

Title: Cultivating Cross-Course Collaboration: A Model for Student Consulting Projects

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Abstract: This discusses a unique cross-course collaborative model implemented at Utah Valley University between organizational development and change, advanced business statistics, and integrated studies courses. This fall semester, upper-division undergraduate students formed multi-disciplinary teams to complete a semester-long consulting project with the university's Women in Business Impact Lab. Through an iterative process of proposal development, data analysis, and solution implementation, students gained valuable consulting experience while working across course boundaries. The model integrated skills from each discipline by having teams develop proposals, analyze data provided by the Impact Lab, and develop recommendations. Regular cross-team meetings allow students to leverage diverse expertise. This presentation will outline the course structure, team processes, challenges encountered, and lessons learned. Experience to date suggests the model enhanced students' collaborative and applied skills. The cross-course approach can serve as a template for other institutions seeking to provide real-world experiences through multi-disciplinary teamwork.

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YouTube Video: <https://youtu.be/H6hXh6ldpzQ>

Transcript:

Hello everybody it's a pleasure to be with you today my name is Dr Jonathan Westover and I will be presenting on behalf of uh the team myself and my wife Dr Jackie Westover uh today we're going to be presenting on a joint project and I'm really excited to be sharing it with you I'm going to go ahead and share my screen uh so I can share this project we're very proud of the work that we've been doing together this semester um in both of our classes it's been a unique experience and so uh it's been a learning process and it's in progress because we still have you know several weeks of the semester left so I will be sharing what we designed at the beginning of the semester leading into the semester how it's been going up to this point the plan for the remainder of the semester uh and you know maybe I can report back uh later next year just to let you know how it ended up finishing out uh the title of our project is cultivating cross-course collaboration a model for student Consulting projects again my name's Jonathan Westover my wife Jackie Westover were both professors in the business school at Utah Valley University I teach Human Resource Management organizational leadership change management those sorts of courses my wife teaches um business calculus um business statistics um data analytics those sorts of courses. To start off I'll give

you a quick overview of the scope of this and what we are trying to accomplish in this presentation I'll be discussing a unique cross-course collaborative model implemented at UVU between my organizational development and change class my wife's Advanced business statistics class and a cross-listed integrated studies course this fall semester upper division grad undergraduate students formed a multi-disciplinary team or group of inter disciplinary teams to complete a semester-long Consulting project with UVU's Women in Business Impact Lab and the social the Social Impact Metrics Lab or SIMLab here at UVU and over to the side you can see pictures of those two Labs um the women in business impact lab below is within the School of Business that's ran out of my department I I'm faculty and chair of the organizational leadership Department uh and the Sim lab is run out of our Center for social impact uh I'm also the academic director of our Center for social impact through an iterative process of proposal development data analysis and solution implementation students uh gain a valuable Consulting experience while working across course boundaries the model integrates skills from each discipline by having teams develop proposals analyze data provided by the impact lab and develop recommendations regular cross team meetings between the classes allow students to leverage diverse expertise these uh this presentation will outline the course structure team processes challenges encountered and Lessons Learned and as I said this is actually Lessons Learned in progress experiences to date suggest the model is enhancing students collaborative and applied skills and the cross-course approach can serve as a template for how um institutions can run these types of projects when they're seeking to provide real world experiences through multi-disciplinary teamwork all right now let me give you a little bit of background to the two labs and then I'll give you a little bit of background to the three different courses um that are a part of this cross uh disciplinary multi-disciplinary and interdisciplinary joint uh project first the women in business impact lab um the tagline here is collaborating with Community Partners to support the advancement of women in the workplace they do this by exploring issues impacting women in the workplace hosting speaker and panel events providing resources to increase organizational Effectiveness facilitating a community of practice engaging students in community Consulting projects and building future talent for local businesses and over to the right here you can see the mission is or the purpose of the women in business impact lab is to build a society that enables women to thrive in business this is achieved by identifying issues relevant to women's leadership and organizations creating knowledge through research and collaborative or in C uh collaboratively advancing discussions about opportunities for women uh I also am a research fellow with the women in business impact lab and uh we do a lot of uh work in these various areas different activities research uh community outreach and it's a wonderful lab to be a part of. Next I want to briefly introduce the Sim lab um The Sim lab is uh an opportunity to engage both in a curricular and co-curricular fashion uh with students and faculty working with Community organizations

uh to help them assess the impact that they're having and the way that they're meeting the their stated needs uh and their proposed impact uh through their organization the social impact metrics lab is a collaborative space where impact fellows research assistants staff faculty and Community Partners come together to tackle complex Social Challenges this SIMLab uses social change design to conduct comprehensive data analysis and inform strategic interventions uh So Below you can see what we do the SIMLab empowers students to conduct staff and faculty mentored evaluations of social impact programs for local organizations by collaborating with Community Partners we assess current impact evaluate theories of change and collect data to identify key gaps and opportunities for intervention design as a hub for systems thinking and design thinking the Sim lab also hosts research workshops competitions and in uh initiates uh or excuse me and initiatives like social issue mapping and Community partner tracking additionally faculty members can submit SIMLab project proposals which have selected will be supported with funding and expert training and this um multi class project is an example of that uh where multiple faculty um are doing a joint project uh in collaboration with and uh supported by uh the Sim lab resources um so we have what we have here is we have a SIMLab supported um project across three courses that is working with a community partner organization the women and business impact lab to do social impact metrics research to help the women business impact lab better understand how it's impacting the community and the women in business impact lab is specifically collecting data to better help uh support initiatives for empowering women in business to help women uh grow in their uh ability to uh to have opportunities uh to grow in leadership roles uh and things like that so we have three different courses involved in this initiative uh the first is my organizational development and change class this is a class that I've taught at UVU for many years um we always work on Consulting projects we have worked on Consulting projects with many different organizations uh from nonprofit to government agencies to startup businesses to well-established um companies um to Global uh huge Global multinational companies um we've worked you know with organizations that have as few as you know a dozen employees to huge multinational firms that have 880,000 employees uh and so working on these types of Consulting projects are just what we always do um but uh I also like to try to work on profit on uh projects with nonprofit organizations and from time to time we'll work on these types of social impact related Consulting projects as well uh in this class um you can see this the course description here uh students will study the process of ensuring skills or the class studies the process of ensuring skills knowledge abilities and performance of the workforce meet the current and future individual team and organizational needs includes the development implementation evaluation activities interventions and programs that focus on customized organizational development and change Performance Management training and Development Career Development and other unique employee or uh employee group needs uh so it's all about change management

and helping organizations be more effective more efficient uh and helping uh teams work better together uh and help organizations function more effectively um the second course is my wife's course management 3345, that's the advanced business statistics or business statistics 2 class, it's the second in the series of business statistics courses and usually it's uh upper division um students who are Finance Majors or um Advanced quantitative uh students in various business disciplines uh data analysis or those sorts of things um students in this course building upon prerequisites and other um statistics and data analytics courses um study Advanced managerial Concepts including and includes multiple regression Anova Test of hypotheses time series techniques emphasizes statistical modeling statistical decision-making and is computation intensive um and then we have integrated studies at UVU we have a really unique um interdisciplinary major called integrated studies where students can combine two different uh fields of study by combining two different minors in two disparate uh fields of study uh and then they join those two minor areas of study together uh and then they work on a Capstone um that brings those two areas together in a joint project uh that becomes their inner or their integrated Studies major uh and one of their elective courses is this integrated studies 300r or repeated course topics and integrated studies this this course introduces a variety of topics Crossing disciplines and science religion philosophy History Literature business technology and the Arts topics vary from semester to semester but course the course remains modular in structure research and writing intensive requires a final research paper and involves writing across the curriculum um so you may look at these and you may say how in the world do these classes go together and how can they work together on one type of project um well it was kind of serendipitous honestly So what had happened was back in the spring of 2023 so this is a year and a half ago um I was doing one of the Consulting projects I was doing in my HR 3550 class happened to be with the women in business impact lab they had just collected they just done Us big survey they collected you know 700 plus responses to their big survey um they needed help analyzing it and then transforming the analysis into actionable um recommendations for organizations uh and they decided to partner uh with my org development and change management class around those recommendations uh I thought it looked like a really great um Consulting type project for my students to work on and so we partnered with them uh the challenge is my class is not a stats class uh and so you know I'm but I'm you know I'm a researcher I'm well versed in statistics uh and so I just figured I'll just help my students um and they' they've all or at least most of them have taken an analytics class or a stats one class and so I figured you know they know the basics I'll help them with the rest uh and it's not a stats class so really we just need to do the basic stuff anyways and then we'll move on to recommendations and operationalizing and imp implementing you know recommendations that's the focus of the class um but it didn't go so well uh it was very frustrating to the students um because they really got caught up on the statistics piece and

uh it you know there were pluses to it there were good things about it but it was frustrating to them uh and that that statistical knowledge piece was just a big gap in what we tried to do that semester well that that same semester my wife was teaching her Advanced business statistics class and again her students had all the statistical knowhow they had all that skill set and they were they decided to work with the women in business impact lab as well they were helping to analyze the data and they had all that KN how to do all of that uh and they were eating it up they were loving it she had a great group of students they were uh digging in finding all sorts of really great um stuff they running all sorts of great statistical models um wonderful findings okay um the problem was they weren't management Majors uh and a lot of them actually who were taking the course weren't even in the business school a lot of them were like math Majors or um engineering students or people that were taking this statistics class that weren't even in the business school weren't business students and so taking the survey that was geared towards women in business and empowering women and those sorts of things you know doing the data analysis was fine but then taking it and trying to interpret it and come up with recommendations that made sense in a business setting that was their weakness so then it was a huge gap right and so both of us in our classes had elements of the project that worked really well but we both had these huge gaps in what we did also so our classes you know they worked in part but with the gaps you know we were just talking over our classes one day we were actually on a date night we went out to dinner and we were going to a movie and uh we were just kind of chatting about what worked and didn't work in our classes and the thought hit me we you know we both work at the same University we both work in the same business school our offices are literally like 50 feet away from each other um we can just collaborate like why don't we just have our classes work together the gap in her class was what my students can do the Gap in my class is what her students can do um why don't they just work together and I'm also an affiliate faculty member with the integrated studies program um I happened to be in that role and so I work with the integrated studies people and so I reached out to them and I said hey this this is a really great opportunity where we're doing this interdisciplinary type of project with the women in business impact lab in the Sim lab in the center for social impact let's bring in um integrated study students and so we brought in integrated study students as well for that interdisciplinary piece um and as we started to talk through it more and more we realized this could this could work this could be something that could be really cool um and you know we're we're husband and wife we talk all the time um you know maybe the communication piece that might be challenging to other people other professors you know it we can just do it naturally you know just in passing as I'm just chatting with my wife at night before bed you know I'm like hey how are your students doing on their analysis on your project you know when are they going to talk to my students just little things like that I can just do in real time um she can do it with me and so we can have really clear open consistent communication that's probably the hardest thing

in doing these types of collaborative types of projects between professors right um and so we decided to do it we decided to give it a go and we launched the project for this fall okay so here is the course description for my class or sorry not the course description the uh project description my wife has a very similar project description in her class just framed a little bit differently for her stat students um so you can see I describe it for my students this semester students in three different classes uh will be working collaboratively with the women and business impact lab on Consulting research project in collaboration with the center for social impact in the Sim lab students in the cross-listed organizational development class uh will form four to five project teams of four to five students each team will develop an initial project proposal and then be matched with uh a corresponding team in the stats 2 class the that advanced statistics class who they will work with for the duration of the semester after the proposal stage these teams in each class will coordinate data analysis and interpretation as well as the formation of data driven practical applications and organizational recommendations by the end of the semester joint student teams and all three classes will work collaboratively on their final project presentations and reports each team will be completing their project coming up with best uh the best resources recommendations and project deliverables for both the women and business impact lab which is their primary client for use with future organizations that they may work with um as well as identifying two organizations from their own personal and professional networks that they can share their findings and recommendations with on behalf of the women and business impact Lab at the end of the semester so each of my student teams um in addition to doing this project for the women and business impact lab are identifying two of their own client organizations that they're also developing these recommendations for that they can present to and share recommendations with also uh teams will be in place by week to uh etc. etc. etc. and then we invited our students to complete this um Consulting project team meeting time preference survey um because we know for students one of the biggest challenges because they're super busy uh is just finding time for teams to meet and not only do they have to find time to meet you know students in my class have to find time to meet with each other but now my wife has students in a team I have students in a team and they then have to be able to meet with each other across classes also um we knew that would be challenging and so we had we put together this time preference survey where we mapped out days of the week in different time segments time chunks throughout the day so they could identify when they're available so we can match students up according to availability to make sure that uh that they could get together and that they could meet with each other okay so once teams were formed um then we put them we tasked them with starting to think about their proposal of what they were going to focus in on uh for my wife's students their uh class is really broken up into three units of statistical analyses and you can see that on the right hand side of this slide so they have their unit one project that was due in September

their unit 2 project due in October unit 3 project um in November and then the final project and they do that jointly with my students um each unit project they're doing more and more advanced types of statistical analyses and at each stage at each unit project stage um they're getting uh input from my students about the questions that my students have related to their proposal and then they are running analyses based on uh those student questions for my class and then giving those analyses back with interpretations um so then my students can understand what's happening in the data and then make recommendations um so that interchange is happening uh consistently throughout the semester uh and until after Thanksgiving uh so in about two weeks they will then the last two weeks of the semester work jointly together on the final project preparation they'll to jointly U work on the final presentation and on the final report uh to put that together um what you see over here on this timeline with these due dates uh my wife put together you know with each type of analyses that they're going to be doing for each project she put together examples of some of the types of questions that they make that they might try to answer um these aren't necessarily the exact questions that they're going to answer uh for my students they're just the types of questions they might answer related to these types of analyses um that correspond with the survey that my students um have that the women in business impact lab collected data on okay um and over on the left hand side you can see just an example these are some sample research questions uh my students are tasked in their proposal stage to really zoom in on more specifically what exactly do they want to research and what do they want to better understand about the experience of women in the workplace in Utah um how does that is that similar or different to men you know perhaps across different Industries in different job types etc. and so here are some different types of research questions broad questions specific survey questions that maybe they want to zoom in on um and as they start to put together a really in-depth proposal a project proposal that's about five pages long um they then are able to share the more detailed proposal and research questions with the stats the advanced statistics students so the advanced statistics students then know what types of analyses are they going to run um you know from the survey data the survey data uh so that um they can do their class projects and it's this we design the timing throughout the semester so that each stage that my students are doing then feed directly into the timeline for my wife's student um unit projects for the statistics that they do and then those students turn their projects into my wife she can then do some quality control do some grading provide some feedback their student her students refine the data analysis then they meet with my students who uh then take the data you know they the stat students help to interpret it help them to understand what the data means then my students have the data in time to do the next phase of their project uh to do recommendations interpretation um build start to build some implementation uh and it goes back and forth like that throughout the semester at different phases so right now we're at this stage we're at unit three project stage um my wife

students just turned in their unit 3 project she uh literally is in the process right now of um of finishing the grading on the unit 3 project and the feedback on the unit 3 project in fact I think just yesterday just last night she finished that feedback and got it back to her students so they are ready um as of tomorrow I believe to do the handoff and have meetings with my students so they can do the handoff provide the interpretation and then my students are ready um to start putting together their draft presentations um so they can start to get some feedback on that okay here is just an example of the survey uh this is the second wave of survey of the survey for the women in business impact lab this is just the very front page of the um the informed consent uh for the survey um our director Dr Kelly Hall who um who led the charge on putting the survey together we have a whole team of about eight different professors who are part of the women in business impact lab who are research fellows um who all contributed to designing the survey um the survey was then uh administered um the second wave of the survey collected a little over 550 responses um from a stratified randomized sample um throughout the United States and uh and then over on the right hand side you can see just a sampling a selection of some of the types of questions that were asked in this survey so for example you know for each of the statements about your job please identify how much you agree or disagree um that each applies to your job and then so they'll answer questions about my job is secure my income is high my opportunities for advancement are high my job is interesting Etc. and the respondents will answer all of these this survey has questions around um work quality characteristics um workplace environment uh Employee Engagement job satisfaction uh leadership Dimensions um all of those sorts of things that's the nature of this survey it's a fairly lengthy survey um so we have a lot of richness in the data and it's been a lot of fun to dig into the data and to do a lot of analyses and so the uh these students uh are really helping though with it because they're lot providing a lot of Manpower uh in doing some of the in work uh around um some analyses and digging into you know what does it all mean and what can organizations do with this data okay so the nuts and bolts of like how this works throughout the semester um I gave here you can see a couple screenshots of what my students do each and every week my students are expected to meet together every week of the semester outside of class for at least 30 minutes um in in this case actually it looks like they met for 20 minutes but they're expected to meet weekly and they have to fill out this form um to talk about what they did summary of the activities completed um you know what activities are in process it's a very simple form as you can see it's not meant to be complicated it's just meant for accountability every student gets frustrated with Team projects and every student has experiences um where their team projects have not gone well and sometimes they get frustrated with um maybe they feel like there's been a free rider Some you know a student who hasn't put in their fair share of the work into a project and so this is one of the mechanisms that I put in place in my class just to hold students accountable uh they meet weekly they turn this in weekly this is

a weekly assignment so I know exactly who is meeting like who attends the their meetings every week I know who is in attendance I know what they um meet about every week I know what assignments are given I know what they're planning to do um I know what assignments were made versus what gets done Etc. um it's not meant for me to micromanage but it is meant for me to have a pulse on what is happening so that I can help so that I can step in if necessary but also so that I can hold them accountable and so they can hold each other accountable um towards making steady progress and because I have them do this every week it allows them to make consistent steady progress throughout the semester and not fall into the Trap that many students will fall into where they procrastinate where they will you know they think oh it's fine we'll get to it and then we a week or two or three will go by and they realize oh we haven't done anything and then all of a sudden they you know they get nervous and they realize oh my gosh we haven't made any progress no they're making steady progress throughout the semester this project will take you know a combined effort of you know if they have five students on their team it'll probably take them a com a combination of about 150 hours throughout the semester for their team to do this project that's about 30 hours each um in a in a 15 week semester um you know that's a couple hours a week that they're spending and if they do a couple hours a week it's very manageable um but if they don't and they start to procrastinate it starts to build up very quickly and then all of a sudden it becomes very unwieldy so that's something that they're just building out over time I also put another mechanism in place with my students where they do a midterm evaluation and an end of semester evaluation where they rate themselves and they rate each other on the quality and the quantity of their contributions to the team as well as they rate any dysfunctional behaviors that they may observe either with themselves or their team members and they're able to provide qualitative comments on what they observe in their team this is also very helpful to me so that I can be fair and how I grade um so that I can give differential grading if there is um differential effort uh or differential contributions in the team project um you know so that so that there is uh you know again fairness and that students understand that there will be accountability okay here on the next couple of slides I just wanted to show an example uh I'm not going to walk through all these statistics but this is an example of just the first so I showed you if I go back here um here on my wife's um due dates for her class um on the unit one project with just the very simple analyses that the very first project that our students did this is what you're seeing here um on the next couple of slides this is just a super simple analyses that her students did for that first project that they then met with my students her student teams met with my student teams and they walked through uh this very simple analysis of means standard deviations difference of means uh differences of variation Etc. um my students don't necessarily remember you know they may have taken a stats class but they don't necessarily remember what all of this means um and so my wife's students helped to run the analyses and then helped to interpret the analyses

for them so they could understand what it meant uh and then really provide a deep interpretation so that they could translate it into um actionable recommendations for what organizations could actually do uh another page of just um analysis that basic kind of first level analysis um that they did uh another page of difference of proportions uh that they did just with that first unit project uh and then they did the same thing for unit 2 they're doing the same thing for unit 3 but for each unit it's getting more sophisticated they're going into deeper levels of analyses with Unit 3 Getting into um uh different forms of regression analyses um that are going to be really helpful for my students in in fine-tuning the types of recommendations that they're making okay um last slide that I wanted to share um this is actually um the cover slides examples of the projects that my students did back in 2023 spring of 2023 um because my students haven't finished their projects yet for this semester um they will be doing that in the next month right um and they'll be somewhat similar um these projects were based on the first wave of data collected by the women in business impact lab back in 2023 the project that my students and my wife's students are working on this semester are based on Dat the second wave of data collected in the spring of 2024 so it's a new wave of data um it was a second iteration of the survey a more cleaned up version of the survey an improved version of the survey the data is better um we found that already in the analyses that we're doing um we're finding some really great um results in the analyses that we're doing and so we expect to have even better um projects from our students even though we had great projects from our students the first time we did it back in 2020 3 in Spring of 2023 um so here you can just see some examples of what my students did back in Spring of 2023 just to give you an idea of the types of things that I'm going to be seeing from my students here in the next several weeks um back in Spring of 2023 I had a student team that looked at the gender wage Gap EP epidemic and how organizations can avoid gender bias training or how uh organizations can avoid that how they can Implement gender bias training um we had another team that looked at women in Tech and the disparities of uh um workplace experiences of women in Tech versus men in Tech we had another um group of students that looked specifically at workplace satisfaction and employee well-being um as well as compensation and flexibility factors for women versus men uh and another uh group of students that looked at Family inclusive benefits packages um for uh for both men and women actually in the state of Utah versus out of the state of Utah some really great projects they created some really great resources uh for the women in business impact lab that they could then use as they were Consulting with outside organizations they came up with some really great findings and some really great materials um it was excellent then it was excellent back in Spring of 2023 and that was with all of the limitations all of the um gaps that I identified at the beginning of the presentation today um and so my wife and I are really excited to see what our students end up producing here in the next month um because the way we designed the project this time um you know the gaps that we felt back in Spring of

2023 in both of our classes uh we were able to marry our classes together to fit those gaps what my class can do fills the gap of her class and what her class can do fills the gaps of my class there's certainly challenges there's core there's coordination challenges there's communication challenges that happen anytime you have students working together in teams and if you start to have students working across classes with other teams in another class that makes it even more challenging and we've certainly had to deal with some of that uh throughout the semester but it greatly enriches The Experience uh and it also allows multiple skill sets to come together to produce even uh more amazing projects so we're super thrilled uh to see what can come from that I also I know she's talked with her students about it I've talked with my students about it quite a bit um that this class that my students are going through it's really preparing them for the workforce um they're getting a lot of skills I mean they're learning about organizational development and change management they're learning about the models of change they're learning about how to be Consultants they're turning learning about project management time management client relations they're developing those types of skills they're turning about they're learning about how to work effectively in teams um those sorts of things um but they're learning also about how to work effectively um with teams in a remote environment one thing I didn't mention is that my students are um in a virtual hybrid environment we don't meet in person uh we live stream once a week and then the rest is asynchronous online uh so we never meet in person they don't meet in person in their teams they meet on Zoom or on teams so their entire projects and their team meetings and everything that they're doing is virtual we do have live streaming sessions and they do live streaming team meetings but it's not together it's not in person and so they're learning a very valuable skill of how distributed teams can work together effectively uh to get things done but it's not just that they're learning about cross siloed um about breaking down silos and about cross- siloed team collaborations which is going to be invaluable to them as go out into the workplace because so often in organizations we do get stuck in our little department or Division and a lot of times we have to be able to work effectively with teams outside of our area to be able to move projects forward and it may be with a with a division or a department or an area that has a completely different skill set than what we have and if we want to move a project forward we have to combine our skill set with completely desperate skill set bring our skills together to accomplish something great and that's what our classes are doing we're bringing together three different classes um integrated studies with their interdisciplinary way of thinking my business students with their uh organizational development and change management skills and way of thinking and my wife's Advanced statistics students with a completely different way of making sense of the world and their skill set and their way of thinking all of us with the same goal of helping the women in business impact lab um and their mission of supporting women empowering women in the workplace empowering women in business and helping women take on

leadership roles and uh and whatnot um it's super exciting uh we're thrilled with how it's been going up to this point of course it hasn't been without its challenges um but it's been very rewarding and we're excited to see how it wraps up with that I think I'm I probably overstayed my welcome and I've taken enough time so I'm going to end there. It has been a real pleasure I appreciate you um watching our video if you have any questions please reach out um I've put our names and our emails there you can reach out to myself or to my wife um both of us are happy to take your um your questions please email us connect with us on LinkedIn or anything like that and we look forward to hearing from you. Thank you so much.