have math, engineering and technology involved. A teacher arriving to school in her/his own transportation, a school bus transporting students, a rainy day, or a soccer game. If we analyze a specific event at a given time, we can definitely find a topic and explain through a subject that will be discussed in the class. My Idea is to make the concept clear in a way that activates the student’s long-term memory and creates a vivid image to be remembered for a quite long time, even after class is dismissed. My pedagogical approach to implement will be the Backward Design, along with the creative Content Technological and Pedagogical framework TPACK, Best Practices and Inquire.

The students will then be able to solve problems from everyday situations, natural causes, develop number sense, and select any numerical operations. One way they will do is by role playing as a clerk in a retailer store buyer or seller finding the answer at a 5 % discount price, constructing a graphic explanation for the slope of the line in algebra, explaining two ways to find solutions to a problem, and constructing a graphic organizer and sharing to the class the way they understood the concepts. These will be part of the assessments.

To help the students develop skills and represent ideas in short video, to put it into practice, I will teach them how to do animations, and create short videos. I will also use games and exercises from the Second City Training Center hand-out. I will implement small group work, group discussion, journal, and allow students to be able to draw/illustrate to show their understanding of the lesson. During the lesson I will be doing some informal assessment and assisting students who are in need of help or have a question.

Many subtopics will be required to be recalled at any given time. These events and circumstances will be current; therefore will need current tools to solve them. If group discussions are used as strategy, I am certain that more than one student will be interested in finding the missing part of a problem, and if the Ideas are not convincing or not convergent to a unique solution an agreement will be established and accepted. This will allow me to be a mediator and the one that makes the bridge between the agreements. The teacher will be a tool that will fill the gap only (Vygotsky), and as a result, we will have students who will be proud of their collaborative findings and discoveries using the technological TPACK tool to make my lessons more effective. The Big Idea will foster and develop the critical thinking, problem solving, and decision making that are part of the CCSS curriculum.