Jason,

You did an excellent job with this case analysis! You considered several significant issues in the case in your analysis. Overall, there is a lot of depth and dimension to your case analysis. Nicely done!

Case Study Analyses: Jennie Davenport

EDCI 672

Jason Carter

Purdue University
1. Who are the key stakeholders in the case and what are their primary concerns?

   Jennie Davenport: Project Manager with eduLearning Systems (eLS)
   Concerns:
   • Identify clear project goals
   • Develop criteria for effective evaluation
   • Verify changes in participant behavior
   • Deliver product on-time and within budget
   • Getting Dr. Essex onboard with specific criteria to measure the effectiveness of M2M online
     (Hooper & Doering in Ertmer & Quinn, 2007, p. 91-92)

   Pedro Lopez: Professor of learning science at Midwestern State University
   Concerns:
   • Develop a highly interactive online version of M2M
   • Ensure design incorporates both knowledge gain and attitude change
   • Legal/ethical implications from using sexually explicit material
   • How to produce the emotional impact of a face to face meeting in an online setting

   Professor Clark Essex: Sexual Health Expert at Midwestern State University
   Concerns:
   • IM2M online version is “state of the art”
   • IM2M online is as effective as the face to face version, M2M

2. What are the key (1-2) design challenges in the case?

   Design issue 1: Developing online content from “brick and mortar” workshop
   Sub-Design issue 1: Designing content for behavior change and knowledge gain

   Jennie and Pedro have conflicting opinions about the same problem, how to effectively convert a successful face to face workshop into an equally successful online version.

   Within this broad issue of face to face to online conversion, Jennie and Pedro are facing many smaller issues.

   First, Jennie must understand the structure of the M2M workshops. Hooper and Doering (2007) write, “(referring to participants of the M2M workshop)…met for approximately
16 hours over a two-day period. The workshops were facilitated by faculty from the departments of counseling psychology, human sexuality, and the university’s medical school” (p. 92).

Once Jennie understands the structure, she must delve into the content of the workshop. Again, Hooper and Doering (2007) write, “The workshop curriculum included 10 components of the sexual health model, and used diverse instructional strategies such as lectures, games, opportunities for individual reflection, and discussions in both small-and large-group settings” (p. 92).

Besides wading through the workshop content, Jennie must also analyze the effectiveness of the various forms of instructional media used during the workshop. Media types include: video clips, still images, and slideshow presentations (Hooper & Doering in Ertmer & Quinn, 2007).

It has also been identified that Jennie, in addition to the design issues presented above, must also contend with designing IM2M that focuses on the participants’ ability to gain knowledge about their sexual health, as well as steer the instruction to change the behavior of the participants.

**Design issue 2: Designing an effective evaluation**

The M2M program has proven to be a successful and effective workshop. A recent evaluation of the M2M program showed a 32% reduction in high risk behavior after six months, and 27% after one year (Hooper & Doering in Ertmer & Quinn, 2007). This transfer of effectiveness is one of Dr. Essex’s primary concerns.

Additionally, Jennie is facing a sub-set of challenges regarding the design of an effective evaluation piece to the IM2M. Jennie’s first issue is developing specific criteria that will
be used to measure the effectiveness of the instruction. Once this criteria is identified, Jennie must develop an evaluation that measures participants’ knowledge gain pertaining to sexual health, as well as an evaluation component that measures participants’ attitude change towards high risk sexual behavior, all within an online setting.

Case-specific issue(s): Design differences between Jennie and Pedro, Dr. Essex’s attitude (SME), and legal/ethical issues raised from designing a course with sexual content

Many case-specific issues have been identified. Brief descriptions, as well as impact on design are detailed below:

**Design differences between Jennie and Pedro:**

Jennie and Pedro have conflicting opinions on how to best design the online version of the M2M workshop. Jennie is using her previous work experience with the HIPPA project in an attempt to persuade Pedro to adopt her instructional strategy. Pedro on the other hand is attempting to persuade Jennie to use his expertise in the learning by doing instructional design strategy.

**Impact on design:**

Jennie and Pedro’s conflict could easily slow down the process. Although they have a two-year time span to complete the project, the time is strictly scheduled. In addition to meeting key milestones, the conflict could lead to both designers resenting one another. For obvious reasons this would result in a downturn in designer motivation, project progression, and possibly, an ineffective design.

**Dr. Essex’s attitude shift in identifying evaluation criteria**

Jennie is concerned that Dr. Essex is unwilling to work with her to develop more specific
criteria to evaluate the effectiveness of IM2M.

**Impact on design:**

Dr. Essex’s unwillingness to work with Jennie could have a major impact on the overall design of the project. Without Dr. Essex’s expertise, the evaluations for IM2M could fail to measure the effectiveness of the project or even ask the right questions. If the evaluation is not properly designed, Dr. Essex’s risks losing funding from the National Health Foundation, loss of credibility in both M2M and IM2M, as well as loss of reputation as a sexual health expert.

**Legal/ethical issues raised from designing a course with sexual content**

Jennie and Pedro discovered possible legal, as well as ethical ramifications to using what Dr. Essex described as *hot cognitions* in the online version of M2M. Hot cognitions are described as sexually explicit media used in the workshop to reduce discomfort and shame, while increasing the chance of a participant making a positive behavioral change.

**Impact on design:**

Pedro states, “I mean, could the university or eLS be found liable if it can be proven that an individual who committed a sex crime did so after being aroused as a result of completing the Internet materials?” (Hooper & Doering in Ertmer & Quinn, 2007, p. 94) Pedro’s statement really says it all. Using sexually explicit content over a medium like the Internet could potentially be disastrous for both the university, as well as eLS in terms of lawsuits, inadvertently harming participants, and loss of reputation in the community.

**Priority of issue(s) and rationale:**
Jennie needs to make the other stakeholders in this case her top priority. Jennie needs to communicate with Dr. Essex and make him understand he is vital to the development and design of this project. Without his expertise, guidance, and feedback, IM2M will certainly not live up to its full potential.

At the same time, Jennie must come to an agreement on design strategy with Pedro. Pedro and Jennie’s difference of opinion seems to be at a point where both parties are willing to hear each other out, but any continuation on this path will result in a communication breakdown. The reasoning behind these decisions are based on the fact the Jennie cannot do her job without the support of the SME (Dr. Essex) and her co-designer, Pedro. Everyone needs to be working together to ensure the success of IM2M.

Once Jennie, Dr. Essex, and Pedro are on the same page, Jennie needs to focus her attention on converting the content from the M2M workshop to IM2M. At the same time, Jennie needs to be working with Dr. Essex to develop evaluation tools that measure both participants’ knowledge gain, as well as attitude change. Jennie has good reason to place her focus on both the development of the content, as well as the evaluation(s) of the content. If she develops the content without designing an evaluation, she could implement frivolous content that serves no purpose. However, if she develops evaluation without content, she risks collecting data that cannot be used to properly measure the effectiveness of IM2M.

Lastly, the legal and ethical issues would likely be addressed when the online content and evaluation(s) were being developed.

3. Describe how the assigned readings and your previous experiences contributed to your understanding of the case problem.
The assigned readings helped immensely in my understanding of the case study. I realized Jennie viewed, on some level, the IM2M project as a knowledge acquisition design, while Pedro viewed the IM2M project as a behavioral change design. When reading Mintz and Aagaard (2012), I realized that Jennie and Pedro were both right and that the power of persuasion could be used effectively to implement both knowledge acquisition and behavioral change.

It was really exciting to read that by using a personal story in lieu of statistics, students were more likely to learn about the dangers of AIDS (Murphy as cited in Mintz & Aagaard, 2012). The aforementioned statement utilized implicit not explicit persuasion to inform students about AIDS (knowledge acquisition) which then increases the chance the students will make positive, protective choices in the future (behavioral change).

In reading the Rosser et. al. (2011) article, I understood the power of the Internet. Jennie and Pedro have a fantastic opportunity to utilize a powerful medium to change lives for the better, but they do have their work cut out for them. The Rosser et. al. (2011) goes on to explain that many potential learners are not digital natives and that access is sometimes an issue. The article goes on to explain that there are challenges associated with collecting data, the cost of sustaining an online initiative, and finding someone with enough expertise to effectively implement such a program. Although these challenges are addressed in the piece, connecting this to the case study, I believe Jennie’s ability to utilize Pedro will prove priceless in the development of the IM2M project. Pedro has experience in software development, as well authored many cutting edge research articles. Pedro would know the strengths and weaknesses of the online medium and would have the ability to plan accordingly.
4. Outline at least two reasonable solutions/recommendations for the designer in the case. How do these solutions/recommendations address the challenges described in #2 above?

Solution 1: Serious game with a designated discussion space

A possible recommendation for the IM2M design would include the development of a serious game. The serious game would meet the needs of designers, client, and participants in the following ways:

- A game would be easily developed with Pedro’s experience
- A game can incorporate instruction for gaining knowledge and attitude change
  - Example: A game that diagnoses the player with AIDS and how this was transmitted (knowledge gain) then allows the player to go back in time to make a better choice (attitude change)
- A game can incorporate many if not all of the components from the traditional M2M workshop (media, experts, and components)
- A game will allow the participants to make choices without real-world consequences
- A game can make the experience very personal by scripting deeply emotional stories within the game
- A game can have a disclaimer on the menu screen explaining those that play will be subjected to sexually explicit content

Once the game has been developed and implemented, a secondary virtual space can be developed so players can share their thoughts, reflections, and overall experiences from the game. This would be something similar to a videogame forum.

Solution 2: Pre-Test, In Game “Challenges”, Post-Test, and Forum Scoreboard

Assuming Jennie is able to work with Dr. Essex to address specific criteria to measure the effectiveness of the piece, there are many ways in which the designers can incorporate effective evaluations into a game setting. First, Jennie and Pedro can develop a pre-test in game. This might be a character waking up in the hospital after suffering from an undiagnosed STD. The doctor asks questions (pre-test) and the player begins the game.

While in the game, a player can encounter many challenges testing knowledge.
gain/attitude change. When the game ends, a player could help out another character suffering from the same STD at the beginning of the game, the player would then answer the same questions from the beginning of the game (post-test), this time being asked by the non-playable character.

Finally, upon completion of the game, a player can go over to the game forum to discuss thoughts, feelings, and experience of the game. Both in game data, along with real time statistics (players' playing time, time to complete, replay ability, etc.) can also be recorded and posted on the forum. This is beneficial for players, as well as stakeholders (client and designers).

5. **Discuss the pros and cons to each solution/recommendation.**

<table>
<thead>
<tr>
<th>Serious Game w/ forum</th>
<th>Pro</th>
<th>Con</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can be very personal</td>
<td>Can be expensive to create</td>
<td></td>
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<tr>
<td>Ability to incorporate many components of the M2M workshop</td>
<td>Players may not play the game</td>
<td></td>
</tr>
<tr>
<td>Allows for knowledge gain and attitude change</td>
<td>Players may not use or they may abuse the forum</td>
<td></td>
</tr>
<tr>
<td>Allows for thoughts, feelings, and reactions (in forum)</td>
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<table>
<thead>
<tr>
<th>Effective Evaluation</th>
<th>Pro</th>
<th>Con</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can be easily folded into game design</td>
<td>Measures could be asking the wrong things</td>
<td></td>
</tr>
<tr>
<td>Data collection is in real time</td>
<td>Data could be skewed by players &quot;cheating&quot;</td>
<td></td>
</tr>
<tr>
<td>Data in game and in forum are easy to collect/shared</td>
<td>Players may not want game data shared</td>
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</tbody>
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6. **What is your final recommendation? Justify your choice and discuss how you will eliminate or address the ‘cons’ listed in the previous point.**

Comment [SG6]: Is it not a major undertaking to develop games? Does it not require large development teams of different people with various types of expertise as well?
It is recommended that Jennie and Pedro develop an online game with an additional virtual space so players can discuss their experiences with the game. Within the game, a disclaimer would be shown prior to the game starting to warn players of the explicit content. Also, the game is a great medium to incorporate things like instruction for knowledge gain, attitude change, evaluation pieces, and keeping many of the original M2M pieces (media, experts, and content).

Please see the tables below on strategies to address cons in question 

<table>
<thead>
<tr>
<th><strong>Serious Game w/ forum</strong></th>
<th>Con</th>
<th>Strategy to Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Can be expensive to create</td>
<td>Dr. Essex should have plenty of funding</td>
</tr>
<tr>
<td></td>
<td>Players may not play the game</td>
<td>Advertise this game in the same ways as the M2M workshop</td>
</tr>
<tr>
<td></td>
<td>Players may not use or they may abuse the forum</td>
<td>Game completion could incorporate an incentive for going to the forum. Forum users would have the ability to report abuse to administrators.</td>
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<table>
<thead>
<tr>
<th><strong>Effective Evaluation</strong></th>
<th>Con</th>
<th>Strategy to Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Measures could be asking the wrong things</td>
<td>Ensure Dr. Essex is working with Jennie to develop proper measures</td>
</tr>
<tr>
<td></td>
<td>Data could be skewed by players “cheating”</td>
<td>Pedro’s experience as a software developer should eliminate the ability to ‘cheat’ in game</td>
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<tr>
<td></td>
<td>Players may not want game data shared</td>
<td>Implement a disclaimer at start menu giving players the option to share information upon completion of the game</td>
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Comment [SG7]: Great job!

Comment [SG8]: Too long, Jason! Try to keep to the 6 page limit in the next case analysis.
References

