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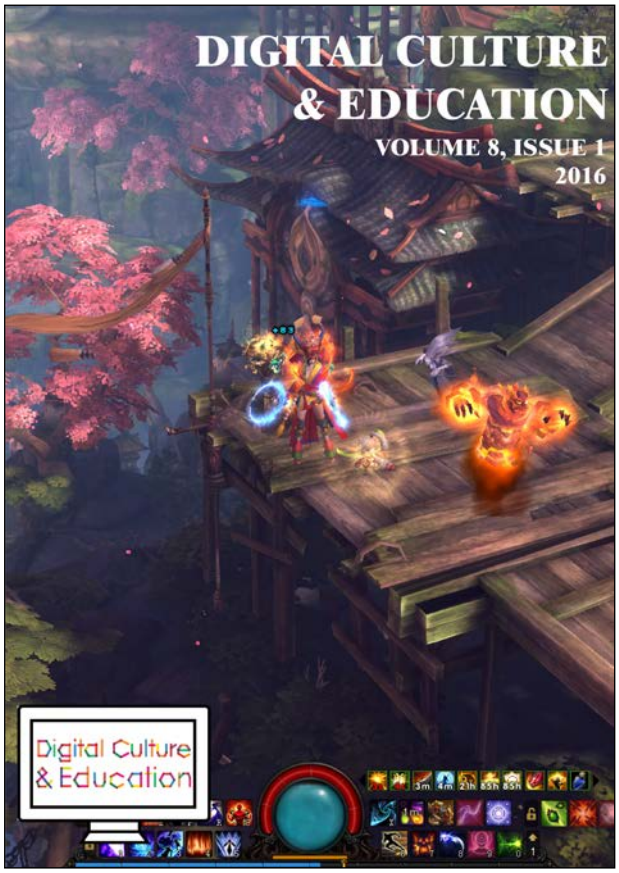

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Culture matters ❤ engaging students in redesigning coursework with digital components

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CULTURE MATTERS ❤ ENGAGING STUDENTS IN REDESIGNING COURSEWORK WITH DIGITAL COMPONENTS

Amy Owen

Abstract: *In this study tertiary level curriculum was redesigned to include online and digital components for engaging, motivating, involving and exciting students. An innovative approach is offered that involves students creatively in flexible, adaptable curriculum using cultural and instructional student preferences. Traditional lecture style cultural geography curriculum at the University of Guam (UOG) was redesigned with digital components with assistance from students. UOG students were surveyed for their digital technology preferences. Interviews provided detailed information regarding course delivery preferences. This warranted a curricular shift from content to dynamic, adaptable processes that better fit the instructional needs and preferences of students. Student culture pattern preferences highlighted the importance of connection and quality inter-relating. Undergraduate courses were restructured into living curriculum intended to adapt, including research and inquiry focused projects with highly interactive modular, short, mixed media and mode assignments. I argue the redevelopment of tertiary curriculum along the lines of cultural preferences involves and engages adult learners.*

Keywords: Culture, curriculum, design, engagement, digital, participation, Guam

Introduction

Structured content-based curriculum no longer works in a globally connected world. It needs to become interactive, and it needs to connect the participants and the data of a big world. Currently, a pressing need for connecting people and technology is culture.

Culture is the way humans connect socially and varies by location. Culture is also intrinsically tied to tool use. Digital technologies are the current tools of this era of global connecting, and education in this era necessarily includes the use of digital technologies. This work offers the consideration of cultural aspects in redesigning curriculum that collaboratively involves participants – featuring student assistance in curriculum co-creation. It not only makes sense to recruit students into redesigning curriculum, it is motivation for involvement. When students become involved, they are made co-owners. Additionally, they are well equipped for this task. In fact, they were born for it. It is this generation that will inherit the world's issues, and will need to resolve them globally. They will need all the world's data, and they will need to collaborate in a connected way to co-design working solutions. Education must give them these tools, and curriculum design must reflect a collaborative, inclusive and creative use of digital technology.

The focus of this paper is the redesign of tertiary curriculum to include online and digital components with the goal of better engaging and interesting tertiary students. At the University of Guam (UOG) the lack of student engagement and desire to read coupled with the perspective that too much information was required to be learned within the time allotted, diminished student interest and motivation. There was an increasing demand for more content to be delivered to meet academic and industry standards. At the same time, the world is changing rapidly, and content quickly becomes obsolete or needs to change to keep up. Students have access to vast stores of information, and today it

makes little sense to ask them to memorize content. They most need to learn to use the content.

The redesign of the cultural geography curriculum is a result of addressing these factors observed over 8 years of teaching at the university. This study outlines how courses and curriculum were redesigned to increase student participation and engagement. It is hoped readers will find the results and approach useful and applicable at their locations, and in their content areas whether they teach online, hybrid or face-to-face.

Figure 1. Boots Bonifacio Lambrecht and Jeff Lambrecht (married) cliff jump in Turtle Bay in southeastern Guam. Photographer: Bobby Bonifacio, Jr.

Methods

The scope of the curriculum redesign was August 15 through December 31, 2015. Data on cultural preferences was obtained through surveys and interviews with the assistance of undergraduate students for class projects. The data was analyzed using simple summary statistics and non-parametric tests. Data summaries were analyzed for patterns of significance, with special attention paid toward repeating patterns and applied to curricular redesign for cultural geography coursework incorporating digital components and technology.

Surveys and interviews

A relationship preference survey was conducted spring of 2014 with the assistance of 7 undergraduate students for a special topics class project. The students assisted in developing the questions and surveying students. Student enrolment during the spring of 2014 was 3628 at UOG (Leon Guerrero, 2014). With a sample size of 401 students, results are reported with 95% confidence plus or minus 5%. See appendix for surveys and

results summary tables. Survey sample was a good match for the student body. The average student participant was female, 18-24, from Guam and identifies as Roman Catholic. Survey instrument included 28 questions, with 4 independent variables age, sex, geographic origination and religion. Remaining questions on relating and interpersonal relationships were independent variables in analysis. Summary statistics and nonparametric tests such as chi-square were used to analyze data using SPSS software. Data was analyzed for engagement preferences and themes.

The second survey obtained instructional preferences of UOG students. This survey was conducted spring of 2015, with 8 undergraduate special topics students assisting in developing questions and surveying students. Responses were analyzed for student preferences as they relate to educational technologies. The study sample was 390 UOG students, with enrolment of 3750 (Leon Guerrero, 2015) provided reporting confidence at 95% plus or minus 4.7%. The average student, female, 23, of Chamoru descent and undeclared/unreported major was a good fit for the student body.

Interviews were conducted fall of 2015, assisted by 7 economic geography students for their class project in developing questions and conducting interviews of students and faculty regarding instructional preferences. Each interviewed 2 male and 2 female students and 1 male and 1 female faculty for a sample size of 42. Students completed a training from the National Institute of Health (NIH), an online certification course on ethics in research (NIH 2015). Questions were open ended except the first question. Results were summarized and examined for patterns regarding preferences in course materials, intellectual property and instruction. Cultural preferences and themes derived from the surveys and interview were applied in curriculum redesign.

Curriculum redesign

Curricular redesign evolved throughout the project scope. Three cultural geography courses were redesigned - special topics in geography (400 level), economic geography (300 level) and world regional geography (200 level). For all courses the content and delivery structure, syllabi and curriculum were reorganized into a format better suiting student technological and engagement needs. Textbooks were all reassessed. Course shells were developed using the UOG online course platform (Moodle). Digital components were designed using cultural and instructional preferences for engagement.

Results

Student culture trends

The importance of connection

Unexpectedly, the most significant result was the importance of quality interpersonal connection to students. The vibration or chemistry of the connection between the students and with the instructor is of top importance.

The energy dynamic in relating is far more important than are institutions of culture such as language, religion, ethnicity, social class, etc. The "vibration" quality in relationship is of the most importance (85%), followed by common interest (79%) and even greater than physical intimacy (74%), physical compatibility (66%) and physical attractiveness (62%). How it works and feels is more important than how it looks.

This translates to the importance of building in and paying attention to the interactive components of digital and online coursework, fully utilizing the social media and using applications in ways that promote connection and communication. The results oppose the common assumption that generation next members time spent glued to electronic devices is indicative of a decreased desire for interaction.

When asked what would motivate students to take a course, online access topped the list at 39%. Clearly, online access is of high practical importance to students. There is also strong support for incorporating social technologies, as 61% feel technology connects them and 76% would like to find ways to use technology to connect them better socially.

Results of interviews provided more detailed information regarding instructional preferences. Students reported that they prefer instruction to occur at brief interval activities, and that the media variety and type of task mixed and alternated with both online and in class instruction. For instance, video-clips, searches, oral instruction, map and graph activities should be switched out at short intervals. Students favor games and competitive exercises, whether on an individual basis, in teams or with the entire class. They like projects and research that applies to life, but want assistance. Both students and faculty called for building flexibility into instruction, including flexible attitudes regarding intellectual property and that delivery from non-specialists and specialists are both needed. Overall, results call for a highly flexible, dynamic approach to course delivery.

Course redesign

All courses were converted to hybrid courses, which allocate 50% or more delivery in class, and 50% or less delivery online, the requirement for hybrid courses at the university.

Upper level coursework

Special Topics in Geography, a 400 level course, was redesigned to deliver most of the content online, with students expected to access the material and complete the assignments. The syllabus was redesigned as a living, continually updated document that changes throughout each semester. It was accessible from Google docs, along with a link in Moodle. It contained course objectives, grading matrices, assessment procedure and instruments along with links and assignments. No text was assigned.

Moodle, the university online course deliver platform, was used for development of the course shell. The topic list, assignments, links, images, videos, academic articles, presentations and other materials were uploaded. Online content delivery was designed for easy changes and update of materials. The delivery format for the upper levels shifted completely from in class content delivery to online access to materials. Assignments posted required students to access and to search for information on their own rather than be fed the material in lectures. Students were involved in projects with topics of their choosing online, using Google Docs, Dropbox and other applications for sharing files, communicating and designing parts of their projects in creative ways. For example, the spring 2014 economic geography class created and conducted a simple survey using Google Docs and social media for a feasibility study of bamboo for sustainable island economy (Owen, 2015).

In class, topics of further interest to students were allowed more time for exploration through discussion and activities, often augmented with short video clips and images. Students responded favourably, according to the faculty evaluations, to the benefit of increased and intensified close interaction with each other and instructor. Instruction time was freed up once the course shell was developed, and materials accessed online. The extra time was used to "flex" on the spot with student interests and build on research lines of inquiry. Tasks were broken down into tailor made short activities, quizzes, games, video clips and images from travels as needed, and obtained as needed. This format not only engaged the interest of the class, it engaged the instructor and kept the course interesting and always different. Content explored in class remained new and always changing, with the base content swapped out and new links, assignments and materials added and updated.

Activities were planned in instruction modules of 20 to 30 minutes, then switched to another activity. Each new module varied the media or application, switched between competition, presentation, inquiry and self-inquiry, and between individual, team and whole group orientation. The modules were not each new topic, but a series of short, mixed mode activities that provided increasing skill, confidence and familiarity with a single line of inquiry. The topic line was project oriented and developed by the class together, with individual tasks that contribute to the class findings. All projects were directly died to practical use that related directly to the students in some way.

Examples include field studies directly related to Guam, the community and the university. The intrinsic nature of community pride and spirit in Guam students was elevated to unexpectedly high levels of excitement and motivation with topics related to something culturally meaningful to the students. Four hundred level students did very well when challenged to creatively design their projects as a group, with close supervision and guidance. The standard of quality for the projects was set for publication quality results. At this university, undergraduates are not widely involved in research, though that is changing. Projects were successful under close supervision, through focus on one research skill at a time. The students are usually interested in data collection because it is more interactive.

Data for this paper was produced from upper level course projects. Direction was provided throughout the semester in developing the research design, field instruments, and field study. Examples were provided in class and online as needed. While only one aspect of a full research design was required, and students usually select data collection, the other aspects of complete research design are gone over as a group in class, and through on-line assignments (when run as fully online class instruction videos and links can be used for each task). Included were writing a literature review (no enthusiasm there!), statistically analyzing a dataset from another class project, or writing a full research paper using pre-analyzed data.

Students wrote "mini" papers at project completion that summarized their research experience, written in a major publishing style that included all of the elements of a full research paper. The allowance of a short paper alleviated the stress, length of time required, and pressure of a full-length research paper. However, far more time was spent with the students going over how to create references and cite, write a thesis and other elements than had been spent previously when a full size term paper was required.

Each element addressed in interactive sessions was far more appealing to students than their doing each element on their own, in align with their cultural inclinations for group activity. With each element of a research paper gone over in the group setting, and the research project providing the content and examples, many students reported later that their first research experience was exciting and enjoyable. This contrasted greatly with reported experience of full term papers. Yet, surprisingly, far more in the way of data and usable results came from the increased interaction with students and the decreased requirement of paper length, through applying their preferences. The quality of connection, and the dynamic with class and instructor did prove to be the most important class element. The undergraduate students did produce high quality and creative research with increased supervision and interaction.

For 300-level economic geography, a higher level of specific content and structure was delivered through an assigned text. The text was carefully selected for global economics approach, it's easy to read format, high quality colored images and graphics, and the availability of a variety of digital resources. Text materials were made available online and included PowerPoint presentations, notes, outlines, study questions and study guides.

Economic geography, statistic and content rich, proposed a steep challenge to make it interesting and exciting. University of Guam students frequently complained that their textbooks were dry and unappealing, and searched for ways to avoid reading. The highly

complicated tables and jargon presented in texts was daunting and time consuming to understand. Using student preferences, the text was carefully selected for easily understood concepts that presented material visually and utilized color images and real life examples. Students participated in selecting the text, through a competitive game that broke the class up into teams. The students did not choose the simplest, or easiest text. They chose the one that worked for them.

Text readings, assignments and activities were posted online to be completed outside the classroom. Mixed modular class activities included quizzes, games and exercises directed toward understanding and exploring the text material, not go over it line by line. A general outline for items to cover in class had built in flexibility. It would depend on the students how long or if they needed to cover something. Included were instructor led in-class searches on items the students had questions about and topics the class was interested in.

For instance, outsourcing labor was introduced in the text by an assignment that led students into their inquiry, and reinforced with online materials including PowerPoint presentation, class notes and study guide. The class then discussed how that might affect the students' families, future work, their community and Guam. A Google search using the classroom laptop and TV supplied numbers of overseas workers in various countries, and how many overseas workers travel to Guam. A YouTube video clip on production of the iPhone in China was played, followed by a discussion on the worker conditions there. Students, with connections to their phones, island, communities and job prospects could easily relate to the many perspectives and issues involved with labor and outsourcing. The discussion moved quickly and easily to a level where all perspectives were considered – far beyond understanding each of the concepts. With the content and activities already supplied and completed online, it became far easier to create interactive activities to supplement the material that upped the interest of the class. The mixing of instruction modes and flexible instruction that switched tracks as needed kept the class interesting, as students reported.

For upper level courses, online delivery of content and assignments freed up in-class time for interactive pursuit of themes of interest. Use of the online course shell for content and assignment delivery, coupled with modular, highly interactive mixed medias using digital technologies was a winning mix. The high level of output from the undergraduate level group class projects was unexpected. The projects required students to participate in real research that produced real data, and gave them skills they can use in their lives.

Lower level coursework

Lower level (200) world regional geography presented the need for the most redesign from lecture style teaching to incorporate online and digital components. The course covered only 6 of 12 regions because it was overly content rich to cover all twelve in a semester. With the world and regions rapidly changing, textbooks changed editions frequently. Texts were very expensive, much to the chagrin of students on budgets. It was both challenging and time consuming to keep up with the rapidly changing editions and course content. Most academic years the content, lectures and exams had to be rewritten. Much of the preparation time was spent in rehashing the content, lectures and exam materials that stressed memorization of the content.

World Regional Geography is a required course at the institution for students with majors other than geography, serving as a general education course requiring industry content standards are met. It is a key course for program assessment, needing benchmarks for student learning objectives met. In the past the vast amount of material was delivered in lectures covering text materials, with PowerPoint slides from the text, and exams based on text materials. Student preferences clearly called for digital and

online components for content delivery and interactive, inquiry based learning activities despite this being a lower level course with lots of required content. Also apparent was how the instructor benefits along with the students with interactive, dynamic and flexible course design.

Guam students enjoy spoken delivery, so the content was flipped from in class lecture delivery to taped lectures accessible online, short research inquiries and direct interactive cultural experience. Guam students prefer lectures to texts, and activities to lectures. For many students English can be an issue. Videotaping lectures offers students access on their own time, for as long as needed.

The video files were produced during regular lecture style presentations of the material, in a Ted talk style with camera on instructor, and students able to comment without being filmed. Simple and inexpensive equipment was used. A Canon SX610HS and Monoprice portable video were used for filming, with a 32gb disk, extra battery and recorder for backup sound.

Video files were extremely large in file size, even at the lowest resolution, prohibitive of direct upload to Moodle. Video managing software, such as Wistia, stores files and provides student use statistics. The software is expensive, and if using an institutional license should include documentation of intellectual property rights prior to publishing the material online. Videos can be uploaded for free using public sites such as YouTube. Intellectual property can easily be verified using this method, however, it may be more challenging to protect the files, assure their security, and determine student use patterns. Along with accessing the videos through links to wherever they are stored, textbook materials such as PowerPoint presentations, text notes and study guides were all made accessible to students with Moodle. The textbook is now optional, available in e-book, soft and hard cover editions.

With instructional videos and text materials accessible to students online, instructor and student time was repurposed to interactive pursuit of topics of interest. Instruction time can now be focused on inquiry and short project-oriented activities with them, rather than repeat the same lectures over and over.

Competition and games were employed often to engage students as it is a significant cultural incentive for Guam students. Engaging in friendly, light-hearted competition is far more successful than is calling out individuals. Competition, either individually or in groups, tested knowledge and explored and developed topics through lines of interest to the students. For example, one in class activity used in conjunction with online taping divided the room. One side of the room was directed to ask the other side of the room a question about a lecture that was just delivered online. The side with the most points won. This works equally well online with students directed to use public social media or the course platform social media features. Another activity involved students creating their own test and testing each other. The students came up with excellent questions and enjoyed testing each other. This can be done either in class or online with exams made from their banked questions.

Research activities for lower level courses were focused on the introduction of elements of research in class and online. Google docs, Dropbox, Google Earth and social media were all useful. For instance, students were introduced to intellectual property. It soon became clear that there is a link between the lack of understanding of IP and the high level of plagiarism at the university. When students understood IP basics and issues, they understood the need to do their own work. It then became a matter of pride to turn in their own work. Highly creative results came forth, done in less time than the creation of a cut and pasted work.

Meeting frequently in a group either in class or using social media to talk about progress and needs of the class energized and engaged the students. Amazingly, lethargic, uninterested and un-involved students rallied together when given a group task and

instructor attention, often assisting those in the group to bring them up to speed with the group. While this worked best in groups of less than 20 students, larger classes of 36 were easily divided into teams.

Direct intercultural experience

Real time communication, experience, activities and projects with students of other cultures is in the process of being built into all cultural geography courses. The use of simple online social media was integrated into online and in class activities in upper and lower level courses. Projects and activities to connect geography students with students at a university in Japan and in China were initiated and are in the planning stages. Implementation is planned for fall, 2016 and spring, 2017. Universities were initially approached that share student exchange with UOG, to allow the development of relationships that encourage more exchange between the universities with the sharing of geographic and cultural information. The students of this and the partner universities will decide together which topics interest them in guided group discussions, student partnering and small projects. Time difference was a factor in selecting locations. Japan and China are in the same hemisphere as Guam, and real time interactive sessions using FaceTime, Skype or other video call social media are possible and convenient with the one-hour time differences. Length of semester, language, permission of students, and institutions are considerations while plans continue.

Curriculum reorientation

Curriculum and content structure was reoriented to align with culture patterns and to better fit the connected and adapting state of the world and its peoples. Flexible mental maps of the regions will be built through the semester, providing students with confidence to develop their own ideas and skills and experience in analyzing the patterns and making decisions for themselves. For instance, students were provided with new ways to see world regions that are based upon the flexible and changing connections between the peoples and places of the world.

This new orientation presents geography in an inquiry-based format in line with systems approach – with a focus on all participants and their interaction. There is no hierarchy in systems, since nothing can really be outside of it. Therefore, the instructor is another participant. With this process, understanding the way that places, cultures, nations, environments, politics and economies connect and interact is the goal, rather than memorizing set regions and boundaries. Modular players and places can be swapped out as change occurs. Regions were traditionally defined for physical and cultural attributes by dividing the world into sections. These can be memorized, yet within the totality of the global system, including all timelines and histories, this is a snapshot rather than a rigid, indisputable and unchangeable fact as was the previous way of delivering content. Allowing the students to discuss, create and recreate boundaries and regions provides the students with exercises in seeing the world from many perspectives. This has the effect of making them feel more confident and at home in the world and provides them the real skills needed in discerning and navigating the vast stores of data that they access. A shift to process orientation allows for the flexing of relationship in a more realistic reflection of the state of the world and its people.

For instance, an exercise in creating regions shifted the focus from the nationally defined approach (i.e. Europe, Russia, etc.) to an oceans oriented approach. Because oceans connect and surround, national boundaries were de-emphasized, which is more in line with what is occurring globally. This set of rules for determining named the Pacific as a region, with Pacific rim a sub-region that includes Guam as well as west coast south and central America. The students can see the many connections, shared historic, cultural and economic themes.

Using flexible and inclusive definitions allows for historic as well as new and changing partnerships, economic activity and trade, environmental conditions and shifting national boundaries. A Dynamic systems format provides the content in a depolarized structure most appealing to students.

Geography was previously outlined in many western texts from an overly western-centric viewpoint. The Middle East was common terminology for countries of southwest Asia. However, these countries are only geographically east of the western hemisphere, including Europe and North America. To Guam students coming from an eastern hemispheric point of view, this locale lies to the west. From the perspective of the countries of this region they are at the center.

Curriculum shift into flexible mental map construction allowed students to examine the intercultural diversity of locations and people all over the world. This love of cultural diversity is indeed motivation for engagement for Guam youth. They were fascinated with other people and places, their food, how they raise their families, their creative pursuits and their problems. The direct cultural experience in class will provide a personal level connection to go along with their explorations and inquiries into how the world is connected.

The redesign is a flexible, adapting structure – a living curriculum. The following themes can be used as needed in adaptive curriculum redesign in geography and other content areas:

1. Dynamic process orientation
2. High level of inter-personal interaction
3. Student culture and preference in adapting curriculum
4. Accessible and interchangeable digital content
5. Research, project and inquiry focus
6. Modular instruction with mixed mode delivery
7. Direct multicultural communication and experience

Discussion

In this curriculum redesign with digital components, Guam students were recruited to provide their cultural and involvement preferences, providing the means by which they want to connect. Students as well as faculty provided detailed information on how they wish to use technology, providing specific information that works at this location.

Results call for interpersonal connecting, the strongest and most prevalent pattern that repeats throughout both surveys and the faculty student interviews. The technology and the curriculum need to connect the students with each other, with faculty, and with people of other cultures and regions. The environment for engagement is interaction.

Cultural preferences reveal student boundaries dissolving along the lines of institution laid down through previous eras - for religion, language, gender, class, ethnicity, nationality and other previously erected socio-cultural walls. A depolarizing perspective is trending. It calls for curriculum that invokes their ability and desire to upset the status quo, and to debunk cultural biases of past eras. In many ways, the work of this era of education is to allow students to use their innate ability and desire to overcome social barriers. Other work in curriculum redesign shows multimodal use of technology can invoke the abilities students to take down the system stereotypes and biased perspectives (Walsh, 2007).

Instructional preferences of both students and of faculty call for a curriculum that uses digital technologies flexibly, switches between medias, offers the content in an accessible way, and uses instructional time for research and collaborative creative pursuit using the

data. This aligns with multiliteracies and new learning (Cope and Kalantzis, 2009) in education. Multimodality utilizes meaning making that transcends cultural barriers and uses sound, video, audio, touch, gesture, speaking and spatial modalities in creative ways that keep evolving.

Guam students' preferences specifically called for short, mixed mode modules that "changed up" frequently and "swapped out" medias and modes to keep the interest moving and use the talents in short bursts without attention loss and burnout. Projects, research and inquiry skills and experience were introduced early on in the lowest level undergraduate classes, building to larger, more intensive project work in the upper levels. It has been recommended that deceleration of curriculum in this era of ubiquitous computing allows for the spaces of creative interaction to happen (Mcrae, 2015).

Importantly, curriculum needs to be flexible in order to foster creative pursuit and to leave the window open for collaboration. Teachers and students need access to content and digital technology that provides it. In geography this is particularly essential, but in any area the curriculum and the content itself, rather than being the end result becomes the means. The curriculum provides a framing for the repetitive practice that needs to occur for skills to develop. Then, it adapts and evolves as needed.

Especially pertinent are development of critical thinking skills, since they provide each individual with familiarity and confidence to make the independent leaps it takes to be truly creative. Skills take time to develop, hence the students' recognized desire for more structure as they learn how to conduct valid research and inquiry. Importantly, their research and inquiry projects need to be tied to real social issues in their lives. This way their practice moves from theoretical to real and practical implementation that they can see. They learn to ground their theoretical ideas with practice, and gain confidence in using their design skills in their lives.

Curriculum in the information age shouldn't be static. It is best to not become overly attached to the curriculum and content itself, or to mistake it as a structure meant to last. It is soon outmoded and best designed with that in mind. Curriculum of this age, like other collaborative creations, must evolve with the participants, and reflect a co-designed effort that changes continually.

The students have an instinct for communal sharing of data and content. The emergence of big data and a growing creative commons make it possible to share content online from which to draw when redesigning curriculum. Practice in discernment of quality and sourcing of data are needed skills. All good designers need skills.

Modularity of the data and modes allows for flexible pieces to be swapped out as needed. Another facet of the repeating modularity theme comes from the faculty themselves, in instruction. It is surprising that degreed specialists are recognizing and calling for non-specialization. Sometimes specialists are needed for instruction, yet non-specialists often have great communication and people skills. Online platforms and digital components, including pre-taped instructional videos make this possible.

It is again best not to become overly attached to the specialized role, as our roles necessarily need to change along with the flexible curriculum design. Specializing and non-specializing are both needed, often by the same faculty member. Successful co-design and co-creation in all content areas requires language and communication elements and opportunities for students to practice and to develop them.

For the geography curriculum redesign, a direct multicultural experience component connects faculty and students with other classrooms. The experience, using Skype or other social video-calling application, improves communication skill and also serves to engage students. Skill in multicultural communication is related to confidence. Experience both improves confidence and motivates students (Ockert, 2015) in multicultural communication. Yet multiculturalism, along the lines of new learning, takes the position that there is no "other" culture in multiculturalism. The participants are already

multicultural, and so multiculturalism is an inherent part of the whole system and its participants.

Guam students are openly motivated by and fascinated by multicultural encounters. They are eagerly anticipating direct exchange with partner universities, and the experience is designed to improve their already amazing multicultural language and communication skills. Most speak several languages in addition to English. In truth, they have much to offer students in other locations looking to boost confidence in multicultural communication.

Are these patterns local, or are they global? System-wise, cultural values are very important at local scale. Geography and environment, along with the intricate local connections continue to shape the values at each place, making it have a unique experience and perspective. Youth culture by generation often is a counterculture to the status quo, as it was in the 60's. Yet, counterculture is not separate from the mainstream, nor is it anti-system. It is the system antidote to resolving entrenched problems from within. It is the matrix growing itself the means for its next evolution. The youth of the sixties introduced the changes needed in the social structure, generation next is tooled up to make it happen. It is not difficult to notice signs of youth demand for dissolution of constrictions of nationality and institution, and demands for technological access freedom as seen in the Arab spring, 1% and Anonymous movements. The question of larger system patterns is of interest, and will be addressed in future work, along with testing of the curriculum redesign.

In conclusion, the students want curriculum incorporating digital technologies that connects them, involves them as participants, increases their access and is flexible. They need it to sharpen their discernment and critical thinking skills and put them to use in real life problem solving. Direct multicultural experience will improve their communication skills, and connect them with the global community. Connection and relationship are cultural. Culture is not dissolving, it is adapting, especially as it becomes more global. Culture, not distinct and separate, is interdependent. Health of all the societies, the planet and resources now depend on how connected they are. An education and curriculum that incorporates their cultural values and connects them with the greater world, provides them skill and confidence, flexing and changing with them, makes them co-creators of their future. Culture does matter, in redesigning curriculum with digital components that involves and engages students.

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Biographical Statement

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Appendices

A. Relationship Survey

Participant information

INDEPENDENT VARIABLE	CATEGORIES	PERCENT IN SAMPLE (N)	PERCENT IN POPULATION (N)*
SEX	Male	47	42
	Female	53	58
AGE GROUP	18-21	60	(19-21) 41
	22-24	25	(22-25) 34
	25-28	9	(26-29) 11
	29-32	4	(30-39) 8
	33 +	3	(39+) 3
GEOGRAPHIC ORIGIN	Guam/Marianas	63	39
	Philippine Islands	14	37
	Other islands	15	12
	Other Asia	4	6
	US/Europe	4	4
RELIGION	Roman Catholic	58	**
	Protestant	16	**
	Jewish	1	**
	Muslim	1	**
	Other	24	**

*University of Guam 2014 Spring enrolment report
**Not documented by the University of Guam

Summary statistics multiple choice questions

QUESTION	%	%
Involved in romantic relationship	55% yes	45% no
Currently involved in more than one romantic relationship	9% yes	81% no
***IF involved in more than one romantic relationship, with how many people?**	51% 2 people	49% more than 2
***IF multiple relationships, are they open or secret?**	25% open	75% secret
Method of ending relationships	58% verbal	21% don't ever break up
Number of love relations including family and friends	10% no love relations	70% 1-30 people 17% 30+ people
Time in courtship before marriage	50% spend years	48% less than a year
Time before physical intimacy	88% wait 0-2 months	11% report no intimacy

*only for those involved in multiple relationships (25% of participants)

Summary statistics Likert scale questions

QUESTION	% AGREE*	% NEUTRAL	% DISAGREE
Gender (masculine, feminine) is important when considering a partner	58	25	17
Sex (male, female) is important when considering a partner	67	16	16
Good financial standing is important	67	23	9
Physical attractiveness is important	62	27	10
Physical compatibility is important	66	24	9
Having things in common is important	79	16	5
Vibration (energy) is important	85	9	6
Marriage is important	66	22	12
Having children is important	60	25	15
When having children it is important to be married	62	23	16
Mainstream society's idea of relationship matches my idea of relationship	27	39	34
Family involved in marriage & relationship choices	51	29	20
Divorce is ok if not happy with marriage	41	28	30
Marriage & partnership ok outside ethnic group	71	20	9
Must love someone before physical intimacy	63	21	15
Must be married before physical intimacy	29	32	39
Physical intimacy is important in relationship	74	17	9

*strongly agree and agree categories added, strongly disagree and disagree categories added for presentation purposes

B. Instructional Preference Survey

Participant Information

INDEPENDANT VARIABLE	CATEGORIES	% SAMPLE (n)	% ENROLMENT (N)*
SEX	Male	42	43
	Female	58	57
AGE GROUP	18-21	44	(19-21) 40
	22-25	36	(22-25) 36
	26-28	10	(26-29) 12
	29-32	4	(30-39) 7
	33 +	6	(39+) 5
ETHNIC ID	Chamoru	63	39
	Filipino	14	37
	Other Pacific Islander	15	14
	Other Asian	4	6
	Caucasian. African, American	4	4
ACADEMIC MAJOR	Education	11	13
	Sciences, Health Sciences	15	25
	Social Science, Language Arts, Humanities	23	13
	Business & Math	18	25
	Other, Undeclared	33	24

* University of Guam 2015 Spring enrolment report

Summary Statistic Results

QUESTION				
What I want most from a course	13% Learn something new	32% Learn something interesting	7% Learn something helps for work	15% Learn something helps in life
How I learn best	13% Text	35% PowerPoint	5% Video	46% Interactive Activity
What motivates me to do well in a course	10% Grade	11% Friends & family approval	4% Occupation and money	74% Personal enjoyment
What best motivates me to take a course	14% No text	15% New fresh ideas	8% Social interaction	37% Online access
	AGREE**	**NEUTRAL**	**DISAGREE****	
Want to access instruction videos online	57%	32%	12%	
Prefer instruction videos to text	34%	35%	31%	
Technology use connects socially	61%	25%	10%	
Want technology to connect better socially	76%	21%	1%	

*Strongly agree and agree categories added, strongly disagree and disagree categories added
**Percentages not adding up to 100 percent indicate omission or other

Instructional Preference Interview

1. Have you taken an online course?
2. What instruction methods on or offline could help you or your students learn best?
3. What instruction methods, on or offline, are most enjoyable for you?
4. What course materials, on or offline, could help you or your students learn best?
5. What course materials, on or offline, are most enjoyable for you to use?
6. What, if any, is your view regarding ownership of intellectual property at universities?
7. What, if any, is your view regarding non-specialist instructors teaching courses instead of (degreed) specialists in the field?