

Creating Interdisciplinary Collaborative Teaching/learning Praxis with Design Thinking,  
Communication, and Composition

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## Abstract

In this paper, we discuss the process of implementing an interdisciplinary collaboration from the point of view of the instructors who teach the integrated courses at X University. We reflect on the integration that combines X Institute (College under X university), Department of English, and Department of Communication instructors. Within this ongoing integrated first-year program, instructors from three different departments collaboratively teach technology students about Design Thinking, Composition, and Communication. The students have opportunities to design and develop written and multimodal compositions geared towards solving global issues via interdisciplinary interactions.

## KEYWORDS

Integration, Interdisciplinary, First Year Pedagogy

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#### 1. INTRODUCTION

To address the complexities of the global workplace, Students need an integrated education system grounded in various disciplines that will expose them to diverse perspectives and encourage them to integrate their insights. Various scholarships on integrated learning have focused on how student learning, critical thinking, and engagement have been enhanced via implementation of an integrated pedagogy. Sharma and Furlong (2016) share that with the application of enhanced active learning techniques in an integrated Geoscience and education classroom, they saw a major change in student engagement in a classroom that allowed technology to be easily shared within the groups. Similarly, Paretti, Eriksson, & Gustafsson (2019) argued that as educators are increasingly recognizing the importance of learning in context, communication instruction and such pedagogies are being implemented within engineering courses themselves. One such example of integrated interdisciplinary pedagogy has been implemented with collaboration of the X Institute, Department of English, and Department of Communication at X University. Three different organizational units at X University have been implementing an integrated class for incoming first-year students by incorporating three courses: Design Thinking in Technology, Communication, and Composition for the past five years [7]. Within this ongoing integrated first-year program, technology students have been getting opportunities to design and develop written and multimodal compositions geared towards solving global issues via multidisciplinary interactions.

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Similarly, over the past five years, with our own research inquiry, we have observed that there is significant growth such as better rhetorical awareness, better presentation qualities in students' writing and communicating abilities in an integrated classroom. However, implementing a collaborative classroom with three different departments, with three different instructors is a difficult task. There are significant logistical and administrative challenges to address. In addition, success requires instructor motivation, devotion, and calibration of the integrated pedagogy. Based on this background knowledge, this paper will discuss the experience of implementation as well as the creation of an integrated pedagogy from three different instructors who have planned, taught, and collaborated to make the integration successful.

Various scholarship highlights the implementation of the program from the departmental level and focusses on how students develop more in an integrated classroom. However, there are very less study on how those programs get implemented from the instructors who actually teach and make those programs successful. We ourselves have written and published articles on the success of our integrated programs (Chesley et al., 2016; Chesley et al., 2018); however, in this article we focus on sharing a qualitative analysis of the narratives of shared by our instructors (also authors of this article) who implemented and worked together among themselves to make the integration successful for the students and all the departments. We focus on how instructors from varied disciplines can work together effectively to help students be aware of local and global context and prepare them for the challenges in the industry. In this interview-based study, we present instructor motivation, labor, dedication, collaboration, and majorly the nuances of implementing the integrated pedagogy. Our results and analysis of the instructor interview

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suggests that the instructor calibration and dedication is necessary for implementing and for the creating the interdisciplinary praxis within an integrated classroom setting.

### **2. BACKGROUND**

With the aim of developing composition, communication, and critical thinking of the First-Year technology students at X University, an interdisciplinary pedagogy was implemented by integrating the X college (a college under X University), Department of English, and Department of Communications. This program aims at providing students with the opportunities to connect and transfer knowledge from multiple disciplines in collaborative contexts. First year students who were enrolled in this integrated program were placed in a class of 40-45 students, where all of them take a Design Thinking in Technology course (a core requirement for students in the x college). Twenty of these students are also enrolled in the same section of Introductory Composition (required of nearly all undergraduates at X University). Likewise, the other 20-25 of the students concurrently take Fundamentals of Speech Communication (also required of nearly all undergraduates).

In order to implement this pedagogy, all three departments send out a call for instructors that include continuing lecturers, limited term lecturers, and graduate student instructors. Upon the selection of the instructors, they are grouped into a trio of instructors representing: X college, department of English, and department of Communication. The instructors meet at the beginning of the semester, share their syllabi, and plan for the semester to identify the common goals and outcomes of the integrated classrooms. Throughout the semester, the instructors work collaboratively by fostering a partnership among themselves, organizing weekly or bi-weekly meetings, scheduling collaborative teaching opportunities, and planning the launch of the final

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collaborative integrated project. The integrated assignment incorporates central elements from Design Thinking, Composition, and Communication courses and meets the desired outcomes of the integrated course model. The major outcome of this pedagogy is to create an interdisciplinary praxis where students develop their design thinking, critical thinking, and oratorical abilities along with enhanced rhetorical awareness in their writing.

To be precise: in their Design Thinking in Technology class, students focus on designing solutions to a problem based on their interest that is localized on the university's campus and has global implications that align with the National Academy of Engineering's Grand Challenges (Web: <http://www.engineeringchallenges.org/>). In the composition class, students learn professional writing practices, develop analytical, critical, and research skills, and demonstrate these via multimodal compositions. Likewise, in the communication course, the focus is student's oral communication skills with focus on interpersonal communication and team work. All these goals are met with the equal involvement of the instructors who teach the class, work collaboratively in order to create interdisciplinary praxis.

### **3. CURRENT SCHOLARSHIP ON INTEGRATED LEARNING**

With the development of integrated learning pedagogies in writing and communication studies like Writing Across Curriculum (WAC), Communication Across Curriculum (CxC), and interdisciplinary studies, the integrated learning has been highlighted at various universities. Paretto et al. (2019) argue engineering courses have been embedding the aspects of communication and composition since 1800s but now has move into technical writing service courses. Contemporary educators in engineering have started to think of ways to connect various disciplines to answer the complexities of the world (Newell, 2010). In addition to that, students

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in an integrated course also learn to recognize the value of writing, communication, critical thinking, as well as how to be professional in the field (Buswell, Jesiek, Troy, Essig, & Boyd, 2019; M. C. Paretto et al., 2019; M. Paretto, McNair, Belanger, & George, 2009; Selzer, 1983). Additionally, writing and communication has been highlighted by various studies as an important part of engineering practice. Study by Kreth (2000) provides empirical evidence that, about 38 % of their respondents who were recent engineering graduates said that they devote their time on writing in their current jobs. Thus, critical thinking, writing, and communication are integral part of an engineering students' career as the current nature of the world and the challenges "will require bold, innovative solutions that are knitted and seamlessly interwoven in the fabric of connective, synthesized learning that draws upon knowledge from across the disciplines" (Blake & Mark. 2016). In this context, integrated learning provides students with an ample opportunity to make interdisciplinary connections and critical understanding of the situation that they face in the future.

In addition to creating an integrated learning environment, development of writing and communications skills for engineering students have been a priority for engineering education (Buswell et al., 2019; Clayton, 2011; M. C. Paretto et al., 2019). Researchers like Paretto et al (2019) and Buswell et al. (2019) have focused on the importance of communications and writing in engineering students and engineering teachers. Buswell et al. (2019) in their empirical research conducted at the various Big Ten schools on finding instructors perspective on engineering students writing suggests that 86% of their participants note that writing is important in professional contexts/careers. Additionally, 47% of the engineering teachers want their students to learn writing in as many engineering and non-engineering classes as possible

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(Buswell et al. 2019). Their study further suggests that majority of their participants view writing as an important part of the engineering graduates and that writing should be developed within the engineering courses. (Buswell et al. 2019). In addition to this study, Paretti et al. (2019) suggest similar course on improving communication of engineering graduates by incorporating communication in the engineering courses. Findings by Paretti et al. (2019) suggests that their participants saw communication assignments for the engineering students as tools that help students learn the content of the discipline. Both of these studies discuss why writing and communication is important for the engineering students and graduates from the faculty as well as instructors' point of view.

In addition to the above studies, a study by Hirsch et al., (2001) provides a successful example of an integrated study of Engineering Design and Communication (EDC) at Northwestern University. Their research provides a detailed study of how the university was successful in launching and implementing the EDC program and how they met the goals of interdisciplinary learning. Hirsch et al., (2001) argue that, "an interdisciplinary course like EDC improves students' skills in communication and design because it follows an effective cognitive model: the two disciplines provide a mutually enriching set of genuine activities that allow students to learn the skills that those activities require." Additionally, in their concluding chapter on integrating interdisciplinary pedagogies, Lansiquot & Cunningham (2016) argue that interdisciplinary competence should be an integral part of undergraduate education as it enhances the creativity, critical thinking, and technology supported collaborative learning. Their entire book discusses integration of various disciplines and the importance of such kinds of integration. In their conclusion chapter, they highlight the importance of team teaching and collaborative



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learning and the impacts of integrated learning in student's learning. Lansiquot has invited Cunningham (2016) who was an undergraduate student who was part of integrated learning and now currently a graduate student as an author for the concluding chapter where she explains how the integrated class helped her in writing, communicating, and creating connection between computer and creative writing.

The researches discussed above highlights the importance of integration and combination of various disciplines (particularly STEM and other disciplines) in order to make significant changes in the students learning experiences. Particularly, the studies highlighted here have discussed either the combination of writing and engineering or communication and engineering, or engineering and education/ creative writing. However, they haven't discussed the combination of writing, engineering, and communication. Additionally, even though some authors Buswell et al., (2019) have discussed instructors / faculty perspective of implementing the integration program, the researchers haven't discussed the entire process behind the success of the integration program. The research in the integrated / interdisciplinary learning do not highlight the labor of the instructors and their collaborative work and maintaining that collaborative work throughout the semester in order for the integration to be successful. To fulfill this gap, we with this article have tried to understand how integration works from the instructors who teach the class on a daily basis and who prepare and implement the course for the student's success as well as the program's success. This study thus brings the narrative of three instructors who were involved in teaching and implementing the integrated learning at X University. We believe that the instructors' narratives will help to create better understanding the intricacies and details of

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the collaborative work that instructors have to do for the successful launching of the interdisciplinary praxis.

### **4. RESEARCH QUESTIONS**

This paper answers three research questions:

- a) What are the major achievements from the Instructors perspective, what do they get out of this collaborative interdisciplinary praxis?
- b) how do we implement interdisciplinary pedagogy by triangulating design thinking, communication, and composition?
- c) What is the administrative, logistical processes as well as challenges faced in the process of implementing such pedagogy?

### **5. RESEARCH METHODS**

To answer our research questions, we triangulate the instructor interviews with our research and success of the integrated learning programs. The article focusses on the story of three instructors who worked hard for nearly a year to meet the goals of the integrated learning program. For understanding how the instructor trio were successful, we decided to conduct an interview with all the three participants and the co-authors of this article. Below we describe our process in detail:

#### ***Designing Questions and Creating Themes***

Based on our three different research questions on finding out the instructor's perspectives on the achievements of the interdisciplinary pedagogy by integrating three different disciplines, we decided to conduct a semi-structured interview with some questions. The interview was focused on three different themes: Planning to materialize integration,

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Co-ordinating among each other for a unified message, and Collaborative execution of the integrated teaching learning Praxis. Below, we define the three different themes as:

- a) **Planning to Materialize integration:** creating semester-wise plan for implementing the integrated design thinking pedagogy by organizing meeting, and showcasing commitment to provide an experience of integration to the students
- b) **Coordinating Among Each other for a Unified Message:** coordinating among each other for creating instructor calibration with better communications, better coordination, and co-teaching to working together for implementing the integrated design thinking pedagogy.
- c) **Collaborative Execution of Integration Teaching/ learning Praxis:** collaboratively working to execute the planned syllabus on a weekly basis, on the project basis, and towards the end of the semester.
- d) **Overcoming Challenges of Integration Pedagogy:** specific challenges mentioned and overcome by the instructors during their teaching, communicating that includes some pedagogy based, administrative based, and logistic based challenges and how to overcome those.

### *Participants*

For conducting this study, we decided to interview a trio of the instructors who teach a) design thinking; b) communication; and c) composition. All three participants are the instructors at the X University representing three different departments. Shawn teaches design thinking, Christy teaches communication, and Aidan teaches composition. All three of them taught the same class integrated class; Shawn taught all 40 students and Aidan and Christy taught 20 each.

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All three of them have been teaching the integrated course with other instructors since 2015.

However, all three of them together taught an integrated class for a semester/year together as the instructor trio. All three instructors have been involved in presentations and co-authoring articles in the past with the integrated research team at the X institute. Additionally, we reached to few trios and Shawn, Aidan, and Christy were the ones who decided they want to be interviewed.

### ***Participants as Co-researchers***

Additionally, since the instructor experience is the major aspect of this project, we decided that we will invite the participating instructors as the co-researchers. All the participants have worked with the research team in past by presenting together at the conferences, by co-authoring articles. Hence, we decided to invite them as co-presenters for the Sigdoc conference 2019 as well as the co-authors of this piece. *The SAGE Encyclopedia of Qualitative Research Methods* refers “participants as co-researchers” as a participatory method of research that situates participants as joint contributors and investigators to the findings of a research project,” (2). For validating the experience of our instructor participant and making them experts who bring their own embodied experiences of class in the process of gathering and interpreting data (Hirsch et al., n.d.).

### ***Interview***

All three participants agreed for a recorded interview. The IRB for the project has already been approved and the instructors had signed the consent forms during the initiation of their semester. All the interviews took place in Fall 2018. Two interviews were taken in person and one was phone interview. The interview started with an overview of the experience of working as a trio for implementing integration. Following that, we asked them specific question on their

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roles as instructors, their approach to each other, as well as collaboration. The questions mostly focused on the research questions as well as the three themes of: planning, coordinating, and executing the plan. Each interview lasted 30-45 minutes and was recorded in via Garage Band in MacBook pro.

### ***Data Analysis and Coding***

All three interviews were transcribed, and we analyzed the codes that emerged. We used Invivo for coding the data. Nvivo allows the easier coding of the qualitative data like interviews. While we coded all three interviews based on the three major themes of the project. Each of these categories contained codes (See Table 1 and also Table 2 for the frequency). With these categories, we have analyzed the instructor narratives with the themes and have found interesting results that will discuss in the results section below.

### ***Limitations***

The limitation of this project is that due to the limitation of time and instructor interest, we could only interview a single trio. We weren't able to conduct a larger interview due to limited resources. However, we believe that the instructors whom we have interviewed and invited here for writing the article, will provide enough information and background for setting up an integrated / inter-disciplinary program.

## **6. RESULTS**

For creating an integrated experience, the instructors who are teaching the course are required to plan, coordinate, and execute the pedagogy. Our analysis yielded three major themes among Shawn, Christy, and Aidan who taught the integrated sections of Tech 120, Comm 114, and English 106 for a year together:

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- a) Planning to Materialize integration
- b) Coordinating Among Each other for a Unified Message
- c) Collaborative Execution of Integration Teaching/ learning Praxis
- d) Overcoming Challenges of Integration Pedagogy:

In the following section, we describe each of these themes into detail. Since the narratives of the instructor is the important aspect of this paper, we would like to share some snippets of the interviews and also would like to analyze them individually according to the instructor. Since we used Nvivo for our coding, it allowed us to get to the granular level of coding and analysis of the interviews. For each theme, we will provide a representative quotation from each instructor and then analyze them.

### **a) Planning to Materialize integration:**

Within this theme all three instructors highlighted the importance of the planning during the beginning, middle, and end of the semester. At the very beginning all three instructors met and shared their semester wise plan with a transparency that these schedules might change and be modified throughout the semester. All three instructors started planning for the semester right at the beginning by sharing their calendars and talking to each other on a weekly basis. These planning included regular weekly meetings, email-exchanges, and constantly checking-in with each other about their syllabuses and mostly being open to change. Shawn describes their regular meeting being one of the important aspects of the integration. Shawn mentions: “So, our discussions would be centered on couple of things like:

- What happened last week?
- Is there anybody we need to support and be concerned about?

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- Did what we were supposed to teach go well?
- What's coming up next week?"

For, the implementation of the integration, the instructors who are teaching the courses should plan on meeting regularly. Christy and Aidan both added that the regular meetings were very much necessary from the instructor's point of view to materialize the integration. All three instructors also added that it was their motivation to meet regularly that helped in materializing integration in their regular classroom. Regular meetings will allow the instructors not only a support system among themselves but also allowed them to discuss how they are implementing the integration pedagogy, how students are learning better with their integrated pedagogy. Aidan shares, "the meeting also allowed us to see how our courses and class activities aligned with each other so that when we teach in the class, we tell our students that this is what you are doing and discussing in your Tech class." Regular meeting allowed all three instructors to discuss about what did they did in the class, what will they be doing in the next class, and allowed to share student concerns and successes. These meeting also helped in materializing the integration in the classroom setting.

Additionally, all three instructors highlighted the need of commitment from each other in planning and meeting the goals of the integration. The level of commitment and buy-in from the instructors was higher in this trio. An example Aidan provided was, "it was fine with previous co-instructors, I didn't have bad experience, but I didn't see my communication instructor and I never talked with the Tech instructor. So, I didn't feel it was an integrated class." It is important for the instructors to have commitment of sharing their resources, expertise, and committing to meet regularly. Christy adds, "Shawn and Aidan's partnership was probably the best because we

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have bought in, we are very collaborative, and we are willing to give as much as it takes.” Like the instructors have noted, implementing integration requires all the instructors to be willing to commit for regular communication about the classroom, willingness to meet outside the classroom for planning and materializing the plans for the integration.

### **b) Coordinating Among Each other for Unified Message:**

Another theme that was most highlighted in all three instructors’ interview was coordinating among each other for creating a calibration with better communications, better coordination, and co-teaching. As the integration pedagogy happens via three different courses with three different but overlapping goals, it is necessary for the instructors to co-ordinate among each other to provide a unified message to their students. If the instructors fail to provide the unified message to the students, then it would create problems in student understandings which might be challenging to the integration pedagogy as a whole. All three instructors highlighted the importance of one unified message and also shared how lack of instructor coordination in past partnerships challenged the integration pedagogy that created confusion among students especially about due dates, student work expectations, and the message about the projects. To avoid this, Shawn, Aidan, and Christy, all of them worked together and coordinated well enough such that the students will receive a unified message from all three of them.

Christy added:

“I think like just the fact that we had open communication, and we talked constantly. It is just people we jelled pretty together. We were open and upfront. Even with English and Tech, if I brought an idea, it would be welcomed versus shutdown. So, I think us coming from an approach that we may not have similar expertise, but we are in this together for the students and we were able to give each other the outside perspective and we were able to make adjustments and just had this strong mutual understanding.”

Shawn said:

“with Aidan and Christy, we all believed in what we were doing. So, we talked about things we need to talk about, we communicated well, they did what they were supposed to do and it



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all worked out well. I didn't have any issues while working with them. It was pretty smooth."

Aidan articulated:

"Shawn and Christy were also very accommodating, and they were looking for the places that we integrate and they were really open about the idea of integrating and were really excited about the idea of integrating."

Being open to communication and welcoming each other's ideas and expertise while teaching has become one of the stepping stones for the success of integration in the program. From the instructor's narratives, it shows that strong communication created mutual understanding among the instructors that allowed integration process to move on smoothly. All the instructors not only committed to the teaching the integrated class but also were committed to meeting, communicating and becoming open to each other about their individual ideas about integration. This reflects that commitment from the instructors to communicate and collaborate is necessary for the success of the integrated pedagogy. Working together throughout the semester especially the first time when launching the program would be crucial for the departments and the instructors who are aiming to implement an integrated pedagogy.

### **c) Collaborative Execution of Integration Teaching/ learning Praxis:**

Integration pedagogy wouldn't be successful without the collaborative execution of integration teaching and learning praxis. Collaborative work like co-teaching is essential to the implementing wherein the different perspectives are provided, help students make vital connections between courses (Lansiquot & Cunningham, 2016). Recent researches (Brizee & Langmead, 2016; Clayton, 2011; Hirsch et al., n.d.; Williams, Lee, & Lee, 2015) have also highlighted the importance of collaborative work among across disciplines. Study by, Blake and Liou-Mark (2016) reveal that "the interdisciplinary training they received boosted their

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confidence, increased their critical thinking skills, and improved their understanding of the environmental complexities for which they seek solutions.” In the integrated class in our context, all the students are required to do collaborative group projects that combines English, Communication, and Design Thinking. For this purpose, the instructors mentioned that collaborative teaching is an essential thing that they do in the class. Here are their narratives:

Shawn:

“We would also find time to co-teach with each other. We tried different things. When we taught infographics in our class they will come in to talk about Visual Rhetoric, Typeface design, formatting, what kind of content you are representing in the way in which you are doing it. Read and talk a little bit about the assignment, and they will take over to talk and make it clear that how it relates to communication and composition and we will make the process transparent to the students.”

Christy:

“Co-teaching is essential to the integration. It is important, it is important to happen at the very beginning and should continue to happen. Shawn came to my class and assigned group presentation together and we talked about each other’s parts and this is why we are doing it.”

Aidan:

“Every semester, we would co-teach and it would be more about audiences and then we would do this before the final presentation. Shawn will teach about how to pitch and I will talk about rhetoric and Christy will talk about it visually and that us teaching together really well.”

All three instructors highlight the need of the co-teaching and believe that co-teaching provides an ample opportunity for the instructors to be transparent about their teaching and the integration pedagogy. The instructors take charge of each section of the Final assignment and allow students to implement their learning in all three different classes in the form of the final assignment. The final assignment asks the students in Tech class to design a prototype to solve a global issue and English students in Aidan’s class produced a video and set up a website about the product and Christy’s students from communications would provide an oral presentation. Our past research has yielded that there is significant development in student writing as well as oral

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presentations, and student design prototype (Chesley et al., 2018). For creating this student impact, however as the instructors highlighted collaborative work among the instructors is a must. For students to see the integration and how all three classes are being taught, the co-teaching days are the most important teaching days for the integrated class. The transfer of the skills from the theory and practice in creation of the interdisciplinary praxis. All three instructors also highlighted that all it matters is the dynamic of the instructors and instructor buy-in. They also mentioned some of the challenges that they faced during in one of the semesters where the students were thinking that one student groups aren't doing enough work and learning from that semester, the instructors modified their rubric to meet the student needs in the next semester.

### **d) Overcoming Challenges of Integration Pedagogy:**

The instructors also specifically mentioned some challenges that they faced while teaching the integration pedagogy. All three instructors before they became a trio for implementing the pedagogy had taught different sections and all three weren't partnered with each other. All three instructors mentioned that there were some challenges they faced during the first few semesters that they taught because they wouldn't meet other instructors, students would be confused, or the instructors themselves had confusions about it. Each pedagogy has its own challenges and similar to that each semester comes up with a similar challenge. Some challenges shared by the instructors were:

Shawn shared his experiences

"The deadlines weren't being met and English students weren't telling things to communication students and vice versa. It was a little bit of the mess. After that I said this cannot happen again because this will make the final presentation very hectic."

Aidan shared her previous partnership:

"The first one was when they were piloting. It was fine but I didn't have bad experience. I didn't really see the communication person and never talked with the Tech person, so it didn't feel like it was an integrated class. When I met with Shawn and Christy though it was more integrated. I felt they worked a lot harder."

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Christy shared her experience:

“The second semester I did we never met, we never co-taught. If I had had only that experience, then I wouldn’t have continued teaching. I had a lot of positive collaboration from where I had experiences of actually co-teaching.”

The instructors also mentioned the challenges they faced during their partnership with other instructors and how they overcome those challenges in the current partnership. Some of the challenges that they mentioned were on two different levels: the instructor level and the student level. On the instructor level, the challenges that they had faced in the past partnership was the lack of planning, coordination, and collaborative work. This obstacle resulted in student level problems where students would not understand the integration pedagogy, the deadlines wouldn’t be met, and students would be confused due conflicting messages. Additionally, all three instructors also revealed that the instructor’s lack of communication and coordination also affected the students and their performance. These were the challenges that the instructors faced in their previous partnerships and for the current partnership they tried to implement whatever they have learned from their previous works. During Fall 2017-Spring 2018, the instructors worked together as much as possible. Overcoming the challenges of integration mostly focused on planning ahead, collaborating, and executing the plan. To overcome the challenges the instructors faced, they mentioned that they learned a lot from the past experiences and had understood the concept of integration better. All three of them were passionate about the pedagogy itself.

## **7. CONCLUSION: TOWARDS CREATING INTERDISCIPLINARY PRAXIS**

With the experiences of the instructors interviewed for this project, we would like to conclude that active communication and the willingness to collaborate is very important for the

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success of the integration program. This collaboration should be fostered administratively as well as the instructors need to own the importance of the collaborative interactions when implementing the integration pedagogy. The integration pedagogy requires investment of time and expertise from instructors of each discipline that are being integrated. Such praxis our case was implemented through incorporation of the instructor's background in their respective discipline: composition, communication, and design thinking in technology. Some of the praxis that instructors shared in this report could be replicated by other instructors who are aiming to implement this kind of pedagogy:

- Sharing the syllabi and schedule of each course at the very beginning of the semester
- Holding weekly in person meetings (including virtual meetings if required)
- Taking time to co-teach in each other's classes
- Communicating with each other with transparency
- Collaboration when sending out unified information about projects to the students
- Being open and accommodating to each other's suggestions and making changes in the schedule / syllabi if required.

Creating an interdisciplinary praxis in an integrated classroom is challenging, however from our experience we would like to share that for the success of this kind of pedagogy, instructor commitment is at the top. With the commitment from each instructor teaching the course, with regular meetings, openness, and accommodating each other's suggestions lies at the heart of success of the integration pedagogy. The instructors interviewed for this report shared that integration pedagogy is challenging, and it requires work and dedication to overcome those challenges for the students.



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