**Lynn Dixon -Case Study**

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**EDCI 672**

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| Stakeholder & Job Title | ID Role | Primary Goal/ Concerns |
| Lynn Dixon- Telopea ID | Instructional Designer | To provide clients with high-quality products within time and budget constraints (Nelson, 2019). |
| Janette Parks- Telopea Sales Head  | SME- Project Acquisition | Acquire new customers and projects. Her role is winding down, but she is still vested in keeping the customer happy and is willing to exploit contract terms such as "on average" to make that happen (Nelson, 2019). |
| Ben Williams – Education Manager at Marine Park Aquarium & PM  | SME- Wetlands Expert and Client |  Educate the public about the Interconnectedness between the Great Barrier Reef, wetlands, and catchment areas, perhaps more easily observed from a "birds-eye" view. Hence, there is an insistence on including an animated metaphor of the flying bird (Nelson, 2019). |
| Laura, Barton-Government Employee & Project Sponsor | Client | Garner supports ecological government conservation efforts by increasing community understanding of the Interconnectedness between the Great Barrier Reef, wetlands, and catchment areas while recognizing regional sponsors (Nelson, 2019). |
| Marine Park Aquarium Visitors | Audience | Visitors are of multiple age groups and cultures and speak various languages. They will want something accessible and relevant to their particular demographic.  |
| Future Stakeholders: Hardware Supplier, Telopea graphic designers, Telopea Learning Technical developers, Telopea Voice actorsPotential Stakeholders: University near Cairns, Regional Marine Park, Aborigine Story Teller, Senior citizens group for possible pilot testers(Nelson, 2019) |

# **Key ID Challenges – ADDIE:**

**Analysis:** Marine Park Aquarium Visitors have various ages, cultures, native languages, and expertise levels regarding the wetlands. When Laura asks Lynn how she will address the challenge of this wide range of end-user characteristics, Lynn indicates she will not know until she gets further into the design process (p.235). However, according to McGriff (2000), detailing the learner profile is an output of the analysis phase. Lynn will need to find a way to analyze a wide range of audience demographics to conduct a proper analysis.

**Design:** Although Lynn translates client desires into general questions in the General Design Flow document (p. 234), specific, measurable objectives designed to meet the target learner's needs in the context of the overarching goal of the project (the interconnectivity of the wetlands ecosystems) are not explicitly stated. According to McGriff (2000), defining specific and measurable objectives is an output of the design phase. This component is challenging because the many product requests (i.e., games, animations, aborigine voiceovers, etc., p. 231- 234) lack focus, setting the project up for scope creep.

# **Case-Specific Constraints:**

**In-House Contract Terminology Confusion:** There is confusion about what the agreed-upon "20 minutes of content-time at a medium level "on average" means (p.231 & 229). *Evidence:* Lynn expresses her frustration about salespersons over-promising what can be delivered within budget and time (p 229), and Janette expresses frustration about not understanding what "a minute of content time at a medium level" means (p. 231). Without clarification of these terms, assumptions about what services and products were purchased (client perspective) and what was sold (Telopea perspective) could be very different and cause disappointment with the services and products.

**Geographical Distance of Available Resources:** Besides the development resources in ***Sydney*** (Telopea graphic designers and in-house voice actors), additional volunteer resources are available (for example, a pilot group and a local university) in ***Cairns***. The eagerness of the client to donate development resources to "save money," combined with the geographical distance between Telopea and Cairns, could significantly consume excessive time and money, making it challenging to stay within the time and budget constraints.

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| Priority | Challenge | Rationale For Priority Placement |
| 1 | In-House Contract Terms Confusion | Telopea representatives must be able to provide concrete and consistent descriptions of services based on contractual terms and descriptors, or they risk a loss of reputational integrity or being sued for breach of contract when unclear terms are left open for interpretation. This is an unacceptable risk not just for this project but risks the possibility of acquiring future quality projects, and so it must be considered first.  |
| 2. | Under Developed Multiple Learner Profile (Profiles) | A successful product requires a thorough analysis of the target learner (or learners) and should be considered during the design process. Skipping this step risks the project trying to be all things to everyone, which is a recipe for failure. Hence, the second priority ensures the analysis phase is complete and robust.  |
| 3. | Measurable Objectives  |  Defining and agreeing upon measurable objectives will be the litmus test regarding what ideas and content should be considered relevant and essential vs. what is not. This is why it must be the next step to move forward with any sense of common purpose. |
| 4. | Geographical Distance | Not having all the resources at Telopea increases the complexity of resource coordination for content creation and could absorb unnecessary amounts of time and money without strategic planning. All travel must align content creation hours and objectives and not cost more than just paying for volunteered services without the travel. However, these costs cannot be determined without completing the design phase, placing this item last. |
| Experience Impact: As a teacher, I am used to using rubrics. When looking for a method for making "content-hours combined with interactivity levels" concrete, I realized that I could use a rubric to organize those ideas by replacing the specific number or score value with interactivity levels (low, medium, and high). This caused me to research rubrics and ways to use them for differentiated instruction (Chapman & King, 2014). This investigation inspired the rubric construction in solution #2.  |
| Required Reading Impact: Hoeffler and Leutner (2007) consider cognitive load an essential consideration in design. This focus led me to consider releasing waves of complexity in solution #1, not just for the design process. Allowing the audience to access different levels of complexity gives the audience more control over the extraneous cognitive load of the kiosk experience (Hoeffler & Leutner, 2007).  |

**Solution # 1: Bundles threads and Layers of Complexity**- Lynn will create individual learner profiles or "threads" in a Word document. Each "thread" will consist of one learner profile (representing one demographic category) and two measurable objectives, with client-requested content & activities to support those objectives. Next, the client-requested content and activities on each thread will be broken down into three levels of complexity. The basic level will be a minimum viable product of the customer's vision. The medium level will add a layer of complexity that adds more interactivity and content time. The top level represents the customer's dream vision with "bells and whistles." Next, threads with shared or similar characteristics will be synthesized into a broader category called ***Bundles***. The first kiosk prototype will be designed to be a minimum viable product for each ***bundle*** and is guaranteed to be released on Wetlands Day. The next wave will add a medium level of complexity to kiosk features designed for bundles chosen for an upgrade; they will have a medium chance of being viable on Wetlands Day. The final wave will add bells and whistles and will likely "go live" after Wetlands Day unless fewer than four ***bundles*** are chosen for a primary focus. (Travel plans required for content development will also be aligned to each complexity layer, streamlining trips to the least possible number.) Finally, the layers of complexity will remain accessible to the audience, who will choose their complexity level when they approach the kiosk, allowing each audience member to tailor the kiosk experience to their desired level of external cognitive load (Hoeffler & Leutner, 2007).

* **Issues Addressed:** This plan addresses all four issues: terminology confusion, learner analysis, design of focused, measurable goals, and keeping travel plans strategically tied to only necessary content development.
* **Pros & Cons:** An advantage of this plan is that the client's desire to offer something to everyone in their pluralistic demographic is addressed. However, it sacrifices the possibility of the bells and whistles or medium-level interactive features being in place for Wetlands Day.

**Solution # 2: The Dinner Series**- ***Menu-*** Clarify how contract terms translate into customer requests: Lynn, Jeanette, and other Telopea senior officials meet to create a general rubric. The left vertical column will list the number of content hours; the top horizontal row will list low, medium, and high interactivity levels. The inner squares will contain sample product descriptions of the combined content hours and interactivity levels. Effort points will also be assigned to each inner rubric square, representing the effort required to produce the example product. ***First Course-*** analyze audience/ learner profiles: A list of visitor profiles will be created. Each profile will have information about the represented demographic, including their likelihood of being present on Wetlands Day. Audience/ learner profiles most likely to attend Marine Park for the Wetlands Day will be prioritized. ***Third Course***- Potential measurable objectives will be listed. Lynn will assist Ben in choosing appropriate objectives for each prioritized demographic group. ***Fourth Course-***The client may spend their effort points from the rubric in the "menu" to select activities designed for prioritized demographics and learning objectives in any way they wish. ***Extra Costs-*** The necessary development resources will be analyzed for associated travel costs based on the client's selected menu items. This will ensure that the number of trips between Cairns and Sydney will be streamlined, minimally cutting into the budget and time constraints.

* **Issues Addressed:** This plan addresses all four issues: terminology confusion, learner analysis development, focused measurable goals, and geographical distance costs associated with content development.
* **Pros & Cons:** On the plus side, the menu (i.e., rubric) provides the client flexibility of choice but clarifies the cost of their requests regarding content hours and interactivity levels. Using effort points gives Ben and Laura control of how they want to distribute purchased points among their many requests. However, Lynn remains in control of ensuring that measurable objectives are defined and used to keep the project focused and within scope. Conversely, developing the generic rubric with Telopea will require significant development time, slowing down the project. Also, because this rubric is not case-specific, it may not neatly align with what has already been promised to Marine Park.

**Final Recommendation:** Jeanette and Lynn will create an abbreviated ***"Solution Two"*** ***Rubric*** based on Marine Park requests to clarify realistic outcomes given the current contract. Next, ***"Solution One"*** ***Bundles***" will be generated. As in solution one, each bundle will have a set of learner profiles synthesized from individual threads (or demographic profiles) connected with measurable objectives, development resources needed, and associated travel costs. The "bundles" that represent Marine Park's *most likely to be present* on Wetlands Day and *most likely to interact* with a kiosk will be prioritized. Ben and Laura will be asked to distribute the effort points equally among the top three "bundles," saving enough points for the screen saver. (Screen-saver points could be spent on Ben's bird in flight because the aerial viewpoint makes it easier to see how the wetlands are interconnected- if they so choose.) The top three "bundles" will also be analyzed to minimize content development across geographical distances. This solution is the best option because it will target an audience/ learner most likely impacted by the kiosk offerings while reducing the risk of developing a product that aims to please everyone but satisfies no one.

* **Pros & Cons of Final Recommendation:** The hybrid solution capitalizes on the capacity of the rubric to support a clear understanding of contract terms and creates a higher-impact product because resources and designs are focused on users most likely to interact with the kiosk on Wetlands Day. The disadvantage of this plan is that it does not necessarily "have something for everyone," which may concern the clients.
* **What could go wrong & backup plan:** Theclients may not have data to help them determine who, among their visitors, is most likely to interact with a kiosk. As a backup, the volunteer elderly group will survey Wetlands over a high-traffic time to survey those interested in kiosk activities.

**References:**

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