Mike Oberlin – EDCI 672 – Fall 2014

***Reflection on Developing ID Expertise***

I. Case 1 – Michael Bishop

Problem Finding

• Summarize vs. Synthesize

This being my first case analysis, I tried to place some emphasis on summarizing the details. Part of this may have been due to fact I was making an attempt to meet every requirement of the rubric. This lead to a static method of writing and I did not make the best effort to synthesize and connect the information.

”Michael Bishop is working for the university to design a pilot program for educational games that are to be integrated into middle school science classes (Ertmer, et al., 2014). One game in particular, *Rigglefish*, addresses middle school standards relating to scientific inquiry.”

• Principles vs. Features

Several statements included in the case study indicated stakeholder resistance to the product due to the length of time it takes to play the game. I felt it was important to look further into this constraint as it presents the opportunity of looking at options to solve the problem. I wish I had done this more in the case analysis to form a regular pattern of describing a pattern of the “what” and then elaborating the “why.”

“Though the resistance associated with the use of Michael’s game is based on the length of time involved in their utilization, it is important to understand why time is a primary concern for hesitation. With this in mind, an additional design challenge revolves around evaluating the game as it relates to its target learners.”

• Relationships among Issues

Continuing with the theme of elaboration, I felt it necessary to connect issues based on the details of the constraints and not just the constraints themselves. For instance, if multiple design constraints are indicated, I found an opportunity to point out how one contributes to another. It may be more efficient in terms of synthesis to lump them together however it is important to separate these as the problems are not fixed by the same solution.

“Jim Harrington, the assistant superintendent for curriculum at Mason ISD, indicated how bugs could “bring a class to a screeching halt” (Ertmer, et al., 2014, p. 33). In this instance, the teachers’ concerns associated with time would be justified as then the class would spend more time attempting to correct the game or completely abandon the lesson mid-stream.”

• Reflective vs. Reflexive

A major challenge was attempting to circumvent the impulse to assert facts about the case that were not indicated in the text. This was particularly challenging in that I had to add more details to my solutions to support the facts, as I could not change the facts to support my solution. I think this was a good exercise in case analysis as it is directly related to what would be done in real cases as the circumstances cannot be changed, and one must adapt to them.

“One of the biggest concerns stated by Antonia centered around ensuring that the game focus on meaningful learning. For instance, if the aim of the game is to encourage inquisitive actions, it should also promote the students’ skepticism to a similar degree of real scientists.”

Problem Solving

• Relationships among Solutions

When I began forming solutions I was not specifically thinking of them as they directly related to the issues. While the problems may have been clear in my mind, I don’t feel I effectively established them in a way they could be clear to others. Furthermore, I did not indicate the connections either. Perhaps this indicates that connections must be well established before solutions are recommended.

“One reasonable solution regarding implementation relies on the recognition that the time it takes to play the game is a major concern that must be flexible to change. With this in mind, it is recommended that the game be implemented as a group activity. With more than one student actively engaging in game participation during science class, lesson time can be encapsulated into a group atmosphere where students can collaborate.”

• Consideration of Implications

Because I did not form sufficient relationships among the solutions, I could only imply how they might be implemented. In other words, if I cannot suggest how one solution might work and that none of the solutions are connected, it makes it quite difficult to explain how any of the solutions might be implemented.

“It is therefore recommended that preliminary reaction surveys be conducted before pilot programming is considered for specific classes. One survey would be for teachers with questions associated with their current use of class time, what works best, what they struggle with and how receptive they feel their students are to the current format of science lessons. Another survey would rely on the initial reactions of students.”

• Rigid vs. Flexible

I felt compelled to find a solution to recommend, despite the fact that I was advised not to determine one that is absolute. This in turn lead to a rigid form of communication in terms of suggestions. It was good to know that even though an instructional designer is hired to fix a problem, he or she does need to be able to allow multiple solutions to align with multiple perspectives.

“Michael must determine the most appropriate course of action to attract a solid audience for the future application of educational games.”

Overall Rating – “high,” “medium,” or “low”

LOW

II. Case 2 – Lynn Dixon

Problem Finding

• Summarize vs. Synthesize

There was not much deviation away from the prospect of summarizing in my second case analysis. This might have been based on the fact that there were so many factors to consider, thus compelling me to list these factors. This presents a challenge for me to find better ways to include a great deal of information based on what I know and not what is simply dictated to me. Perhaps indicating how the facts are indicative of a problem may supplement this challenge.

“While the aquarium already has quite an impressive collection of fish, the new exhibit will include new visual displays, 800 more fish and a waterfall to show the connection between the wetlands and the Great Barrier Reef (p. 196). The team lead for the exhibit, Laura Barton, works with the government department responsible for The Aquarium and is hoping to develop a touch-screen kiosk to provide an additional way for visitors to learn about the wetlands. Telopea Learning is responsible for providing the software for the kiosk. “

• Principles vs. Features

Throughout the course I knew I must understand the identifying traits of stakeholders so that I may continue problem finding based on their intricacies. A person’s title can be misleading from the ID perspective. They may serve a particular role for their company but in terms of the design challenge they will serve a completely different role.

“While Ben Williams is in a managerial position at The Aquarium and could partially be considered to be the client, he is primarily the Subject Matter Expert (SME) in this case and will be working directly with Lynn (Ertmer et al., 2014, p. 197).”

• Relationships among Issues

Finding a link between relationships not only assists with solutions later on, but can also help in articulating the overall design challenge. Taking into consideration the desires of the client, facilitated a prospect of attempting to see the problem from their perspective and work towards a goal.

“Ben, being a wetlands expert, possessed a surplus amount of knowledge on wetlands and made no hesitation in admitting how long he could go one about the subject (Ertmer, et al., 2014, p. 198). With the theme of the exhibit being the connection between the wetlands, the catchment areas and the Great Barrier Reef, both Ben and Laura expressed their concern that the kiosk focus on these relationships. Ben's primary concern was based on his desire to incorporate an elaborate animation of a bird flying and zooming around the different types of land (p. 198).”

• Reflective vs. Reflexive

Recognizing the resources that the Instructional Designer has at their disposal, help in identifying what is known in terms of case analysis. Although, if an essential design aspect is not present in the data at hand, the IDer is obligated to assist in bringing this to the attention of the client. It may be best to indirectly indicate this as the client may not realize it is missing. One strategy might be to reflect on the aspect needed, and integrate it into a solution so that both problems are addressed without diverting attention to who missed what.

“While Laura and Ben have provided Lynn with an abundance of material and specific media ideas to incorporate into the kiosk, they have not elaborated an overall structure. This encompasses a design challenge primarily associated with the design phase. A more concise strategy needs to be defined in terms of the target learners.”

Problem Solving

• Relationships among Solutions

With the understanding that more than one solution could be implemented based on the category of demographics, I was able to relate the two in the kiosk presentation. Taking the time to understand that the relationship of two separate demographics is present also helped me to identify what tools would be appropriate for each and where they might be effective.

“Condensing the sections would also assist in making the best use of the 20 minute interactivity limit and assist in division of material between kiosks. For instance, Lynn could focus the animations into subsections such as "What happens inside wetlands" and the "food web" (Ertmer et al., 2014, p. 201). These media intensive areas could be tailored towards a younger audience, while the sections with more informative content would be less media intensive and focus on the older generations.”

• Consideration of Implications

There seems to be a pattern of considering similarities in a solution and how they work to solve a problem. Putting the idea on paper as to what it solves is not enough. The client will not only want to understand the approach but will also need to know what motivated the Instructional Designer’s decision. I feel this is important as it teaches the client ways that they may be able to build on their projects on their own.

“The two sections of the kiosk presentation that are given the highest priority in Lynn's Design Document are associated with "Connectivity: Inside the Wetlands" and "Threats to Wetlands" (Ertmer et al., 2014, p. 201). Additionally, these two sections are indicated to have the highest amount of interactivity. By integrating the other related sections as sub-sections within the two primary sections, the overall interactive nature of the sections may be enhanced.”

• Rigid vs. Flexible

Being excited about a solution may have compelled me to assume that the client would automatically be accepting of a solution. The fact that the client was very easy going may also have contributed to this. However, I did not indicate that there was room for changes in my recommendation for a scavenger hunt. I jumped so far as to indicate that the icon would feature a kangaroo, without stating that this is something that they “could” use if they felt it was appropriate.

The design prototype would feature a small kangaroo icon to be included into the bottom right portion of specific wetland screens. These icons would show a pop-up and a mini-map of The Aquarium with an indicator directing the patron to a location corresponding with the material they just learned.

Overall Rating – “high,” “medium,” or “low”

MEDIUM

III. Case 3 – Peer Case 1

Problem Finding

• Summarize vs. Synthesize

The trend of summarizing continued in my analysis of the Natalie Morales case. I feel that the contributing component to this is based on my attempt to include as much information as possible so that my challenges and solutions are justified. Perhaps it may be more beneficial and more efficient to include as much necessary information as possible rather than all of it. This will help identify the issue much earlier in the analysis thus leaving more time to explore solutions.

“One example of such analysis and adaptation is the case of Chipex Manufacturing (Ertmer, Quinn, and Glazewski, 2014). Natalie Morales is a new employee for Chipex and her first project relates to a training problem proposed to her through the human resources department. A human resources representative named Rich Davis has indicated how technicians in the manufacturing facility are responsible for obtaining and keeping their technician certifications (p. 247).”

• Principles vs. Features

I did not carefully consider some of the facts of the case in terms of how they shape the design challenge. For instance, by simply assuming that awarding promotions and raises based on the number of certifications was wrong, my recommendations including that factor were completely one-sided. This indicates that I should carefully consider the overall perspective of the employees as it relates to this case, and whether or not it is something that should be modified.

“The problem is that there is no standard process for the acquisition of these certificates by the technicians, and supervisors all place different priority levels on specific certifications for their respective technicians. Furthermore, there are certain certifications that are required based on compliance and safety procedures, while others are area-specific or job specific (p. 247). The number of certifications held by technicians is also a factor for promotions and raises.”

• Relationships among Issues

Considering the importance of certification as it relates to job performance was a key component of the case. I identified how both the technicians and supervisors acknowledged the importance of being certified and how the two may connect in terms of motivation.

“One constraint consists in how the current certification process is self-monitored by the technicians themselves (Ertmer et al., 2014, p. 249). At the same time however, supervisors must manage their respective technician's certifications and ensure shift needs are met. This is indicative of a problem in terms of instructional strategy that splits the importance of certification versus essential job performance.”

• Reflective vs. Reflexive

There was a particular instance where I assumed that an individual places less emphasis on training because of certain circumstances. Though it comes across that Tran only cares about his rating because he established how it benefits him, this does not necessarily mean he’s very bad at it.

“As Tran indicated, he is rated higher based on the number of people he certifies (p. 252). Thus Tran is inclined to be less concerned about comprehensive task training which ultimately reduces the quality of technician job performance.”

Problem Solving

• Relationships among Solutions

The language barrier presented in the case left room for a solution for Hector and Tran to facilitate training for those who only spoke their respective languages. However, assuming other technicians possess other languages that aren’t identified doesn’t show a connection on how the problem can be solved. I must understand that if I cannot support a solution without a resource, I can’t assume that the solution is available, let alone plausible.

“Gathering more information on the languages spoken by all staff member may be helpful in addressing the language barrier constraint. While it is recognized that Hector and Tran speak their respective languages fluently, employees with conversational abilities in languages other than English can still contribute to better training practices.”

• Consideration of Implications

I feel that I directly implied that Natalie did not have the needed information to form solutions, and that direct observation would help. The case did not allude to a problem associated with not being able to directly observe the technicians hence it was not beneficial to imply observation would help.

“Allowing Natalie to observe the processes and tool operation itself is one solution that would provide more organic data for Natalie to form solutions.”

• Rigid vs. Flexible

Thinking of justifications assisted in my ability to present flexibility in their implementation. For instance, indicating why a particular solution may work helped paint a picture of why it was selected, and how it may solve the problem. This may even indicate to the client, solutions that may solve problems in the future.

“First, Natalie can propose a system of placing more emphasis on rewarding the technicians for achieving certifications and only rate peer trainers higher if the technician demonstrates consistent quality in performance. This will discourage hasty sign-offs from peer trainers and require more thorough job observation.”

Overall Rating – “high,” “medium,” or “low”

MEDIUM

IV. Case 4 – Peer Case 2

Problem Finding

• Summarize vs. Synthesize

Looking at the vocalized concerns of the client can be a shortcut to identifying the central issues. In some cases the client does some of the work for you in terms of instructional analysis. I felt this helped me to synthesize the problems with more detail in this case.

“Considering the fact that Jennie and Pedro have differing ideas about how the workshop will be translated into an online format, a key challenge is based in the design phase of instruction. The grant from the NHF and specified timeline indicate a constraint of a limited budget and period in which to complete the design. Pedro has made it clear that he feels the project should emphasize behavior change and should focus less on simply delivering information.”

• Principles vs. Features

The fact that this case was based on a conversion of existing curriculum made it a bit easier to describe the principles of the issues. In this case, looking for how delivery and perception may vary based on an electronic environment is essential. The problem in this case was not that the curriculum is ineffective in an electronic format, but that it is ineffective to simply transfer it without specific changes and enhancements.

“It is important to note that Jennie may be challenged with adding details based on the 10 components of sexual health model being a centerpiece of the curriculum. Another constraint raised by Pedro is the use of "hot cognitions" without creating ethical and legal consequences (p. 102). While their use proved effective in the face-to-face version, accountability for possible negative behaviors of their viewers becomes an issue when presented online.”

• Relationships among Issues

It became clear during my analysis of this case study that the Instructional Designer will face challenges depending on how they may be shaped by their previous experiences. Just because it worked before, does not mean it will work from now on. Recognizing how this relates to the specific problems can assist in mitigating solutions more quickly.

“Jennie is using her previous experience to support her reasoning for focusing on results. Her design methodology focuses on increased participation and effectiveness which she assumes can be facilitated simply by customizing content for specific cultural groups (Ertmer et al., 2014, p. 101). As a result of her approach, she is hoping to gather further detailed measures of effectiveness, an effort that is constrained by the fact Professor Essex is unwilling to provide such information (p. 103).”

• Reflective vs. Reflexive

A small component of what is known may depend on an aspect of empathy. As an instructional designer this is important, however justification for any assertion is needed to incorporate it in an analysis. Reflecting on how face to face interaction occurs, reminded me to include this justification as it evolves into an online format.

“The anonymity provided by online interaction may dissuade participants to be honest and less sensitive to the feelings and problems faced by others. The participants within small groups were challenged with the various issues that promoted self-analysis, ultimately having an effect on their attitudes and behaviors (p. 100), thus emphasizing the need for a similar activity online.”

Problem Solving

• Relationships among Solutions

Addressing multiple problems under the umbrella of a single online training module calls for innovation, especially if the instruction is linear. Recognizing that two different stages of instruction may be beneficial instead of one was the first step in this case. Justifying why they should be separated in format comes next, along with details on what makes this approach effective.

“The online workshop would then proceed in two phases; instruction and interaction. The instruction phase would present the 10 components of the sexual health model and in the same order as the face-to-face format. This ensures that the curriculum is followed in a linear fashion as originally intended by Professor Essex, and participants would not be able to jump around lessons.”

• Consideration of Implications

A major part of recommending solutions is indicating potential disadvantages. This not only shows the need for flexibility but also brings to light new problems that may arise as a consequence of a proposed solution. This helps me to realize that identifying cons to a particular recommendation is not necessarily intended to show why something is a bad idea, but rather asks if a better idea is warranted.

“There are, however several noted disadvantages in the use of third party websites. The most prevalent being that it is unlikely the "hot cognitions" will be allowed on their own. It is likely that this content cannot be integrated online if only based on copyright laws and the usage rules of the websites.”

• Rigid vs. Flexible

Budget limitations were a common restriction in nearly every case study I reviewed. This again emphasizes the need for multiple solutions to be proposed along with flexibility. While I was challenged by the fact that some of my recommendations were not always the most streamlined, I now know that it is still helpful to mention them as a potential solution. Again, I must always remind myself that justification of any solution is essential so that the client understands my approach.

“Tests and quizzes on the material could be administered through the use of ClassMarker ("Online Testing Free Quiz Maker Create the Best web-based quizzes ClassMarker," n.d.). This would allow for all answers to be gathered and graded automatically and therefore evaluate the effectiveness of the curriculum learning transfer in an online format.”

Overall Rating – “high,” “medium,” or “low”

HIGH

V. Action Plan for Moving Forward

After understanding the fact that there is no simple way of extracting problems from a situation, I've come to realize that solutions must also be carefully considered. Thorough review of client testimony and acknowledgement of the facts can help lay the foundation to formulate solid recommendations. However, it would seem that in order to facilitate expertise as an Instructional Designer, one must form their own individual model to accommodate structure. Gaining experience in recognizing elements of a case to be included in creating solutions is an essential step, but it also takes a certain level of gumption to incorporate knowledge into an acceptable solution. In essence, the second aspect of building my ID expertise will likely only take shape in time.

This does not indicate that a personal tool cannot be developed to assist me in the recognition of instructional design challenges however. Understanding stakeholder needs, challenges and constraints require a second layer in order for them to be interpreted to a client in a report. Therefore, I must begin to formulate a regular set of additional questions to ask once all components of a case have been identified. Some of these may include:

* Do the ID challenges identified have specific traits relating to the tasks and output of their respective phase in the ADDIE model?
* Do the constraints have anything in common that allow certain solutions to be shared?
* Are the recommendations practical?
* Are the proposed solutions meaningful to the learner?
* Have you successfully articulated your suggestions at a level that your client understands?

While it is important to note that while these questions are not exhaustive, they should be asked even in the instance I think they may already be answered. I feel as if I should not look at this as an extra step, but as a required additional step. For instance, my mindset as I formulate solutions is not entirely based from the client's point of view. This may be beneficial in terms of identifying disadvantages to any proposed solution, but it is not always as helpful when considering how they may be implemented and for what purpose. This may indicate that a strong component of ID analysis is to not only identify the problems for a design, but to also determine what perspective from which they are viewed.

**References:**

Ertmer, Peggy A., James A. Quinn, and Krista D. Glazewski. The ID Casebook: Case Studies in Instructional Design. 4th ed. Upper Saddle River, New Jersey: Pearson, 2014. Print.

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