Design Document
NYU College of Dentistry New Hire Orientation

Team Members
Manal Alyaba
Maria Papacosta
Sarah Azhar
Tiffany Charbonier

Table of Contents

Project Description

Our team was tasked with a making a current revamp of the NYU College of Dentistry orientation module for entering staff and faculty, working alongside the NYU Dentistry Office of Professional Development. The goal is to launch this orientation by the Summer of 2019. As DPL students, our design question became: How might we design an orientation module for the entering NYU College of Dentistry staff and faculty that is both engaging and educational on the day-to-day responsibilities and workplace practices?

Learning Objectives

- Learners will identify resources to assist them in their daily work activities
- Learners will utilize NYU Dentistry customer service standards
- Learners will be able to practice the work culture at NYU Dentistry
- Learners will be able to identify the workspaces of NYU Dentistry

Our Final Proposed Design

Visualization

Our main concept is based on analyzing the stakeholders' requirements for this orientation and analyzing the employees' feedback and ideas about their needs. Compared to the original orientation module, our new design takes into consideration some main factors including personalization, assessment, scenario based-learning, interactivity, videos, and visual design updates.

Personalization

Our main focus was providing personalization by adding branching paths for the two main buckets of employees. We also wanted to provide the learners' name to the online module, so whenever the learner is getting feedback or information, their name would be displayed on the screen. This would offer a basic level of customization that offers personalization for the learning experiences (Pandey, 2017). Another idea that we think should be included is self-directed learning that gives the learners the freedom to navigate the course in the order that they desired. In this way, we apply some of the adults learning principles in giving learners control over their learning journey (Gutierrez, 2018).

Figure 1: First screen the users would see. They have to enter their name so the name can be used while generating feedback. Also, they need to choose their position.

Figure 2: A welcome screen, in which the image can show the real people, who are working at the school.

In the post-survey results we reviewed during analysis, employees had comments about how they prefer in-person training. We are suggesting using images of an HR agent that provides the narration and information for the learners for this reason. The real HR agent or the virtual one will welcome the learner and walk him/her through the first-day essentials requirements. This can be done in a story style in some slides and asking questions that require learners' responses.

Figure 3: The Main menu.

We want to convey the welcoming culture of the college by using real personals and real names. Although this might be a costly solution for NYU requiring constant updates, we added the idea of the interactive chart, using images of current higher management in the organization. When a user clicks an image, they learn more about the person and fun facts about them. Plus attaching a web object that links the faculty webpage. Another option we had suggested due to the persistent changes in job occupancy is that the chart might have the position names instead of people names so that once the learner clicks on a position, it shows him/her a web object to the personal information.

Figure 4: A visual example

Figure 5: A visual example

Assessment

Assessment is one way to develop a personal teacher presence online, which was requested in learner survey feedback (Wilson, & Stacey, 2004). We address assessment by focusing on meaningful feedback for learning, and to assist our learner in retaining the important information. We decided to include an assessment within the parts of the module that were true training elements and that required an alteration in behavior. In this particular module, the most important training required assessment in regard to the content on culture and standards.

Figure 6: An example of a scenario with a knowledge check.

According to Dirksen in *Design for How People Learn,* people hold items in working memory only as long as they need them for a purpose. Once that purpose is satisfied, they frequently forget the items. Asking your learners to do something with the information causes them to retain it longer and increases the likelihood that that information will be encoded into long-term memory (Dirsken, 2015). Therefore, the standards and policies section of the module is the only section that will be receiving a knowledge check in a multiple choice format since multiple choice questions allow learners to recognize “the right answer from a set of options almost always involves less effort than recalling the answer” (Dirksen, 2015). This would make a practical choice easier to evaluate the recognition level of learners’ and provide immediate feedback. We also included downloads of the school’s standards for future reference.

Scenario-based learning

We address scenario-based learning in the employee policies and customer service standards section. As it was important for NYU dentistry school leaders to achieve a high level of customer satisfaction, we are focusing heavily on scenario learning in the modules. The benefit of using scenario-based learning is that it allows learners to utilize prior knowledge, critical thinking, and subject knowledge to answer real-world problems. In this type of environment, learners are learning from their mistakes and learn the necessary skills to complete their work without the risk of facing real consequences. Scenario-learning is especially beneficial when teaching customer service skills, allowing learners to practice real-life situations in which learners can gain real-world experience in a contextual familiar setting (Penfold, 2015). Scenario-based questions are key to situated learning experiences. It affords for feedback based on the answer you choose and are based in real-life situated training. All the scenarios that would be available in this module are based on whether the user is a faculty or staff module, so it would require the subject matter expert to write new content that currently not available.

Videos

The reason we focus on video as another important element in the redesign is that it allows for affordances that take advantage of the multimedia principle of design by Mayer, which explains that audio plus video is optimal for learning (2009). We proposed the following video options to match the content from most expensive to least expensive for the module: HD Videos with people and real acting; HD Videos for the environment without people; 360 videos with hot spots that explain what the user sees. In our final example, we used the 360 videos idea in which the learner can have a walkthrough in a couple of NYU's Dentistry buildings, such as the labs, classrooms, cafeteria, hallways, auditoriums and the clinics. This would provide the new hires the opportunity to explore interactive spaces and learn about the different facilities that the school offers on their first day.

Figure 7: An example of a 360 video.

Figure 8: An example of the history animation.

Another use of videos that we have proposed is an updated welcome video by the Dean of NYU's Dentistry College instead of the current outdated one. Also, despite the objections by our stakeholder initially, against the use of animation, we proposed animation as the best route to take for explaining history and the mission statement of the college. Even though we think the history part is not an essential part of the orientation training, it is customary practice to have a message from the leaders of NYU's Dentistry school in their orientation module. Goal was to use Mayer's Modality

Principle in which people learn better from graphics and narrations (Mayer, 2009), in an effort to increase learners' motivation and reduce any potential cognitive load.

Interactivity & Visual Design

Throughout the module, we propose visual design updates, by using real images of the employee positions and aesthetically useful graphics and icons as well as making considerations for layout, typography, and visual design principles. We also addressed interactivity by increasing learners active engagement with the module by having them answer questions and click within an organizational chart to learn more by exploration.

Figure 9: An example of interactive chart.

Figure 10: An example of icons and layout.

Figure 11: An example of a person's information when the user clicks on the interactive chart.

How Did We Achieve our Design?

Our Problem

A revamp of the orientation module is necessary for a few reasons. While analyzing the module itself, the module is outdated and very long. It lacks engagement or personalization to each learner. It provides a passive learning experience, where learners are receiving information from a nasally narrator. There is very limited control over options or any kind of interactions within the module. In addition, there is no assessment, nor is feedback given, so there is no way to analyze if learners are able to retain or transfer any information. It does not utilize multimedia and adult learning principles. Overall, it is out of context, increases cognitive load, and contains links to repetitive content that already exists on the website.

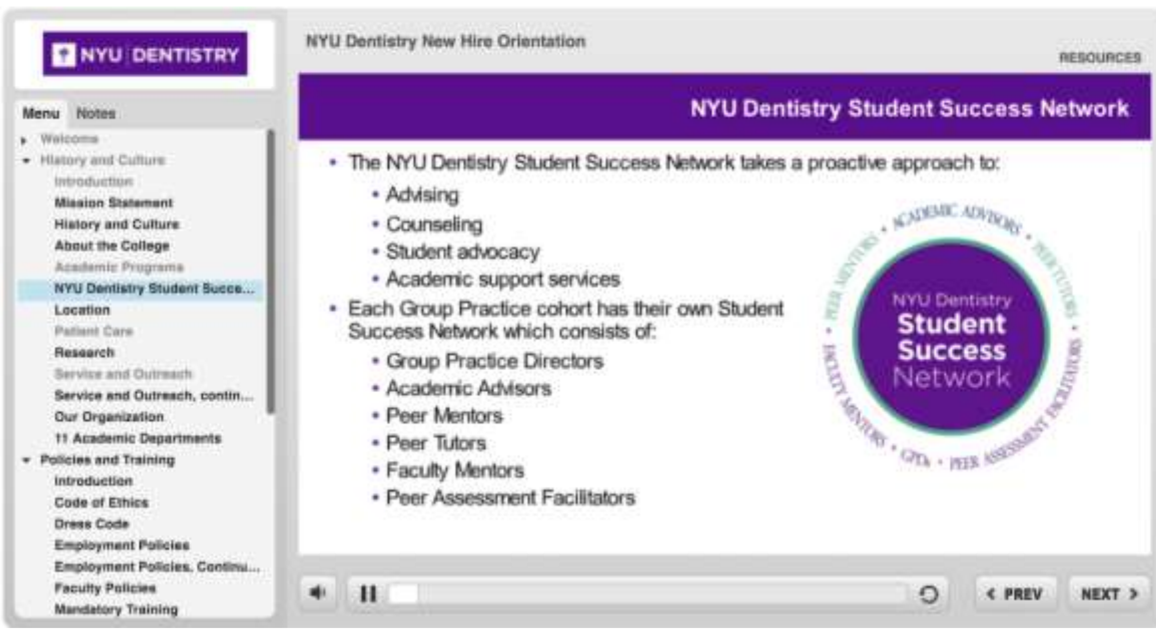

Figure 12. An example of a screen having so much text, therefore increasing cognitive load

Analysis of Context/Setting

Current Content Breakdown

The current module is 30 minutes long and is in NYU iLearn. It contains 5 main headers of content: Welcome, History and Culture, Policies and Training, Administrative Resources, and Your Next Steps. The current user flow is shown below.

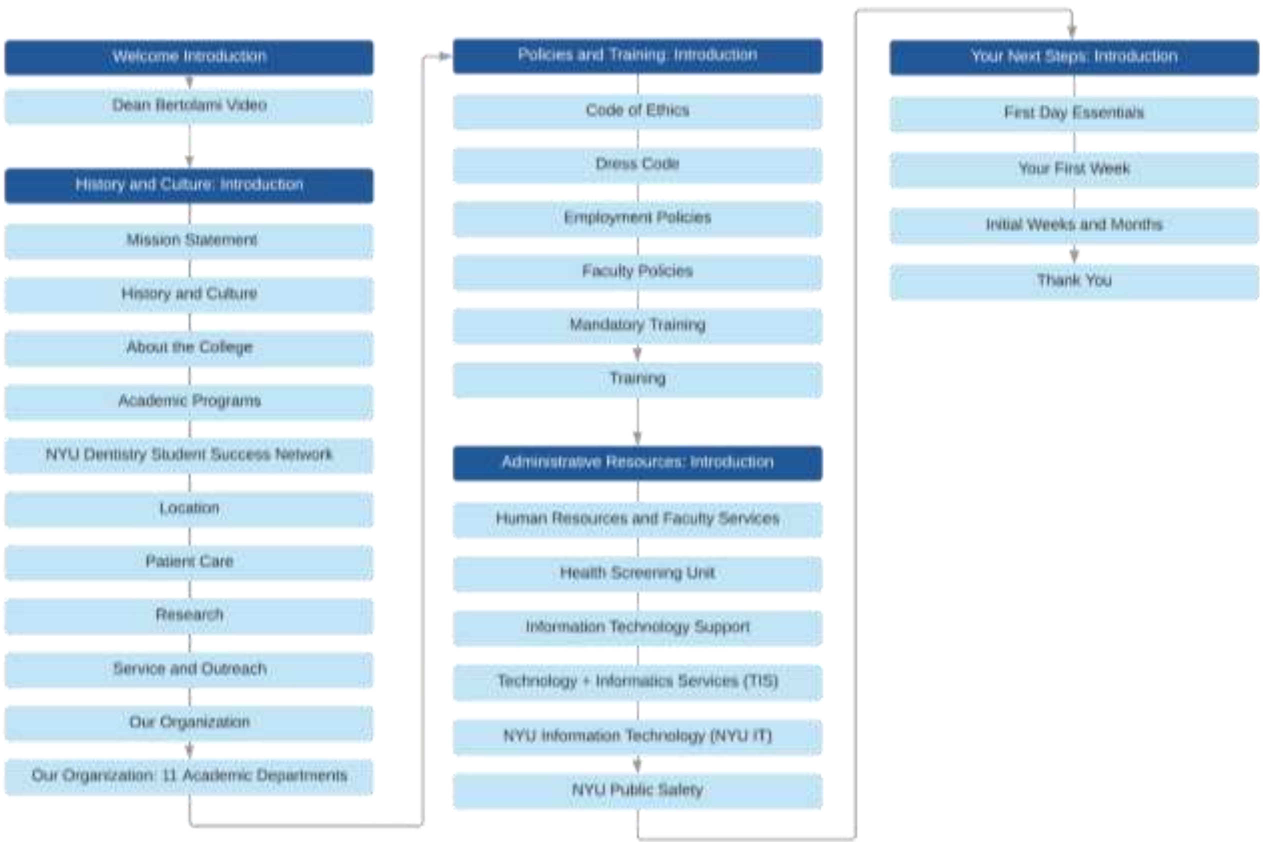

Figure 13. The current user flow

Affordances

Some affordances of hosting the module on an LMS like iLearn includes the ability to analyze learner data to make informed updates to the module. iLearn analytics can let us know how long the learners spend on each slide and what questions they struggle with.

Analysis of Learners & Gaps

Our learners are new faculty, most who have graduated from NYU, and staff including receptionists, researchers, professors, etc. Many of them have come to NYU for continuing education, whether it was a master degree or higher at the College of Dentistry. In 2018, there were 100 new hires. In 2019, there is expected to be 150 new hires because of new research projects, buildings, and more. However, this orientation module is not intend for dentists or nurses, as they have another orientation, and training that were developed for them.

Two sample personas include these titles with these roles that are pending hires for 2019:

Customer Service Representative

Required Education: High School diploma or equivalent combination.

Required Experience: 6 months of office experience providing customer service.

Preferred Experience: 1-year experience working in a healthcare setting

Required Skills, Knowledge and Abilities: Excellent customer services skills. Ability to prioritize in a fast-paced environment. Ability to operate basic office equipment (personal computer, photocopy/fax machine). Proficiency with basic word processing applications.

This Person Would Be: Responsible for providing front line customer service for the College of Dentistry to all patients, visitors, students, faculty administrators, and staff. Provide patients and visitors with information and assist with way-finding. Answer telephones, screen calls and take messages. Respond to routine inquiries and provide information regarding clinic hours, appointments, general clinic policies and procedures, patient care center locations, programs, events and consult with supervisors or others as needed, on more complex issues.

Facilities Coordinator

Required Education: Bachelor's Degree

Required Experience: High- level of professionalism, integrity and excellent work ethic. Experience in healthcare facilities maintenance preferred. Three to five years in a facilities service-related position and two years related education: Strong written and oral communication skills. Able to stay organized in a fast-paced patient-care environment. Work with various technologies, which include but not limited to smartphones, tablets, and computers, proficient with Microsoft Office

Required Skills, Knowledge and Abilities: Knowledgeable: OSHA and ADA requirements, state and local building codes and fire codes, and NEC, supervisory principles and practices. Skilled: interpreting and applying blueprints, specifications and technical manuals. Ability: work independently, interpersonal skills at all levels. Work in a consensus-driven collaborative manner, initiate and follow through on assignments, inspecting or performing quality control for projects.

This Person Would Be: Under the direction of the Assistant Director of Facilities, act as coordinator, liaison, and advisor for facility maintenance issues, as well as renovation and construction projects. Coordinate and maintain all facilities related issues in a multi-building portfolio, which includes the NYU College of Dentistry (C.o.D) and NYU's Institute of Fine Arts (IFA), while achieving Facilities and Construction Management's (F&CM) vision, values, and mission. Facilitate and address building issues with senior management at the NYU Dental College and the NYU Institute of Fine Arts. This position will have the responsibility to have a general understanding of the building's infrastructure and systems and have the ability to articulate and implement a concise plan of action to senior management when building issues and concerns are raised.

While researching some of the basic requirements for school's job postings, the school of Dentistry seems to focus on requirements such as strong customer service orientation, interpersonal skills, and strong communications skills to resolve patient complaints, monitor patient and staff satisfaction. The school wants new employees who have the ability to use user-friendly language and work in a team-oriented collaborative environment. These requirements are part of the culture that the school needs to cover in the new orientation module.

Research Process

For the process of identifying our learner gaps, we embraced Learning Experience Design (LXD). LXD is the method of creating learning experiences that focuses on understanding learners' needs, challenges and motivations to achieve the desired outcome. Learning Experience Design combines instructional design, learning theories, and human-centered methodology to provide the learner with actual experiences that they can relate to. The thought process in using LXD approach is that learners have needs, opinions, choices, and goals that they need to reach. The reason we have chosen LXD is that we wanted to focus on the learners' journey. We wanted to assure that we can provide a suitable, informative and engaging journey that leverages learners' characteristics with consideration to the essential content. LXD is all about being empathetic and putting the learner first, and because the Dean of the College of Dentistry has a goal of making his culture more empathetic overall, it's something we have to also be for our learners.

Our process also included the following:

Contextual interviews

Our first in-person interview with our stakeholder Erica Reifer the Director of Professional Development, lasted about an hour. Our intention from this interview was to get all the details of this project, in order to define the learner gap that they have. As a result, we focused on asking her about the initial project prompt that was given, the problems that they have with the current module, and their expectations for the new design.

After this initial interview with Erica, we learned that most learners are not listening to the provided information in the current module. Also, she noted that there were a few requirements for the new design as her boss is opposed to changing much of the content, animation, and wants it to be professional. The budget for the project is not set yet and the modules must be on NYU iLearn, as this is what they currently use for training. Erica also spoke about the "buddy system" at the College of Dentistry, a great cultural resource that many employees don't know about it, and that is also not mentioned in the module.

Our next interview was done via a video call for about 40 minutes with Erica, and HR Generalist Heather Derriman, who worked on an original module. In this interview, we focused on addressing some of the post-survey responses and the reasons for structuring the current module and its content in the way how it is structured. We wanted to know the importance of the content in the module, how much we can change the content and/or edit the content, and what the affordances and limitations were in the content. The overall goal is to increase engagement and better orient both faculty and staff.

From this interview we learned that due to the general audience (staff and faculty), the information must be general, without going too deep for one or the other. She added that there is likely the opportunity to do branching or something similar in a way that she couldn’t but that the case would have to be supported to be able to convince Erica’s boss that branching wouldn’t hurt the content. Also, we learned that the content was given to the team and they did what they thought was the best.

Tour

Senior HR Assistant Wendy Huang gave us an hour tour of the College of Dentistry and spoke to us about the Dean’s priorities for the workplace culture and compliance practices. The intent of this tour was to get access to the work environment and observe some of the learners while performing their roles. The college is massive, with so many faculty spaces, staff spaces, student spaces, and large clinic spaces. It’s the largest dental school in the country. About 8% of all dentists in the country come from NYU. Their compliance officer walks around daily to make sure the whole building is compliant i.e. will make sure people have the flu sticker on their badge if they have had the flu shot or are wearing the mask to cover their face if they haven’t. From this tour we have learned about:

- The magnitude and complexity of the clinics
  Includes the Emergency Services / Urgent Care, General Dentistry, Pediatric Dentistry, Oral & Maxillofacial Surgery, Orthodontics, Implant Dentistry, Endodontics, Periodontics, Prosthodontics
- How there is 1 faculty member assigned for every 7 students at the school, which makes for a cheap but also slow patient experience

- That the College has nearly 1,900 students in its various pre- and postdoctoral programs from all over the United States and 40 foreign countries.
- That the Humanitarian Council was started by the Dean, Dr. Charles N. Bertolami and strives to foster a compassionate and trusting environment that promotes mutual respect beyond hierarchies, celebrates diversity, and enhances the community at NYU College of Dentistry.
- That there is a new NYU Dentistry Oral Health Center for People with Disabilities

Researching Learner

From our contextual interviews, we knew we were not going to be able to get direct access to our learners, nor send a survey to them to collect sufficient information. However, we were able to receive a post-orientation survey conducted by the Dentistry Office, giving some insight into the learner demographics and thoughts.

#	Field		Choice Count
1	full-time faculty member (job code 102)	29.27%	12
2	part time faculty member (job code 112)	21.95%	9
3	full time research personnel (job code 103)	12.20%	5
4	part time research personnel (job code 113)	4.88%	2
5	full time administrator (job code 100)	24.39%	10
6	part time administrator (job code 110)	0.00%	0
7	full time technical staff member (job code 104)	2.44%	1
8	part time technical staff member (job code 114)	2.44%	1
9	full time clerical staff member (job code 106)	2.44%	1
10	part time clerical staff member (job code 116)	0.00%	0
			41

Figure 14: Post-module survey, please check the boxes for the job codes that apply to you.

#	Field	Choice Count	
1	I will start working at NYUCD soon	2.44%	1
2	≤ 2 weeks	24.39%	10
3	< 2 weeks and ≤ 1 month	9.76%	4
4	< 1 month and ≤ 3 months	2.44%	1
5	< 3 months and ≤ 6 months	2.44%	1
6	< 6 months and ≤ 1 year	4.88%	2
7	< 1 year and ≤ 2 years	9.76%	4
8	< 2 years and ≤ 5 years	12.20%	5
9	< 5 years and ≤ 10 years	14.63%	6
10	< 10 years and ≤ 20 years	9.76%	4
11	> 20 years	7.32%	3
			41

Figure 15: Post-module survey, How long have you been with NYU College of Dentistry?

#	Field	Very Good		Good		OK		Poor		Very Poor		Total
1	Overall New Hire Orientation	70.00%	28	17.50%	7	10.00%	4	2.50%	1	0.00%	0	40
2	Part 1 - Welcome	73.17%	30	21.95%	9	4.88%	2	0.00%	0	0.00%	0	41
3	Part 2 - About the College	70.73%	29	19.51%	8	9.76%	4	0.00%	0	0.00%	0	41
4	Part 3 - Our Principles of Conduct	65.85%	27	26.83%	11	7.32%	3	0.00%	0	0.00%	0	41
5	Part 4 - Health & Safety	63.41%	26	26.83%	11	9.76%	4	0.00%	0	0.00%	0	41
6	Part 5 - Resources	60.98%	25	26.83%	11	9.76%	4	2.44%	1	0.00%	0	41
7	Part 6 - Your Next Steps	58.97%	23	28.21%	11	10.26%	4	0.00%	0	2.56%	1	39
8	Attachment - Printable Version of the Orientation	60.00%	24	25.00%	10	15.00%	6	0.00%	0	0.00%	0	40
9	Attachment - Additional Resources	58.97%	23	28.21%	11	10.26%	4	0.00%	0	2.56%	1	39
10	Length of the Orientation	52.50%	21	30.00%	12	12.50%	5	2.50%	1	2.50%	1	40

Figure 16: Post-module survey, How would you evaluate the following items?

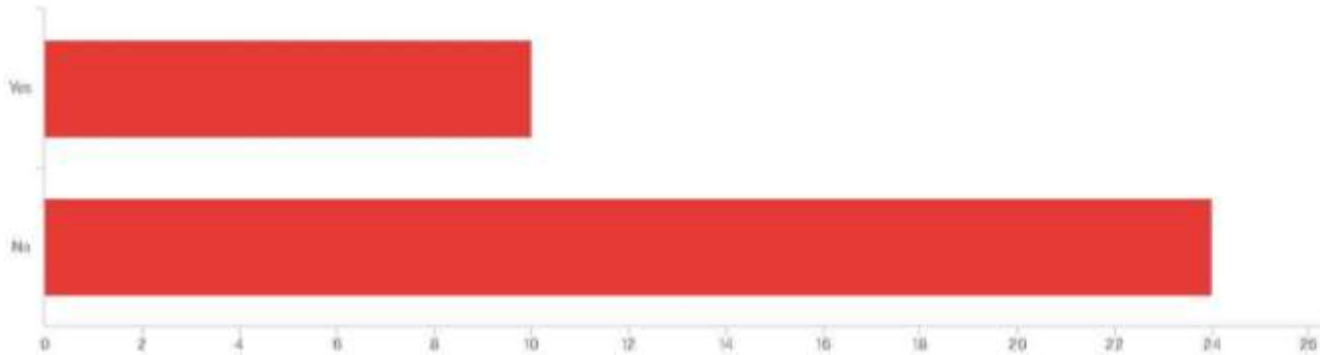

Figure 17: Post-module survey, Do you feel like some information is missing in the orientation?

The survey had general questions about the length of employment and the information that the learner gained after finishing the orientation. Also, there was an option to add comments or to

- Remote orientation is not personal and challenging.
- A checklist/new hire guide with appropriate resources will be helpful instead of numerous emails with tasks to complete.
- Everyone needs to have a clear understanding of the various roles and responsibilities assigned and what needs to be done for in-processing at sites of assignment
- Supplemental orientation led by HR is needed
- In-person orientation would be more helpful and personal
- More interactive meet & greets would have been nice, perhaps attending with one's supervisor
- Orientation/onboarding site had no clue as to how to in-process me which took longer than normally required for an effective onboarding/orientation process
- There needed to be more information on what happens after the probationary period
- There needs to be an orientation for PT new hires as well
- MyTime should be covered
- Should have floor by floor description of what is on each floor of Schwartz Weissman & new building
- There should be a section on benefits and people to contact regarding questions about benefits

- Availability of Professional Development should be described
- Some subjects were just an overview and then there was a link to another website, there should have been more complete information as well as the link
- Steps involved in achieving clearance
- Should be step by step explanation of web site from home-work-research, etc
- Should creating an orientation to HER (electronic health record) soon

Subject Matter/ Content

Researching Learning Outcome

As a group, we decided that in order to improve learning outcomes for the current module, we needed to identify clear and measurable goals and objectives. When we initially met with Erica, we were told about different types of information that people wanted in the orientation module. We often found ourselves asking, “is this really necessary?” One example is how one of the stakeholders really wants to include the history of NYU Dentistry in the module, as history, would evoke people about the school culture, values and “who they are.” Based on our communications with the stakeholder, we understood that the history section is recommended by the school's leaders to show the basic truth about how the school's history shaped its overall culture. However, we thought that the type of history information will not impact how workers practice their interaction with the customer or their daily workflow.

In order to get a better understanding of what objectives are needed, we read chapter seven of Julie Dirksen’s *Design for How People Learn*. In this book, the author discusses how it is important to identify problems like knowledge or skills gaps. Knowledge gaps can be easily solved by showing student information or how to locate a particular resource. On the other hand, skill gaps require practice. We found that the majority of our objectives are informational gaps such as students learning about NYU Dentistry Leadership and Policies. Applying NYU behavior and customer support standards are considered skills that can be touched on perhaps in future training.

Needs Assessment

Smith & Ragan's *Instructional Design* guide discusses the importance of conducting a needs analysis. This is usually the first step when solving a learning design problem. When we first received information about the project, we were under the impression that there were severe behavioral problems. Once we spoke with Erica, she did not specifically mention behavior problems, but she did state that people did not pay attention to the orientation module. Therefore, our prompt changed, and we focused more on what the post-module results showed.

There were asks from learners wanting a more personalized and engageable experience. They wanted more information about HR resources as well. When Erica herself was recently onboarded and took the module, she noticed it was severely outdated and there's no orienting of new buildings and new policies. She also stated that she was extremely bored with experience and noticed her staff members described the module as boring too.

Therefore, the management thinks that the module is wasteful and needs to be more engaging. This process helped us realize that the employees are not the problem, but the current product is. It became apparent that perhaps the problems with our learners are not the learners. We also questioned whether an e-learning module is the best solution for our client's needs, but we were not given much flexibility.

Secondary Research/ Case Studies

We embraced IDEO's Design Kit's Secondary Research process for inspiration because we needed more data in order to make design decisions. While we had our design question and learner research, the Secondary Research process in conjunction with a search for Analogous Inspiration on what other companies and researchers recommended on our design process, allowed use to put our problem into the perspective of a larger context.

One idea that came up early on was that we should simulate the environment of the employee in the Orientation Module because employees are often unprepared for their work environment after an orientation (Carruth, Broussard, Waldmeier, Gauthier, & Mixon, 2010). This translated into a goal in the design process to focus on situated learning. In order to situate our learners, we first had to create a task analysis for our employees because understanding employee tasks is a crucial part of informing them and introducing them to a profession (Asunda, Calvin, & Johanson, 2018).

Increased interactivity combined with situated learning is essentially what allows learners to construct electronically their own perspectives of the knowledge (Wilson, & Stacey, 2004). Encouraging learners to click and engage in the content presents an opportunity to be present in the environment from a Vygotskian perspective and increases the quality of the education (Wilson, & Stacey, 2004). Increased interactivity also increases learner enjoyment of the module. (Palmer, & Holt, 2009). Similarly, increasing interactivity makes the media richer when the content is more complex which is better for learning more complex material (Curtis, & Lawson, 2019). For our module, the more complex material can be say, the culture of NYU Dentistry or the Customer Service Standards.

It is also important for an employee to understand how their role fits in the larger organization ("Tips on Orienting Your New Employee- New Employee Orientation", 2011). This can be visually through a tour of their new work environment or an interactive organizational chart. Interactive aspects of the module moves learners away from being passive and into active learners (Toister, n.d.).

In regard to content, we knew we wanted to encourage the learners to be connected in person with their buddy from the NYU College of Dentistry's Buddy System because in the post-module surveys, learners requested more in-person connections. This is in line with research that says that faculty are better prepared for a job when initial training is paired with peer mentoring (Vaill, & Testori, 2012). From the post-module survey, learners also wanted downloaded checklists from the module. We started thinking about combining this request with the research to build a checklist that can further encourage learners to build in-person connections after the module (Ellis, & Phelps, 2000). Checklists in general have been used in other companies to accelerate interaction after a module (New Employee Orientation or Onboarding, 2014).

One thing to note is that there is a difference between onboarding and orientation. Onboarding is a 90-day window after someone is hired but orientation is the beginning part of onboarding (New Employee Orientation or Onboarding, 2014). This reinforces our assignment of the module in the scope of the larger NYU Dentistry's onboarding process. The idea mostly is that training takes time and this module will play just the beginning part of that part (Gray, & Tobin, 2010).

Research also shows that the construction of knowledge is ideal when learners are in control of their learning process and pacing (Curtis, & Lawson, 2019). They can transfer to the idea that we should be segmenting and branching our design. In terms of segmenting and branching content, the Society of Human Resource Management calls the 4 objectives of effective onboarding as follows: Compliance (rules, policies, paperwork), Clarification (individual roles and responsibilities), Culture (organizational norms, Connection (fostering relationships) so as we moved into content mapping for segmentation, a goal is to include all 4 portions ("7 Ways To Energize New Hire Orientation To Retain New Employees", 2018). Why this matters to an employee is why branching can come in handy (Getting employees to want eLearning, 2018).

Similarly, the 5 Must-Do's for Employee Onboarding are: give formal onboarding, review new hire paperwork, review compensation & benefits, provide company policy, and provide employee handbook ("5 Must-Do's for Employee Onboarding", 2015). We've seen this in orientations that we've had to take part in ourselves.

Things we liked in our own onboarding experiences include especially a welcoming orientation. This can be a simple introduction by first name. In fact, being welcoming is a good practice to follow according the HireRight (10 Best Practices to Improve Employee Onboarding, 2017). Hire Right's video also talks about showing your employee how to connect with IT and having a post-module survey question ask what could have been done better.

In researching best technology to use for created an e-learning module, Articulate Storyline came up often (Cox, n.d.) so that's where we're leaning. It allows for easy collaboration amongst a team and has a great number of templates.

Finally, our stakeholder asked us to add assessment into the module and we knew this was important but why? In doing research, it's because assessment engages students with the content and also encourages increased transfer of knowledge after the module (Pittenger, & Lounsbery, 2011).

Goals and Objectives Decision Making

After the completion of our research, we ended up having a clearer perspective of our project's needs and that helped us identify our main goal and objectives, and specify smaller results that will aid us to achieve gradually our main goal. We had to dedicate a lot of time for research and even now we are still waiting for the focus groups to be organized, so we can be able and elicit even more information about our learners.

By meeting a lot with our stakeholder, we tried to understand what her needs, perspectives and thoughts about the new orientation module are were. Also, we had the chance to interview the person who worked on the original module to gain more of an understanding of the background of the module design process. Furthermore, during our tour at the NYU College of Dentistry, we observed many things that we could add at the orientation module, such as the space for people with disabilities and the importance of a respectful working environment. After reviewing the module, itself, that was more like a PowerPoint presentation with narration, without any engagement, after reviewing the module post-surveys and the secondary research, we have concluded our list of what learners should be able to do after taking the orientation module. We expended a great deal of effort in creating a clear description of our projects learning goal and objectives.

Goal

Our projects' main goal is to **learners will be able to demonstrate NYU's College of Dentistry culture and standards**. After the meetings with our stakeholder, we realized how significant it is for new employees to be able to adjust into their new working environment, and show that they understand the ethics, the expectations, the goals, the rules, and the regulations.

Objectives

In order to achieve our main goal, we needed to come up with smaller desirable results. The objectives describe what the learners need to know and be able to do after the completion of instruction.

Learners will identify resources to assist them in their daily work activities

After taking the orientation module, the new employees of the NYU Dentistry School should be able to acknowledge the staff versus the faculty HR resources, as we observed from the survey. They should be able to identify the buddy system and distinguish the titles of dentists; for instance, they should know the difference between endodontic and periodontics. We concluded this objective after the meetings with our stakeholder and the interview with the HR Generalist, Heather Derriman, who worked also on the original module.

Learners will utilize NYU Dentistry customer service standards

New employees must comply with their job's rules and responsibilities, which includes customer service. They should know about the mission of the Humanitarian Council, which celebrates diversity and enhances a positive and engaged community and connections. They should also understand the role it plays in NYU Dentistry standards. The Humanitarian Council is a new organization started by the Dean to create monthly meetings where staff and faculty can voice their concerns and address office conflicts. They send out meeting invites to everyone and staff and faculty should be aware that if they have issues in customer service instances, they can reach out to this group.

Staff also needs to learn the Patient Bill of Rights and how to act in the interest of the patients. Staff needs to be able to understand how to problem solve and manage customer complaints, as in any customer facing job. Similarly, staff and faculty need to know the official professional conduct practices that NYU Dentistry outlines in their Employee handbooks.

During our tour with the senior HR Assistant Wendy Huang, at the NYU College of Dentistry, we realized how important it is for employees to follow the school rules and the Humanitarian Council terms. One aspect that made us chose this objective was our tour specifically, where at one point, an employee mentioned that one very important rule is for all employees to have done the flu shot, otherwise they have to wear masks.

Learners will be able to practice the work culture at NYU Dentistry

One important element for this workspace's culture is the dress code. Staff and faculty must follow the dress code. Culture also includes the historical evolution of NYU College of Dentistry and it was something that the previous module presented a lot too. So, for that reason, we included this in the same objective, that new employees after taking the orientation module must be able to recall the history of NYU Dentistry.

Learners will be able to identify administrative leaders of NYU Dentistry
This was an important objective for our stakeholder. Moving on into the design phases, we have to think of a way to design a solution that considers the constant change of the administrative leaders in the organization.

Learners will be able to identify the workspaces of NYU Dentistry
During our tour at the NYU Dentistry with Wendy Huang, we saw many new clinics that we should add them to the new module. Also, through our meeting with our stakeholder, she mentioned many times the lack of all new information and the importance of new employees to know for example the administrative leaders of NYU College of Dentistry. So, as a team, we think that it is very important for the staff to know the locations of all clinics, especially the brand-new clinic for people with disabilities. At the end of the module, learners should be able to identify what type of work should be conducted in each of these spaces.

The Design Process

At this point in our design process, we are looking to ideate and implement our research into actual designs. Our goal is to make a design for an orientation module for the NYU College of Dentistry. We have followed a few ideation processes that led us to a few different conclusions that we wanted to draw out.

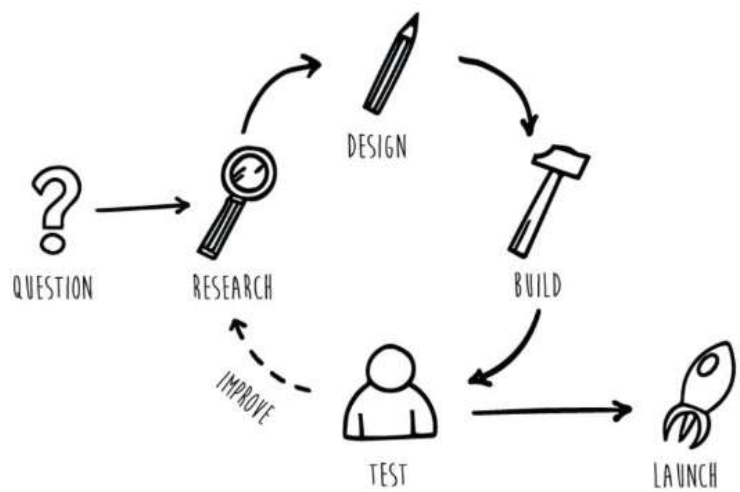

Figure 18: User Experience Design Process http://learningexperiencedesign.com/learn-3.html

As we selected the Learning Experience Design model to help guide us in this project, this model takes a more holistic approach to learning and focuses on how learning is a journey that is to be enjoyed, relevant, and informative. The central idea of Learning Experience Design is that it is user-focused. Some important factors to consider when using this model is who the learners are and their environment. The biggest challenge in this process though has been our inability to connect with our users because of the constraints that were put on us.

To overcome the inability to speak to our users, we turned into reading online reviews to find out what patients, as well as employees, were saying about the school. We investigated reviews on Yelp, Indeed, Google, and Dirksen’s book to get a grasp on people’s experiences in the Dollege. Another thing that also helped was receiving a post-survey report for the current module.

As we already learned from the research stage the issue in the current module is that, it is tedious, lacks any interactivity, creativity, assessments, and people are not engaged with the materials. Also, we already knew that the current leadership views the model as satisfactory and may be reluctant to add new innovative content like animations and games.

Design Approach and Considerations

The design module that our team decided to utilize for this project resulted from a combination of the learning experience design process for the content and a combination of user experience design in a human-centered approach. The learner is the most important element of our project, so we decided that it should be at the forefront of our design considerations, but we had another obstacle: the lack of enough information on the LX design process. This is the reason why we had to use some of IDEO's techniques, such as brainstorming, storyboarding, creating a concept, content mapping, getting feedback and iterating.

By using the learning experience design process in order to demonstrate our content we followed some steps as follows. Firstly, we had to come up with a question, a problem that had to be solved. Our main design question was: "How might we design an orientation module for the entering NYU College of Dentistry staff and faculty that is both engaging and educational on day-to-day responsibilities and workplace practices?" Then we tried to do research on our learners and their learning outcomes. According to the Learning Experience Design process researching the people, who will actually learn from the module is a vital part of our design process. During this step, we got some feedback from our stakeholder and we tried to draw information from the original module itself, the module's post surveys and the case studies.

After the first stage of empathic research, we tried to cluster our findings into a few buckets. This is where we used the IDEO brainstorming techniques. During the ideation phase, we designed our content map. We had to spend a lot of time on the content because we wanted to be sure that it was tied up properly with the learning goals and objectives. According to IDEO, a journey (content) map aids you to strategize the key moments of your project and visualize your learners experience from beginning to end. By following the map's proposed steps in order to build a targeted content, we used post-its where we wrote down what our solutions should be for our objectives, what our topics would be, what media we should use for each topic. By putting those post-it's in order, we ended up with the following content map.

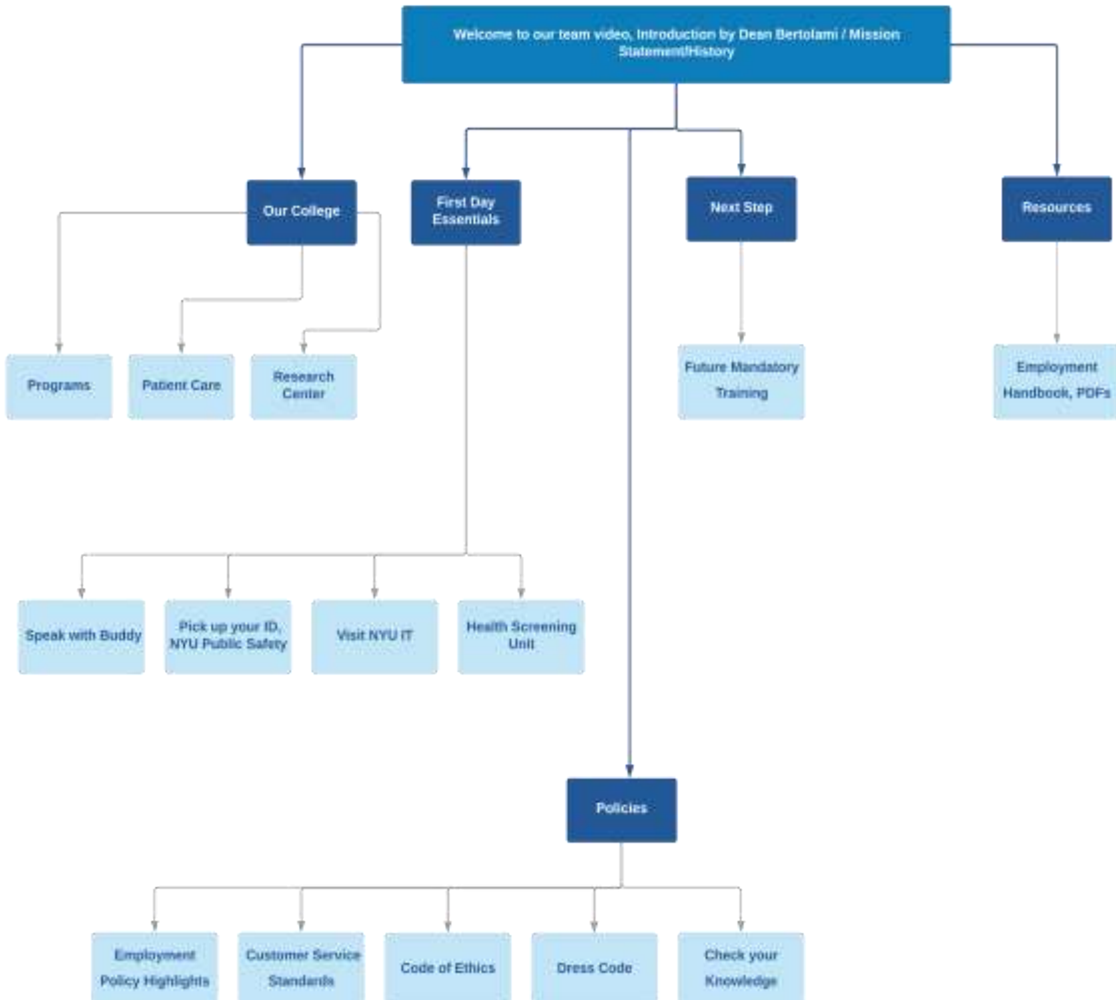

Figure 19: The New User Flow

We divided our content into separate sections because according to the Segmenting Principle, people learned better from a multimedia lesson presented in user-paced segments rather than as a continuous unit.

We start with the welcome section, where each learner has to type his name and choose between faculty and staff. We are adding personalization even from the beginning of the module because we want to engage our target audience into the learning experience. In order to engage our learners, we have to make the learning experience more personal even though the content is very broad due to the broad target audience. At the welcome section, we play with video as our stakeholder mentioned that they might film a new video for the Dean, and video will play well to showcase the history of NYU Dentistry. We also make use of the Modality principle, that indicates that people learn better from animation and narration. We can include animate here to focus on the history of the College.

The following section is called “Our college”, where we introduce to our learners the different locations of the NYU College of Dentistry. At this section, we will make a virtual tour. The content will be presented through a 360 video with hotspot, where learners will be able to click on them. As a team, we think that this might be the best way to engage our learners in this section. By implementing the Interactivity Principle here, learners will learn better because they can control the pace of the presentation. Next, for the “First day essentials” section we introduce the content to our learner as a checklist and at the same time, there will be a narration describing things they have to do in their first day at work.

We are adding an assessment only in the “Policies” section. We think that it is very important for all new employees to completely understand all their new job’s policies. For this section, we are using scenario-based learning. This is a very important section for an orientation module, and we want to be sure that our learners will draw and comprehend all the information needed.

Design Rationale:
Media and Technology Considerations

Any employee who needs to take the module will need a computer, an N number, a net ID, and to be set up in NYU iLearn to receive an email to take the module. In many cases, it appears as exclusive client training and for that reason, seems to afford that the employee can do the training from work or home, as long as they're logged into their NYU account. They can also refer to it as many times as they need, a plus of having the orientation online, accessible 24/7, and never expires. NYU iLearn also allows for progress tracking all within the app.

Specific problems that were discussed in a task analysis for new employees with our stakeholder Erica, included the skills, knowledge, and attitudes needed for successful e-learning. One of the problems she alluded to was that some of the students may not be open to online learning or may be using it for the very first time, so it is essential that we provide a good user and learning experience. We want the students to feel motivated to continue with their online learning. This drawback could mean students might be reluctant to take future online training if expectations are not met.

We know that there is an extreme lack of knowledge on the topics in the module, and that's why it's difficult for the stakeholder to exclude some of the content so branching will help organize content based on the learner and their role i.e. whether faculty or staff.

The content is also very general and basic, so a video is best to encompass so much content in a short period of time. Additionally, we know interactivity is low in the current module, and therefore our design must account for adding elements where the learners can apply new knowledge and interact with objects within the module to stay engaged. Erica said to herself that most people have the module on another screen and just let the audio play because it's so boring and most people want to just cross it off their list. Requiring engagement and encourages interactivity is a plus of using software but right now, it's being really not utilized.

Branching within the module and creating more personalization within the module creates a stronger mental map of how a specific job connects to the larger organization. This alone is a key aspect of any successful job orientation. Seeing this visually affords a stronger learning experience and boosts interactivity. This interactivity, say in the form of an interactive map, also allows students to be active participants in building their knowledge.

We also want to propose to our stakeholder how important it will be to connect the online module to in-person reinforcement afterward. Our content includes downloadable checklists that learners can walk away with that not only continue to map knowledge and chunk it but require that learners connect with their boss for a follow-up and their buddies on day one. This affords stronger learning and stronger work connections (Ellis, & Phelps, 2000). If employees lack tech savviness, as our stakeholder says they do, it would be important to create social connections in person by meeting their buddies.

We have decided to use Storyline for our main design because it’s a simple software to use. Regardless of the technology, we chose though, our goal was to make complex lessons break into smaller parts, which are presented one at a time (Clark & Mayer 2011). A common way that lessons are broken down and pieced together is by playing a “Continue” button in the frame of each slide. According to Clark and Mayer (2011), the rationale for using segmentation is that it allows the learner to engage essential processing without overloading the learner’s cognitive system. Storyline also allows us to hand over files that can continue to be edited.

The logic model for our orientation module is as follows:

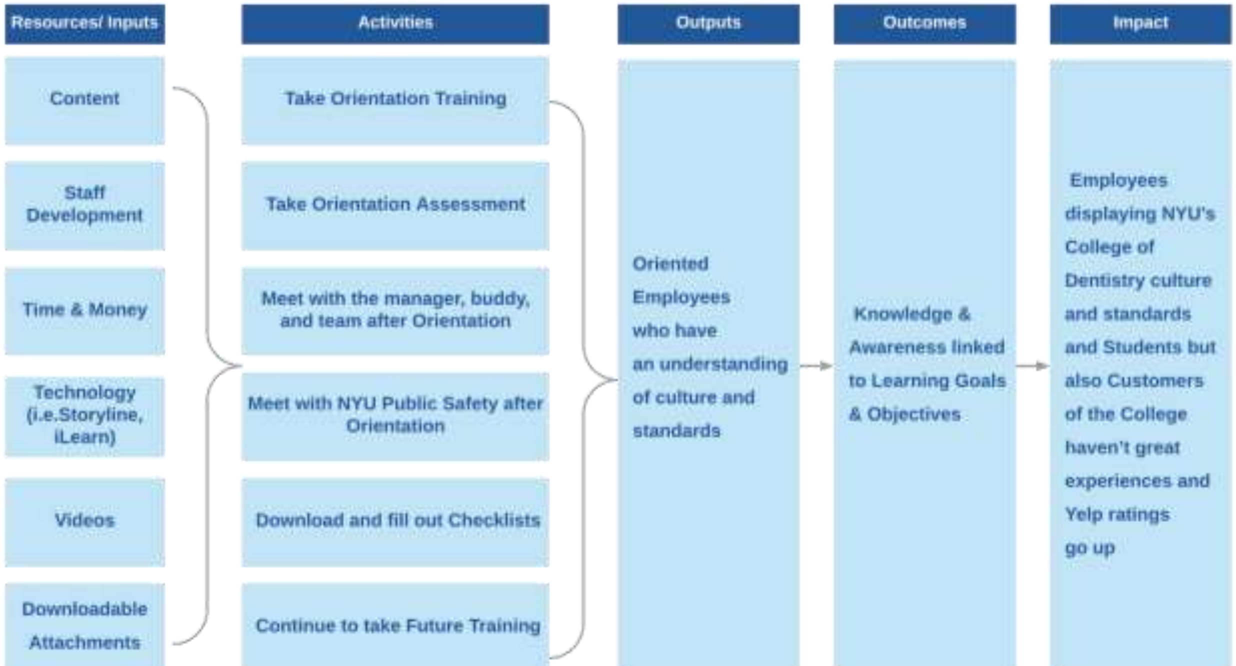

Figure 20: The logic model

In many ways, the media and technology used for this project have us act as Instructional Designers. Instructional Design aims to optimize the appeal, effectiveness, and efficiency of instruction learning experiences (Smith & Ragan (2005). It focuses on learner problems and learner adoptions. All in all, we hope our process helped us be good Instructional Designers for this module.

We'd like to also add that because of our constraint of focusing on this module despite other learning environments and experiences, there is an opportunity for further development to be made in other modules that help further build on the learning goals around culture and standards. We would like to similarly add that even though our stakeholder wasn't fond of animation, we'd like to encourage divergent thinking as we were encouraged to in our studies because that's where true innovation and interactivity can happen.

Design Rationale: Learning Theory and Approaches

As instructional designers, we want to ensure that we designed content and a visual update that aided transfer. We chose to focus on the situated learning examples because situated learning with concrete examples helps with transfer by helping learners appreciate the relevance of new information. In addition, learning potentially confusable concepts in different contexts can protect people from interference during trials of learning (Bransford, & Schwartz, 1999). Theories of situated learning were really important in the instances of employees' policies and dress code because those sections within the module are the most important to view learning in and the only instances we were assessing.

Similarly, learning concrete examples with imagery benefit memory because of the special organizational capacities of the imagery system (Clark, & Paivio,1991). Imagery processes, in particular, is further emphasized in books and programs to improve learning skills. It falls in line with Dual-Coding Theory which states that imagery and verbal associative processes jointly determine learning and memory performance, with direct and indirect associations between verbal codes influencing storage and retrieval of information (Clark, & Paivio,1991). Our situated learning examples have to exist in the module but in a visual way, so why not make it aesthetically pleasing?

The interactive organization chart was added into the module for a few reasons as another primary component because there an increasing body of research evidence that supports that student learning is affected positively by presenting text and illustrations together. The interactivity then between that and the learner adds to a rich multimedia learning environment (Mayer, & Sims, 1994).

We do want our learners to construct their own knowledge additionally by making the module interactive because interactive activities are most likely to be better than constructive activities, which in turn might be better than active activities, which are better than being passive (Chi, 2009). Interactivity also allows learners to respond to scaffolding better than by just allowing them to create mental models on their own. This is a compounded experience on top of the aforementioned situated learning examples because situated learning also encourages ownership in learning and provides a certain awareness from the learner in the construction of learning (Driscoll, 2000).

The animation portion of the history section is added to be in line with the Multimedia Principle, which stipulates that multimedia learning occurs when students use the information presented in two or more formats—such as a visually presented animation and verbally presented narration—to construct knowledge (Mayer, & Sims,1994). Animation is also fun and removes a lot of the extraneous cognitive load of there being so much text on the screen.

We aimed to move away from the heavy text current module concept because the instructional goal is always to anticipate and eliminate all sources of the extraneous load so that working memory processing is as efficient as possible (Clark, & Clark, 2010). We wanted to decrease cognitive load because instructional design decisions should be informed by the architecture of the human cognitive system as the Cognitive Load Theory stipulates (Brünken, Plass, & Moreno, 2010).

Finally, we also focused on incorporating the Segmenting Principle and Personalization Principle into our design because people learn better from a multimedia lesson presented in user-paced segments rather than as a continuous unit and people learn better from multimedia lessons when words are in conversational style rather than formal style. Signaling is another principle used to reduce cognitive load. Signaling includes focuses on cues that show the learner where to focus their eyes in a module (Mayer, & Fiorella, 2014).

Brainstorming Ideas

The following design ideas were the initial ideas that we have presented to our stakeholder. Some can be incorporated into our larger main design, also, we wanted to incorporate a few different styles to enlarge the affordances that the technology we use offers. There are additional graphics below (figure 34,35) are meant to think about the entertaining and engagement of the module. They might be a little outside of the scope but nonetheless, something to think about.

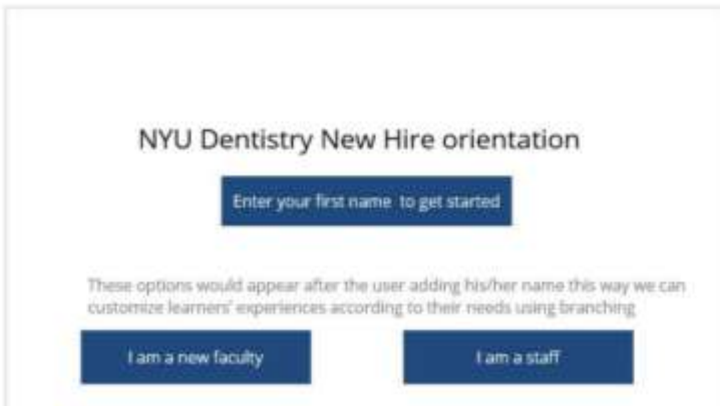

Figure 21: Storyboard

Figure 22: Storyboard

Figure 23: Storyboard

Figure 24: Storyboard

Figure 25: Storyboard

Figure 26: Storyboard of a web object over the interactive chart

Figure 27: Storyboard

Figure 28: Storyboard

Figure 29: Storyboard

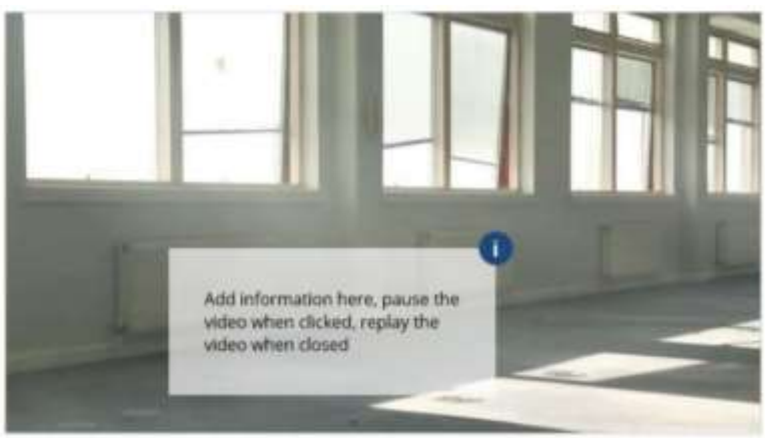

Figure 30: 360 video

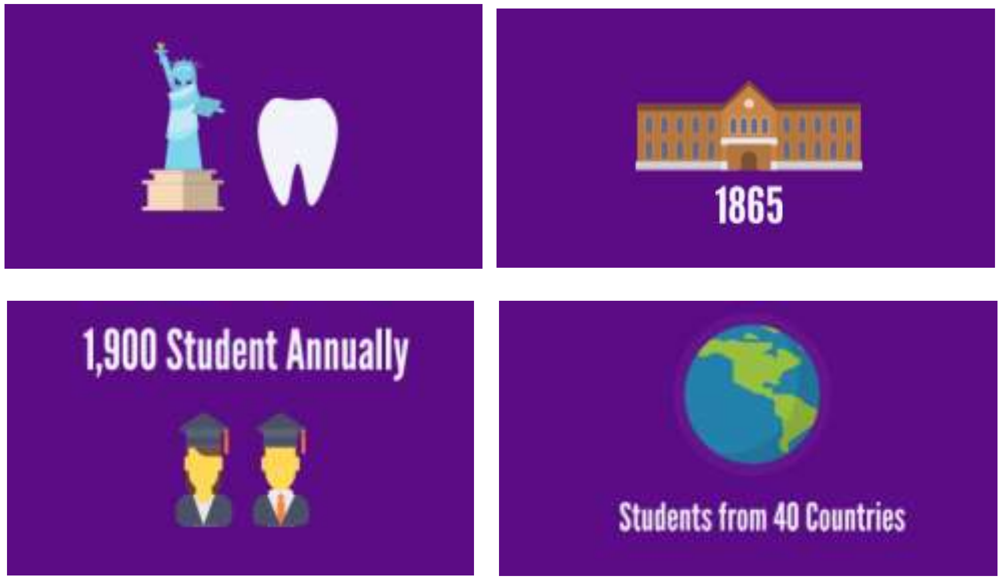

Figure 31: Storyboard of the history animation

Figure 32: Storyboard for a scenario

Figure 33: Storyboard of interactive Space - Click to interact with environment, this example also applies to interactive live videos as well as realistic photos of NYU Dentistry school.

Figure 34: Storyboard

Figure 35: Storyboard

Another design idea we had is outside of the module idea. We created a website - example here: https://tcharbonier.wixsite.com/nyudentistry

This design has faculty and staff separate pages from the beginning. It includes animation of mission statement/ history, 6 timed videos for 1st day essentials (microlearning), 3 Personalized videos showcasing the 3 main areas of the college, their purpose, location & people, quotes from Happy Clients to showcase happy culture, and an easy way to contact HR for questions. We can also adapt this design idea into Articulate Rise in order to be uploaded to iLearn and track the learners on the LMS.

Implementation Details

For the implementation stage, we were influenced by the Content Roadmap, our brainstorming sessions, secondary research, and storyboarding. We implemented our research for a few hours a week. We knew that NYU iLearn assets need to be created but no one has to be trained on it. Since its a required training, there are not many barriers to learning because everyone gets a personal invitation to the learning.

We have our first appointment with our stakeholder to review these designs on Wednesday, May 1st. We need to have her feedback before we move on to iterate more designs.

Our main challenge is to design templates for an engaging and interesting yet professional orientation module. In the real world, we should get our users' feedback but, in this case,, our stakeholder's perspective is the final say. Our prototypes can be tested in NYU iLearn before final release and this will be our users' feedback.

Because of time constraints, we will not be able to implement the module in iLearn. Hypothetically our plan would be to gather a group of five students who already competed the original module and have them conduct a pilot test. We would ask them their opinions such as what has improved, gotten worse, suggestions, etc. Once we receive this feedback, we would implement more changes within the module.

Evaluation Plan

The evaluation model that we decided as the most suitable for our project evaluation plan is the *Kirkpatrick's Training Evaluation Mode*l. This model evaluates how effective a training is and if the learners are able to practice what they had learned on it by focusing on: four levels, Reaction, Learning, Behavior and Results (Reiser & Dempsey, 2017).

The methods that we are going to implement for our evaluation plan mostly surveys and interviews. Firstly, we are planning to conduct interviews with our stakeholder during the summertime. It is very important to identify if we achieved a more engaging orientation module that presents the culture and standards of the NYU College of Dentistry. This interview will be constituted from the following three open-ended questions:

1. Did the new orientation module cover or not cover what you expected?
2. This e-learning course contained opportunities for interactive learning. Agree or Disagree? Why?
3. Identify three ways to improve this e-learning course.

Those three specific questions were selected in order to check first if we covered or not the necessary information that need to be included into the orientation module. In addition, the question regarding the interactive learning was selected in order to check if the module that we designed got our learners engaged with the learning material. The original orientation module was more like a presentation where learners were not engaged, and that was even the first thing that our stakeholder mentioned to us in our first meeting. The latter question is about a general feedback regarding her perspective of what we can improve in our design in order to become more efficient. This is part of the Results level, where we need to measure if the outcomes, skills and results that we wanted our learners will be achieved in the long-term.

Another interview that we are planning to conduct during the summer period is a focus group. It is very important for us to understand our learners' perspective about the orientation module. The center of our process design is our learners, so we need to know their initial reactions about the module and to identify if they are able to apply what they learned from the training. According to Nielsen Norman Group, focus groups tend to be less effective for usability purposes for a variety of reasons, but they can provide a top-of-mind view of what people think about a brand or product concept in a group setting. So based on this perspective we decided to conduct a focus group interview that constitutes from the following open-ended questions:

1. The new orientation module covered or didn't cover what you expected...
2. I found this to be the least/most valuable about the orientation...
3. I would/would not like to change this orientation because...
4. What did I remember from the orientation is…
5. How did you FEEL about the orientation?
6. What was the item that stood out the most about the orientation?
7. Based on this experience, would you take another e-learning course? Why or why not?
8. What suggestions that you would like to add?

Additionally, in order to identify if our orientation module was effective enough, we need to establish first of all what our learners feel about it, if they liked it or not. We want also to know if the course content flows in a clear and logical way and if it looks appealing to learners. Due to their reactions to it, we will be able not only to understand how well they received the included information but also if it enables learners to make improvements in the future. Furthermore, we need to establish what our learners remember about the training. On the learning level, we have to focus on what our learners have learned or not. Through those questions, we will be able to measure how much our trainees have learned, what they will be able to do different, or what they are feeling more confident with.

Also, it is very important for our project's learning goals to understand how well learners are able to apply their training. Through questions 3 and 8, we will have the potential to understand where our learners need help and what we need to change in order to make the module more effective and valuable for them. Effectively measuring behavior is a longer-term process that should take place over weeks or months following the initial training, hence doing this in the summer.

The questions that were selected for the focus group interview might seem different from the questions that we decided to add on the post-module survey. However, the survey questions are more specifically rated questions from one to five and are based on our selected evaluation plan. The post-module survey questions and the focus-group interview questions can be included in the four levels of Kirkpatrick's training evaluation process. Those from the interview allow us to get a more broad evaluation, even for things that we did not even think about. On the other hand, the post module survey questions are more specific oriented, that their purpose is to evaluate specific goals and outcomes of our module.

A brief feedback about the module and its efficiency is also mandatory for an evaluation plan. We need to establish if specific learning goals and outcomes were achieved and if the necessary for new employee skills were obtained. Due to those reasons we will also conduct a post-module survey with the following, rated from one to five, questions:

1. I know which resources to use for my daily job (1-5)
2. I understand my roles and responsibilities within the larger organization (1-5)
3. I feel ready for my job (1-5)
4. The information was presented in a clear and effective way (1-5)
5. I feel like this was a personalized training (1-5)
6. How confident you feel about your knowledge on the subjects (1-5)
7. The overall aesthetic of the course content and materials (1-5)
8. The amount of time it took to complete this course (5 is the longest)
9. List three important concepts or ideas that you learned in this course.
10. Two suggestions to improve understanding of the course content
11. Based on this experience, would you take another online module course? Why or why not?

Through these questions, we are trying to gauge specific goals. For example, into the Reaction level we can consider questions 3, 4, 5 and 7. Be choosing them, we want to evaluate the influence that the orientation had on our learners. At the Learning level, we can include questions 2, 6, and 9. Through them we are trying to measure specific goals that are related with what do they remember from the training. Do they remember for instance which resources to use for their daily job?

In addition, question 1 is related to the behavior level. It is important that we design a solution that is not simply showing information but making learners practice new skills. We are trying to establish if learners can apply the learning objectives on their day to day responsibilities. Last but not least, questions ten and eleven can be considered as a general feedback in order to improve our module's valuability.

Another survey that we are planning to conduct during the summertime is a managerial survey for bosses and all current managers. We ended up organizing that kind of survey too, because we wanted to check if our learners are able to apply on their job what they learned from the training. In order to evaluate that we need the managers' observations, this survey will include the following, rated from one to five, questions:

1. My new employees started their jobs well prepared by the orientation (1-5)
2. My new employees know the resources they have at NYU to perform well at their job (1-5)
3. My new employees demonstrate the customer service standards of NYU (1-5)

All the questions are part of the Behavior level. We are trying to measure the effectiveness and the efficiency of the module and its influence on our learners. Did our learners obtain all the mandatory skills and were they able to apply them on their job? Was the module capable enough to help learners adjust into the culture and standards of NYU College of Dentistry? In addition, the question 1 and 3 can be considered also part of the Learning level. We need to check through the managerial survey if the new employees remember the customer service standards, the code of ethics or the dress code. In order to be able to apply what they learned we must be sure that they remember all the information needed. We can check those considerations through assessment or through a managerial survey that will be conducted during summer.

The purpose of the assessment is to check what do learners remember from the orientation. We made this part of the module knowledge checklist and it will be scenario-based assessment after the Policies section in particular. The assessment will include questions related to what they remember or understand regarding the policies of the NYU College of Dentistry. We want to make sure our training is effective. Also, our stakeholders should be able to use the results to shape the future and current content. Furthermore, from the scores of these scenario-based questions, we will determine if learners learned all the skills that they must apply on their job responsibilities.

Biggest Challenges

Our biggest challenges are as follows:

- Stakeholder doesn't have much knowledge of the environment of learner yet or even the learner because she just started her job.
- Stakeholder's boss is trying really hard to embrace online learning but has a hard time understanding what makes online learning effective and efficient. She still wants to cram a lot of content into a module and is having a hard time understanding what it means to design for learner gaps/needs.
- We have a short timetable to present learner research and designs.
- We ran into constraints and tight timeline early on so focus became less on learner needs, and more on the module and the stakeholders' goals
- We couldn't focus on instructional method or delivery because we were given NYU ilearn
- We had to rely more on Secondary Research and Analogous Inspiration
- Lack of LXD methods information

Design Process Models

Based on our reflection on the design process that we have used (LXD), we think this process need to adjusted a little bit. The adjustment would cover two main factors, methods and tools for research, and testing evaluation throughout the project cycle, in each major step.

The research phase covers researching, learners, their needs, content, and the environment using interviews, surveys, focus groups, and analogous research. In the case of the limited access to learners, we have to create alternatives ways to reach out to them. We thought providing a clear problem description to the stakeholder after the research phase as part of the initial evaluation would be helpful to assist in defining the goals before the design phase.

The design phase, after getting the approval of the goals and the gaps, would cover the ideation, the design inspirations, wireframe, drafting, and storyboarding, followed by another evaluation and stakeholder approval. Then, the process moves to improvement then the creation of a prototype and delivering the prototype, followed by evaluation and alteration.

The development phase is followed by testing and getting learners' feedback and improving. Alternatively, you can go back to the beginning of the cycle.

The last phase is launch and final evaluation for the success.

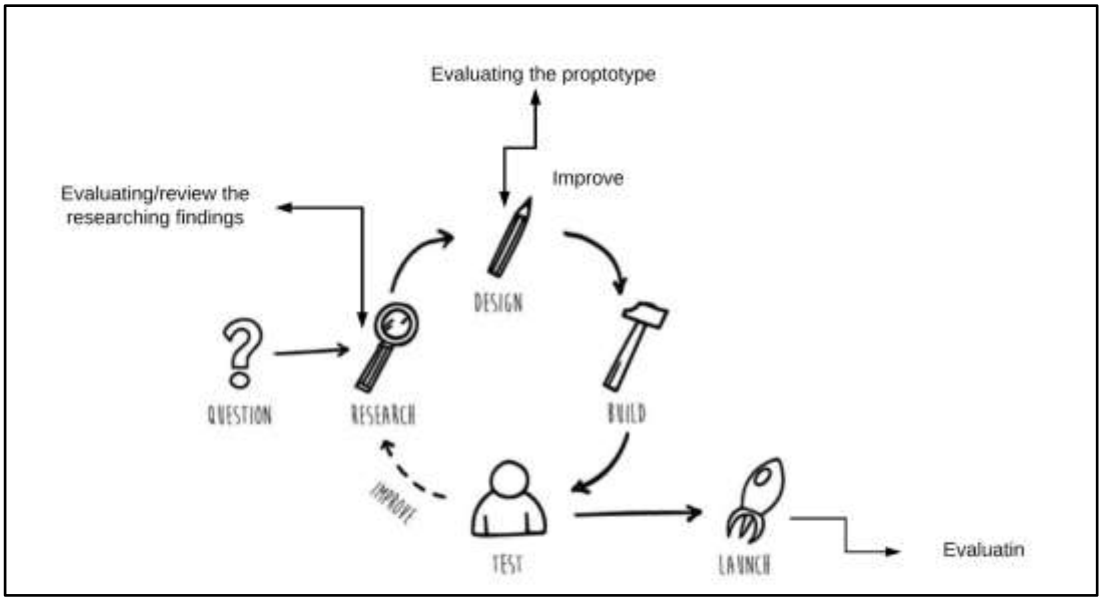

Figure 36: The New User Experience Design Process

How We Split Up the Work

From the beginning of this project, our group met every Monday at 8:30 pm on Google Meet for one hour. Manal and Maria focused on the design of the website and advising the overall structure of research gathering through a specific design process. Tiffany aided as the project manager and primary contact with stakeholder. Sarah made sure that we were meeting our clients' expectations by asking specific design questions. We were all present for the interviews and meetings with members of the College of Dentistry.

Questions that were drafted for the client's future focus groups were created by all of us equally during our group meeting. Questions that were part of our Research and Analysis Plan were created by all of us equally during our group meetings as well. We're hoping to move forward into the design phase working equally but Manal will continue to take a lead on the design, Sarah will take the lead on the design of the e-learning component, and Maria and Tiffany will focus on the content.

For the final paper, Tiffany focused on fleshing out the Secondary Research/ Case Studies and Design Rationale. Sarah focused on making the final designs for the stakeholder. Manal focused on all the graphics and the design process model. Maria focused on the evaluation plan.

Reflections

Tiffany

I am happy with the decision to focus on this project as opposed to others. It was a very realistic take on what happens in the real world when you are given a module or project that is simply in need of a redesign. In many ways, our project wasn't about learning from learners from scratch. It was about assessing an already existing product and where the gaps lied and needed to be addressed.

Our stakeholder was a great resource through the project but I really do wish we had more time to work on the project and evaluate it and become true partners in this assignment, say, if this were a two-semester course project. Maybe this project can be continued over the summer as part of an internship for a DMDL or ECT student?

My biggest takeovers aside from everything I learned about graphic design from Manal and Erica is that secondary research proved really helpful in helping make our case for the final design to our stakeholder. Analogous inspiration also taught me so much about HR orientation practices and what content is or isn't important. I feel like I've become somewhat of an expert on HR orientations!

The timeline and duration of this module design would have been interesting to explore if we had the chance. There are many ways this project could have gone but acting as consultants and modifying a design process to match was a very rewarding and engaging experience that I will never forget. I also got really lucky to be in a group of really dedicated and talented people.

Sarah

Overall, I found this project to be very helpful in slowing down and observing each step of multiple design processes. The process we mainly used in our project is referred to as Learning Experience Design, which is something that I use in my daily work as an instructional designer. I have received a few similar requests in the past, which are similar to the prompt that Erica has given us. I felt that the basic goals of creating this new module is to create a fresh visual update, present content in a more engaging way that lessens the cognitive load.

My team members were all helpful and everyone carried their weight. Tiffany is great at managing logistics and arranging meetings. Maria worked on content. Manal created a sleek and efficient website that portrays our project. I dabbled in multiple areas of the project, but mainly focused on the design aspect.

One thing that threw me off about this project was the fact that the prompt was very different from what we heard from Erica. Originally I thought we were dealing with unruly employees, but we came to find out the module is dry and no one feels excited about starting their job there. This made us realize we needed to create a module that is more engaging and has a positive user experience.

The creative constraints for the module were also a bit difficult. As a team, we thought of a lot of innovative ideas that would excite learners but realized we were dealing with a rigid one-person module.

Maria

In the beginning of our project we decided as a team to have a more human-centered and UX design approach. We thought it is very important to focus on our learners and design something for their needs. However, during our research phase, we did not have the opportunity to get in touch with our target audience so we could identify their needs. The only way to have access to our learners was through interviews in a focus group. Another aspect that made this even harder was the broad audience that we are supposed to design for, because the module is addressed to all new employees at the NYU College of Dentistry. We tried to overcome those barriers and to understand and empathize with our learners through contextual interviews and through observation from the tour that we had at the College. We tried also to design a module and make it as much personal as we could, by adding the personalization principle in the beginning of the module.

During the ideation phase, I learned many things. Firstly, the personalization principle that we will use will aid us to engage more the learners due to broadness of the content. In addition, I realized how difficult it is to keep the learning experience short so we will not overload our learners' working memory and at the same time provide all the mandatory information that they need to know as new employees at the NYU College of Dentistry.

During prototyping, we tried to think about ideas so the module would be more engaging and interesting to the users. We suggested animation for the history section, 360 videos, interactive organizational chart and scenario-based assessment.

Furthermore, I realized how difficult it is to come up with ideas regarding media and what is the best way to represent each content to your learner. As a teacher, with none background on designing, I found myself struggling with that. Finally, through this project and especially through the implementation phase I learned new software in order to design an e-Learning lesson.

Finally, I am very thankful that I work on this project with a great team. It is very important to cooperate with people that support and respect each other. I am glad for my partners because they helped me a lot to understand how a designing process works, because before this project, I did not have a clue.

Manal

Reflecting on what we have learned from this class so far, defining the learners' gaps in order to design a successful learning experience was so important. As a designer, I never have been exposed to analyzing the requirements for any of the project that I had professionally worked on. Therefore, I think this was one of the most important steps that this class taught me.

Another thing that I was able to add to my knowledge is understanding the differences between goals and objectives plus developing the ability to identify learning objectives that meet the learning gaps. One last thing that was completely new to me is learning about the evaluation plans and its impact on the design process. I believe the evaluation is not just important in measuring the achievement of the learning objectives, but also is important for designers to evaluate the effectiveness of the instructional design process itself.

I enjoyed learning about all the instructional design processes and comparing them to each other. One of the most important takeaways from this experience is that any project requires research and analyzing, learning about the learners, their needs, their expectations, and learning about the stakeholders' expectations. No matter what designs process has been chosen, all these factors must be taken into considerations. Overall, I think that there is no one ideal design process that works for all, as well as following one design model step by step does not always work!

With that being said, I believe designers must be flexible and adaptable to the constraints that they might face during the project cycle. Similar to what happened to us during this project, we faced the challenge of reaching out to our learners, and we had to go around and look into other alternatives. Additionally, we adopted the learning experience design model to create our solution, but we faced the lack of information to apply all the model principles. So, as a result, we had to find other resources and utilizing some of the IDEO methods was very effective to overcome our constraints, by following its ideation process.

Overall, this was a fun project to work on and I was lucky to have this team. Also, I am glad that we have come up with solutions that our stakeholders might incorporate in their product.

One thing that I am still wondering about is why most of the design process does not cover evaluation form the early stages to ensure final success. Would this be a flaw in the processes itself or should the designers include a separate form of an evaluation plan throughout the design process?

References

Anderson, Jill. (2014). *The Benefit of Interactive Learning*. Retrieved from https://www.gse.harvard.edu/news/14/11/benefit-interactive-learning

Asunda, P. A., Calvin, J., & Johanson, R. (2018). Preparing for Online and Distance Learning Courses. *Online Course Management*, 98-114. doi:10.4018/978-1-5225-5472-1.ch007

Barbosa, Hector & García-Peñalvo, Francisco. (2005). Importance of online assessment in the e-learning process. F3B/1 - F3B/6. 10.1109/ITHET.2005.1560287.

Bates, A. W., Bates, T., & Sangra, A. (2011). Managing Technology in Higher Education: Strategies for Transforming Teaching and Learning. Hoboken, NJ: John Wiley & Sons.

Bransford, J. D., & Schwartz, D. L. (1999). Chapter 3: Rethinking transfer: A simple proposal with multiple implications. *Review of Research in Education*, *24*(1), 61–100.

Carruth, A. K., Broussard, P. C., Waldmeier, V. P., Gauthier, D. M., & Mixon, G. (2010). Graduate Nursing Online Orientation Course: Transitioning for Success. *Journal of Nursing Education*, *49*(12), 687-690. doi:10.3928/01484834-20100831-06

Chi, M. T. (2009). Active-Constructive-Interactive: A Conceptual Framework for Differentiating Learning Activities. *Topics in Cognitive Science*, *1*(1), 73-105. doi:10.1111/j.1756-8765.2008.01005.x

Clark, R. C., & Mayer, R. E. (2011). e-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning. Hoboken, NJ: John Wiley & Sons.

Clark, J. M., & Paivio, A. (1991). Dual coding theory and education. *Educational Psychology Review*, *3*(3), 149–177.

Clark, R., & Clark, V. (2010). From Neo-Behaviorism to Neuroscience: Perspectives on the Origins and Future Contributions of Cognitive Load Research. In J. Plass, R. Moreno, & R. Brünken (Eds.), Cognitive Load Theory (pp. 203-228). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511844744.012

Cox, S. (n.d.). *Audio clips* [Video file]. Retrieved from https://www.linkedin.com/learning/articulate-storyline-360-increasing-learner-engagement/audio-clips

Curtis, D. D., & Lawson, M. J. (2019). EXPLORING COLLABORATIVE ONLINE LEARNING. *Online Learning*, *5*(1). doi:10.24059/olj.v5i1.1885

Dirksen, J. (2015). *Design for how People Learn*. San Francisco, CA: New Riders.

Driscoll, M. P. (2000). *Psychology of Learning for Instruction*. Boston, MA: Allyn & Bacon.

Ellis, A., & Phelps, R. (2000). Staff development for online delivery: A collaborative, team based action learning model. *Australasian Journal of Educational Technology*, *16*(1). doi:10.14742/ajet.1820

Gray, K., & Tobin, J. (2010). Introducing an online community into a clinical education setting: a pilot study of student and staff engagement and outcomes using blended learning. *BMC Medical Education*, *10*(1). doi:10.1186/1472-6920-10-6

Gutierrez, K. (2019, February 15). 3 Adult Learning Theories Every E-Learning Designer Must Know. Retrieved from https://www.td.org/insights/3-adult-learning- theories-every-e-learning-designer-must-know

Mayer, R. (2009). Multimedia Principle. In *Multimedia Learning* (pp. 223-241). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511811678.017

Mayer, R. E., & Fiorella, L. (2014). Principles for reducing extraneous processing in multimedia learning: Coherence, signaling, redundancy, spatial contiguity, and temporal contiguity principles. In R. Mayer (Ed.), *The Cambridge Handbook of Multimedia Learning* (2nd ed., pp. 279–315). Cambridge: Cambridge University Press.

N.A. (2018). *Getting employees to want elearning* [Video file]. Retrieved from https://www.lynda.com/LinkedIn-Learning-tutorials/Getting-employees-want-elearning/699343/771038-4.html?srchtrk=index%3a19%0alinktypeid%3a2%0aq%3aGamification+%0apage%3a2%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2

N.A. (2011). *Tips on Orienting Your New Employee- New Employee Orientation* [Video file]. Retrieved from https://www.youtube.com/watch?v=jtsPMoM6M1s

N.A. (2014). *New Employee Orientation or Onboarding* [Video file]. Retrieved from https://www.youtube.com/watch?v=S6nyTzT-83U

N. A. (2015). *5 Must-Do's for Employee Onboarding* [Video file]. Retrieved from https://www.youtube.com/watch?v=lYioOsb71rc

N. A. (2017). *10 Best Practices to Improve Employee Onboarding* [Video file]. Retrieved from https://www.youtube.com/watch?v=sakIHJNwxmU

N. A. (2018). 7 Ways To Energize New Hire Orientation To Retain New Employees. Retrieved from https://elearningindustry.com/new-hire-orientation-retain-new-employees-7-ways-energize

Pandey, A. (2017). How Personalized eLearning Engages Learners - Featuring A Case Study. Retrieved from https://elearningindustry.com/personalized- elearning-engages-learners-featuring-case-study

Palmer, S., & Holt, D. (2009). Staff and student perceptions of an online learning environment: Difference and development. *Australasian Journal of Educational Technology*, *25*(3). doi:10.14742/ajet.1140

Pappas, Christopher. (2015). The Top 7 Benefits Of Using Branching Scenarios In eLearning. Retrieved https://elearningindustry.com/the-top-7-benefits-of-using-branching-scenarios-in-elearning

Penfold, S. (2015, November 25). Why scenario-based learning is important (4 reasons). Retrieved from https://www.elucidat.com/blog/why-scenario-based-learning-is-important/

Plass, R. Moreno, & R. Brunken (Eds.), *Cognitive Load Theory* (pp. 203–216). Cambridge: Cambridge University Press.

Smith, P., & Ragan, T. J. (1999). Instructional Design. Hoboken, NJ: Wiley.

Sun, P., & Cheng, H. K. (2007). The design of instructional multimedia in e-Learning: A Media Richness Theory-based approach. Computers & Education, 49(3), 662-676. doi:10.1016/j.compedu.2005.11.016

Reiser, R. A., & Dempsey, J. V. (2017). *Trends and Issues in Instructional Design and Technology*. London, England: Pearson.

Toister, J. (n.d.). *Welcome* [Video file]. Retrieved from https://www.linkedin.com/learning/instructional-design-adult-learners/welcome

Vaill, A. L., & Testori, P. A. (2012). Orientation, Mentoring and Ongoing Support: A Three-Tiered Approach to Online Faculty Development. *Online Learning*, *16*(2). doi:10.24059/olj.v16i2.256

Wilson, G., & Stacey, E. (2004). Online interaction impacts on learning: Teaching the teachers to teach online. *Australasian Journal of Educational Technology*, *20*(1).

When to Use Which User-Experience Research Methods. (n.d.). Retrieved from https://www.nngroup.com/articles/which-ux-research-methods/doi:10.14742/ajet.1366