TCC Presentation
ETEC 690

• Using Mobile Device to Teach Tennis Instructors
• By Ty Aki
True Story

- Retired Veteran
- College instructor
- Fitness trainer
- Limited tennis
- Large enrollment of students

- Competitor
- Lots of experience in teaching Resort tennis
- Low enrollment

- Part time elementary educator
- Played college tennis
- Large enrollment of students
What’s the score?
Lost sight of the mission!
The purpose of this project was to create and evaluate an iBook module to help tennis instructors teach the rules of tennis.
Design Tools

Drive

iBooks Author

tellagami
Delivery Device
Why the iPad for tennis instructors?

- Tennis instructors do not teach in the same classroom environment like normal teachers.
- From a designing point, the iPad was the only device that is compatible with iBook Author.
- The iPad was portable for on court use.
- The iPad provided more features and functions to support the module design.
**Theoretical Construct**

<table>
<thead>
<tr>
<th>Dr. Robert Mayer’s Eight Principles of Multimedia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multimedia</td>
</tr>
<tr>
<td>Contiguity</td>
</tr>
<tr>
<td>Modality</td>
</tr>
<tr>
<td>Redundancy</td>
</tr>
</tbody>
</table>

(Mayer, 2003)
Module Designed Into 4 Sections

Section 1: Scorekeeping

Section 2: Scorekeeping with court positioning

Section 3: Rules and Regulations

Section 4: The Code
Animations Played a Big Role in the Module

Hi my name is Emily and I will help you with this module.
This is the opening animation of the module.

The module’s introduction page that informs the users about each sections.
Welcome to my project!

Animations provide the instructional goals for each of the sections.
Section 1: Scorekeeping

Module 1

Scorekeeping

Use this chart to help:

CHART: Traditional and No-ADD Scoring

<table>
<thead>
<tr>
<th>Points Played</th>
<th>Traditional Scoring</th>
<th>No-Add Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 points</td>
<td>Love</td>
<td>0</td>
</tr>
<tr>
<td>1 point</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>2 points</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>3 points</td>
<td>40</td>
<td>3</td>
</tr>
<tr>
<td>4 points</td>
<td>Game</td>
<td>4 = Game</td>
</tr>
<tr>
<td></td>
<td>Must win by two points</td>
<td>4 points wins the game</td>
</tr>
</tbody>
</table>

15  30  40  GAME

GAME, SET, MATCH

On the next page, just click on the tennis ball for information
The Pop-Over widget tool was used to hide the text behind each of the tennis balls.
Play video:

Click on the ball.

GAME, SET, MATCH

Tennis players will play a Match, that consists of Sets (standard play is best 2 out of 3 sets), which in turn consist of Games (normally, first to 6 games by a margin of 2). Games are made up of points (usually it is first to 4 points by a margin of two points). Together this makes the scoring system where the outcome can be scored as, 6-4, 6-4 score. This is method of scoring is where points are won by a margin of 2 is called tradition scoring.

Two terms you should know right up front are Love and All. In tennis, Love means zero and All means the score is tied.

USE THE CHART ON THE PREVIOUS PAGE FOR GUIDANCE. IN THIS LESSON WE WILL USE THE NO-ADD SCORING.
GAME

The server’s score is always announced first. If the server wins the first point, the server will call the score 1-0 or 15 Love. If the server wins the next point, the score is 2-0 or 30-Love. If the server wins the third point, the score is 3-0 or 40-Love and if the server wins the next point, the game is over under the No-add rules. Under the traditional scoring method, a player must win by at least two points.

DEUCE

To win a game using the traditional scoring method, a player must win by a margin of two points. Here the term “Deuce” is used to show that the players have won three points each. The score is tied at 3-3 or 40-40 the server will say Deuce.

The first player to win two points in a row after a deuce score wins the game under the traditional scoring method. Under the No-add scoring, the next point wins the game.

USE THE CHART ON THE PREVIOUS PAGE FOR GUIDANCE.

Hiding behind the numbered balls are steps to help the participants with scorekeeping.
Section 2: Scorekeeping in Relation to Court Positioning
By pressing the arrows, the learner can follow their court positions.
The arrows direct the players to their positions.
Section 3: Rules and Regulations

**Module 3: Rules and Regulations**

- USTA provides coaches with a set of rules and regulations before each attending event.
- This section covers what a coach needs to address before taking a team to a national event.
- Player’s must complete the required USTA forms and have medical releases signed. Parents sign for players under 18.

Module 3, Rules and Regulation
This section provided insight to basic forms required at tournament level play.
Players have an unspoken rule that governs their way of playing the game. It is called the Code. For instance, if a ball bounces twice on your side of the court you must tell the other player that the ball bounced twice. If any part of your clothing, person, or racquet touches the net you must relinquish the point to your opponent. All players are required to honor this rule and it is the instructor’s responsibility to make sure these rules of the Code are taught.
Instructional videos were embedded to help with the learning process.
Final page with module test and attitudinal survey.
Great Job!

Let’s move on to the next section.

Animations provided motivation to help with completing the module.
Interactive Test to Stimulate Better Performance

Quiz 1. The score is 1-3 or 15-40. The Alpha team is serving. Number team is receiving. What is the position Alpha team will serve to Number team?

- A. B serves to 2
- B. A serves to 1
- C. A serves to 3
- D. B serves to 1

Quiz 2. Double click the court to get your question. Then make your selection below.

- A. B serves to 2
- B. A serves to 1
- C. A serves to 3
- D. B serves to 4
Practice Test to Improve Retention of the Material

Question 1 of 5
When the Server wins the first point of the game, the score is announced as Love-15.

- A. True
- B. False

Moving on to the next section. Scorekeeping and court positions. Most problems occur during play. Players will forget the score and be in the wrong position when calling the score.
Dr. Mayer’s 8 multimedia principles proved successful

Animation was a big part in making the project successful. Each avatar did their part to deliver the information.
Three instructors from Maui agreed to do a Face-Time interview. This has possibilities with long-distance training.

Four participants scheduled various times to meet with me at their private facility.

One individual took the first two portions of the module and had to schedule a later time to complete the last two sections of the module.
Demographic Information

3 women
5 men

Age range:
3 under 40
5 over 40

Experience with on-court training using mobile device:
3 said yes
5 said no

Teaching experience:
Under 16yrs = 4
Over 16yrs = 4
Grand Mean Scores of Attitudinal Survey Findings

Attitudinal Survey

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness</td>
<td>4.88</td>
</tr>
<tr>
<td>Engagement</td>
<td>4.79</td>
</tr>
<tr>
<td>Ease of Use</td>
<td>4.67</td>
</tr>
<tr>
<td>Design Module</td>
<td>4.63</td>
</tr>
<tr>
<td>Quantity of Content</td>
<td>4.88</td>
</tr>
<tr>
<td>Confidence</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Attitudinal Survey Criteria
Interesting Findings

Use of the iPads: Those participants under 40 rated use higher than those over 40. Younger participants were able to navigate better.
Logical content question found that those in the demographic region with less than 16 years of experience rate the logical content higher than those with more than 16 years of experience.
4 participants had concerns regarding the color red. The color red has been associated with color blindness.
More Open-ended Comments

“Computer based learning is the way to go and I love that we can prep students with technology instead of spending hours going over it on court.”

“It could also be useful to document those strategies that did work and those that did not--especially with various age groups.”

“It would be a great method to help me design my lessons and then be able modify the lesson afterward.”
Improvements to the Module

These pictures illustrate the color issues and what was done to resolve the problem.

Before

After
Other Improvements to the Module

- Placement of my pictures.
- Correcting grammar.
- Changes to the color combinations.
- Editing image quality.
Findings and Future Research

Most of the participants wanted more on understanding the “Tie-break.”
(Not covered in this study)
According to the field notes, participants liked the fact that the module allowed them to play back the animations and retake embedded quizzes for better retention of the covered material.

7 out of 8 participants commented that the module can have a positive impact in the way they use a mobile device with on-court teaching.
Positive Findings

Seven of eight indicated they would definitely use it in the future.
Discussion

Participants favorably responded to the module.

The iPad was well received by the participants.

With the appropriate supportive instructional content, tennis instructions are effectively enhanced.
Improvements based on the data, suggest changes in the presentation of logical content, revisions to the usage of favorable color combinations, and potential inclusion of additional information.

Lessons learned from this project can inform other instructional designers of specific tennis module can be helpful to tennis instructors.

Important lesson in this research was iPad (mobile devices) have a function to help tennis instructors on the tennis court.
Reflection

Make the necessary revisions to the module for those participants who want to use it in their classes, now!

Find a better resource to making an iBook other than iBook Author. Limited only to Apple products.

Look at other ways to “elevate the standards of tennis-teaching professionals and coaches.”
(USPTA mission statement)
Thank you!

Dr. Irvine: ETEC 687/690

Critical Friends: Stacy, Kellan, Nina and Ho’omano.

Credit to: Microsoft Clip art, Tellagami Corp, Google Docs and iBook Author
Questions?

Open for Questions.

If you are interested in obtaining a copy of this module, email me at:

tyaki@hawaii.edu