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ETEC 544

Evaluation

Using the ADDIE model, I created an instructional video on the Pythagorean Theorem. The ADDIE model provided structure to help me stay on track in terms of time and also on the objectives of the project. During the analysis stage, I learned how to organize the initial stages of development by looking at who the product is for, what the objectives are and how I could ensure that the product would meet those objectives. During the design stage, I developed a lesson plan based upon the findings in my analysis report and presented it in flowchart form using Microsoft Word. The development stage organized the lesson plan and helped me to find potential problems in my plan when I scripted out the narration. Making a storyboard in PowerPoint was not a challenge, but as I built the storyboard the visual weaknesses became apparent and I realized that I needed more visuals to make the concept clear. I am very comfortable with PowerPoint, but because I felt the need for more concrete visualization with animation and also because I wanted to develop my technology skills in this area, I opted to use an iPad application called Doceri for my final product. I have never used this app before. I used the storyboard as a guide while creating slides and animations in Doceri. I also had to practice screencasting extensively so that the timing of my narration and the animations would sync up. When I had a cohesive video, I exported it YouTube. Using the script from my storyboard, I entered the closed captions for the video. I have never used that feature before. The auto-sync worked reasonably well, but I had to learn how to make manual adjustments so that the captions flowed naturally and did not reveal answers ahead of schedule. During the implementation stage I practiced doing a beta test with three middle school students. The final stage of ADDIE, evaluation, is happening right now and is also in the next paragraphs as I report my findings from this beta test.

I think there are some areas for improvement in my final product. My hand drawn pictures are not the best. If I were to do this project again, I would go out and take photographs that I could use for the real-life problems, then draw on top of them in the video. I would also time the appearance of the numbers in these problems to sync up with the narration better. There is some lag time where there is nothing much to see on the screen because nothing is moving. I’d like to change that to make it more engaging while the narration presents the word problem. I also think the instructions to pause the video could have been made more clear by using a tone to indicate when to pause.

Despite these weaknesses, I think the video itself is clear. I am proud of the visual proof of the theorem. That animation seemed to make the concept more concrete for the students. All three students reported that the proof was their favorite part because they never knew why the formula worked before. Students also reported that they liked how I color-coded the variables and the animation that dragged the values of the legs into the formula. They told me that that really helped them to keep track of where the numbers were coming from. All three students were able to solve the post-test problem independently, but with the help of a multiplication chart, after watching the video.

Overall the ADDIE process kept me organized and focused on my objectives, which helped me to create an effective final product.