

Final Synthesis Report

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Introduction

For any pre-service teacher, it is important to understand the reasons behind why educators make the decisions they do, and how they implement those decisions into their lessons and planning. This course, Educational Psychology II, delved into various important topics, which paved the road to a greater understanding of the teaching profession. The majority of time spent in Educational Psychology II was focused on the revisions made to a theoretical learning project, which was based off of material taught in class throughout the semester. This specific Learning Project was formed around professional standards in the state of Pennsylvania, as well as a particular subject area and grade level. Later, the Learning Project was modified, creating a Learning Project Analysis. This LPA was modified as the course went on, each time adding more material from the class that pertained to the background of the lesson. The two major topics that were learned in class that were included in the LPA are cognition and motivation, and this report will also cover classroom environments, the third major learning component to this class.

Overview of the Learning Project

My learning project was centered around professional standard CC.2.2.HS.C.3, which stated, “write functions or sequences that model relationships between two quantifiers.” This professional standard is that of Algebra I, and the grade level is able to range from 7th grade to 10th grade. Based on this standard, I selected learning goals, including discovering how to get from the standard form of an equation to slope-intercept form and finding an equation for a line given its slope and any point, just to name two out of the five I selected. My major learning activities included an array of different instructional methods and assignments, thus

differentiating my instruction to help fit all students. Just one example of a major learning activity that I selected is, “After a powerpoint lesson from the instructor, students will use their school-provided computers to play a math game online which involves finding equations from only knowing the slope and y-intercept. Students must complete the full game and must email a copy of their certificate of completion to their instructor for participation.” Based on these learning goals, I decided upon different products in order to assess student performance, such as the online certificate upon completion of the online math game. Finally in the preliminary Learning Project, I included a brief discussion about key constructs and working assumptions, which mostly touched on the importance of differentiated instruction and classroom engagement. Since formulating the Learning Project, many revisions have been made to not only the structure and composition of the report, but also to implement learned material from the course, and that’s where the three important points come in.

Cognition

Cognition is defined as the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses. Many factors affect cognitive development in adolescents, including but not limited to culture, social interaction, instruction, etc. (Snowman & McCown, 2015). The bottom line of cognition is that every adolescent is cognitively different from each other, and for any emerging teacher, it is important that this concept is understood.

Under the umbrella of cognition lies information processing, which is how humans attend to, recognize, transform, store, and retrieve information (Snowman & McCown, 2015).

Information is processed in steps, and the typical steps are attending to a stimulus, recognizing it, transforming it into a mental representation, comparing it with already-stored information, assigning meaning to it, and acting on it (Snowman & McCown, 2015). However, there are limits to how much information can be processed at each stage, which is an important factor to remember as teachers. Students cannot be expected to remember large sums of information, and teachers must remember the trials and tribulations of information processing. Cognitively speaking, it is also important to be aware of certain other aspects of cognition, including developmental limitations, learning strategies of students, self-modeling, etc. The list goes on for how much cognition could be touched on, because the human brain truly is a mystery.

With regards to my personal Learning Project, I believe it addresses meaningful learning by showing students real-life applications to mathematics, which has a higher probability of leading to intrinsic motivation by being cognitively stimulating. I chose the activities I did for the Learning Project because they are meaningful and important to the specific level. Algebra I can be taught to a student anywhere from 7th grade, up until extreme cases in 11th or 12th grade. Students in this class are typically cognitively similar if taken on a specific academic track. These specific activities and assessments chosen are to stimulate the student's mind and pull them in to make them more interested. As I've heard many times before, mathematics is not a fun subject, so if I can make different ways of instruction or assessment that isn't lecturing and testing, while creating meaningful learning to that particular cognitive level of a student, then I will always advocate for it.

Motivation

Motivation was another one of the major topics covered in this course, to which was the main focus of the second Learning Project Analysis. Intrinsic motivation is what I achieve for my students to feel. Mathematics is typically a subject that many view as “unnecessary,” and is “inapplicable to the real world.” High school students taking mathematics are typically extrinsically motivated, in which they are only focused on doing well in the course in order to earn a good grade. I would use different real-life applications when students practice different problems, and display a proper usage of word problems, as they are the more “real life” applications. With regards to intrinsic motivation, as stated in our book, a person’s interest in a topic can come from personal and/or situational sources (Snowman & McCown, 2015). Personal interest is characterized by an intrinsic desire to understand a topic and by basically having an interest in the subject itself, and situational interest is more temporary and based on context-specific factors. According to Snowman and McCown, factors that influence situational interest are the opportunity to work on a task with others, the opportunity to engage in hands-on activities, the teacher’s use of novel stimuli, and the teacher’s use of games and puzzles (2015). As applied to my Learning Project, I use different forms of activities in order to stimulate intrinsic motivation, such as using hands-on computer games or worksheets to complete in a group. In the Learning Project Analysis, I touched on the humanistic approach to teaching by providing a short, but effective list of rules for my students to follow at the beginning of the school year. Going off of the idea of the humanistic approach is the humanistic idea of motivation. Abraham Maslow is an important figure to motivation. I believe the most important of the four needs, described by Maslow, is self-actualization, which refers to the need for self-fulfillment - the need to develop all of one’s potential talents and capabilities (Snowman &

McCown, 2015). According to the text, “Maslow concluded that individuals whose self-actualization needs became activated and met held in high regard in such values as truth, goodness, beauty, justice, autonomy, and humor” (Snowman & McCown, 2015). I believe that once students grow an awareness of self-actualization that they will be intrinsically motivated in whatever they apply themselves to. In one section of the second LPA, I touched on at the high school-age, students are prone to more anxiety, and due to this I chose to assess students based more on practice problems and participation, in order for students to not fear test assessments as often. Touching on a student’s personal life, the relationship between motivation and identity is seen as the link between a person’s goal-directed behavior and that person’s perception of who he or she may become (Snowman & McCown, 2015). Building from that statement, students are very unsure of who they are during their middle school and high school years. They are often preoccupied by their personal lives or their own thoughts. Often, students are in a constant state of “Who am I?,” “What am I going to do with my life?,” “How do I fit in with my group?.” By this, in a way, the learning opportunities that I provide will influence not only their academic skills, but also how they come to perceive and understand themselves. By all this, motivation is a drastically important aspect of the teaching profession, and is something I wish to research more about in the future.

Learning Environment

Learning environments are created not only by the physical set-up of a classroom, but also by the way a classroom is managed. In the second LPA, I discussed my personal classroom management plan, which is that I come in each day not only over-prepared, but confident within

myself in order to instill in my students that I know what I'm doing. At the beginning of the year, I would implement a small, but effective list of classroom rules. It has been shown that students are more likely to remember and follow the rules if the rules are clearly laid out and easy to understand ("The Real Deal...", 2019). I will also use the "save face" method, as described in that article as well, which is a method of disciplining students who act out, while not having myself get berated in my classroom. The classroom management plan goes on, but that's the main "management" part that I will stick to.

My classroom will be set up with very neutral and pastel colors, so it's not overly-distracting or sensory-overload to anyone. I will have enough up to be decorative, but not overbearing. I will make use of lamps and string lights instead of the overhead light for a more calming atmosphere, and most importantly I will have the desks set up in groups. Having students work in groups has been proven to be beneficial (Snowman & McCown, 2015). Where some students have weakness in the ability to learn from direct instruction, they can pick up from their peers. One important aspect I want to implement into group work in my classroom is something I learned from my Fall 2019 host teacher, which is the use different colored cones. During group work in my host teacher's classroom, if the group of students understands what they learned and can easily complete the group assignment, then they place the green cone on top of the stack. If the group was able to complete the assignment, but was still not 100% sure about the subject, they place the yellow cone on top, to signal to the teacher they have questions. Lastly, if the group didn't understand what was taught and can't figure out the group assignment, they place the red cone on top. This way, the teacher understands how the students learned the material and are able to apply it. With regards to instruction, I plan on using a combination of

Powerpoints, YouTube videos, hands-on learning, and computer programs in order to further differentiate my instruction.

Finally, through taking Social Justice through Educational Settings last semester, I acquired proper knowledge in having students with a different background other than myself, such as their socioeconomic status, race, culture, LGBTQ identity, gender identity, etc. In my classroom, I wish to have all my students feel safe and feel valid no matter what their situation/preferences/lifestyle. I wish to not only have my students learn from me, but myself learn from my students in my learning environment.

Conclusion

In conclusion, these various facts and opinions have altered my preliminary Learning Project in ways I couldn't have imagined earlier this semester. Cognition, motivation, and learning environments are extremely important in the world of education, and I believe I learned much about each topic, to the point where I wish to continue studying some of these topics as I continue my future in education. I feel as though this course has further taught me to become a master practitioner and learning theorist, which in turn is the reason why my Learning Project would succeed in a classroom. Through this course, I have felt a stronger sense of different leadership ideas and I will take all ideas learned as I move forward.

References

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