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CRIN V63: Theory and Reality

Final Assignment

14 December 2009

Target Student Population: High School Physics

For the last six months, I have been taking education courses with the intent of becoming an excellent teacher. Professors have pounded me with educational theories and terminology, and I have dutifully thrown myself into the coursework and practica experiences. Over these months I have learned much from our readings, writings, observations, and class discussions, both about myself and how to teach others. I would like to share a bit of what I have learned thus far, to prepare for my own classroom (hopefully!) next September.

In general, learning may range from the purely abstract--e.g. number theory--to completely concrete--e.g. how to tie a shoe. This semester has been a good mix of the entire learning spectrum, as the classes have contained units of more abstract thinking and units of more concrete thinking. The question remains of how to integrate all that I have learned into my classroom, and again the answer to this question returns to the abstract-to-concrete learning spectrum. For the more abstract pieces of teacher education, such as my educational philosophy and rationale for teaching, I have arrived at a better understanding of the teacher I wish to become. These exercises have forced me to examine my core beliefs, and how these beliefs will affect my teaching style, attitude, and the manner in which I interact with students. For the more concrete aspects of teacher education, I have gained specific strategies that work with students both for classroom management and content instruction and assessment. Through observing various teachers at different schools, I have seen proper and improper implementation of these strategies and discussed differences between smoothly functioning and dysfunctional classrooms. After all of this learning about teaching (physics), I have come to see myself as a guide for the students. The analogy is that both the students and I are traveling on a journey, and we both discover and learn about interesting and useful aspects of physics. The students are allowed to interact with physics as much as I am, and this transfers some (most?) of the responsibility of

learning to the students. In this interaction, I show the students safe ways of handling materials and other general laboratory knowledge, and provide structured forays into the world of physics.

Another aspect of the guide analogy is the emphasis on the student to be engaged with whatever task is in front of them. In the book *Urban teaching: The essentials* by Lois Weiner, she writes, “Teaching is meaningful for students and instructors only when it is personal and individual.” By providing activities for the students to participate and understand, I am giving a space for the student to be an individual and have a positive personal experience. In my short time teaching and through the classwork and observations this semester, I have learned that employing activities and opportunities to move in a classroom helps with student learning and classroom management. Requiring the students to simply sit and write notes from a presentation for 90 minutes is mind-numbing and not conducive to individualized learning, but activities give students more control of their own learning. When I speak of activities, I do not necessarily mean elaborate laboratory experiments or other high-cost and high-time activities. Whereas these may be beneficial, activities that simply require readily available materials and those materials students are familiar with give students better understanding of the concept by activating prior knowledge they may have with the material.

In addition to helping students learn the physics content, activities assist me in learning about the students through the personal nature of the assignment. In high needs schools, ‘knowing’ students is not an easy task. Yet, I am responsible for the learning of each person that comes through my door and therefore I must make every attempt to understand that person as an individual. There are other ways to find out information about the students, such as questionnaires, and I will employ these at the beginning of the school year and other various

times. I will also have conversations and build relationships with students by attending athletics and other events, to meet the students where they are.

Because I have completed a semester of teaching, I understand the rigors that this profession brings each day. All teachers face a difficult first year, and many do not survive this time. I want to be a teacher that is successful on many different levels, and to achieve this will be challenging. As with other difficult activities, teaching has its share of ups and downs, sometimes within the same day. To keep a level head and some perspective, I will push myself to be reflective on a day-to-day basis. I have found that journaling helps me get my thoughts out and reduce the stress I am feeling at the time, and this will be my major way of reflecting. I also have a great support group in my family and friends, and they will help to prevent burnout. Other ways I will prevent burnout are to get enough food, sleep, and exercise, and to be involved with church activities. These allow me to maintain perspective on what I am trying to accomplish with the students, and recharge myself enough to engage the students.

Finally, there are three goals I have for my first year of teaching. The first goal is to establish myself as a high quality teacher in physics. This is important to me because I want to gain the respect of the students, other teachers, and administrators, and making content mistakes does not ever inspire respect or confidence. Employing all the knowledge I have about curriculum, instruction, and assessment will be crucial to achieving this goal, so I will continue to work hard in learning as much as possible about all three areas. The second goal is to become integrated in the school and community, as I have at the College. I realize this is difficult to do in one year, but I want to lay a foundation of trust and respect with the rest of the school and the surrounding community. One way to do this is to be involved with coaching, which is something I will do eventually (if not in the first year). The third goal is to continue my professional

development, because I realize how much I still need to learn about teaching. By staying involved with the National Science Teachers Association and state science association, I will be abreast of teaching trends and other useful teaching knowledge. I also plan to take more teaching and/or physics courses eventually, but I will settle for attending a conference in my first year.

Implementing all that I have learned in the past six months into my first year of teaching is and will be a challenge, yet this is something for which I am striving. By continuing to work hard understanding myself, the content, and the students, I will be successful in whatever area I teach. This is my dream, and now I just have to make it a reality.