

Using Computer-Based Scenario Authoring Tools in Athletic Training

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Column Editor's Note:

Welcome to the inaugural issue of the ATEJ Educational Technology Column (ETC). This first issue of the ETC is monumental in that it continues the legacy of the athletic training profession's commitment to educational technology. Educational technology has been a frequent topic in the ATEJ. A quick skim of the ATEJ archive reveals keywords such as DVD, mobile learning, online assessment, web-based database, and computer-based training CPR.

The goal of the ETC is to provide a compendium of affordable, easy-to-use, time-saving educational technology tools for the athletic training educator. Each issue of the ETC will be dedicated to a specific theme and paired with a set of tools which can be used by you, the athletic training educator, for teaching, learning and/or administrative purposes. The ETC will provide understandable reviews of the advantages, disadvantages, and practical applications for each tool. A typical column will provide a hypothetical problem and technology tool solution. The ultimate goal of the ETC is to provide solutions to real problems faced by educators while saving you time, money, and frustration that often accompanies the process of finding the right technology solution.

Creating scenarios to challenge students' clinical reasoning skills is a common issue facing faculty. The purpose of this column is to frame an education problem related to clinical reasoning and provide two solutions using education

technology. The first solution uses PowerPoint®, a common program familiar to many educators. The second solution uses a potentially less familiar program, MyUdutu.

The Problem

A faculty member is challenged with facilitating her students' clinical reasoning skills. Currently, she uses 40% of her class time in conducting peer dyad mock scenarios. Her students are often challenged with remembering their scripts as a standardized patient, thereby increasing the amount of time necessary to complete each evaluation. The faculty member is frustrated and is seeking a solution to save her time in facilitating the students' clinical reasoning exercises.

Scenario Authoring Tools

The aforementioned problem is a common one amongst athletic training educators. In response to this problem, I will discuss two rapid eLearning authoring applications that can be used to create rich media (i.e., interactive multimedia) computer-based scenarios. In years past educators needed a high level of computer programming proficiency, a host of media professionals, and a sizable budget in order to create a rich media computer-based scenarios. Programs such as Adobe® Authorware, Adobe® Director®, Adobe Flash® are a few applications that made a name in the multimedia authoring space. Today, thanks to the ubiquitous nature of the Internet and movements such as Web 2.0, creating rich media computer-based scenarios can be developed with minimal computer programming skills and little to no budget.

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Using Microsoft PowerPoint® as a Scenario Authoring Tool

Most people use PowerPoint® as a linear presentation tool; however, it can also be used as an authoring tool for computer-based scenarios. Prior to opening PowerPoint® or any other scenario authoring tool, I strongly recommend that you map out the flow of your scenario on paper. From my own personal experience, I have found that focusing on the tool first results in a lot of wasted time. Follow this step-by-step process to unleash the scenario authoring power of Microsoft PowerPoint®:

- 1. **Map out your scenario on paper.** Your scenario map should be representative of the step-by-step process that the students will experience when encountering the scenario. The user should be presented with some

information and then prompted to make a decision. The user should then receive feedback on the decision. Think of this step as your conceptual framework. At this point, you should not be concerned with the actual content.

- 2. **Gather the content for the scenario.** I've always found the *Journal of Athletic Training Supplement* to be a great resource for obtaining ideas for case study scenarios. Combined with a YouTube (www.youtube.com) video and free stock images from stock.xchng (www.sxc.hu/) you will be well on your way to producing a rich media computer-based scenario.

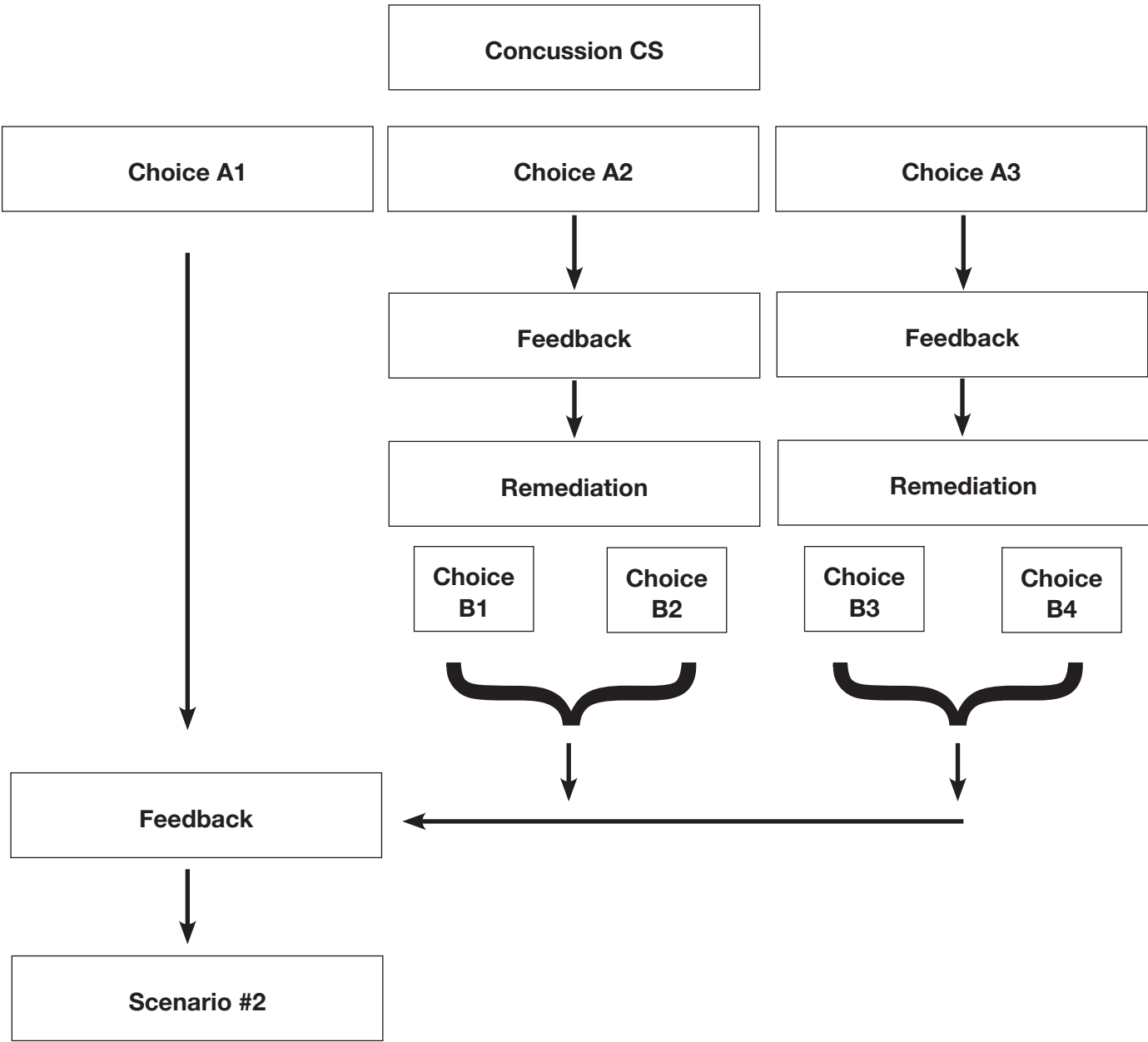


Figure 1. Scenario Map Example

3. Open PowerPoint® and begin the design and development process.

Step A: With your scenario map as a guide, use the Outline View to add all of your slides. It is best to use the Outline View when setting up your slides (See Figure 2).

Step B: Enter place setter text, shapes, and navigational items. I recommend a basic layout when you first get started. After your items are in place, select all of the items, except the title text box, and Copy and Paste the items to each slide in your outline. Leave the title text box in place because you will need it when you set up the navigation between slides. To remove the title from the slide, but keep it in your outline, select the title text box and use your up/down or right/left arrows to move the text off of the screen. This will keep the title in place for authoring purposes and hide it from the user.

Step C: Set up the navigation between slides. In PowerPoint® for Windows, right click on the shape you want to hyper link and choose Hyperlink. Select “Place in This Document” and choose the slide you want to navigate to, when the shape is selected by the user. On PowerPoint® for Mac, select the shape and choose “Action Settings.”

Step D: Test your navigation and scenario.

Step E: Save your PowerPoint® scenario and distribute as a PowerPoint® presentation.

Overall Impression

PowerPoint® is a household name in Higher Education. As mentioned earlier, most use it as a linear presentation tool. If you have access to PowerPoint® and can navigate your way around the program’s advanced features, it is a good choice for those users who do not require collaborative authoring tool. PowerPoint® lags behind other authoring tools in its ability to natively handle YouTube videos, though this can be done with some extra programming. Other multimedia formats can be imported with a few clicks. As a computer-based scenario authoring tool, you will find that PowerPoint® has the potential to create rich-media scenarios; however, you may grow frustrated by the number of steps required to complete mundane tasks such as hyper-linking. Although PowerPoint® was not originally intended to be an interactive eLearning authoring tool, it works quite well if you have time, patience and a bit of creativity.

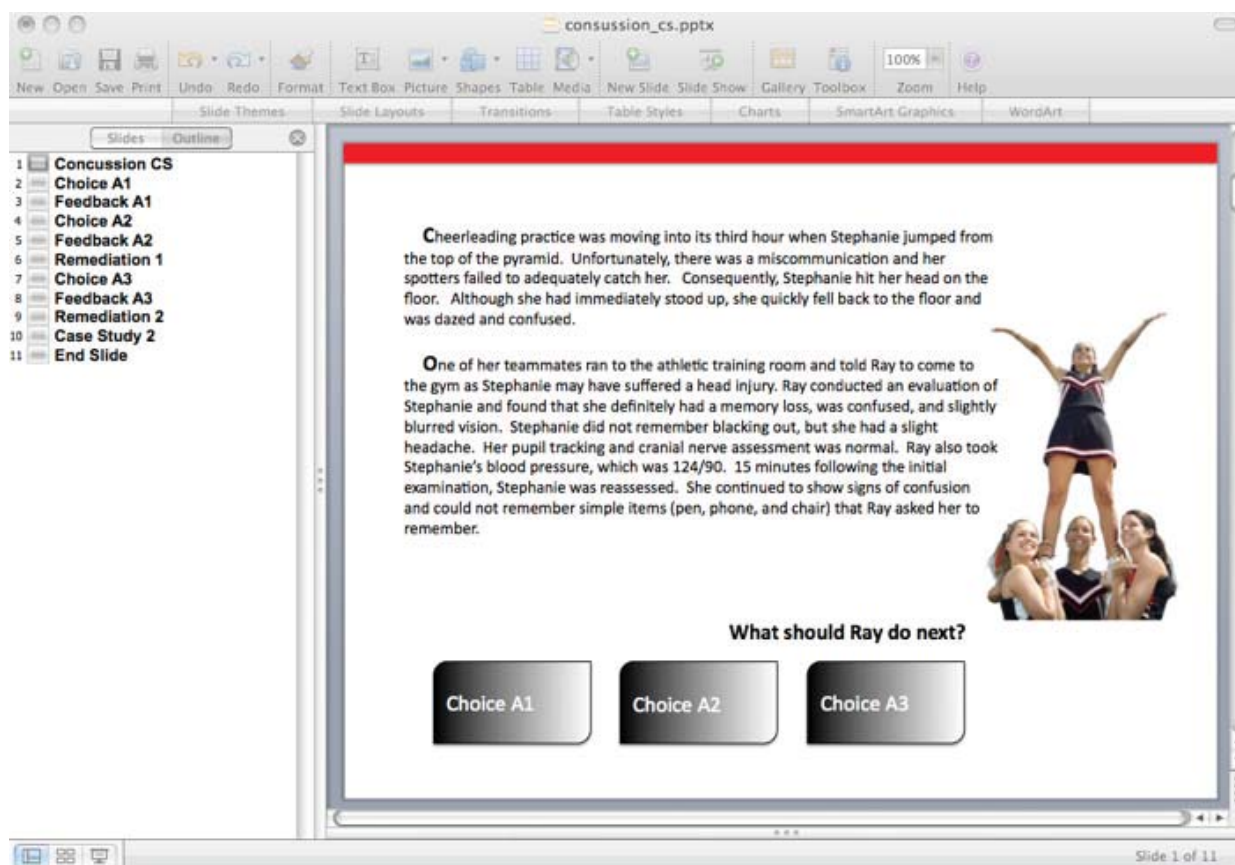


Figure 2. PowerPoint® Outline View

Using MyUdutu as a Scenario Authoring Tool

MyUdutu (www.myudutu.com) is a free, web based online learning authoring tool. I have tested MyUdutu extensively for authoring eLearning scenarios and it works quite well. The following steps outline how to get started.

1. **Map out your scenario on paper.** As mentioned above, the first step in authoring your scenario is to map out a flow chart of your scenario on paper. MyUdutu offers preset scenario templates, so you may want to follow one of their blueprints. More on this later.
2. **Gather the content for your scenario.** Regardless of the authoring tool you choose, you should gather all of your content prior to opening your authoring tool so that you are not distracted during the authoring process.
3. **Create MyUdutu account.** Direct your browser to myudutu.com and click on the button to signup for your free account. You are required to fill in 7 fields of information; followed by a confirmation email and you will be all set in just over one minute.
4. **Login to MyUdutu and create a course.** Each time you login to MyUdutu, you are presented with 3 options: Start a New Course, Select an Existing Course, Import or Restore a course.
5. **Select a scenario template.** MyUdutu has an intuitive interface that is extremely easy to use. MyUdutu's interface prompts the user to follow a sequential order of steps that are labeled by the numbers 1-2-3 and letters A-B-C-D-E. Since we are authoring a scenario, select a scenario template for your course outline or you may build your scenario template one screen at a time by selecting from

one of the three screen types: basic screen, assessment screen, or advanced screen. If you select a scenario template, the outline will populate with the screens (slides) that will be used to build the scenario. See Figure 3 for a screen shot of various scenario templates.

6. **Add content to scenario template.** To add content to your screen, click on a screen name under Course Outline, in this example, Introduction (Figure 4). When you click on Introduction, an editing panel appears on the right side of the screen. Regardless of the type of screen that you click on (i.e., basic, assessment, advanced), you will always be prompted by an editing panel labeled by letters B, C, D, and E. Section B allows you to choose the screen layout. Section C allows you to personalize the screen. Section D allows you to add text and other content from your computer or your Library (previously used content). Section E (not pictured) allows you to upload previously recorded narration.
7. **Distribute your scenario.** MyUdutu's course extraction feature allows you to both publish and host your course on their server at \$.75-1.00 per screen or you can export your scenario in a format suitable for play by DVD, your own website, or it can be uploaded to your learning management system (e.g., Blackboard, Moodle, Desire to Learn).

Overall Impressions

I've tested MyUdutu extensively for authoring eLearning Scenarios and it works quite well for authoring computer-based scenarios. MyUdutu's strongest assets, in no particular order, are its ease of use, intuitive user interface, multiple built-in assessment templates and collaborative development platform.

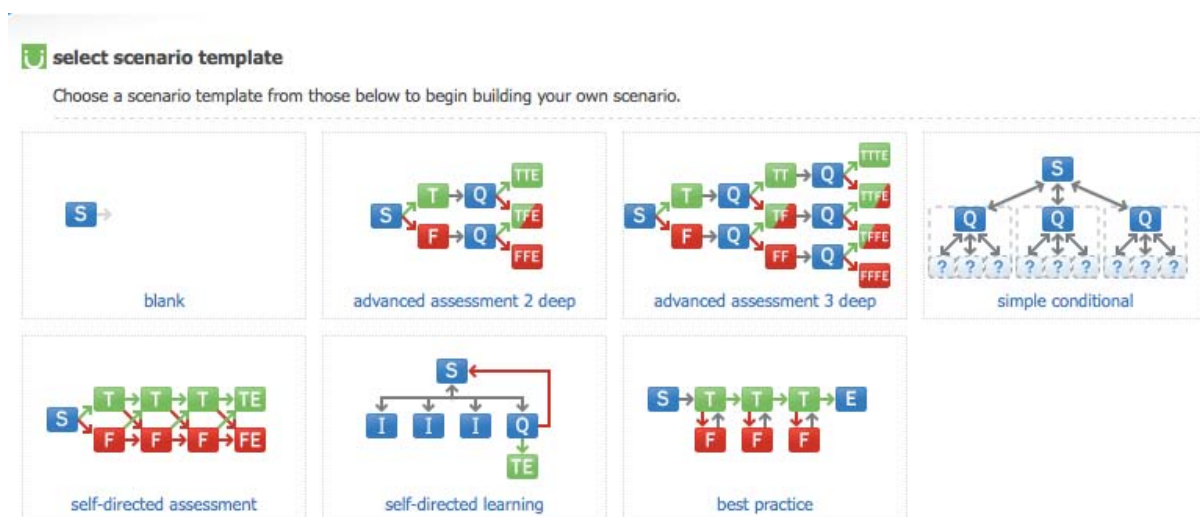


Figure 3. Scenario Templates (Screen shots used with permission from Udutu Online Learning Solutions)

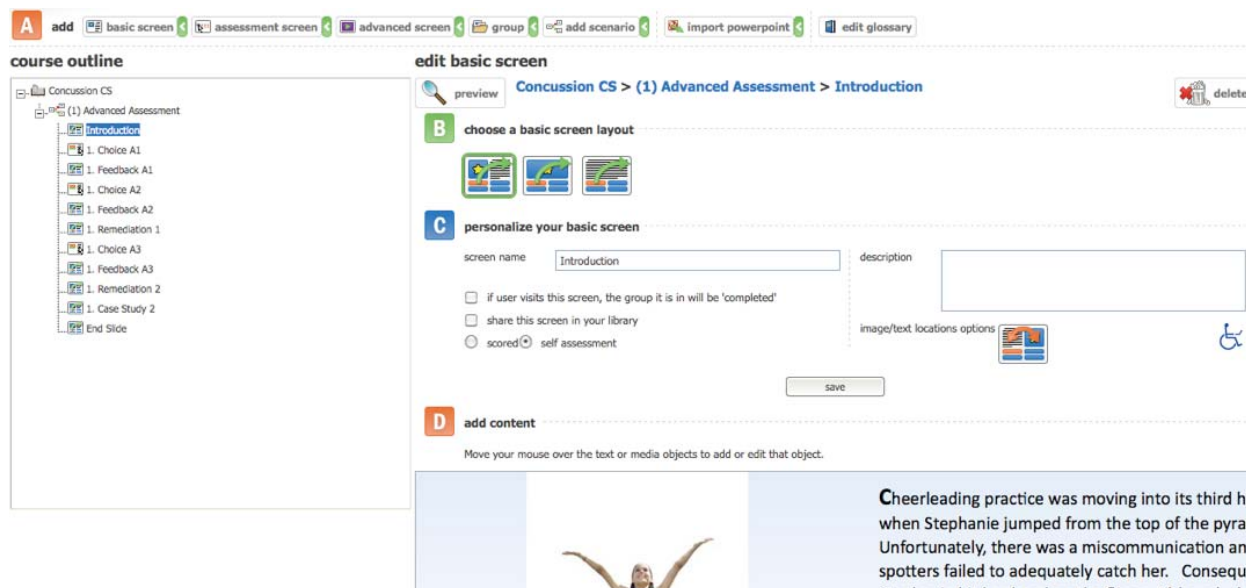


Figure 4. Course Outline and Editing (Screen shots used with permission from Udutu Online Learning Solutions)

MyUdutu's collaborative development environment sets it apart from other rapid elearning development tools. If you have a team of approved clinical instructors, clinical instructors, and other subject matter experts who would like to work collaboratively in authoring computer-based scenarios, MyUdutu will allow you to add multiple authors to your course. A revision history is retained within the course and you can step back to a previous version of the course if necessary. MyUdutu's biggest shortcoming is that its authoring tool cannot be used without an Internet connection.

Other notable eLearning authoring tools exist. A few are listed to the right. Readers are encouraged to explore these for potential use in the didactic and clinical education components of their programs.

Articulate – www.articulate.com

Adobe Captivate – www.adobe.com/products/captivate

Soft Chalk - www.softchalk.com/