

Digital natives and digital media in the college classroom: assignment design and impacts on student learning

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The use of multimodal learning techniques is becoming more widespread, however, the pedagogical discourse surrounding its implementation into classroom and course design is complicated as these technologies are either demonized or viewed as the panacea for curriculum ills. Educators are faced with unique challenges when investigating how to experiment with the best ways to produce classroom experiences that use digital media. This case study examines the implementation challenges and learning outcomes related to such an experiment by reviewing and assessing the use of digital media in a health communication course, specifically through the development of documentaries. Creating an effective assignment requires addressing the development of technical skills along with course content and providing guidance and feedback throughout a semester-long project. Creating an effective assignment is pointless without sufficient learning outcomes. Because this assignment engaged students with both the course content and digital media, their learning experiences were enhanced and improved their group collaboration, critical thinking and media literacy skills.

Keywords: digital media; college classrooms; student learning; critical thinking skills; media literacy; group collaboration

Introduction

The use of multimodal learning techniques is becoming more widespread within academia as the new media become a greater influence in everyday life and as digital technologies become more readily accessible. Typically, pedagogical discourse surrounding the implementation of technology into classroom and course design is complicated. Often new media and digital technologies are either demonized or viewed as the panacea for curriculum ills. Despite questions about how to effectively incorporate new and digital media into the classroom, little doubt remains that the ability of teachers and students to use these technologies effectively is of the highest importance. Video now dominates web-content and opens up new opportunities for global collaboration (Anderson, 2010).

Educators are faced with unique challenges when investigating how to experiment with the best ways to produce classroom experiences that utilize digital media while producing positive learning outcomes (Hedberg, 2011). These challenges are sometimes rooted in the assumption that the technology inherently creates a richer learning environment. Other times, these challenges are rooted in a knowledge gap

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between instructor and student about the intricacies of digital media technologies. Perhaps more problematic is the dangerous assumption that students living in new media environments automatically comprehend how to use the technologies or produce their own work. Because instructors cannot and should not assume technical knowledge among their students, balancing course content with learning to effectively use the technology is also a challenge. The key pedagogical question becomes how to effectively incorporate these technologies into the classroom environment so that student learning is enhanced through greater engagement with the course content.

These questions about student engagement were evident in the course that serves as the case study for this analysis: a senior-level college course in health communication. Although video clips, still photos, and other artifacts have long been incorporated in communication courses to illustrate concepts and generate class discussion and analysis, the creation of new materials by the students has generally been limited to course assignments such as oral presentations and written exercises. In this particular course, these standard assignments had included a group oral presentation analyzing a health campaign and an individual research paper examining a topic of interest to the student. The group assignment was problematic in that students displayed the ability to *describe* the rhetoric behind a campaign but were often lacking a critical aspect to their descriptions. In addition, students did not demonstrate genuine group collaboration as each one was able to handle his or her portion of the presentation and avoid working in complex or creative ways with other members. Their papers also lacked a level of critical analysis of the health-related information that they examined. The desire to enhance their learning experiences led to experimentation with having the students create documentaries about a health-related issue of relevance to them.

The driving force behind the documentary assignment described and analyzed in this case study was not technology-centered. The instructors were not interested in, for example, whether students learn more from an online lecture than a live one. Rather, we wanted to adopt a more learner-centered approach to the course. Instead of forcing students to adapt to the demands of the latest technologies, we wanted to implement the available technologies within a structure that could meet the needs of this generation of digital natives (Prensky, 2001). A key factor in assessing this need is for students of the digital era to *produce* new media as well as consume it. Mayer (2005) suggested that asking the question “what can we do with multimedia?” is adopting a technology-centered approach that is doomed to fail. Adopting a student-centered approach leads us to ask the question: “how can we adapt multimedia designs to help students learn more?” In essence, the question of “what can we do?” remains, but the motivation is different (Mayer, 2005). The goal is not merely to test new technologies but to use them in order to test human cognition. As Hedberg (2011) argued, a “disruptive pedagogy” shifts from using technology to teach the same content to using technology to help students become active participants not just in their own learning, but in creating knowledge.

Experimentation in adapting traditional course assignments with digital media technologies is an obvious way to add to institutional and educational discourses about how to create better learning and literacy amongst students. With the documentary assignment, students were asked to produce as well as consume one another’s digital media content. The goal of such an assignment is the creation of

meaningful learning, where knowledge is organized and integrated for higher retention. Enhancing their critical thinking and media literacy skills and their abilities to function within complex group dynamics are ways to engender meaningful learning. It is in this spirit that we began our project in the hopes of being able to: (1) describe and analyze the development and refinement of the documentary assignment over the course of three years in order to offer advice and guidance to others interested in these issues; and (2) assess the impact of the assignment on student learning.

Research design

Before we discuss the assignment and our findings in detail, a note on the design of our study seems appropriate. One of the greatest challenges of educational research is addressing the range of design issues that arise. As Slavin (2007) discussed, standard quantitative designs typically require control and treatment groups with random assignment. In an educational setting, however, treatment and teacher effects can be difficult to disentangle. The ultimate design would be to have random assignment of students, teachers, schools, and treatments. When trying to understand the impact of an innovation such as a new instructional strategy, this level of control requires a commitment of resources that seems unwarranted until the innovation has undergone the equivalent of pilot testing.

Case studies provide an opportunity to examine in depth the process as well as the outcome of innovations (Fraenkel & Wallen, 2009; Slavin 2007). The goal is to provide detailed descriptions of what happened in a particular situation, attending to a myriad of contextual factors using a wide range of data sources, including the perspectives of students and teachers. Because of our interest in understanding how students engage with digital media during the learning process, we designed a series of opportunities to learn from them as we were making our own observations related to their activities and learning. This case study, then, focuses first on the process of the assignment as well as its apparent successes and failures. Each year, based on what we learned the previous year, we made adjustments. Therefore, we begin by describing what we did, highlighting adjustments that have been made along the way, and then move to an assessment of the documentary assignment and its impact on student learning. Our interpretation of the data will reveal how we believe that students' experience and knowledge were enhanced through meaningful and complex group collaboration and demonstrated increases in critical thinking and media literacy skills. We conclude by offering recommendations for adapting the assignment for other's use.

The data available

In describing and assessing the assignment of making a documentary in the health communication course, we had available several different sources of information although three forms provide the bulk of our supporting evidence. With regards to the development and refinement of the structure and elements of the assignment, we relied on both our own observations and feedback from the students. With regards to assessing the impacts on student learning, the documentaries themselves demonstrate the application of their knowledge, skills, and abilities although we also draw on student comments and our own observations.

Field notes and observations

Throughout each semester over the three years to date, the authors took notes about our observations of the students' in-class and studio¹ behavior, the questions they asked about the assignment, as well as email exchanges and office visits. We met regularly to discuss the process, address questions as they arose, develop additional materials and consider adaptations for the future.

The focus groups

We wanted to get feedback from the students on their experiences of making a documentary. We chose to conduct focus groups at the end of the first two years to hear their perspectives and help them focus on evaluating the process rather than feeling they were being personally evaluated as might have occurred in individual interviews (Fraenkel & Wallen, 2009). A set of questions was developed and divided into two major sections: process and student learning. The process section focused on such topics as feedback and guidance. The student learning section focused on topics such as how working on their documentaries engaged them with course content. Each session ended with asking them if the assignment should be made in the future and, if so, what changes should be made.

For our purposes here, the specific statements made by students during the focus groups are of less importance than is the impact their comments had on refining the assignments and assessing their perceptions of their own learning. Therefore, detailed quotations are not used, but rather summary statements derived from the comments of the groups as a whole.²

The documentaries

Each group (24 in 3 years) produced a 10–15 minute documentary. Because our focus was on student engagement with course content more than technological skills, we developed an evaluation rubric reflecting this focus. Elements of the evaluation included: content, organization, and production elements that were not equally weighted.³ Evidence of their learning was gleaned from examining the strengths and weaknesses of the individual documentaries, comments made by the students during the focus group sessions as well as the instructor of record's global impressions comparing their performance to more standard assignments.

Class structure and assignments

As mentioned, concerns about student learning drove the desire to develop an alternative course assignment in hopes of finding an approach that would enhance their learning experience. Design considerations included such issues as how to balance technical training with the course content, but also what set of checkpoints and assessments would effectively monitor student progress and help them make steady progress on this semester-long project.

Beginning the group process

The process of the health-related documentary assignment began with dividing the students into groups. In the first two years, the instructor assigned the class members to their groups based on a survey that gauged their interests, skills and comfort levels

with working in groups, being sensitive to narrative conventions, and working with technology. Based on comments from students, in the third year the class members organized themselves into groups. Because they know each other from other classes, they believe that they are more likely to select a cohesive working group. Although the number and types of group dynamic issues were similar to those when the instructor assigned group members, when they selected their own groups they attributed problems that arose to their own decision making and not to the instructor.

After being assigned to their groups early in the second week of the semester, their first meeting was devoted to establishing expectations and producing a written contract for working together. They were also given class time to meet and begin brainstorming about particular topics that interested them. The next week, the groups received approval for potential ideas and were given feedback and guidance on how to refine their ideas.

Providing students with technical vocabulary

One of the first undertakings for this assignment was to surround the students with a critical framework for making films. Only a handful of students had any prior experience in using digital video technologies and even fewer had familiarity with cinematic vocabulary or technique. In addition, since their projects would be documentary films, the students needed to be conscious of the genre's conventions. An initial challenge was to devise an activity that would engage their critical and creative energies as well as introduce them to the potentialities of the documentary process. Although media literacy was a pedagogical goal, we were cautious not to place too much emphasis on the technical components lest the students felt they were enrolled in a film production or criticism course. The central focus of the course needed to remain rooted in health communication.

In order to provide them with some ideas about how to go about asking and answering relevant questions, introducing them to documentary film seemed necessary. The first year, one week of class was devoted to a whole-class screening of Michael Moore's health documentary, *Sicko* (2007). The decision to use *Sicko* was based on many factors, but primarily we wanted to generate argumentation and analysis and engage them in ways of thinking about how to build an argument visually. For the screening, a discussion guide was provided to direct their viewing to take note of particular aesthetic qualities and content of the documentary and they wrote a group response using these questions. A class session was devoted to discussing this documentary on both content and aesthetic elements.

While screening *Sicko* did generate discussion about Moore's cinematic choices and his biases, it also generated considerable concern about being able to emulate that level of work. In the second and third years, a list of shorter (typically one-hour or less) health-related documentaries was posted and each group selected one of interest to screen and analyze outside of class. Again, a discussion guide was provided and a discussion about content and aesthetic elements was held in class. Somewhat surprisingly, their written responses and in-class discussion about the documentaries was more in-depth and nuanced than when we screened *Sicko* together. Using shared class time for other course content rather than screening the documentaries was not only efficient, but led to the groups working together to produce a written analysis and they began to establish their joint work ethic.

Providing students with technical skills

One on-going concern was how to introduce the students to camera work and the editing software while maintaining focus on course content. Because most students did not have any meaningful background in movie production, we felt compelled to at least offer basic instruction. One class session was devoted to the basics of camera work. Examples of different camera angles were shown and their purposes briefly discussed. The groups then checked out cameras and shot examples from a short list. They returned to the studio to view their footage. This brief training established a familiarity with the equipment and how images appeared differently on the camera screen and on the computer screen.

A greater challenge existed in introducing the students to the editing software, Final Cut Pro®. During the first two years, we held short training sessions during class and encouraged them to sign up for additional training workshops. This approach, however, did not seem to prove effective in that students reported growing frustration across the semester with using the software. Trouble learning the technology overshadowed exploration and creativity. For the third year, an individual assignment was added which required each student to go to the studio (outside of class time) to view selected training components from www.lynda.com and produce a two-minute video with basic audio and visual transitions. Nearly every student (94%) successfully completed this assignment. They reported that the assignment took them on average four hours. Throughout the semester, the instructor of record heard very little with regard to frustrations about learning the software. The students reported that the exercise gave them a better idea about how long it takes to do editing work and they planned accordingly. Although they continued to feel that the documentary assignment is extremely time consuming, they spent more time moving forward on their projects and less time struggling with managing the technology itself.

Providing students with structure

Once the students had basic technical training and each group had decided on a topic, a number of checkpoints were put in place to help them stay on track and to provide opportunities for them to receive feedback from the instructor and/or from their peers. For example, each group was required to shoot at least two minutes of raw footage to encourage them to become familiar with the cameras and transferring footage to the lab's computers. Two weeks later they were required to turn in at least four minutes of edited footage which required them to not only be shooting footage, but to begin the editing process. Each group turned in a narrative for their documentary, essentially an extended outline of the arguments they would present and how they would be presented. Groups were given feedback to refine their approaches. During the third year, a group work plan was added which required the group to schedule activities such as interviews, searching for resources, and editing along with assigning individual responsibilities for each activity. The addition of the work plan helped group members communicate more effectively as they planned, delegated responsibilities, and renegotiated with each other when someone did not fulfill a task as laid out on the written document.

During the first two years, at the end of Week 11 (out of a 16-week semester), the groups posted a rough cut of their documentaries to a private class blog. For

the third year, the rough cuts were viewed on computers in the studio during a class period. Members of one group were required to view and critique another group's first cut. Each group then responded to those critiques by listing the comments that were made on the rough cut and deciding whether or not to accept those suggestions and why. Holding the screening during class time increased the number of individuals who provided feedback while also generating more specific and creative feedback that could be implemented into the final product. Following this exercise, in the third year, each group provided a revised work plan that reflected the schedule for completing their projects. Weeks 15 and 16 were devoted to in-class presentations of the documentaries. Groups made copies of the documentaries on DVDs. Audience members, including the instructors and class members, filled out evaluations of the final cuts.

Assessing the impacts on student learning

While one goal of this case study is to describe the process of developing and refining this assignment, of greater importance is the examination of how incorporating technology into the classroom impacted student learning. After all, if student learning is not enhanced, then the effort of incorporating a complex technological assignment is not worth the energy. Based on the evidence we have, when compared to more standard assignments, student learning was enhanced through their creation of a documentary. In particular, group collaboration, critical thinking and media literacy skills were positively impacted.

Demonstration of complex group dynamics and collaboration

One of the initial issues driving the creation of this assignment was that the group assignment of an oral presentation critiquing a health campaign reflected low levels of group collaboration. Because the range of requisite skills in that assignment was relatively narrow, it was too easy for groups to divide up the sections of the presentation or for strong students to do most of the work and then hand other group members a script for the day of their presentation. Creating their own documentaries was believed to require a broader range of skills that would increase meaningful collaboration. The first question to be addressed then was whether they collaborated with each other on this project. The answer is a resounding yes. Based on their responses during the focus groups and our observations throughout each semester, the students felt that this project required that everyone participate in meaningful ways. No one person had all the skills or time available to complete the project. While some students were better at researching background information, others were better at conducting interviews and yet others at editing the different elements together into a coherent storyline. Their interdependence was evident in the level and types of conflict experienced within groups, the need for using collaborative problem-solving skills and the amount of learning from each other that occurred as they developed their documentaries.

The need to collaborate and thus rely on each other to produce a product brought about more stress and conflict in the groups' dynamics. Although the second author has assigned semester long group projects for over ten years, the documentary assignment generated the first time that groups directly asked the instructor to participate in a meeting to work through issues regarding group dynamics. Typi-

cally, a group would experience personality conflicts or a lack of commitment on the part of one member. Some groups more successfully negotiated these challenges, but all found solutions to their conflicts that allowed them to complete their projects.

The experiences of conflict, however, also played into their need to develop and enhance their collaborative problem solving skills. They often found communicating with each other in an effective manner challenging. Many of the difficulties they experienced reflected the fact that they were reluctant to challenge each other. During the focus groups, the students generally agreed that their group dynamics were an important element of their learning in the class. They discussed specific communication issues such as negotiating deadlines and responsibilities, the lack of open communication, and communicating in a timely fashion. Because of the range of skills needed, an important element of the group dynamics was the distribution of responsibilities among the group members. Problems did arise when some members shirked their responsibilities by being unavailable or demonstrated a lack of initiative. Although attempts were made to help the students figure out how to distribute the workload relatively evenly, groups that experienced conflict also reported feeling that the amount of work was unevenly distributed because some people did not fulfil their role obligations. While we initially expected them to use various forms of social media to interact outside of the classroom, based on their comments and complaints, it appears that a few students continued to be unavailable to their group in spite of efforts to reach out to them through these avenues. Naively, perhaps, we expected them to be more willing to challenge each other when using mediated forms of communication. Mediated communication, however, did not appear to make it easier to ask questions or challenge positions.

In spite of the problems reported, students also discussed what they learned from each other through this process. While they reflected on their own strengths and thought about what they had to contribute to their group (and potential future employers), they appreciated that others in the group had other qualities. Students who had difficulty getting and staying organized appreciated other group members who took the lead in this area. Students who felt they did not have a great appreciation for aesthetics enjoyed it when other group members helped them to think in new ways about how to frame an argument, especially with regard to supporting visual elements. Members of groups that functioned effectively, not surprisingly, reported the most enjoyment from the collaborative learning environment.

Demonstration of critical thinking

Consistent with Mayer's (2005) argument that technology should be incorporated into the classroom in ways that enhance student-learning, the second goal of the documentary assignment was to enhance critical thinking skills. Starting with the assumption that critical thinking is rooted in problems that result in active engagement on the part of the students, we adapted Bean's (2001) process of designing a written assignment that helps students to: identify problems and pose interesting questions; explore, imagine, analyze, and evaluate information relevant to their questions; and, allow time for ideas to incubate to encourage reformulation and editing of relevant information. Details regarding each of these elements are provided below.

Identifying problems and posing interesting questions

The first group assignment for the documentary was to select a topic and develop a question that would drive their documentary. Our role during this part of the process was to provide each group with feedback and encourage them to consider alternatives. As a result, each group had a question to answer or a set of positions to explore, although some groups asked what we considered to be more interesting questions. For example, with the swine flu in the news during the spring of 2009, one group was surprised to learn that people use hand sanitizers incorrectly. Their documentary reported on the correct use of hand sanitizers in a factual manner which was informative, but not a critical analysis. On the other hand, each year one group has addressed obesity and its related health consequences by focusing on regional cultural norms that make changing life styles more complicated. One group examined playing video games by first addressing the negative stereotypes of gamers and then exploring the health benefits of playing these games. Not surprisingly, binge drinking among college students has been a popular topic each year. While four groups addressed the relatively standard issues of drinking and driving or the consequences of alcohol poisoning, one group moved beyond these basics by examining the consequences of alcohol in social interactions, such as “drunk texting”.

Assessing information relevant to their questions

Two elements regarding relevant information emerged: the range of sources used to develop and support their arguments and issues of objectivity and subjectivity in presenting these arguments. When compared with the health campaign analysis, the creation of a documentary did seem to encourage them to seek out information from more sources and to consider how those different sources fit together or argued against each other.

During the health campaign analysis presentations, the groups had Power Point® slides, played public service announcements created by the campaign and displayed parts of the campaign’s website (e.g., children’s games to learn about brushing their teeth). In the documentaries, the students drew upon information from websites, popular press and research journals, interviews with individuals who had expertise with their topic either through professional training or personal experience, and what they called the layperson, such as students on campus, plus they incorporated footage from movies, television shows, public service announcements, news coverage and music to further incorporate popular culture sources into their analysis.

Engaging their audience, especially class peers, had not been a serious consideration in the oral presentations on health campaigns. In making their documentaries, the groups considered ways in which to relate to their audience. For example, interviews with students on campus not only provided the student perspective, but helped the audience to relate to the topic by examining their level of knowledge about the issue. By shooting footage in recognizable locations on campus, they were able to place the interviews into a familiar context and create identification with their audience. When groups selected topics that they thought might be of less interest to the typical college student, they made efforts to find ways to generate interest. For example, one group addressed issues of heart disease in women and what young women should be doing to protect their heart health. They opened with short clips of students answering the questions: “what is the most common killer of

women?” and “what is heart disease?” These efforts to connect with their audience indicated thought about how best to get their attention, especially for issues that might not typically be considered of high concern to them.

When we began discussing documentaries as a film genre, the majority of the students assumed that these forms project an objective picture of reality. As we discussed the documentaries that were screened, we began the process of asking them to consider the nature of objectivity and subjectivity in more complex ways. Placing the students in the position of filmmaker forced them to be aware of their own biases. Thinking through not only what material would be included in their projects, but also how that material would be presented encouraged them to develop a richer understanding of their own biases and how they wanted to influence their audience members about that material.

An additional benefit of working on the documentaries was that it heightened their awareness of the ways in which mediated health messages are constructed. Their critical thinking skills were particularly evident in a class activity in which they brought a health-related advertisement to class. In groups, they discussed issues regarding target audiences, message choices, combining textual and visual elements of arguments, source credibility and voice of the advertisement. The level of engagement during the discussions was very high. Of particular note, they seemed more attuned to visual images and their rhetorical messages than in the past.

Incubation time for reformulating and editing information

The most critical element in creating time for reformulating and editing information was having frequent checkpoints early on so that a more complete rough cut was screened, thus producing more meaningful feedback. Groups that procrastinated and were shooting footage the week before the assignment was due to be screened did not produce strong projects. For the groups that met the time deadlines, they did indeed have time to reconsider some of their choices and to further elaborate on their arguments. The refinement of the timing and types of checkpoint and feedback assignments has improved this process. In the third year, we more successfully encouraged steady progress that gave each group time to produce a quality product. Overall, the documentaries were much stronger than they had been in the past and this seemed to be primarily due to them learning more about the technical aspects of the software early on so they could focus on the creative elements and having earlier deadlines that resulted in them having more time to edit and refine in the last two weeks.

Demonstration of media literacy

Media literacy is focused on providing students with the skills necessary to question the accuracy and authenticity of information in all its forms. They need to have the ability to make reflective, critical responses to this information. The screening and subsequent discussions of the health-related documentaries allowed students to engage with such responses. But media literacy is about more than just consuming information. A media literate individual is able to produce, create, and successfully communicate information in all its forms (Alvermann, Moon, & Hagood, 1999). With the documentary assignment, the students were asked to engage with and produce from digital media tools. Their comments about artistic freedom, production frustrations, and technological understanding demonstrate evidence of a strong, creative learning experience.

The process of producing a movie: the headaches and joys of digital media

At the most basic level of knowledge and skills, the students had to develop a sufficient understanding about the rudiments and conventions of “making a movie”. Providing them with these basic skills and knowledge then allows them to move into more creative aspects of the project and, hopefully, more engaged learning. On the basic technical level, some groups did experience glitches, such as shooting footage in more than one format or shooting interviews with poor lighting or distracting background noise. Their initial responses to these problems, was “isn’t there a way to just *fix that?*” These groups soon learned that not all problems could be easily solved without reshooting footage. Having a better understanding of the challenges to “getting it right” helped them to appreciate the work of the documentarians screened at the beginning of the semester by questioning what kinds of challenges they may have encountered in their projects. In addition, they reported having a much greater appreciation for the amount of time and energy required to shoot, edit, and polish even a few minutes of footage. Getting the students into the studio to work on the introductory editing exercise early in the semester seemed to lay a strong foundation for this basic knowledge and helped the students to move forward on their projects with more confidence and more realistic planning.

Although each year the groups were required to develop the equivalent of an outline for their projects, having them write a narrative that addressed visual as well as textual elements along with a work plan seemed to provide them with the most effective structure. These assignments helped the group members consider the visual threads that would create narrative sequencing as well as how the project would be shot and composed/edited. Attention to the ways in which the different layers of the medium interact was particularly evident in their revised narratives and work plans as they identified changes to their original plans, offering more nuanced understanding of how their arguments could be supported.

For those groups that made steady progress and met the established deadlines, they found the creative freedom refreshing. These groups had time to polish their projects. For example, one group had a member who designed visual effects for the opening sequence. Since their topic was smoking, he wanted to generate digital smoke around the text of their opening credits. Another group included a text box in which key points were added as the medical professional listed them during her interview. Several groups worked to refine their interview footage so that it would be more appealing to the audience by incorporating smoother transitions and interweaving the interviews of several individuals to more effectively demonstrate how these multiple perspectives were in agreement or contradicted each other. The groups who were more organized also had time to incorporate more apt musical interludes or include appropriate sound effects to reinforce their messages.

Learning about fair use practices

Although we had briefly addressed issues of fair use the first two years, we felt the need to more clearly address these issues in the third year because one second year group had basically produced a “mash-up” with more than 50% of their video consisting of news coverage and movie clips which were presented without attribution for the works used. One full class period was used during which the first author offered several examples to illustrate the issues surrounding intellectual property

and directed the students to relevant websites for their further investigation. As the legal concerns of intellectual property are fluid in today's media environment, we wanted to reinforce these issues for our students. As a result, the groups were more explicit about acknowledging others' work as well as thinking more critically about how they were appropriating that work. They also demonstrated a greater appreciation for their own intellectual property as noted in the next section.

Engagement with the technology and learning

An unexpected outcome of the documentary assignment has been the level of engagement on the part of students because of the different nature of screening their documentaries when compared to other types of assignments, even oral presentations. Students tend to write papers with their instructor as the primary audience. They rarely share their written work with each other or anyone outside the class. Oral presentations are more public in that the other class members are part of their audience. Although such presentations may be anxiety-provoking for some students, their impermanence means that no one outside of the class is likely to see their performance. All three years of the documentary assignment, at least some of the students have been excited to share their work with others outside the classroom setting. Some of this excitement is the novelty of such a project. Some is due to the pride they feel in having produced an interesting product. Some of the excitement, however, seems to be due to the medium itself. Whatever the motivation, for many students the possibility of sharing their work with others generates greater engagement in all elements related to the production of their work. Engaging in an assignment that moves them from consumers to producers of digital media arouses their curiosity and awareness in ways that seems difficult to achieve through any other means.

Recommendations for implementation

While we highly recommend having students make a documentary and will continue using this assignment, designing the assignment to be learner-centered rather than technology-centered requires considerable thought. As an instructor, you need to consider how this kind of assignment connects to your course content and the specific learning objectives you want the assignment to meet. Starting with a documentary or movie lays a foundation of shared information, but do appropriate cinematic documents exist that are relevant to your content area? Whatever types of examples you choose, holding an in-class discussion about the nature of moving media and how arguments might be made as well as identifying the course-related topics of each one provides students with a basic vocabulary as they approach their own projects. Courses other than health communication may not have as many dramatic portrayals as examples. This structure, however, can easily be used to engage students in asking questions about a topic and collecting the perspectives of individuals who have been impacted by or are informed about the topic. Other types of assignments may also be beneficial. For example, a colleague in engineering had students develop a two–three minute video addressing an ethical issue. Adapting this kind of assignment for younger students might require a less demanding project. The second author knows a colleague at another university who sponsors a contest for students in eighth through twelfth grade in which they do video reports

of science books, relaying what they found exciting and/or perplexing about the content.

Once you have decided that this could be an effective learning tool for your students you have to determine if you have the resources available on your campus for students to be successful. The necessary resources include not only hardware (e.g., cameras and tripods) and software (e.g., Final Cut Pro®, although you might choose to have them use whatever they already have available, such as iMovie®), but also knowledgeable people who have time dedicated to enhancing student knowledge regarding the use of the soft- and hardware. We had the luxury of having a studio that was dedicated to working with students on these kinds of projects. Not all campuses will have these kinds of facilities. So how might you go about doing this kind of assignment? One solution could be the use of the learning community model in which two courses are taught in conjunction with each other, but focus on different content. Therefore, you could combine a production course with a content course. Students from each course would have different responsibilities for joint final projects in which the production class students would provide the technical expertise and the students in the content course would provide the content expertise.

Whatever you decide on for the product portion of the assignment, the process portion is the most critical. Establish a number of checkpoints and deadlines to allow for feedback throughout the process. Early deadlines representing incremental progress provide structure and develop confidence. Learning the basic technical elements early leaves time for more creative aspects to emerge later in the project. Having time to re-evaluate their work and to incorporate meaningful feedback into their projects not only produces better quality projects, but enhances their learning.

Conclusion

Concerns with student-learning drove the generation of the assignment addressed in this case study. In our opinion, the assignment was a success, but not without challenges. Students reported that they could not successfully produce a documentary on an individual basis. Because the assignment required a range of skills, they had to work together to accomplish their goals. In the process, they developed their interpersonal skills as they organized themselves, made decisions, negotiated responsibilities and managed conflict. They learned the benefits of having group members with a range of skills upon which to draw so that they could successfully achieve their mutual goal. They demonstrated critical thinking skills as they researched their chosen topics and developed their arguments for the documentary. As producers of digital media, they learned to question the nature of the multitude of health-related messages to which we are exposed through the production of their own messages and gained a greater respect for the complexities of the technology itself. As a result, we believe that student learning was enhanced through the process of developing their own documentaries.

Notes

1. The university provides studio space with equipment and personnel available to assist students in a range of communication-based projects.

2. Details of the process, however, are important to note. Time slots were selected across times of the day and days of the week and individuals signed up for convenient times. Each year, a graduate student from the department who had experience with focus groups conducted these sessions. Before the topic guide questions were engaged, the students were informed that the instructor of record would not review their comments until after grades were posted as was the case. All of the sessions were digitally recorded in audio format only to help ensure student anonymity. After the focus groups were completed, the individuals conducting the sessions transcribed the materials. Because our focus was on their comments, they were transcribed to capture the conversation at that level rather than to capture linguistic features (Macnaughten & Myers, 2004). Because of our interest in assessing the students' experience of the process, the transcripts were not content analyzed in the sense that categories were identified and counts made (Keyton, 2006). Each of the authors individually reviewed the transcripts and identified key passages that captured the students' perspectives regarding what was positive and negative about the process and their learning.
3. All materials are available from the second author.

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