

Synthesis Statement

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The end of a journey should always give pause for reflection. Looking back on the “road” that has been traveled is a way for many to construct memories, or to reminisce about the good times they’ve had along the way. However, it is the end of a Master’s Degree in Instructional Design that warrants reflection, not for any emotional reason, but because it is a requirement of the profession that I seek to join. It is with this in mind that the crux of the program, for me, is that creating and improving instructional design products requires research, collaboration, reflection, and iteration. Without these things, instructional designers will fall short in developing learning environments that will engage users in meaningful learning.

Professional Foundations: Apply a Theory, Conduct Contextual Inquiry, and Design a Curriculum

When it comes to creating an identity as a designer, no sequence of courses did a better job of doing this than 704, 705, and 730. Specifically, the dichotomy between 704 and 730 allowed me to explore the differences between objectivist and constructivist learning, and ultimately start to form an opinion about the two theories. For 704, employing Gagne’s Nine Events of Instruction, I created a strict step-by-step process for standardizing the appearance of an entire wait staff for a large restaurant group. For this project, I had to think of something that could be remedied using a strict objectivist approach, and so after some brainstorming and research into high turnover job markets, I arrived at the restaurant business as being an industry that suffers from low employee retention because many see the job as temporary. This initial research narrowed my focus to a single industry, but further research done at the client level honed my focus even further to the weakest part of their employees’ behavior: their uniform, and more specifically, the necktie they had to wear as part of that uniform. Knowing this was the problem area, I created the training module that standardized the way employees tied the Windsor knot in their neckties so that the staff could consistently repeat their appearance from day to day, completing the professional look the managers were trying to create from the launch of the restaurant. For the 730 final product, I re-designed one of the college courses that I teach and created a complex, problem-based design project that thrives on user testing and revision (more on this artifact later). The two modules could not be more different, and after I was able to compare these two major products, I was able to distinguish where on the learning theory spectrum I would place myself, and I began to establish different pedagogies I would strive to employ when given the chance to create or manage an instructional design project.

However, it is the different personality in both of these learning modules that really speaks to the important lesson to learn as an instructional designer. In conversations with classmates, it was interesting to see how different schools of thoughts emerged amongst my peers championing the “correct” way to transfer learning, but given the lesson I learned from these two classes, I can now vocalize how those discussions were intellectually driven, but ultimately fruitless, because the framework of the conversation was misguided. It is not about which mode of learning is correct, but more about which mode of learning is correct given the learning problem. As a high school teacher and adjunct college professor, I was probably more familiar with the Gagne approach of 704, but favored designing the constructivist approach more as a creative outlet. The

penultimate lesson to be learned from these two artifacts is simple: my personal preference as a designer does not matter, as pedagogy should be dictated by other factors that ignore personal philosophy. Maintaining a strict set of principles in which one must always abide by when creating a learning environment might needlessly hinder the development of instructional design products.

Planning & Analysis, Design & Development: Conduct Needs Assessment, Develop and Modify Instructional Materials, Use a Variety of Techniques, Assess Instructional Impact

526 and 530 had the transformative power to make me see the Internet, and the world, in a different way. Harnessing the power of Universal Design, and standards-based HTML5 web design, I was able to use these classes to build many of the prototypes for my other courses from scratch which has greatly enhanced the development skills on my resume. For the culminating activity of 530, before deciding to design a catch-all portal website for my high school students, I invoked the mantra of many of courses throughout the program, and I performed some initial research to see what kind of solution my students would actually adopt into their daily routines. This quick surveying of my students revealed that the obstacles in the way of students using the county-mandated learning management system were not insurmountable, in fact, it centered around one thing that my students lacked the motivation to do: log in to the website from a mobile device. With this in mind, I road-mapped the features of the product, planning all the while with the end user in mind. The research and planning phase led to a streamlined list of features that my students would actually use: a calendar, replacement documents, and a Twitter update feed for my students to stay organized in my class. As a result, confusion about due dates became a non-factor, and grades rose significantly. Also, since they were involved in the process, the students were filled with new ideas for features that has allowed me to further hone this non-instructional intervention. Said another way, planning with the end-user in mind, and including them in the initial steps of planning and design, increased user investment in the product, creating something that they could take ownership of in the end.

The final product for 730 was also a supplemental website, although this time it was an instructional intervention designed to deliver an initiating problem to my Intro to Game Design students. As mentioned above, I redesigned this course from a rote memorization class that I inherited, to a problem-based project course with ties to the Learning by Design framework out of Georgia Tech University. As part of the game design major, the focus on vocabulary memorization always irked me, as it did not teach the most important aspect of our program: iterative design. I had the feeling a redesign was in order for quite some time given my instincts as a professional educator, but I was unconfident in my ability to execute the vision effectively without learning about the different pedagogical decisions that can spawn from constructivist thinking. Armed with the informational knowledge from the IDT program, and an archive university evaluation sheets, I set to work planning the new course from the qualitative data found in those student evaluations of past courses. The result, was a class where students would read a case study of a failed game to start the course, and then each week take small steps in redesigning the failed game into something new. Each week they would make a design decision, reflect, share with the class, and discuss. This basic process is the core of Learning by Design, but in my project I modified the language of the LBD cycle (whiteboarding, poster session, gallery walk, etc.), which has its roots in middle school, to be more relevant to the university

environment -- but without altering the core methodology. Now, after about six run-throughs of the current syllabus, my students demonstrate a knowledge of the design lingo far superior to that of the students who took the old version of class, but not only that, just like with my high school students providing input for their class website, my college students also took ownership of their projects and have suggested that I add extra material about forming companies and trademark law so they can release their projects commercially. This is the kind of engagement that any instructional designer can hope for when designing a module for learners, whether it is an academic activity such as this one, or a training for a major corporation.

Evaluation & Implementation, and Management: Apply Business Skills, Manage Partnerships, Collaborate on Design, Implement Interventions, Evaluate Interventions

The research methodologies course, 590, was probably the most foreign content I had to learn throughout the IDT program. Internalizing the best practices for how to create mix-mode research studies, and how to harvest those results for relevant statistical significance was, to me, an important building block on the way to performing well in 705, 732, and 752, each of which required some contextual analysis and research. In 705, I worked with another student on a training module for corporate managers to use Google Forms to quickly survey employees and automatically calculate the results for more efficient tallying of feedback. The first step of this process was identifying the context and establishing a need for the training, all which required research into my partner's company, and intense analysis of that contextual inquiry. All of this was done in order to perform one of the most important roles of the instructional designer, to contextualize the problem for the client, but also to use research methods in order to deduce whether or not the problem at hand is one that can actually be fixed by training. If the problem cannot be remedied by training, then perhaps it could save the employer valuable resources. Once we discovered that the real issue in my partner's workplace was not merely surveying employees, but effective placement of employees into productive teams, then we adapted our project to these results and created a Google Form survey that could perform a DISC personality assessment and automatically group employees according to the research on effective teamwork according to the DISC model. This demonstrates the power of the instructional designer's research capabilities in the workplace in truly identifying the root problem. This could save time and money, and all it requires, is the patience and the training to resist creating a solution for the client too quickly.

At the end of the 590 course, I reflected, partly in jest, that it seemed like the value of the content is that it would groom us for the PhD program, but now that I have taken 732, I realize that I was wrong -- nowhere in the program do all of the research and analysis skills we have learned culminate in such an expansive and all-encompassing project. For our culminating project, my group decided to create an app for elementary school Makerspaces that encouraged students to reflect and document their creation process. The goal of the app was to promote informal learning environments as a legitimate way of teaching a standardized curriculum. The hope was that by having students write about the process, this would then increase the confidence of teachers who want to try creative lessons utilizing Makerspaces to teach to the Virginia SOL standards, even when administration might not be in favor of the informal learning methodology. They would have tangible documentation of the learning in their classroom. As it stands now, the prototype is framed by the NASA engineering process, and as students reflect on each of the six

steps, it formulates their ideas into a “design timeline.” The students can then print and turn in their timelines as a traditional classroom product, or save them to a database and share the work digitally with the class.

As I said above, in the creation of this prototype, the process utilized all of our research skills, but also branched into research ethics and policy as well. Since we were dealing with minors in the elementary schools, my group had to be very careful with how we approached the data gathering, using our knowledge of blind studies, parent approval, and likeness release forms. The end result of doing things the right way, was that the group had willing participants and pages and pages of data to sift through in order to help revise our product. The setup for collecting this data was valuable experience to me, but the analysis of the data as a collaborative effort was even more valuable, because determining what warranted a statistically significant trend in the data, and what was just the whim of a few users, was a hard threshold to create as part of a team. That threshold, however, was an important distinction to create because that was the essence of the iterative design cycle, a must for improving instructional design solutions.

While elementary school ended up being the focus of our prototype because of the scope of 732 and 752, our business skills that we developed over the course of the program infused every discussion about our prototype with a sense of something larger, something beyond the limited target audience of the public school system. It is with this in mind that the product was also developed out of the desire for people to share their “how-to” projects in a more organized way than just an online photo gallery with captions attached. Improving informal learning in the classroom is a noble pursuit, but do-it-yourself communities on the Internet is a much larger and more lucrative target audience. The group always operated with this as a guiding principle. In the end, carefully selecting features that different invested parties would be able to see the application of in their own version of the product paid off, because certain stakeholders expressed interest in piloting the software with small changes to the wording and color scheme -- small UI and superficial changes to the code. For example, instead of the NASA engineering process, a leading voice of the AP Capstone (Research Methodologies) curriculum in Virginia saw application if the steps of the timeline were changed to that of a research study. Instead of “Imagining” different solutions as is a step of NASA’s process, AP Capstone could use a “Literature Review” node to reflect and organize their review. Journaling about the research study process is already a part of the AP Capstone curriculum, our product, with small modifications, could organize that work for both teacher and student.

As the group member with coding experience on this project, I was in a unique position to learn another valuable lesson: that it was not the best course of action in collaborative efforts to be too accommodating to group members individual ideas, because I was too quick to adapt the product to the constantly shifting ideas of the group. As the programmer, I acted as the gatekeeper of features for the prototype, so as group members offered their ideas, I thought about the technical hurdles that would pose in terms of the prototype’s codebase, and if it didn’t seem too hard to implement, I went ahead and added it on to the project’s feature list. The prototype grew from accepting just text reflections, to images, to videos, to audio, and finally, to sketching. I thought of the features more as an intellectual challenge -- could it be done or not -- instead of a meticulously curated set of functions that were necessary to solving the learning problem. This brought me to the idea that without using the user testing data as the basis for these types of

decisions, the product morphed in a negative way, and suffered from unnecessary feature creep. Charting trends in the end-user experience is the surest way of avoiding bloated design, keeping the product more narrowly focused on solving the primary problem for the client.

Conclusion

Throughout these artifacts, the core principles of research, collaboration, reflection, and finally, iteration, clearly demonstrate how these values of the IDT program work to create a proficient instructional designer. Without one of these pillars, the process of creating a solution that accurately addresses a learning problem, or improves upon an already existing intervention, becomes mired by having an incomplete concept of the design process. With these best practices internalized after years of study, I seek to use them in order to create engaging, finely-tuned learning environments for users that precisely address the problem my clients wish to address.