Assignment 5

Integrating Emerging Technology (TIM) into the Curriculum – ASSURE Lesson Plan

by

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**Abstract**

This lesson plan aligns with the ASSURE model, which is a procedural guide with the purpose of assuring effective instruction (Smaldino, Lowther, Russell, & Mims, 2015). The lesson plan was developed for a senior math course called, “Math for College Readiness” as an end-of-course activity for students to exhibit skills such as creativity, collaboration, critical thinking, communication, problem-solving, and innovation in order to assist with college and career readiness. Analysis of the Technology Integration Matrix revealed that the author was at the Goal Directed Entry (E1) level (“Technology Integration Matrix,” 2014). The Math for College Readiness activity will move the author to the Goal Directed Infusion (E4) level. Students will use their Google Chromebooks to create a college planning website using the Weebly web-hosting service. The ultimate goal is for each student to develop their own college planning website using Weebly and demonstrate their creativity, collaborate with peers to brainstorm prior to beginning the activity, and demonstrate critical thinking and problem-solving skills in order to produce a unique site with all required elements. The activity will be conducted in January of 2015 and will involve the use of multimedia technology by learners in order to incorporate all necessary elements. The activity will satisfy 2009 New Jersey Core Curriculum Content Standards for Technology (8.1), as well as National Educational Technology Standards (1-4) for students. The lesson plan follows each phase of the ASSURE model. The steps in the lesson plan are named the same as in the model and include standards (by number and name) it achieves.

**Integrating Emerging Technology (TIM) into the Curriculum: Weebly**

The ensuing lesson uses the ASSURE model to properly plan for effective technology integration in the classroom (Smaldino, Lowther, Russell, & Mims, 2015). The lesson plan was designed for the writer to move from E1 (the Goal Directed Entry) to E4 (Goal Directed Infusion) as depicted by the Technology Integration Matrix (TIM) created by the Florida Center for Instructional Technology at the University of South Florida in 2007 (Robertson, 2011). As a result of the technology integration assessment, a lesson plan was developed to assist with the shift from students receiving directions, guidance, and feedback from technology toward students using technology to set goals, plan out activities, monitor development, and self-assess.

Presently, students in the writer’s Math for College Readiness (MCR) course are not using technology to organize activities, monitor their advancement, or self-evaluate. Students are merely getting instructions, assistance, and feedback from technology. Learners are using a software program called Aleks, which creates an individualized pie chart with practice problems. The course is designed to differentiate instruction by having students take a pre-assessment on Aleks to determine their strengths and weaknesses and then creates a pie chart for students to master certain topics in preparation for the college entrance exam (Accuplacer) with the hopes of bypassing remedial math courses in college.

With this lesson plan, the writer seeks to take technology integration to a higher level (E4 in the TIM). The activity will run for the month of January (2015) and requires that students create a timeline that organizes benchmarks to be completed at specified intervals. The writer expects that student engagement levels will be high because of the use of technology and the multimedia components of the activity. In addition, the website is centered on students’ personal information and the college where they plan to attend, which should stimulate student interest.

**Lesson Plan Based on the ASSURE Model**

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| **Analyze Learners** |
| **General Characteristics:**  The lesson plan was developed for seniors in the Math for College Readiness course, which prepares students to take the college entrance exam. The class will contain 21 students with average academic records. The class will have 10 boys and 11 girls. The students range in age from 17 to 19 years of age. There is also 1 male student in the class who is an immigrant and is enrolled in the school’s ESL (English as a second language) program. Eight students are white and the remaining students are of mixed decent.  **Entry Characteristics:**  All students received a recommendation to take this course from previous math teachers through the guidance department. The remaining entry characteristics will be recorded once the school year begins in September (grades from previous math courses, access to Internet at home, technology ability level, etc.).  **Different Learning Styles:**  Students will complete an online learning style inventory created by Barbara A. Soloman and Richard M. Felder at North Carolina State University in order to determine how each individual student learners best (https://www.engr.ncsu.edu/learningstyles/ilsweb.html). At the planning stage, students will collaborate with one another in order to assist with creating a template for their website. Usernames and passwords will be recorded and if students desire to hand in their usernames and passwords for security purposes they will be encouraged to do so. |
| **State Standards and Objectives** |
| *New Jersey Core Curriculum Content Standards for Technology*  **8.1 Educational Technology**: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge (“State of New Jersey,” 2010).  • 8.1.8.A.1 Create professional documents using advanced features of a word processing program.  • 8.1.8.A.2 Plan and create a simple database, define fields, input data, and produce a report using  sort and query.    • 8.1.8.A.3 Create a multimedia presentation including sound and images.  • 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks  and to solve problems.  • 8.1.12.A.2 Produce and edit a multi-page document for a commercial or professional audience  using desktop publishing and/or graphics software.  • 8.1.12.A.4 Create a personalized digital portfolio that contains a résumé, exemplary projects, and  activities, which together reflect personal and academic interests, achievements, and  career aspirations.  *National Educational Technology Standards (NETS)*   1. **Creativity and Innovation - Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.**   • a. Apply existing knowledge to generate new ideas, products, or processes  • b. Create original works as a means of personal or group expression  • c. Use models and simulations to explore complex systems and issues  • d. Identify trends and forecast possibilities  (“ISTE standards,” 2014)  **2.** **Communication and Collaboration - Students use digital media and environments to**  **communicate and work collaboratively, including at a distance, to support individual**  **learning and contribute to the learning of others.**  • a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital  environments and media.  • b. Communicate information and ideas effectively to multiple audiences using a variety of media  and formats  • d. Contribute to project teams to produce original works or solve problems  (“ISTE standards,” 2014)   1. **Research and Information Fluency - Students apply digital tools to gather, evaluate, and use information.**   • b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of  sources and media  • c. Evaluate and select information sources and digital tools based on the appropriateness to  specific tasks  • d. Process data and report results  (“ISTE standards,” 2014)   1. **Critical thinking, problem solving, and decision making - Students use critical thinking**   **skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.**  • b. Plan and manage activities to develop a solution or complete a project  (“ISTE standards,” 2014)  **Learner Objectives –** Based on the desire to reach cell E4 as shown in the TIM, the writer is seeking  to have students use technology to set goals, plan out activities, monitor  progress, and self-evaluate.  **Students will be able to:**  • Use a word processing or other similar software to set benchmarks (timeline with  designated goals) and to organize information for successful project completion  • Create a username and password on Weebly  • Watch the introductory video (see Appendix A) on the Weebly site in order to become  familiar with the components of the site (drag and drop options (see Appendix B), fonts  and layouts available, how to update your site, etc.)  • Conduct research using the Internet to locate pertinent information about the college  • Successfully upload an image of themselves for the home page of their website  • Prepare and type a short biography also on their home page including why they  chose the specified college  • Locate up-to-date, relevant information pertaining to the SAT and SAT subject tests to  include on their website  • Discover an informative and interesting video to upload onto their site with applicable  information about their college  • Use APA 6th edition guidelines |
| **Select Strategies, Technology, Media, and Materials** |
| 1. The duration of this activity is approximately four weeks (month of January, 2015). Students will design a college planning website using the web-hosting service, Weebly. 2. Each student will use their individually assignment Google Chromebook to complete the activity. 3. Mobile Chromebook cart with 24 Chromebooks 4. Wireless Internet service 5. LCD projector 6. Personal tablet pc connected to Promethean Interactive Whiteboard to show students the writer’s Weebly site as an example prior to beginning the activity 7. Students first observe the writer’s Weebly site and then collaborate with peers to initiate their website creation by first viewing the introductory video 8. Students will follow ethical guidelines when conducting their research and will follow APA 6th edition formatting guidelines. 9. Students will submit their timeline weekly so that the writer can measure their progress 10. Students will be encouraged to participate in ongoing collaboration with peers for website ideas |
| **Utilize Technology, Media, and Materials** |
| 1. At the start of the activity students will collaborate with one another to navigate to the Weebly site, create a username and password, and choose fonts and a layout for their site. 2. Students will use their Google Chromebooks to take the project to completion. 3. Students will use the Internet to locate academic sources to include pertinent information about the college on their site. 4. Learners will locate a suitable photo of them (perhaps via a social networking site) and will gain approval from the writer before uploading the photo to their website. 5. Students will consult the guidance department if they wish to include information that they cannot locate via the Internet pertaining to their college. 6. Students will use the resource provided to assist with creating a timeline in Microsoft Word or Excel   (http://office.microsoft.com/en-us/word-help/create-a-timeline-HA010336240.aspx#BM2).   1. The college planning website must include the following information: 2. Student name at top of site 3. Recent picture of student 4. Short biography including why student chose the college 5. Pertinent information about the college the student plans to attend 6. Useful information about the SAT and SAT subject tests, scholarship information, and financial aid options 7. An informative, educational video about their college 8. Students must use APA 6th edition guidelines for the activity and must properly cite all information that is not their own |
| **Require Learner Participation** |
| 1. Students will communicate with their classmates and the writer regarding the information on their page and will keep a record of their username and password to be able to edit their webpage in the future 2. Prior to starting the activity students will view the writer’s Weebly site 3. Students will collaborate with one another at the start of the activity to view the introductory Weebly video, various layout options, fonts, etc. before starting to create their webpage 4. Students will each create a timeline on Word or Excel that shows weekly benchmarks that must be complete so that their page is finished by the end of January 5. Learners will familiarize themselves with APA 6th edition guidelines and ensure that they are adhering to these guidelines as the activity progresses 6. Once the webpages are graded using the rubric (see MCR Grading Rubric below), the links to all student websites will be uploaded to the teacher’s Schoolwires account for public viewing 7. All students will be required to view and comment on at least 2 of their classmates’ webpages in order to provide constructive feedback prior to final grading 8. Students will be continuously encouraged to assist struggling peers with the activity |
| **Evaluate & Revise** |
| The writer is using the ASSURE model with the hopes producing effective instruction once the activity is initiated. The weekly timeline submissions will serve as formative assessments to ensure that students are progressing with the activity in a timely manner. The writer created a web site rubric using Rubistar to effectively assess the following areas of each student’s webpage: background, font, graphics, sounds, links, copyright, spelling and grammar, content, layout, navigation, work ethic, content accuracy, interest, learning of material, and images. The writer will continually encourage students to collaborate with peers to share ideas and to ask questions to clarify any difficulties with the activity. As long as student keep a record of their username and password for Weebly they will be able to edit their webpage in the future. The aim for technology use for this activity is E4 Goal Directed Infusion level as defined by the TIM. Learners can access Weebly from any location or device that enables Internet connection. Since this is the first website creation activity the writer is conducting in her classroom, she is going to ask her students to give provide feedback (good or bad) on the project once it is complete. |

**MCR Website Grading Rubric**

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| |  | | --- | | Web Site Design : College Planning Website (Weebly) Teacher Name: Ms. Corrigan Student Name:     \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |
| CATEGORY | | **4** | **3** | **2** | **1** |
| **Background** | | Background is exceptionally attractive, consistent across pages, adds to the theme or purpose of the site, and does not detract from readability. | Background is attractive, consistent across pages, adds to the theme or purpose of the site, and does not detract from readability. | Background is consistent across pages and does not detract from readability. | Background detracts from the readability of the site. |
| **Fonts** | | The fonts are consistent, easy to read and point size varies appropriately for headings and text. Use of font styles (italic, bold, underline) is used consistently and improves readability. | The fonts are consistent, easy to read and point size varies appropriately for headings and text. | The fonts are consistent and point size varies appropriately for headings and text. | A wide variety of fonts, styles and point sizes was used. |
| **Graphics** | | Graphics are related to the theme/purpose of the site, are thoughtfully cropped, are of high quality and enhance reader interest or understanding. | Graphics are related to the theme/purpose of the site, are of good quality and enhance reader interest or understanding. | Graphics are related to the theme/purpose of the site, and are of good quality. | Graphics seem randomly chosen, are of low quality, OR distract the reader. |
| **Sounds** | | Music, audio clips and/or sounds are thoughtfully edited and used only where they add to reader understanding of the content or to make the site more accessible to persons with visual handicaps. | Music, audio clips and/or sounds are used only where they add to reader understanding of the content or to make the site more accessible to persons with visual handicaps. | Music, audio clips and/or sounds are thoughtfully edited and used, but 1 or 2 detracted from the overall site. | Music, audio clips and/or sounds were seemingly used randomly OR typically detracted from the overall site. |
| **Links (content)** | | All links point to high quality, up-to-date, credible sites. | Almost all links point to high quality, up-to-date, credible sites. | Most links point to high quality, up-to-date, credible sites. | Less than 3/4 of the links point to high quality, up-to-date, credible sites. |
| **Copyright** | | Fair use guidelines are followed with clear, easy-to-locate and accurate citations for all borrowed material. No material is included from Web sites that state that permission is required unless permission has been obtained. | Fair use guidelines are followed with clear, easy-to-locate and accurate citations for almost all borrowed material. No material is included from Web sites that state that permission is required unless permission has been obtained. | Fair use guidelines are followed with clear, easy-to-locate and accurate citations for most borrowed material. No material is included from Web sites that state that permission is required unless permission has been obtained. | Borrowed materials are not properly documented OR material was borrowed without permission from a site that requires permission |
| **Spelling and Grammar** | | There are no errors in spelling, punctuation or grammar in the final draft of the Web site. | There are 1-3 errors in spelling, punctuation or grammar in the final draft of the Web site. | There are 4-5 errors in spelling, punctuation or grammar in the final draft of the Web site. | There are more than 5 errors in spelling, punctuation or grammar in the final draft of the Web site. |
| **Content** | | The site has a well-stated clear purpose and theme that is carried out throughout the site. | The site has a clearly stated purpose and theme, but may have one or two elements that do not seem to be related to it. | The purpose and theme of the site is somewhat muddy or vague. | The site lacks a purpose and theme. |
| **Layout** | | The Web site has an exceptionally attractive and usable layout. It is easy to locate all important elements. White space, graphic elements and/or alignment are used effectively to organize material. | The Web pages have an attractive and usable layout. It is easy to locate all important elements. | The Web pages have a usable layout, but may appear busy or boring. It is easy to locate most of the important elements. | The Web pages are cluttered looking or confusing. It is often difficult to locate important elements. |
| **Navigation** | | Links for navigation are clearly labeled, consistently placed, allow the reader to easily move from a page to related pages (forward and back), and take the reader where s/he expects to go. A user does not become lost. | Links for navigation are clearly labeled, allow the reader to easily move from a page to related pages (forward and back), and internal links take the reader where s/he expects to go. A user rarely becomes lost. | Links for navigation take the reader where s/he expects to go, but some needed links seem to be missing. A user sometimes gets lost. | Some links do not take the reader to the sites described. A user typically feels lost. |
| **Work Ethic** | | Student always uses classroom project time well. Conversations are primarily focused on the project and things needed to get the work done and are held in a manner that typically does not disrupt others. | Student usually uses classroom project time well. Most conversations are focused on the project and things needed to get the work done and are held in a manner that typically does not disrupt others. | Student usually uses classroom project time well, but occasionally distracts others from their work. | Student does not use classroom project time well OR typically is disruptive to the work of others. |
| **Content Accuracy** | | All information provided by the student on the Web site is accurate and all the requirements of the assignment have been met. | Almost all the information provided by the student on the Web site is accurate and all requirements of the assignment have been met. | Almost all of the information provided by the student on the Web site is accurate and almost all of the requirements have been met. | There are several inaccuracies in the content provided by the students OR many of the requirements were not met. |
| **Interest** | | The author has made an exceptional attempt to make the content of this Web site interesting to the people for whom it is intended. | The author has tried to make the content of this Web site interesting to the people for whom it is intended. | The author has put lots of information in the Web site but there is little evidence that the person tried to present the information in an interesting way. | The author has provided only the minimum amount of information and has not transformed the information to make it more interesting to the audience (e.g., has only provided a list of links to the content of others). |
| **Learning of Material** | | The student has an exceptional understanding of the material included in the site and where to find additional information. Can easily answer questions about the content and procedures used to make the web site. | The student has a good understanding of the material included in the site. Can easily answer questions about the content and procedures used to make the web site. | The student has a fair understanding of the material included in the site. Can easily answer most questions about the content and procedures used to make the web site. | Student did not appear to learn much from this project. Cannot answer most questions about the content and the procedures used to make the web site. |
| **Images (accessibility)** | | All images, especially those that are used for navigation, have an ALT tag that describes the image and its link so people who are visually impaired can use the Web site well. | All images used for navigation have an ALT tag that describes the image and where it links to so people who are visually impaired can use the Web site well. | Most images used for navigation have an ALT tag that describes the image and where it links to so people who are visually impaired can use the Web site well. | The needs of visually impaired Internet users are ignored. |

Rubric created using Rubistar (2008).

**References**

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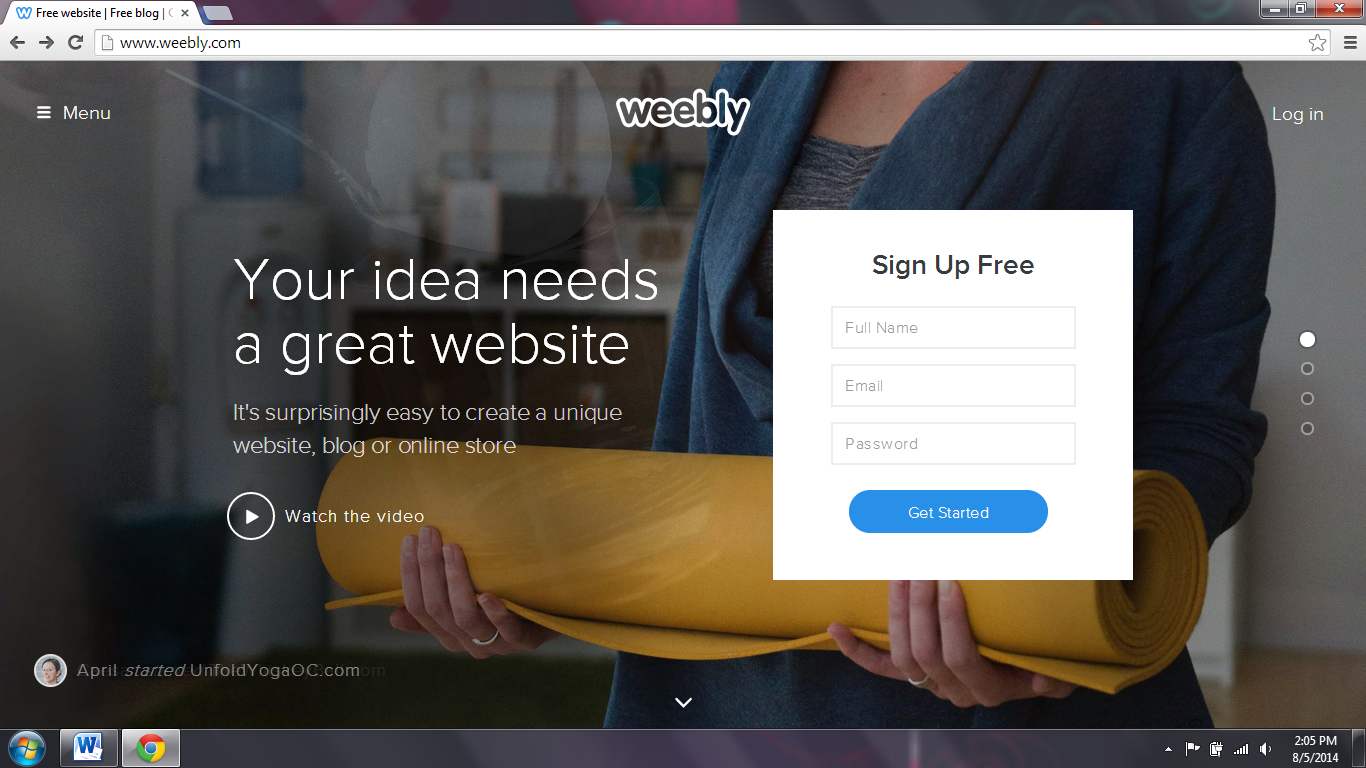
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Appendices

**Appendix A: “Watch the video” option on main Weebly screen**



**Appendix B: Drag and drop in Weebly**

