**Module 3 – Improving Instruction – Part II**

Due Date: Sunday, July 21, 2019 by 11:59 PM

**EVALUATING TECHNOLOGY**

**Introduction**

* Read the Introduction to Module 3 on the Course Weebly Site and watch the embedded video.

**Technology Evaluation**

* In this assignment, you will analyze and evaluate four technological tools that could be used to teach the same topic. I have selected four tools that help students learn area and perimeter, four tools focused on helping students learn verb tenses, and four tools to help students learn the midsegment theorem. You will select **one** set of tools to analyze (MS Mathematics Education students must do this set). Below are the sets of tools.
  + **Technological Tools for Area & Perimeter:**
  + Link to Tool 1: <https://www.funbrain.com/games/shape-surveyor>
  + Link to Tool 2: <http://mrnussbaum.com/zoo/>
  + Link to Tool 3: <https://www.mathplayground.com/area_blocks/index.htm>
  + Link to Tool 4: <https://www.geogebra.org/m/nQ2UjW4N>
  + **Technological Tools for Verb Tenses:**
  + Link to Tool 1: <https://www.eslgamesplus.com/verb-tenses-interactive-grammar-game-for-esl-jeopardy-quiz-game/>
  + Link to Tool 2: <https://www.turtlediary.com/game/tenses.html>
  + Link to Tool 3: <http://www.eslgamesworld.com/members/games/grammar/football/present%20vs.%20past/present%20vs.%20past.html>
  + Link to Tool 4: <https://www.funbrain.com/games/grammar-bees>
  + **Technological Tools for Midsegment Theorem \***
  + Link to Tool 1: <http://tananyag.geomatech.hu/b/2696493#material/2800029>
  + Link to Tool 2: <https://www.geogebra.org/m/NFCwzehu> (Also click on Lesson Activity)
  + Link to Tool 3: <https://www.geogebra.org/m/G8gfEUqN>
  + Link to Tool 4: <https://www.geogebra.org/m/RfRfGw9T>

**\*MS Mathematics Education students must do this set**

* Create a webpage in your Weebly site called ***“Technology Evaluation”*** which should fall under the Instructional Support Tab.
* For the set of tools you selected, analyze and evaluate each of the tools using the 3 types of Fidelity (Content, Cognitive, Pedagogical). In your analysis of each tool, be sure to include a screen shot of the tool and a description of the features that you think are beneficial and those you think are drawbacks. Explain why the features are benefits or drawbacks.
* Write a comparison of the four tools. In your comparison, you should examine and discuss the features of the tools that you feel are particularly important. State the tool that you would select to use to teach this topic and provide a rationale for your selection.
* Create a Response Video using Flip Grid
  + Go to: <https://flipgrid.com/edet620sum2019>
  + Enter the Password: EDET620summer2019
  + Click Module 3 – Technology Evaluation
  + Click the green “plus” sign to add a response.
  + In your video, tell us which tool you chose and why.
  + You only have 90 seconds, which isn’t much time. You can pause the video while you are shooting. Have with it! Follow the rest of the prompts and submit your video.
* Respond to at least 2 classmates’ videos in Flip Grid

**DESIGNING TECHNOLOGY-BASED ACTIVITIES**

**Designing and Redesigning Instruction with Technology**

* Read the course Weebly and watch the embedded videos of 2 of the most prominent frameworks for teaching with technology: the SAMR Model and TPACK.
* Read the 2 articles in which the authors discuss and provide additional information about their framework.
  + Hamilton, E. R., Rosenberg, J. M., & Akcaoglu, M. (2016). The substitution augmentation modification redefinition (SAMR) Model: A critical review and suggestions for its use. *TechTrends*, 1-9.
  + Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and Teacher Education (CITE Journal), 9(*1), 60-70.

Using the SAMR and TPACK frameworks, you are going to design two activities to use in your classroom. For one activity, you will redesign an activity that you have done without technology to include technology in a way that meaningfully improves the lesson. For the other activity, you can either redesign a previously used activity or develop a new one.

* **Redesign Activity**
  + Create a webpage in your Weebly site called ***“Redesigned Activity”*** within the Instructional Support menu.
  + Describe an activity you have used or observed being used in the classroom that did not involve the use of technology. Be sure to include supporting documents such as worksheets or notes.
  + Describe the revised activity that involves the use of technology. Provide images, supporting documents (if applicable) and links to web resources. The level of detail of your description should be written such that an experienced educator could read your description and implement the activity with your students without confusion. The new activity should be, according to the SAMR model, at the transform level and not the enhance level.
  + Following your description, respond to the following prompts:
    - Explain the design of the new activity using technology in relation to the TPACK framework. In particular, discuss:
      * The content and how the technology helps students build a better understanding of the content.
      * The pedagogical considerations you made in selecting the technology and designing the lesson.
    - Referencing the SAMR Model, how are you using technology transformatively in the activity? Explain.
* **Other Activity** 
  + Create a webpage in your Weebly site called ***“Other Activity”*** within the Instructional Support menu.
  + Describe an activity that involves the use of technology. Provide images, supporting documents (if applicable) and links to web resources. The level of detail of your description should be written such that an experienced educator could read your description and implement the activity with your students without confusion. The new activity should be, according to the SAMR model, at the transform level and not the enhance level.
  + Following your description, respond to the following prompts:
    - Explain the design of the new activity using technology in relation to the TPACK framework. In particular, discuss:
      * The content and how the technology helps students build a better understanding of the content.
      * The pedagogical considerations you made in selecting the technology and designing the lesson.
    - Referencing the SAMR Model, how are you using technology transformatively in the activity? Explain.
* Create a Response Video using Flip Grid
  + Go to: <https://flipgrid.com/edet620sum2019>
  + Enter the Password: EDET620summer2019
  + Click Module 3 – Design & Redesign Activ
  + Click the green “plus” sign to add a response.
  + In your video, tell us about your experiences redesigning and designing activities using technology. In your video, tell us
    - What was difficult for you in this process?
    - How did you search for technology-based activities?
    - What criteria did you use to select the technology?
    - Did you find the frameworks helpful?
    - Which activity do you recommend for your classmates?
  + You only have 90 seconds, which isn’t much time. You can pause the video while you are shooting. Have with it! Follow the rest of the prompts and submit your video.
* Respond to at least 2 classmates’ videos in Flip Grid

**Updating Bloom’s Taxonomy**

* Read the assignment introduction and watch the embedded video.
* After reviewing the information on the revised Bloom’s Taxonomy, create a webpage in your Weebly site called ***“Technology in Blooms”*** in which you will describe two ways technology can be used to address each of the 6 levels in the revised Bloom’s Technology. On the webpage you need to include the following:
  + A brief description of the grade-level/class of the students you teach or plan to teach
  + For each of the 6 levels of the revised Bloom’s taxonomy, a brief description of two types of technology or technology-based activities that can support your students’ cognition at that particular level. Links and screenshots, if applicable, should be included.
  + A reflection and analysis on the types of technology you selected for each level. In your reflection you should consider how the revised Bloom’s taxonomy relates to the SAMR Model and TPACK framework and any patterns you notice in regards to the types of technology you selected for the lower-order thinking skills and the types of technology you selected for the higher-order thinking skills.

**Submit to D2L**

* In EDET\_620\_SumII19\_Module\_3\_Grade\_Sheet.docx document, please fill out your name. Save the document as **EDET\_620\_SumII19\_Module\_3\_Grade\_Sheet\_YOURLASTNAME.docx** and submit via D2L by ***11:59 PM on Sunday, July 21, 2019***.

**Module 3 Grade Sheets**

**Participation – Improving Instruction Introduction Part II**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Item** | **Points Possible** | **Points / Comments** |
| Technology Evaluation | The student created a FlipGrid and explained their reasons for selecting a particular tool | 4 |  |
| The student responded to at least 2 peer’s videos in FlipGrid | 2 |  |
| The student’s contributions and responses were appropriate, thoughtful, and insightful | 4 |  |
| Designing and Redesigning Activities | The student created a FlipGrid and responded to the 5 questions. | 4 |  |
| The student responded to at least 2 peer’s videos in FlipGrid | 2 |  |
| The student’s contributions and responses were appropriate, thoughtful, and insightful | 4 |  |
|  | Total | 20 |  |

**Technology Evaluation**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | | **Points Possible** | **Points / Comments** |
| Weebly Page is accessible from your site’s INSTRUCTIONAL SUPPORT menu option | | 1 |  |
| Analysis and evaluation of each tool is thorough and draws upon the three types of Fidelity. All claims are justified. | Tool 1 | 3 |  |
| Tool 2 | 3 |  |
| Tool 3 | 3 |  |
| Tool 4 | 3 |  |
| Comparison considers all tools, the important features of the tool and the criteria used to evaluate the tool. The rational for the selection of a particular tool is well justified. | | 3 |  |
| Webpage includes screen-shots of the four tools. | | 2 |  |
| The page is well written and well formatted. | | 2 |  |
| Total | | 20 |  |

**Designing and Redesigning Activities**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | | **Points Possible** | **Points / Comments** |
| Redesign Activity | Weebly Page is accessible from your site’s INSTRUCTIONAL SUPPORT menu option | 1 |  |
| The description of the original activity is clear and supporting documents are included. | 3 |  |
| The description of the redesigned activity is thorough such that an experienced educator could implement the activity. Links and supporting documents are included if applicable. It is clear the technology is being used in transformative way. | 5 |  |
| The student’s responses the reflection prompts are thoughtful and provide a thorough examination of the activity in relation to the two frameworks. All claims are well justified. | 4 |  |
| The page is well written and well formatted. | 1 |  |
| Other Activity | Weebly Page is accessible from your site’s INSTRUCTIONAL SUPPORT menu option | 1 |  |
| The description of the redesigned activity is thorough such that an experienced educator could implement the activity. Links and supporting documents are included if applicable. It is clear the technology is being used in transformative way. | 5 |  |
| The student’s responses the reflection prompts are thoughtful and provide a thorough examination of the activity in relation to the two frameworks. All claims are well justified. | 4 |  |
| The page is well written and well formatted. | 1 |  |
| Total | | 25 |  |

**Taxonomy in Bloom**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | | | **Points Possible** | **Points / Comments** |
| Weebly Page is accessible from your site’s INSTRUCTIONAL SUPPORT menu option | | | 1 |  |
| The webpage includes a description of the target population. | | | 1 |  |
| The student provides ample justification for why each example aligns well with the designated level of Bloom’s Taxonomy and is appropriate for the target population. | Remember | Example 1 | 2 |  |
| Example 2 | 2 |  |
| Understand | Example 1 | 2 |  |
| Example 2 | 2 |  |
| Apply | Example 1 | 2 |  |
| Example 2 | 2 |  |
| Analyze | Example 1 | 2 |  |
| Example 2 | 2 |  |
| Evaluate | Example 1 | 2 |  |
| Example 2 | 2 |  |
| Create | Example 1 | 2 |  |
| Example 2 | 2 |  |
| The student’s reflection on the relationship between Blooom’s Revised Taxonomy and the SAMR Model and TPACK is thoughtful and insightful. The student provides an analysis on the types of technology used as examples and the hierarchy of Bloom’s taxonomy. All claims are justified. | | | 4 |  |
| Webpage includes links and screen-shots when appropriate. | | | 2 |  |
| The page is well written and well formatted. | | | 3 |  |
| Total | | | 35 |  |