**Lynda Plymate, Kurt Killion, and Gay Ragan (three people sitting at table):**

Hello I’m Lynda Plymate and this is Kurt Killion and Gay Ragan and we are here today to talk about a blended course that we are forming in two of our math courses, Math 320 and 360. And first I thought we would talk a little bit about why we have stalled to attempt an online or a blended course. One of the big problems that I had with online courses is that I have a philosophy that students have to construct their own knowledge; and so I'm a Constructivist and specifically I believe that students should be interacting together to learn their material and so I have worried about the individual environment about going on the web. In addition these two courses, Math 320 and Math 360, are very activity based. We force these students to work together and in an inquiry environment and I didn’t know for sure that we could force that in an online environment.

Kurt Killion: Technology bases too. That adds a little bit of complexity.

Lynda Plymate: That’s right

Gay Ragan: A huge issue for us is time. I don’t think that it’s—That it’s that we didn’t want to do this, or didn’t think that we couldn’t modify it to fit our constructivist philosophy—it’s a matter of finding time to do that. So we agreed to at least think about it and try to do it and then thought if we were going to try to do one course which was Math 320 maybe we should try to do both of them because there are just 3 math educators and it’s all a collaborative effort anyway and so time is our biggest hurdle even though we are moving forward time is an issue. We are also wrestling with this idea of what will be an online component, what is something that we now have in our course that could now move to an online component but not make everything outside of course and not make everything homework based or not homework based or what are the student’s expectations with online versus homework component.

Kurt Killion: And also the nature of the course we figured out that it’s probably a maximum of 30% online which might make it a little bit simpler but there are issues with trying to decide the amount of percentage you have in online components. And also all of us also have pretty much minimal experiences with online kinds of experience so we were a little bit hesitant but I just want to say that we got lots and lots of help from the instructional design people and training and guidance and so I think we are ready to go, we are excited and we think this is possible and we think that good things are going to come out of it.

Lynda Plymate: So the first question we’ve been asked to address is why we decide the blended course, particularly for these two courses; Math 320 and Math 360? The population in these courses are mostly pre-service, elementary and middle school teachers. And one feature about this particular population is first we want better student success, and from a population that typically has some significant deficiencies mathematically and also very low confidence in their own abilities do mathematics. So we thought that an environment that would allow the student who had major deficiencies in some area might go to the internet and review something from the internet multiple times whereas a person who didn’t have a deficiency in that area would not need that type of instruction. And the other reason we thought this would be very good in this population is that this will allow us to spend our in-class time in higher order thinking, in-depth mathematical instruction.
They could work together; we could work with the higher skills and move some of the more basic skills, lower level skills to the internet.

Gay Ragan: The second question was figuring out how we were going to design our courses to go to a blended format. Originally we were asked to think about doing it all as an online course and because of our Constructivist philosophies and because our course is more hands on, we use manipulatives and technology and we encourage the students to discuss as if there were really classroom teachers that the online format probably was not going to work for us so we decided to do blended; and it’s taken this whole academic year to even get done the little bit that we’ve done so far. So we first sat down and even though there are three math educators we don’t always do things the same in the courses that we teach now and we cover a few different topics; so we sat down originally and said what do each of us do in our courses and how do we assess that and how do we deliver that format? Is it something that we do with technology or is it something that we do hands on, or we use internet? So we did that first so we could just see what page each of us were on and how we had commonalities and how we could make this a course that works for everybody. So we have done that and have had some discussions about that and agreements and disagreement and tried to get some common core topics and some assessments going. Then we went to look at what do we do now in class that maybe could be moved to a PowerPoint only or a PowerPoint with some video attached to it—or could be more direct instruction through the internet for example using Geogebra or some of the geometry software that is available free on the internet. So we’ve created PowerPoints and got some PowerPoints and video that run through the video site that we have got over here with the instructional design people and so that’s kind of what we’ve done. We’ve talked about assessment, we have worked on some common assessment items. I don’t know that that won’t be a whole other project someday. I don’t think that it’s such a job to do this in the first place and the time it takes and the collaboration that it takes that we are just trying to get modules up that we think could be done outside of class, that are lower level thinking so that we could come back in class and use that time to do more higher order or hands on things with the students.

Lynda Plymate: One of the issues that I really love about the modules we’ve developed so far though is that we have forced some type of assessment unit at the end of each one of them. So this is our way to kind of guarantee that each student does go and look at the modules and would have some accountability. And I really like that and that is common assessment already.

Kurt Killion: Yeah if you get a critical mass of the students up to a certain level then you can come to class and take off somewhere with it. Whereas before you had to take all that time to do all the low level stuff in class.

Gay Ragan: Now the concern is, is that causing more grading that needs to be done? There is a lot more shuffling of papers and maybe so more grading so that is a time thing and I don’t know that we’ve got that part figured out yet.

Kurt Killion: We had another question about how did the students respond to the course re-design? We’ve only tried a few things but I think we know the answers to some of that already. Our courses were already very focused on student engagement to begin with so...
that was maybe a little bit of an issue of how to keep the students engaged in online activities but we are working through that, I think we’ve had some success. There were some small numbers of students that came to me and said “I don’t like this. I’m used to face to face; and I’ve paid money for you to talk to me face to face” and I think after they got used to the idea, and they are still getting used to the idea that they are still getting us face to face it’s just not in the classroom I think they were okay, but it was just a small number that were concerned but most of the students, the vast majority of them were really very pleased with this opportunity that they had to go look at the online components and look at them again, and look at them again if they needed to; use them to prepare for tests. Many of the students just really liked that idea and I think it leads to enhanced student understanding when they have that access. I wanted to give just one small example from fractions. We have a fractions unit in the Math 320 class, and honestly it is an extremely difficult topic, most students come with almost no conceptual understanding at all so we have to start from scratch and so we did some fairly extensive videos introducing fraction concepts, and introducing the writing of fraction word problems and involving all those fractions with various manipulatives and paper and pencil algorithms that would go along with it in each of the four operations and students looked at that and looked at that again and they came to class, the next class meeting with already some fairly well developed understandings and they were ready to move on and do some of the more advanced kind of operations that we needed to do with them and so I think that was really successful. And in Geolgebra we had a similar kind of thing.

Lynda Plymate: Right. In the 360 class, the foundations of geometry for teachers we asked the teachers to inquire about relationships geometrically and we had them use a dynamic geometry software package. Either Geometer, Sketchpad or Geogebra. Well there has been time needed in the class before now to learn how to use Geogebra, it’s not really hard but it takes some time to do that and we were successful in producing a module that would introduce how to use it and at the same time introduce inquiry with it and that has been piloted in 360 and with some success—we still have to make adjustments but there has been some success with that and that means that the students were ready the next day to really start doing some really inquiry discovery using Geogebra and we didn’t have to take class time to do that introduction.

Kurt Killion: We also had one other question they asked us to kind of talk about. What is next for the future of our courses? One of the issues I know that we are going to struggle with is scheduling issues. When do we assign the online activities, you have got to really think ahead, you know when it’s going to happen in class you have got to give them enough time to really sort through and take the online quizzes or whatever we have them do so you have got to be prepared with that scheduling to know when do you assign it, when do you make it available online. And then, the other issue too, that I know we are going to struggle with this fall as we try to implement is try to figure out how do you schedule when we drop out of the face to face. If they do some online, it’s supposed to replace face to face classroom time and that scheduling is a little bit tough because with each topic that varies some. Sometimes you can do more online in some topics then in the next; so we are going to see how that works in the fall with adjusting as we go to try to figure that out.
Gay Ragan: We’ve had troubles I guess this past year because our classes tend to be on a Monday and a Wednesday and so giving a significant online component on a Monday and then having them have it completed by Wednesday seems tough, seems tough for even us to do, and so we were always trying when we were piloting stuff to figure out how could we get things aligned so that the online component was assigned on a Wednesday for example that they would have plenty of time to have it done by Monday, and some of that has been because we are piloting and there has been technical issues and so you know you will come back and maybe on a Monday two thirds of the students haven’t seen the videos because of a technical issue and so Bruce or Mike or somebody has come a talked with the students and pinpointed exactly what their technical issue is and gotten that resolved so that we won’t have that issue in the future. But at the same time we are trying to run a course and we are trying to meet objectives and we are trying to have student learning go on and while we are trying to work through all these behind the scenes scheduling things and I know students don’t appreciate because they don’t understand how all that work.
Kurt Killion: Let me just say, and I don’t’ want to get a fire started here, but two thirds is probably a little bit high but if you have 3 or 4 students that weren’t able to access the video it causes issues that you are going to have to deal with so there were a few technical things that I think we mostly sorted out by now.
Gay Ragan: One of the other things was just this—what to do in the future. We will spend this summer, we offer both Math 320 and Math 360 this summer and have worked it out with our college and department that all three of us are going to co-teach that in a collaborative way so that we can see some things happening in the classroom and then one person will be kind of free to start working on an online component for something that we know is happening in the classroom. So we have got lots more ideas for what we could do online and then we have got this whole assessment piece to work on with that as well.
Kurt Killion: Talk a little bit about the homework vs. online issues.
Gay Ragan: I don’t know what to do with that. Some things are homework and some things are not. Some things have to be online components and some are not. We want students to be accountable for the online stuff that they watch and so what do you have them do as homework, or do you have them take an online quiz that might relate to what they saw on a video. So I think it’s trying to sort out the homework or the assessment idea compared to an online piece and I think that’s more than one project really.
Kurt Killion: Because students might actually expect that they get released from face to face time you know for anything that is done outside of class but sometimes the homework...
Lynda Plymate: We should expect homework, we should expect that and that shouldn’t be comp time.
Kurt Killion: We shouldn’t limit the amount of homework that we have them doing.
Lynda Plymate: So they should still be expected to do homework offline or online but out of class, as well as what we would consider “comp time” from class work so we are working on that. The other thing though that we will definitely work on is we will continue to redesign the curriculum that is more common between all of us that teach these courses and this will be, it’s very appropriate right now because of the new common core state standards, so we will be adjusting the curriculum to better match those core content and also we will be
looking at those common elements to assess, it will make our course a little bit more uniform throughout all our instructors and also produce a better product for the student. We’ve got lots of plans, excited, how in the world will we get it done? We are so busy anyway this was one of the things that worried us, how will we find time to make all these modules to be able to get ready for piloting this this summer and then actually bringing it on board in the fall. We’re just workers and we keep trying but we got this wonderful support from our instructional design people and we are just going forward. It’s exciting.
Gay Ragan: It’s a work in progress. I think it will always be a work in progress. Others agree.