

# ENGAGED EDUCATION THROUGH INTEGRATED SERVICE LEARNING VIDEO PRODUCTION

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## Abstract

**Objective:** We explored the impacts of an integrated video production and service learning curriculum in a health promotion course on: a) student learning, critical thinking and media literacy skills; and b) furthering local health agencies' and community organizations' goals and objectives to promote public health. **Methods:** Focus groups and in-depth interviews were conducted with students and collaborating local community organizations and health agency staff. A sample of 12-14 students randomly selected from among 57 students who had completed an undergraduate health promotion course with video production-service learning project participated in focus groups. Semi-structured in-depth interviews were conducted with the key contacts in the partner organizations that collaborated with the students to guide videos' core contents. Focus group and in-depth interview guidelines were guided by Engagement Theory's three critical components that: 1) learning occurs in a social context (Relate), 2) course work should be hands-on and project-based (Create), and 3) the project should have an authentic outside non-academic focus (Donate). **Results:** Students' communication, time management skills, and understanding of local community health issues were strongly affected as a result of team and collaborative works with peers, media center staff, and community organizations' staff (relate). Production process was viewed as difficult and intense but rewarding and purposeful at the end (create). Community focus and ongoing use of the short videos were regarded as quite beneficial by the students and collaborating organizations (donate). Students were particularly motivated to work harder on their projects to produce higher quality videos since these videos would be viewed by the public. **Conclusion:** A systematic integration of media production-service learning module in health promotion curricula could greatly improve education, training, and media literacy of community health educators and other public health professionals. Linking of student video projects to local community organizations' need for health communication material provides ongoing service to these under-resourced organizations.

**Keywords:** Health Promotion, Engaged Education, Video Production, Service Learning, Technology Integration, Community-based Participatory Research (CBPR)

## 1. INTRODUCTION

Higher numbers and more effectively trained public health workers and professionals are urgently needed. Currently in the United States and around the globe, there exists a growing public health crisis that concerns emerging public health challenges of the 21<sup>st</sup> Century piling on previously unresolved and unmitigated complex problems of the 20<sup>th</sup> century. On the one hand, large scale contamination of the planet's air, water, and soil; poverty, war, violence, environmental disasters, and extreme weather conditions due to global warming continue to destroy public health infrastructures and lead to mass displacement of human populations. Furthermore, re-emergence of infectious diseases; increases in antibiotic-resistant strains of various pathogenic bacteria; toxic laden foods, toys, and household products have now been added to the epidemics of HIV/AIDS, cancers, heart disease, obesity, diabetes, drug and alcohol abuse among others. On the other hand, the public health professionals and human resources who are tasked with responding to and resolving these ever increasing challenges are scarce both in terms of their numbers and the quality of the training and education they receive.

In the United States, for example, the public health workforce has been diminishing over time – there were 50,000 fewer public health workers in 2000 than in 1980 – and approximately 23% of the current workforce (an estimated 110,000 workers) are eligible to retire by 2012 according to a report

released by the Association of the Schools of Public Health (ASPH) in January 2008 [1]. The report also indicates that an estimated 250,000 additional public health professionals are needed by the year 2020 to meet the growing demands. Added to the problems of shortages is the quality of the education and training current public health professionals receive that does not correspond with the new public health challenges and technological realities of the 21<sup>st</sup> Century. Based on the overall quality assessment carried out by the U.S. Department of Health and Human Services (DHHS) in 2009, only 20 percent of the nation's estimated 400,000 to 500,000 public health professionals actually have the necessary education and training to do their jobs effectively [2]. Therefore, it is imperative for the institutions of higher education to attract more students into the field and to implement creative and efficacious methods to improve the quality of student training and educational experiences. If these educational and training opportunities are systematically linked to current local public health needs of various under-resourced communities and public health agencies, then the work of the educational institutions are considered even more critical. The integrated participatory service learning and community-driven media production approach offers great opportunities to educate public health professionals who are appropriately trained to meet the U.S. and global public health demands and emerging challenges while also meeting real-time and ad hoc local needs and demands.

Advances in digital and information technologies have made wide-spread uses of these technologies a common practice in various fields including public health. Videos are now being used as the preferred medium to communicate health messages, to inform, train, and educate the public, and to shape people's attitudes, perceptions, and behaviors that would ultimately affect health. Students in public health disciplines must, therefore, gain a very deep understanding of public health problems, be able to learn how to construct appropriate and effective health messages, and must learn to deconstruct messages that directly or indirectly affect their own health and that of the public. Curricula that include real-life media production as part of course objectives afford the students opportunities to construct critical public health messages while increasing their own media literacy skills, which is now considered a basic critical thinking skill for life in an information age. Furthermore, the process helps transform the students from passive spectators into active citizens who recognize their role in a self-governing democracy [3]. Despite notable increases in interest and use of media in public health education and health promotion, field-based work in schools and communities as well as systematic research and scholarship about the impacts and effectiveness of media literacy education are sparse and just beginning [4,5].

This article discusses findings from an evaluation research that explored the efficacy of an integrated video production-service learning curriculum in a health promotion course as an instructional tool that fosters participatory education, community-based collaborative learning, critical thinking, and media literacy. The project also assessed potential impacts of this approach on the training and preparation of students for public and community health fields. Principles of Engagement theory and Community-based Participatory Research (CBPR) form the foundation of the course curriculum in an introductory health promotion course required for students pursuing a bachelor's of science degree in community health at the University of Massachusetts at Lowell. The video production component of the course is a collaboration between the Department of Community Health and Sustainability, UMass Lowell Media Center, a Division of the University Libraries, and several local community-based organizations and health agencies.

A general overview of the collaboration is presented in an article published in 2010 by Shuldman and Tajik [6] and directly relevant part is briefly summarized in this paragraph. The video projects are linked to the theoretical components of the course that include models and theories in health promotion, ethics in health education, and roles and responsibilities of community health educators among other topics. In each video project, the students work in groups of 3 or 4 and collaborate with a local community organization, a health agency, or a university department to produce a 5-minute video about a local public health concern deemed as critical by the collaborating organization, agency, or department. As part of their project, the students perform a thorough review of the literature, conduct interviews, and write scripts for their videos while in regular communication and discussion with their respective preceptors in the assigned organizations, their instructor, and the staff at the Media Center. Over the course of the project, the students gain appropriate technical skills on how to write the scripts, how to operate video production equipment, how to engage in basic video editing, and how to work as a team with their peers and the community organizations. By the end of the semester, the students produce a 5-minute video addressing an important public health concern. The videos are then used by the community organizations, health

agencies, or individuals to further their outreach to the public. The evaluation research was conducted in 2009-2010 with a sample of students randomly selected from the group of 54 students who had completed the course prior to the start of the project. In all, students had worked with 8 different local organizations, 11 preceptors and had produced a total of 17 videos at the time the data collection began.

## 2. THEORETICAL FRAMEWORKS

The overarching frameworks guiding the curriculum design and service learning video projects combined components of the Engagement theory with several principles in Community-based Participatory Research (CBPR) approach. We will briefly discuss the frameworks and relevant principles here.

Engagement theory, as conceptualized by Kearsley & Schniederman [7], suggests technology as a perfect catalyst to facilitate deeper learning through active, purposeful student engagement in a collaborative group project that has an external, outside-of-classroom, or “real world” focus. It is best summarized as “Relate- Create- Donate,” and has as its core ideas that: 1) learning occurs in a social context (*Relate*), 2) course work should be hands-on and project-based (*Create*), and 3) the project should have an authentic outside non-academic focus (*Donate*). In other words, the idea is to “create successful collaborative teams that work on ambitious projects that are meaningful to someone outside the classroom” [7].

Community-based Participatory Research (CBPR) principles are part of an approach that necessitates equitable involvement of community organizations and members of the affected populations in the decision-making process in research and projects [8]. Community members are involved as partners in deciding the goals and the development, design, and implementation of the projects that affect their community. Critical and sustained involvement by community agencies, organizations, and members requires a mutual and reciprocal commitment and trust by the faculty, students, and the community organizations themselves. Building and sustaining such mutual commitment and trust are neither simple nor easy. However, the opportunities and benefits that are afforded by them to critical education, research, and ever-increasing needs of the communities and public health make such investments rather important and necessary.

Combining the principles of CBPR and Engagement theory provides a unique approach to critical education. The team approach in Engagement theory (i.e. *Relate*) requires students to exercise their communication, planning, management and social skills. They engage in group discussions, learn to clarify and verbalize their problems, and articulate their understanding of the topic as they interact and collaborate with other students and community partners for a common purpose. Working together on research-intensive projects has students learning from their peers, professionals in the field, the affect population as well as on their own. “While sometimes difficult to manage, teamwork is often a strong motivating factor” [9].

The video production adds an element of technology into the mix. Early pedagogical thinking viewed technology strictly as a means of content delivery. Learning *from* technology implied that computers had something to teach and that learning was a consequence of receiving information. However, there have long been voices [10, 11] reminding us that technology’s true potential lies in learning *with* computers where students are engaged in a process, in this case content creation, that uses technology as a tool for collaborative problem solving and promotes reflection, discussion, and critical thinking. “The power of technology in this vision is not its potential to replicate existing educational practice, but in its ability to combine idea and product technologies” - i.e., instructional concepts and strategies (video production process) and hardware and software - “to encourage students to engage in deeper cognitive activity” [10]. When used in this way as a “cognitive tool,” the technology can facilitate cognitive processing and advance students’ critical thinking skills [12, 13] in addition to time management, research, and organizational skills.

Multimedia construction is a complex process fraught with skill and process complexity. It requires students to “generate multiple solutions, cope with uncertainty, demonstrate nuanced judgment with media selection and adaptation, ... and put considerable effort into structuring information,” all characteristics of higher order thinking [12]. The third component of the framework (*Donate*) stresses the value of making a useful contribution to society while learning, and encouraging students to engage with members of the community with an outside of the classroom focus. Having a focus on real problems that

impact real people may lead to higher levels of student satisfaction and diligence. Knowing that their work may be viewed and used by outside organizations or interests could also be a strong motivator for the students. The crux of the idea is for the students to “create successful collaborative teams that work on projects that are meaningful to someone outside the classroom” [12] which is also required as part of CBPR principles. The theory has been effective in various fields such as health education [4] and computer sciences [14].

## 2 STUDY DESIGN AND METHODS

IRB Human Subject approval was obtained prior to the start of the project. Two facilitated focus group discussions were conducted with 5-6 students in each group. In addition, open ended in-depth interviews were conducted with representatives and preceptors from four different collaborating local partner organizations and health agencies. The student samples had been randomly selected using Microsoft Excel Random Number Generator software from a list of students who had previously enrolled in the course and completed a video project as part of their course work requirement. Several students had already graduated and were part of the university’s alumni list. The names of three students were removed from the original list of 57 eligible students prior to the randomized selection. Two of the three students were involved in the evaluation project as student researchers and the other student was involved in another project that was being supervised by the principal investigator. The removal of the three students was meant to address concerns regarding potential conflict of interest, instructor-student power relation bias, and grade-related student concerns.

The focus group discussion guide was designed to explore the degree to which: 1) the students’ communication, social, and time management skills were affected as a result of team and collaborative work with peers and outside community organizations (i.e. *relate* component); 2) the video production process served as a creative and purposeful activity to enhance student engagement and learning (i.e. *create* component); 3) the outside (non-academic) health promotion focus of the videos, based on the community organizations’ needs, provided the students with an authentic and real-life application of what they had produced (i.e. *donate* component).

Semi-structured, open-ended interviews were conducted with four (4) key staff and individuals from among eleven (11) local organizations and health agencies who had served as the preceptors on the student video projects. The questions explored their experiences and involvement with the students, potential impacts of the process on their own media literacy skill, and frequency and scope of the subsequent uses of the videos. Table 1 provides a summary of a sample of categories of questions asked along with the rationale for their inclusion in the discussions and interviews.

**Table 1:** Summary of categories & sample questions in Focus Group (FG) and In-depth Interview (II)

Category	Purpose	Sample Guides & Probing Questions
Relate (FG)	To explore the social context of the students’ learning experiences	<ul style="list-style-type: none"> <li>Describe your experiences as they related to: your peers and members of your project team; your preceptor/key contact and community; organization or agency; the people whom you interviewed for your video; your course instructor; the media center staff</li> </ul>
Create (FG)	To explore the impacts of hands-on project-based learning	<ul style="list-style-type: none"> <li>Describe how your video project related to course objectives; Describe your experience with script writing, video capture and B-roll, interviews, editing, the software and equipment.</li> </ul>
Donate (FG)	To explore the impacts of having an outside focus and use on students’ work	<ul style="list-style-type: none"> <li>Describe two or three elements of the project that affected your learning in general and in health promotion in particular; Describe how working with community organizations affected your project; your learning?</li> </ul>

Media Literacy (FG& II)	To explore the impacts on critical thinking and media literacy skills	<ul style="list-style-type: none"> <li>◆ Describe how this process has affected the way you view media messages in general and videos in particular.</li> <li>◆ Discuss how working with the students on the video project and the final outcome has affected your own media viewing.</li> </ul>
Organization Impact (II)	To explore organizations' collaborative work with the students	<ul style="list-style-type: none"> <li>◆ Describe your overall impression of the video production project and your interaction with the students.</li> </ul>
Product Utility (II)	To explore videos' potential utilization and benefits	<ul style="list-style-type: none"> <li>◆ Describe how the video project and your work with the students may have affected your organization; Has there been any occasion that you ended up using the videos? If yes, how often/when and where?</li> </ul>

Focus group discussions and in-depth interviews were audio recorded, transcribed and analyzed using content analysis techniques that included both conceptual analysis and relational analysis [15]. A follow-up validation and clarification step was taken by returning to a sub-sample of participants and discussing selected codes and representative sample quotes to authenticate the relevant interpretation and coding schemes and to address gaps.

### 3 RESULTS

At the time of the focus group discussions, student participants' academic ranks were a mix of juniors, seniors, graduate students, and alumni. There were four (4) male and seven (7) female participants (ages 21-24) in the focus groups. One participant did not show up. Community organization members who participated in the in-depth interviews included three (3) female and one (1) male participants. The partner organizations included a local health department and three grassroots community-based organizations which work with predominantly low-income immigrant and/or minority populations on diverse community issues and concerns through multiple community organizing and community-based projects and programs. Several themes were extracted based on linked theoretical components of the Engagement theory CBPR and are discussed below.

**Relate.** Working as a team with peers and with outside organizations provided multiple opportunities for the students to build and/or improve various social skills. Most students described working with outside organizations as a good opportunity to learn about "real life" problems and issues. Specific social skills gained throughout the projects as part of the "relate" component included: *communication (oral and written) skills, leadership skills, conflict resolution, and time management skills.*

**Communication Skills.** Student participants described specific efforts and processes that affected their oral and written communication skills. Some experiences revolved around effective communication among the group members (student peers), with the instructor and media services staff, and with the community organization members. Communications with student peers and community organizations were discussed as the most challenging and the most "frustrating" by the students due to schedule conflicts, organizations' staff availability, and last minute cancelations. Similar "frustrations" were expressed by the community organizations about students making appointments and "just not showing up". Other experiences influenced the students' communication skills in a more substantive way as they related to public health as illustrated by the following statements: "My group members and I had to make sure that the information was succinct and used simple language. We also had to make sure that the information wasn't misleading." Or, "You get to teach someone about health but you don't lecture them. That's boring. You make a video that they would watch. So, you learn to do things in a different way...in an effective way."

Leadership skills. In some cases, some student group members were not contributing as it was required of them to do so. This led to other students assuming a leadership role to make sure the project progressed smoothly and in a timely manner. The following statement is an example that illustrates what some students indicated as their role: *“You realize that you come across people who do not have the same work ethics as you and you just have to work with what you have and deal with it in a professional and adult way. So you learn to take the lead and make sure everyone helps and gets the video finished.”* In one or two rare cases, however, the course instructor had intervened to make sure participation requirement by all students, as outlined in the course syllabus, is fully understood and followed.

Conflict Resolution. Most academic coursework designs are quite individualistic and focus primarily on individual student’s abilities and performance. Because the video projects required working in a team and interacting with peers and community organization members toward a common goal, it created some challenges and conflict that needed to be worked out. Several students, for example, made statements such as *“It definitely helps with team work because at the start, someone would say, ‘this is how I want to do it.’ But others would say, ‘look, it doesn’t work that way. We all have to agree on how it should look like.’ So, it definitely helps with your team workability which is how the real world is anyway.”* Several students discussed other teamwork challenges explaining *“You learn how to deal with people who don’t put in 100% effort into their work.”* The conflicts provided the students with opportunities to find ways to resolve them as illustrated in the following statement: *“I learned that although I have my own ideas about how to make videos I still need to listen to others and sometimes compromise.”*

Time Management. All students were carrying full academic load and most were working either full time or part time. All community organizations had multiple daily tasks and responsibilities and had severe staff shortages. Time was considered a scarce resource among all participants. Time management seemed to be one of the most critical skills that all student participants unanimously referenced. Statements such as *“Our video project forced us to learn to manage our time, it was the most difficult thing to grasp”* or, *“The hardest thing I had to learn was that there just wasn’t a lot of time to move around. You just had to do your best with everyone’s schedule.”* The community organization members, while they expressed great appreciation for the students contributions and videos, believed it took great effort to *“carve out”* time out of their daily work to meet and interact with the students on the videos.

**Create.** The actual video production process itself affected the students’ understanding of how videos are produced and why. Specific skills gained included: *technological, media literacy, and critical thinking skills.* In addition, having created videos which were tangible and useful products seemed to promote a sense of pride as well as *self efficacy.*

Technological Skills. None of the student participants had any prior experience producing a video documentary. All expressed that they were initially excited to be making videos. As time went on, however, they found the process rather challenging and increasingly frustrating. Most frustration and challenges related to technical details they needed to remember to operate the equipment, to capture audios an videos in correct mode, and to use the editing software. They were all relieved once the videos had been completed. Student participants described initial challenges in learning how to work with the equipment, shooting b-roll, script writing, and the editing software. However, most seemed to agree that it *“got easier”* after a while. One student summarized the experience as follows: *“Making the video was a challenge, but taught me to work with technology, and that there are going to be problems that need to be solved when put on the spot filming.”*

Media Literacy & Critical Thinking. Students described their experiences with making the videos had changed how they perceive what they see in the media especially commercial advertisements. One participant explained, for example, that: *“I used to watch this public service announcement where a mother is talking to her son about drugs. I used to think it is such a stupid ad if they think it’s going to affect me. Now I realize that I wasn’t their target audience. I can see how it can work on some young teenagers.”* Other participants echoed similar views as evident in the following statements: *“Now I am more critical when I look at even a short video. I try to guess who their target audience is.”* Or, *“I couldn’t believe how much work goes into all these parts. You just don’t think about it.”*

Community organizations and health agency staff described working with most students as valuable and positive overall. They had all worked with the students and provided feedback on the video scripts. Some had given students appropriate images to use in their final productions, and had arranged for specific people to be interviewed for the videos. All described how they did not initially know how much work goes into making videos and appreciated learning about the process from the students. They had found the final videos to be much better than they had anticipated. Specific knowledge gained by the community organization staff related to the issues of copyright, appropriateness of using specific images for videos produced for public and educational viewing.

*Self Efficacy.* All students discussed how proud of their work they were, as expressed in statements similar to the following: *“After I saw the final outcome, it was such a confidence booster.”* They believed while it had been challenging, they had learned a lot and did not regret the projects. Some stated that *“The project related to the subjects we were learning in class but also it also gave us a jump start to other topics we had to learn because that was what the organization wanted.”* Some students had developed confidence and been motivated to agree to work on other video projects subsequent to completing this course. In one instance, the had been offered a position with a prospective employer right on the spot in a job interview because of the student’s media creation knowledge and skill and had been asked to begin working on a video project for the organization. Other student participants who had also gone for job interviews explained how prospective employers paid particular positive attention to the video production experience. One participant explained that *“Every interview that I went, too, they asked me how I put this [the video] together....it definitely helped when I was looking for a job because not everyone knows how to do this.”*

*Donate.* Most student participants found it valuable and worthwhile to work on videos that were useful to community organizations and not just for the purpose of a grade. At the same time, they felt pressure to do a good job. For example, they brought up statements such as *“Making the video for someone you realize that this is the first real health promotion you do on your own because someone is going to watch this....someone is going to be affected by this...so, you work harder at it.”* Most participating community organizations and agencies had used the videos, with the exception of two videos that were deemed to be of poor quality, in various settings that included regular screening in the local cable TV access channel, distribution of the DVDs and internet links to their members and clients, posting on the organization’s website, and screening during some annual community events. In addition, students themselves forwarded the videos to their friends and family members as a school work they were *“proud of.”*

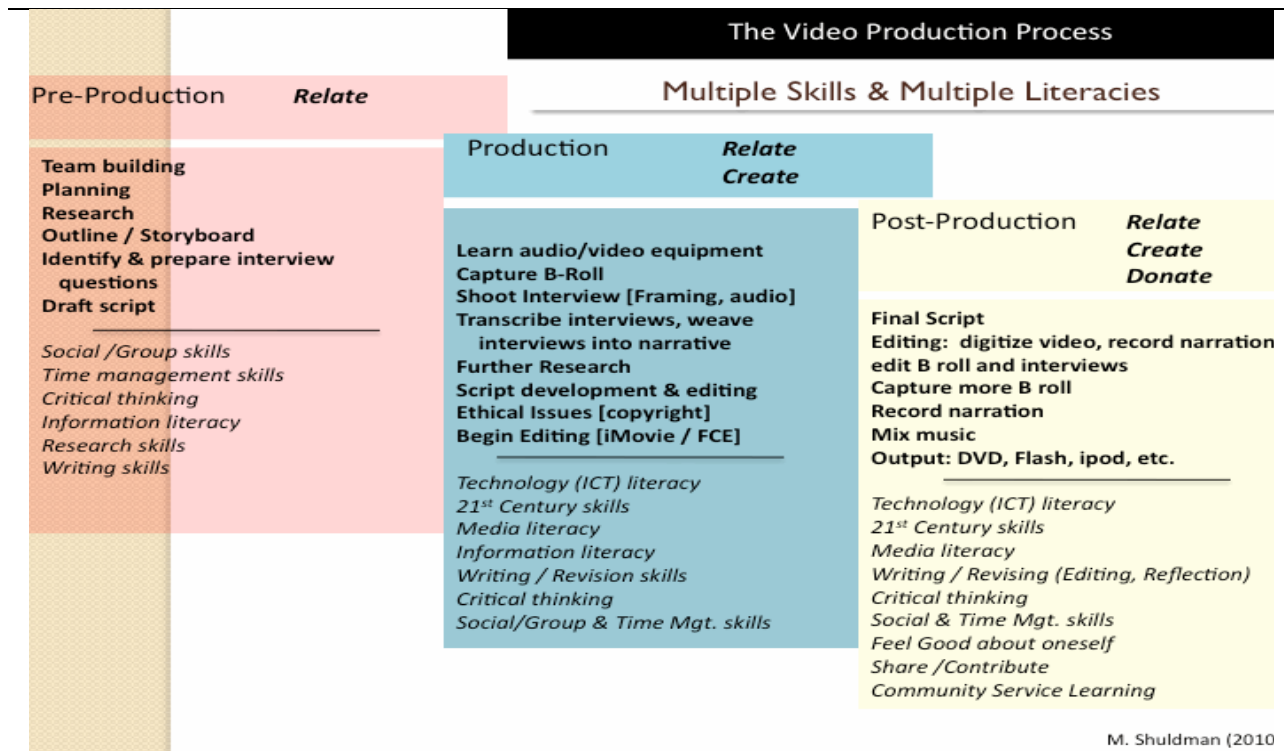
#### **4 DISCUSSION AND CONCLUSION**

We explored and evaluated the impacts of an integrated service learning and collaborative video production on student learning and on local community organizations’ and health agencies’ public health related projects and initiatives. Our findings show that our course design, collaborative approach to media creation, student teamwork, and the actual video production process provide multiple opportunities for our students to acquire social, educational, and technical knowledge and skills. Oral and written communication skills, leadership, conflict resolution, and time management skills were among various social skills gained by our students. These are a set of transferable skills that are applicable to any field and not just the field of public health. However, given that the students work directly with community members and learn to create the health messages in simple jargon-free language and tailored around a particular population, they become better versed in applying the skills in public and community health. It is now fully recognized in public health that media messages and information shape people’s attitudes, perceptions, and behaviors in a manner that would ultimately affect their health [16-19]. Furthermore, media in general and videos in particular are considered an effective [20] and widely used method to communicate health messages and to inform, train, and educate the public [21-23]. As we also discussed earlier in the introduction, existing and emerging public and environmental health challenges of the 21<sup>st</sup> Century require a more critical approach to research, education, and action in the field. We are also aware that there are severe shortages in the number of trained public health professionals [1] and that only 20 percent of the nation's estimated 400,000 to 500,000 public health professionals actually have the

necessary education and training required to do their jobs effectively [2]. Both technical and social skills gained through a participatory video production process help with the preparation of the students as future public health professionals.

The video projects are also designed and produced in collaboration with local community organizations and agencies. These local communities, especially low-income, immigrants, and communities of color are adversely and disproportionately affected by multiple environmental and public health problems. At the same time, budgets to build and maintain effective public health infrastructures and programs are completely cut or dramatically reduced. In Massachusetts, for example, there was an approximately 30% cut in funding in Department of Public Health programs, from Fiscal Year (FY) 2001 through FY 2004, for a total of \$158 million in cuts [24]. More recently since FY 2009, public health funding has been reduced by an estimated \$113 million, or an additional 18 percent when adjusted for inflation. As a percentage, in fact, public health has been cut by more than any other human service sub-category during the same time period [24] in Massachusetts. Similar or more severe budget cuts have occurred all across the United States in many other states. The video projects are a way for the community organizations and health agencies, already under-funded, to have access to resources and technologies that help them get their messages out to the community members in an accessible form while helping us train the students to work on real-life issues and as future professionals.

In addition, the actual video production aspect of the project enhances students' experiences by exposing them to multiple literacies and skills spread across the production process which would not be otherwise possible. Steps in the production process and relevant literacies are summarized in Fig. 1 below. Aside from learning the skills and competencies necessary to produce a video, i.e., researching, writing, revising, editing, etc., students are also confronted with issues relevant to information literacy, such as the ethical and legal considerations of copyright as it applies to images and music.



M. Shuldman (2010)

**Figure 1:** Summary of video production process and associated skills and literacies

In conclusion, we believe that including course-relevant video production and collaborative community-driven service learning projects that link the theoretical class work and learning objectives to



local public health needs and demands greatly enhances student learning and educational experiences. It also provides access to local organizations to resources and improves education and training of current and future public health professionals, especially as they relate to the use of digital media in promoting health. We agree with the students' overall sentiment that the process is "frustrating and challenging but extremely rewarding and well worth it!"

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NOTE: The student videos could be accessed online through the following links:  
<http://library.uml.edu/media/tajik/> OR <http://www.youtube.com/user/UMassCHS/>

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