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ILST 9467 – Technology to Enhance Learning
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9467 Self-Assessment Worksheet

Directions:

1. Briefly describe the learning situation you are reflecting on.
2. Rate yourself on each of the five characteristics of meaningful learning in terms of how your teaching supports this characteristic.
3. In the right-hand column, provide a brief, detailed example to illustrate why this rating is appropriate.
4. Respond to the Summary and Reflection questions at the end of the worksheet.

Learning Situation:

In my classroom, we have block scheduling so I plan to assess my daily routine and activities that take place in the classroom. The students always began the day with their Daily Math, a set of one to five questions that they would be asked that would either introduce a new topic to them, which would involve a mini-lesson to complete, or would be a review of skills that had been previously been taught. In addition, the students are given a word problem of the day, which they are to complete. They are given around 10 minutes to complete this work. They have been given a “cheat sheet” book, a book that gives them all definitions they may need, formulas and examples that they can use as a resource but they cannot use their teacher or peers for assistance. Following the Daily Math and the word problem we check homework. The students understand that they are to ask questions in order to learn. During this time, the students can ask questions if they got a problem in correct, and I often have them come up to the board themselves and solve the problem, to see if they can find their own errors. We then begin the direct instruction where I will teach a new topic. During this time, I often would have interactive notes; the students would use the Smartboard™ or Slateboard™ to answer questions. They would complete cooperative learning problems, turning to their partners to explain how to solve a problem or a definition. I would then end the lesson with an exit ticket. This was a time for the students to reflect on the lesson, ensuring we covered all expected objectives, both content and language, as well as assess their skills on the new skills taught for the day, or assess on higher order thinking skills. In addition, students could write down if they needed addition help, and didn’t want to raise their hand so I could have them in during intervention time.

| Characteristics of Meaningful Learning | Rating (1=low; 5= high) | Example |
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| Active Learning | 1 2 3 4 5 | <p>The students are able to complete active learning during their Daily Math and Word problem time. During this time, they are to learn independently. They are to try problems, without fear of error to learn. They have resources they can look to which do not require their peers or teacher. They can manipulate the math problems so that they understand them.</p> <p>One example of this is when I began my geometry unit. I first started with giving the students a circle and asking them to label the parts of the circle. They had resources they could turn to if needed, but they had to manipulate the circle and their resources in order to find success.</p> |
| Constructive Learning | 1 2 3 4 5 | <p>Reflection of the lesson takes place daily through the use of their exit tickets. My goal for next year is to use blogging to complete this activity, but last year this was done with paper and pencil. The students first reflect on the content and language objectives stating if they had actually completed all that we had set out to do. They can reassess their learning through the quick check activity and they end by asking me questions or requesting additional support during intervention time.</p> |
| Intentional Learning | 1 2 3 4 5 | <p>In my building we take an assessment called <i>STAR Math</i>TM. We assess the students monthly to determine their Scaled Scores and grade equivalent. After the first assessment, we have the students begin to set goals for themselves as well as use setting goals. We track their goals and show their progress. With each lesson, the students can reassess their own goals and demonstrate their understanding of the material. They continue to work hard toward their ultimate goal of improving on their <i>STAR Math</i>TM goals.</p> |
| Authentic Learning | 1 2 3 4 5 | <p>Throughout my instruction in my Math class, I explain why my students may need to learn something. During geometry we use Authentic learning. I use examples of measuring volume through soda cans and cooking. I demonstrate how an item that has the same volume may not have the same surface area. I gave myself a two for this, because it is not done all that often. Math is very</p> |

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| | | <p>much an application skill, you teach the formula and then practice. The students can then apply it later in life, but I do not teach them through application all that often.</p> <p>One example of doing Authentic learning was when I taught slope. I introduced rise and run so that the students knew the difference. We then spread out throughout the building in groups of two or three. The students were to find the rise and run of at least three staircases throughout the inside and outside of our building. They had to measure several stairs to get an accurate reading of the stair cases. We then reconvened in the classroom where we examined the slope of all of the staircases, finding that each stair case had a different slope. The students found this very interesting and then began to ask questions about building code and why they were all different. We then examined what was legal and how important slope truly is in the real world.</p> |
| Cooperative Learning | 1 2 3 4 5 | <p>Throughout every lesson, I use some form of cooperative learning. I require my students to explain skills to their peers, work in groups to create posters, songs to teach their peers about a subject that they became an expert on, and various activities. I do this daily, requiring my students to interact and learn together.</p> <p>Example: When I first introduced the subject of the properties of multiplication and addition I assigned groups of two or three to a property. They had to become experts on that property learning the ins and outs. They had to be able to explain why it worked and give examples to the class. The group also had to create a poster that contained a numerical, algebraic and pictorial example of the property. They last think was that I asked them to create a video, rap, song or jingle that would help their peers remember that property. The students were able to use Garage Band™ to create music and video cameras if they wanted to create a video.</p> |

Summary and Reflection Questions:

Which one dimension of meaningful learning do you believe is the strongest in the situation you selected? Why? (one paragraph)

I believe that my strongest area for meaningful learning is Constructive learning. Throughout a lesson, there are several times that I require my students to reflect on their own learning and determine if they need more help or not. In the warm up, they reflect after we have reviewed answers, able to ask questions. I also do so during homework check, hoping the students ask questions and reflect on their learning. Throughout a lesson, I have red, yellow, and green cards that the students can hold up when they are feeling good, bad or okay about the subject being taught. I finally ask them to reflect one more time at the end of a lesson. They are asked to reflect on what they have learned, if they need more help and even going beyond what they have learned to answer why and how questions. I believe that by doing this, my students and I have a better understanding of how they have learned, what they have learned and if they may need more help.

Which one dimension of meaningful learning do you believe is the weakest in the situation you selected? Why? (one paragraph)

Authentic learning is the area of meaningful learning that I am weakest in throughout the school year. Although I have given the students time to have authentic learning, in most situations my students do not have the opportunity to actually learn by doing in a real life situation. I often teach the formulas and give examples of how the information is useful but do not allow my students to learn through experiences.

Which technologies could be used to enhance learning in the situation you selected? How? Why? (two paragraphs)

I believe that one technology that could be used to enhance learning in my lesson are tablets for each student. I believe that through the use of tablets the students could take digital notes. They could then use Bluetooth™ to connect to the computer in place of my SlateBoard™. They could also have a digital copy of the cheat sheet, avoiding the excessive use of copying. In addition, the tablets could be used in place of the exit ticket. The questions could be placed on the board and students could use blogging to answer the questions. They would then be able to use their reflection more as a journal, looking back at the information as an example, and time for them to reassess their own learning.

A second technology that I believe could be used to enhance learning would be a Web Quest or simulation activity. As I had stated earlier, one area of meaningful learning that I am weakest in is the use of Authentic Learning. Although Math is everywhere, I do not often teach with it, in its authentic state. I usually teach why and how it could be used, but do not give the students opportunities to use it in that way. By using a WebQuest™ such as the architecture WebQuest, http://www.lakelandschools.us/cb/cgravius/geometry_architecture_webquest.htm, the students could learn through authentic learning without as much direct instruction.