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The Technology of Video Production, Classroom Practices, and the Development of a Student Voice in a Changing World

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Abstract

In the spirit of the conference's theme, criteria for assessing the quality of programs and projects in high school video production are investigated. Three schools with dramatically different programs and student populations are the focus of the project, and the larger context of video production courses in the United States is considered. The main criteria are the clarity of communication, technological proficiency, agency with the camera, and the technological proficiency and agency in editing. Consideration of the additional criteria of ascetics and self-expression are considered with the unanswered question of how these demostrate student voice. The methods utilized involve a comparison of information gathered from ethnographic work and the application of criteria to edited and unedited videos. Results suggest that the evaluation of videos based on the main criteria is

sufficient for an evaluation of the program, particularly if videos are supplemented by minimal information from instructors. More importantly, qualities that derived from the analysis of student work and that would enhance programs are suggested.

Introduction

Video production is a growing educational pursuit of American youth. High schools, in particular, are introducing the subject into their curricula, but the subject is being added with a number of diverse and often implicit goals. Goodman (2003, p. 10) found three dominant strands of media education for youth: *technology integration*, *media literacy*, and *community media arts* with only the first two themes seeming to affect schools directly. The current emphasis on technology in education and the technilogical revolution in video production is clearly a strong force behind the growth in such courses regardless of whether the course is clearly of the *technology integration* strand, but a brief look at the different courses available reveals as wide a range of ideologies as that throughout education.[1] More crucial in a time of public demand for accountability, however, is a method of comparing and evaluating these programs, though it faces the same controversies as all such efforts. The difference, perhaps, is that standardized tests are not yet widely available for classes in video production and seem less appropriate to such a hands-on subject. The goals of video production programs must to some extent be considered in evaluating their success, but the comparison of the videos they produce will suggest both a method of evaluation and a reexamination of course purposes. The analysis of videos and the process that is revealed in the analysis may additionally add to the debate over the appropriateness of focusing entirely on finished products and multiple-choice answers in any subject areas.

1 One teacher said that his “television production” class became necessary because the more traditional forms of vocational training such as industrial arts had been taken out of the school. At another of the focal schools, a teacher struggled with having too many students placed in the media class because there were not enough elective courses available.

My own biases in this debate arrive from and are implicit in the theories that ground this research. Cultural Historical Activity Theory (CHAT) and work that is consistent with it are the sources of my perspective. Most essential to the issues addressed here are the relationship between learning and development and the process of internalization as distinguished by Vygotsky (1978). These shape my understanding of the role of education as one in which development will be promoted through the explicit teaching of material and the pursuit of activities that will facilitate development. Applied to the specifics of video production, this would mean that no matter what the particular ideologies of the course, development of the use of video technology as a means for communication in its broadest sense is the goal. The analysis of videos and the contexts of the educational environment are consistent with the work of Bakhtin (1986a) and Hodge and Kress (1988). As such, the program ideologies are both the grounds for initial evaluations and the departure point for considering improvements.

The beginning point in the story, then, is in the structures of the schools themselves and the location of the classes within these structures, with “structure” and “location” being both metaphors applied to ideologies and a concrete description of the material realities of the classrooms. Courses are “located” within English departments, vocational programs, art programs, and at the center of interdisciplinary academies and within walls that reflect these ideologies to varying extents. The political potential of media is stressed by Goodman (2003) and Chalfen (1992), but this is rarely even implicit in the design of courses that have been investigated yet is viewed as an important direction in which they can be moved. The more abstract goals behind investigated programs include the development of media literacy, sometimes with a tie to general literacy, the development of critical thinking, and the inspiration of students through meaningful activity. The technological focus can lean towards vocational preparation or the more abstract goals of promoting digital arts and computer literacy. One not-for-profit organization has initiated programs in several schools with the ambition of

integrating disciplines and serving industry interests with the creation of “academies” in large urban schools. On the concrete level, the traditional classroom of all schools must be reorganized to accommodate computers, cameras, and sometimes sets. The material arrangements of the classroom determine to a great extend whether camera work is inside or outside the classroom, and this difference in many ways determines other classroom practices. A sharp division is also visible between courses that utilize camcorders with digital resources and those which are geared to television through larger cameras, TelePrompTers, lighting grids, and an array of microphones and audio systems controlled through sound boards. Classrooms can potentially have only one small camcorder and a computer equipped with an editing program or the whole array of equipment found in television studios.

Methods

The three programs that were the focus of this study can be viewed as a representative sample of high-school video-production courses to the extent that they were each structured quite differently and had very different demographics. They were not selected for being the best or prototypical programs but simply for the level of diversity. One video production program can meaningfully be placed in each of Goodman's (2003) three categories. The school referred to as *Suburban High* has a vocational program, stressing the technical aspects of video as it relates to television. *Urban High* has a “New Media Academy” with shifting classroom practices despite the efforts of its sponsoring organization but which is generally oriented toward media literacy. And *Boarding High* is a school for Native Americans with art classes that participated in a digital art program run by college interns through a university affiliated museum and sponsored by an independent not-for-profit organization. Thus, the program as a combined effort of museum and granting agency is a “community media arts” program that has sought the promotion of media arts in two separate schools thus far. All the schools were located in Greater Southern California but represented different aspects of this diverse region. Other schools in the region

as well as in New York City have been summarily investigated, and information via the Internet has been collected about schools throughout the country, so that the beginning of placing these schools in the larger context has been made.

Three separate courses in each school were studied through ethnographic methods, including regular observation, and the main source of data is from twenty-six students who volunteered for participation. Notes on the work and participation of all students in the classes were maintained and used as a point of comparison. Eighteen of the student volunteers participated in short interviews, and nine of these students narrated some or all of their videos with the goal being to describe their purposes and intentions. The primary data, however, included unedited as well as edited video. The students' videotapes necessitated that the analysis be catered to what was available because some work was never edited or contained serious technical problems that were not the fault of the students and some of the original source material (the unedited tapes) and edited tapes were lost or damaged. In all, fifteen projects produced by individuals or groups of students were included. A more detailed description of schools, participants, and the projects are given in Tables 1 and 2. It is significant to note how the projects compared in a general sense to the other projects within their class.

The question of how to compare and evaluate the projects is made more complicated given the number of differences between individual projects that occurred, which go beyond the expected differences between assignments and goals, but the approach to answering it is simplified by focusing on the exploration of how learning and development materialize in the context of video production classes. The evaluation is not concerned with which program orientations are the right ones but with how successful these programs are in promoting learning and development. Nevertheless, the analysis implies the value of different ideologies and practices. The place to begin this exploration is, however, not with the videos but with the evaluations administered by the instructors to more fully understand the

programs and to guide the selection of evaluation criteria.

School Evaluations

In Suburban High, the most established of the programs, evaluations were conducted in multiple ways but never through a big traditional test. Despite the heavy use of a text book and the small quizzes that were conducted, the final examination consisted entirely of completing a video project with particular required features, and the paperwork that was completed during production was graded with the actual video to assure that the production process was visible even if the finished products did not make all phases of production visible. Other evaluations included hands-on tasks—such as connecting a remote microphone to a camera on a tripod or demonstrating particular movements with a camera—notes kept in a journal, reports on articles from video journals, and recorded shots with particular features—such as getting a close-up, a medium shot, and a long shot or demonstrating different kinds of lighting. These evaluations focused on whether the particular information was known to students rather than if they could use it in meaningful ways. This was reflective of the emphasis on obtaining basic skills that could be utilized in entry level positions in television. My great surprises, however, were about how little time students actually had with the camera and that only two edited projects were required in a course that lasted a year (three were originally planned). Students were required to produce each type of shot or to use lighting or sound in particular ways only once so that the fine tuning of skills was nearly impossible.

This lack of time to master camera use was demonstrated most dramatically in “Valic's” borrowing a camera on at least three occasions. The recordings from these expeditions that he shared with me demonstrated less interest in recording something particular than with a desire simply to experiment or play with the camera. The advanced class furthered this limiting of camera time by having all students assigned to one or two positions within the production of a school news program; many

students never used a camera during the year. The camera work within this class was very scripted (and not by the camera operators), and only a few independent projects were completed. The advanced class did, however, successfully promote specialization and teamwork. The evaluations, which were invisible in the advanced class but explicit in the four beginning classes, clearly centered on technical proficiency—on whether the particular tasks or jobs were successfully completed. The only other concern was one small question for edited pieces about the clarity of a message. Ascetically pleasing work was praised three times during a year's worth of observation.

Urban High is more difficult to summarize because three different teachers were observed, and two of the teachers significantly changed their approach while the third quit teaching media at the end of the school year.[2] The teacher who quit at the end of the semester had officially taught Media 1 and gave no formal evaluations, grading students instead on the work completed toward the three video projects assigned that semester and the task of creating a personal web page. His goal of promoting media literacy was most evident, despite the scarcity of scaffolding or otherwise promoting specific skills. A second teacher placed the hurdle of writing a script and pitching it before students were allowed to touch a camera, and the result was that only one student, with the assistance of several others, worked on a "movie." A nearly explosive conflict with school security over a prop gun led to the end of all movie productions that semester. The end of the semester and the course this teacher taught the following school year involved only reading and discussing scripts, with a look at how they were produced in his new class. The third teacher was open about his frustrations and went through several phases throughout the semester of observation. Some students did not make a video due to their simple lack of participation

2 The second semester of two classes and the first semester of the following school year in another class were observed. This was deemed appropriate for two reasons: First, the Media 1 class, which was the focal class, did not use video cameras in the first semester, working instead on radio broadcasting issues. Secondly, the school year for this particular track within the school went from July to November and January to April, an arrangement that led to a greater separateness to each semester.

while other students worked on four projects and a few fell somewhere in between. Evaluations focused on open book tests about the assigned reading in newly acquired text books. Because they were open book, the tests seemed more about pressuring them to read and promoting their learning than an actual evaluation. It was not clear how the teacher evaluated finished videos. His focus instead seemed entirely on finding the right kind of assignment. This school's evaluations can tentatively be characterized as targeting media literacy by stressing the production of something which communicated, but many of the evaluations seemed more focused on measuring and promoting participation in a segment of the school where attendance and participation were serious problems. It should be noted, however, that one student from the school was recognized for superior video work by winning a contest, but his was clearly an exception and an award that did not represent the school.

Boarding High did not evaluate student video work except in the informal sharing of edited projects. In one course, more than half of the class lost interest and did not complete anything, thus the sharing, which took place after school, had little meaning. In the first course, no students were able to complete projects due to scheduling problems, but in the third observed course, all groups completed their videos (three in all) despite a few students dropping out of the production process. The leader of this final course made every effort to have students talk about their works but with limited success. Nevertheless, it was clearly the meaning and interpretation of images that was the leader's greatest concern. These videos were strikingly different from those produced at the other schools. Students were allowed to wander in small groups (with or without a student intern depending on the course), and this lack of pressure to produce something made the unedited video something quite different. Exploration and experimentation with the camera dominated, much as they had in pilot data with an after-school video club. The edited videos reflected the goal of making “art” by showing an array of images that were difficult to “interpret” but that were clearly provoking. Thus if a more formal evaluation had been

instated, it would probably have focused on how provocative and ascetically pleasing the works were, which is much harder to standardize than a technological focus.

The evaluations, such as they were, within the different programs tested terms and conventions from lectures and books with traditional tests but to varying extents prioritized the video products of students as tests of understanding and application. Vocabulary was deemed of secondary importance. The task then is to discover a method of evaluation that will enable a comparison of work from such diverse programs and that might reveal qualities of the programs that were observed, thus allowing an evaluation of programs without the lengthy periods of observation. One method of doing so is to consider what the most basic purpose of these courses and the technology is: communication. Communication via video technology is certainly at the heart of vocational pursuits, mastering the technology, media literacy, and digital art, but such a broad topic requires some refining.

The Unit of Analysis

First is the problem of what unit of analysis to use as a basis of evaluation. Based on Bakhtin's idea that “a work's author is present only in the whole of the work” (1986b, p. 160), the entire piece and all of the projects completed in the term would ideally be considered if we are to understand what the student has accomplished, and in cases where editing was never completed, the intentions of students are at times remarkably evident in the unedited video. In one unedited piece from Urban High (# 6 in table 2), the story is quite evident as scenes were shot repeatedly and from several angles and were mostly in sequence. The few that were out of sequence were clear because of the repetition. Both experimentation and a degree of consideration about how the camera would show the scenes was evident, and care was taken to show all the essential pieces of the story. I did not need to speak with the students about their intentions because it was mostly evident. My only question, which remained unanswered, was about how they would integrate or choose between the various shots, and my impression was that this would

have been a difficult task for them since the only guidance I observed in this regard was to the note that different angles make a video more interesting.

The term *sequence* was created to group a number of shots that were recorded sequentially and were consistent with a particular theme. A *sequence* of unedited videotape was initially considered to be roughly equal to an edited tape. The term is easily applied with some unedited work and can even be externally shaped be separate assignments. In these videos, off-task work was rare but clearly evident. While a group of students worked on interviewing people for their "How To" video at Urban High (# 7), there was a shot taken in the girls' bathroom in which two of the girls are seen talking with each other without attention to the camera. In this shot, the girls spoke in Spanish for the first time on the tape, further marking its difference. This shot is easily distinguished as an *off-task shot.* In this particular project, however, the problem of defining a sequence becomes apparent in the different stages of unedited work. After some debate, I decided to drop the idea that a *sequence* was roughly the same as an edited video, replacing this criterion with the term *project*. Instead, five *sequences* are distinguished in work for this *project*. The first was a series of shots in which students introduced the video and its different segments. Then there were a series of shots about two separate skits. The students then interviewed an "expert," whom they seemed uncertain how to title. (The teacher directed the students to this individual, and he was either a counselor or nurse.) The longest *sequence* followed with a series of "on the street" interviews of students and teachers. The last *sequence* was a retake of some of the introductory segments away from school with additional *off-task shots*. Thus a *project* can be defined as one or more *sequences* and seems to be a suitable substitution for the edited piece because the potential choices in editing are clear.

There are, however, additional *projects* in which the unedited videotape bears little relation to the edited tape. This is most dramatic at Boarding High where some students were given the camera and

allowed to go out and shoot something without first making plans and without supervision. Here the camera work involved more exploration and searching, even experimentation with different techniques. *Sequences* in these projects are difficult to define and sometimes are not more than one or two shots. The criterion here was that there was a noticeable shift in theme, and in this work, new *sequences*—for the only time in this data—arise without new shots (the boundaries of which are defined by the camera being turned off and on again). The difficulty is that this unedited video does not suggest the quality or theme of the edited projects. Because the two types of unedited video are so different, distinguishing what does and does not serve as a suitable substitute for an edited piece is not difficult and could certainly be supplemented by the type of paperwork about the planning—such as scripts or storyboards—required at Suburban High and sometimes at Urban High. A short interview would work equally well as a supplement since questions about the purpose of a video demonstrated quite clearly the level of thought and intent of students.

The Production Process

The primary unit of analysis, then, is the edited video, but in cases where editing was not completed or was actually lost due to hard drives crashing, such as happened at Suburban High, a cautious use of the unedited tape is appropriate. But it would seem that an analysis of the unedited tape will reveal additional information about classroom practices and student mastery. Initially, it was my hypothesis that stronger communication would be indicated by a stronger similarity between edited and unedited tape, but after observing courses with very different requirements for planning and having experimented in making my own "video art," two radically different production processes have become evident, which seem to have no bearing on the quality of the finished product. There simply are two processes: extensive planning before the camera work and explorative camera work with more planning and a different kind of experimentation at the editing stage.

Suburban High required that paperwork be submitted at the time of the viewing, but Urban High went a step further and required clear evidence of planning before access to equipment was given. One result of this difference was in a student's last minute completion of a “Field Log Form” at Suburban High: Logging is a useful tool in the editing process but had been completed only to fulfill the requirement, thus losing the meaning of the activity. At Urban High, the result of requiring extensive planning was that very few students in one class ever worked on a video and the majority of time in another class was spent working (or not working) on the planning stages rather than in production. Interestingly, one of the focal projects at Suburban High (# 5) evaded the pressure of documenting a precise plan by planning a project that necessitated more explorative camera work. The goal of their documentary was to show what the student news program was like, and thus two days worth of work was recorded with no explicit purpose. In this case, the lack of planning became a problem because they did not have sufficient time with the equipment to satisfactorily select the best shots for use, but the plan nevertheless was a valid and potentially rich one.

At Boarding High, by contrast, only one project showed any indications of planning before recording, and it was never finished. The planning that was evident involved the development of a small story. Instead the real “work” of most projects took place during editing when the unedited video was sifted through, experimented with, and placed in an order. The “planning” in this case did not involve activity away from the video but actual manipulation of clips until a satisfying project emerged. Reilly (1988, p. 146) addresses the problem of “visual literacy” as opposed to other forms of literacy and the necessity of developing it specifically. Observations and video work—particularly at Urban High—suggest that a heavy emphasis on planning and a lack of camera time do not facilitate the development of visual literacy or critical thinking about media images. The much less planned and less formulaic piece at Suburban High (# 5 again) showed lower visual literacy than previous projects by the

same students would have suggested. Though this study does not have clear evidence of how best to promote visual literacy, a comparison of many more examples of the two approaches to production—a well planned approach versus an approach that uses exploration and experimentation—would provide further evidence. My own experience and Reilly's observations suggest that an approach that utilizes a more evenly distributed process of promoting plans and experimentation might be most effective.

Clarity of the message

The clarity of a message was an explicit part of class evaluations only at Suburban High where it was a very small part. On the form, “Project Critique Sheet” for students to complete during the class screenings, the explicit criterion was written as “What was the basic idea” and was one of eighteen criteria to be rated. Despite this seeming unimportance of actual communication, the lack of explicit concern is not taken as a reflection of its triviality but rather as a reflection of its embeddedness. The message being communicated was at the center of many discussions both in planning and during viewings at all schools, but it was rarely discussed in terms of “communication” or “message” because these are so implicit to the activity. Any expression of “voice,” whether one's own or the institutions, requires some sort of message. As in the form described above, the message was more frequently discussed in terms of the “idea” or even in terms of a specific example of a genre, particularly when working on commercials and public service announcements for which students frequently started with an actual advertisement. The clarity of a message is such a basic criterion that when the basic message is not obvious, nothing else is discussed until an explanation is given. This was most striking at Urban and Suburban Highs when they reviewed unedited footage: The teachers began by asking for students to explain their videos, and clarification questions were asked before there was any other discussion.

The significance of the message is, however, most clear when it is weak. In the focal documentary at Suburban High (#5), it was clear that it was a documentary about the student news

program and that an effort to insert humor had been made, but the lack of any more specific message was its greatest weakness. There was nothing that held it together, no story, and no point. Unlike most of the other pieces, the technical problems, which were numerous, were all that was remembered. Similarly, the only piece that was edited in Urban High's Media 1 class, the "Don't Drink and Drive" advertisement (#8), had some nice imagery and strong work, but particularly in the absence of its sound track (music which was lost in copying) and the small text of "don't drink and drive" offered only at the end, the message became secondary to the story contained in the images. Thus the lack of a clear, strong message was particularly evident in these and other projects.

The biggest problem, however, comes in trying to evaluate the videos completed (or not) at Boarding High. As already discussed, no message was evident in the unedited work, but in the edited work, there was also some mystery about the messages. One video (not a focal one) stood out as a problem: An image of a U.S. flag was followed by an image of a red stain (blood? paint?), suggesting a critique of American patriotism, particularly when considering that is was produced by Native American youths, but the girl who worked on it and spoke about it during the viewing did not make the connection. This problem of interpretation seems inherent to *art*, though was not impossible to overcome. One non-focal piece clearly had no consistent message: It had a series of disconnected events, including the art teacher barking like a dog, that seemed to reflect two boys playing rather than trying to say something. Most of the edited pieces at the school were much tighter, and the existence of a sound track on many of them greatly helped, though they might have been dismissed by some as nothing more than *music videos*.[3] In fact, the videos produced in the last observed course were so well put together and the student interns so heavily involved in production (particularly when compared with the

3 Unlike one teacher, who was clearly dismissive of the "music videos" made by students, I believe they are worth students' time, in part because they become very motivated about them.

previous courses) that I had some doubts about whose ideas were most represented. The one set of unedited tapes from this course indicates that the intern did make suggestions, but also that students explored the uses of the camera and thus were not entirely following.

The clarity of the message, then, is a useful criterion for evaluating programs and students as long as the particular genre is taken into consideration. How clear the message can possibly be, the difficulty in creating a strong message, and the expression of "voice" (which will be discussed more) will vary with the genre. Based on this approach, the superiority of Suburban High and the last course at Boarding High is evident and reflective of observations.

Technological Proficiency

Technological proficiency was the central goal at Suburban High, but technology was not ignored at the other two schools. The program director during the first two courses at Boarding High, running also a "Digital Studio" open to the community, spoke clearly about using an apprenticeship model in which technology was taught more on a need to know basis, believing it was a more effective method of instruction. Similarly one course at Urban High reflected the significance of technology by obtaining and using new text books a month into the course. The teacher, however, went from feeling that he desperately needed the books to believing they were simply too advanced—too technical—for his students. Technology was secondary in these schools, but it was clearly seen as part of mastering the medium. And it was clear from works with technical problems that poor use of the technology or not using the right equipment was a serious distraction. Therefore, despite my initial intent to not consider the technological proficiency (in the same way that I do not grade papers of my college-level students for grammar), it became clear that some direct consideration of technique is necessary to fully understand learning and development in video production courses.

The biggest technical problem, which was noted by Reilly (1988) in his observations, was in the

use of sound. Suburban High had the necessary equipment—an array of wireless and wired microphones—but there was a tendency among beginning students to use it wrongly or to fail to use it at all. One such example was with a non-focal video, for which the students had decided to do a cooking show: When they arrived at the recording site, they discovered that the microphone was not working and so used only the microphone built into the camera. At Urban High, the Media 1 class did not have access to a lot of the school equipment and what existed was far more limited. In the "How To" video about safe sex (#7), students used a non-working microphone as a prop and even pretended to have ear pieces that enabled them to communicate with teams at other sites as if it were a live show, but the lack of a real microphone seriously interfered with the ability to hear some interviews. On the other hand, it should be noted that even in professional live television, technical problems—particularly with microphones—arise, and this is not viewed as the most important type of problem to evaluate if some effort has been made to remedy it.

The real need to consider technical proficiency is evident in the consideration of "The Good, The Bad, And The Techies" (#5) from Suburban High. This project was an attempt at a very different genre and plan of action than other projects at this school, and perhaps the problems are a result of this difference, but the fact is that it suffered from several lighting problems (being either over- or underexposed), a failure to white balance, too much movement of the camera and never using a tripod, and not even attempting to resolve the sound problem. These problems—with the poor editing due to not enough time—made for a project that was very hard to follow. Given the emphasis of the program on technology, this poor or absent use of technology stood out.

This criterion of technological proficiency, then, is seen as a necessary consideration and provides information that is consistent with observations. Suburban High and the third observed course at Boarding High yielded much more technically proficient videos. At Boarding High, however, this is

due to the editing and level of involvement by college interns. This too is evident in the comparison of unedited and edited work. The problem of sound was resolved at this school, despite the lack of equipment, by using sound tracks from popular music albums. Urban High, by contrast, demonstrated the lowest level of technological proficiency. Neither students nor teachers knew how to use the equipment to its fullest capacity, and access to equipment was limited due to damage and the increasin control of teachers to avoid damage. The lack of use of equipment is evident in the videos, and the lack of equipment could have been discovered through a simple survey. They had additionally been waiting years for a studio to be built, which never materialized and led to the teachers' orientation of “making do” until the “real” course had started. For the 2003-2004 school year, the program will be transformed into a vocational one and will hire a new instructor, who is fully qualified in the subject. It is suspected that the videos alone will demonstrate the major shift.

Agency with the Camera

Agency with the camera surfaced as significant in pilot data and due to interest in stuent voice. It's significance is supported by Vygotsky and Luria's discussion of tool use and particularly in the *formation of intention* (1994, p. 134). The basic idea is that the discovery of the power of a video camera is in the ability to use it to shape events, in essence to create a message that is one's own. The use of this criterion is not yet fully realized but has been simplified to involve the identification of *events*, defined as an uninterrupted series of acts that have a common theme or goal, and determining the extent to which the camera operator initiated, terminated, or otherwise influenced that event. Agency surfaced as an issue because of the observation that students were using the camera sometimes to record events as they happened and sometimes were creating them in the use of the camera.

“The Good, The Bad, And The Techies” (#5) from Suburban High is an example of a low level of agency in camera use, making it a project that was low on all of the main criteria. The camera

operator took the approach of a “fly on the wall” and attempted to simply record events as they happened, but the result is that events in both edited and unedited video are frequently difficult to distinguish because there is very little activity. In one clear event, an interview of two students, agency is also low because despite initiating the event by turning the camera on, the student did not make any effort to shape what the “interviewees” had to say. One interviewee sought some direction by asking, “Do you want to ask as us a question?” to which the camera operator said nothing and the other interviewee stepped in to tell her what to say. Similarly, the unedited video from “The First 4” (#13) at Urban High consisted of recordings of football games taken from the sidelines. Some shots showed higher levels of agency by focusing on particular players or actions, but most shots consisted only of following the ball—a difficult task but low in agency. In such cases, the only choices left to the camera operator consist of deciding whether to zoom in or not and by how much.

By contrast, the work for the untitled art piece (#14) at Boarding High frequently showed a high degree of agency. The camera operators created events by recording objects and interacting with them, using the camera in interactions with other students (often to tease them in some fashion), and in selecting the focal acts in an array of activity. An example of this last was in a wide angled pan across a basketball game that stopped on and the followed while zooming in one of two students walking beyond the game. In this case, the events were created in the camera by surveying the activity and then choosing one student's acts as significant, a student who proceeded to extend his middle finger toward the camera as if he knew the camera were focused on him.

The intent of coding the available video for agency is to investigate to what extent there is development in agency and how the context determines the use of agency. This is a more detailed analysis and thus is not yet complete, but the answers to these two pursuits are relevant in how best to understand the meaning of this criterion. One huge problem with it is that when events are entirely

scripted, it is difficult for the camera operator to demonstrate high levels of agency, but the team producing the particular project are certainly exerting the highest levels of agency. The role of the camera in such cases, however, is diminished as the roles of writers, actors, and directors are elevated, particularly when the actions of the camera are scripted. Nevertheless, agency is demonstrated in whether or not the camera actions are scripted to have an impact on the scene. In such cases, the group of students are demonstrating high levels of agency, but some need to place these projects in a different category exists, a category in which agency with the camera is subverted to the agency demostrated in the script. The same problem to a lesser extent arose in the “How to” video about safe sex (#7) from Urban High, when the camera operator worked in coordination with an interviewer to ask students and teachers about their views on the topic. This is less problematic because the agency of the camera operator is shared rather than lowered. Of course, when the camera operator is the author of the script, the same could be said. The definition of agency with the camera needs to be broadened in these cases.

Overall, due to the increased uses of scripts that included directions for camera operators, agency with camera became trivial for most of the projects done at Suburban High, and for the one focal project that was the least scripted, low levels of agency were observed. Thus this criterion is not believed to reveal anything about the school beyond the diminished role of the camera operator and perhaps less “voice” for the students in these roles. At Urban High, the work was much more uneven and difficult to generalize, suggesting that the development of agency was a product of individual differences rather than the program's efforts to teach video production. The highest levels of agency were observed—both in observations and on tape—at Boarding High. What is evident from this small sample is that a deemphasis on early planning may contribute to more development of agency. The major question arising from the data is about how much of the apparent development is due to an acceptance of exploration and experimentation and how much of it is due to contexts that had less supervision and

external controls. This question seems particularly worth pursuing and is part of the other goals of this project.

Editing

The initial intent of this project was to focus primarily on unedited videotape and to use the edited work more as a point of comparison, but the differences between the edited and unedited pieces were so significant that editing has been elevated. The effects of editing for the clarity of the message has already been discussed, but the technological proficiency and agency in the editing—apart from the camera work—necessitate some consideration. Good editing can save terrible source material as was demonstrated at Boarding High several times, and low levels of agency in camera work can be turned around in the editing process. “The Good, The Bad, And The Techies” (#5) from Suburban High continued to show relatively low levels of agency in editing, but “The First 4” (#13) from Urban High, using video originally shot for the football team to use in by the coach, demonstrated high levels of agency. “Spike” did all the editing himself, after choosing not to do any other video projects that semester and taking frequent opportunities to sneak into and out of the classroom. He applied several special effects, such as a carefully placed slow motion, and despite an unclear message, given that it was assigned as a news piece, he created an artistic music video, asserting yet another form of agency by not strictly following the assignment. This is the strongest evidence of how agency can be expressed almost entirely in the editing process.

Ascetics and Self-Expression

The ascetics and self-expression of projects are beyond the scope of this project but deserve to be studied in more detail. The artistic value of videos has been noted in this research in terms of my subjective experience of a video and by recording the few comments made during classes. The issue of self-expression relates to but exceeds the scope of agency as measured. In all schools, ascetics were

commented upon, and the teacher at Suburban High went out of his way to introduce me to a student from a course that was not observed due to the teacher's pride over a student's short “horror film.” It is unclear at this point how ascetics could be addressed in the process of evaluating programs and projects, beyond the inconvenient and subjective option of gathering a panel of “professionals” to judge projects. Nevertheless, the pursuit of guidelines for judging the artistic value of video is deemed worthwhile.

Similarly, a further consideration of self-expression seems worthwhile, but by contrast it was not explicitly commented upon in any class and seemed only an implicit concern at Boarding High. It does, however, relate to agency. To some extent, self-expression is inherent in an individual's ability to influence the events that make up their video projects, but self-expression could be addressed much more fully and in a way that more adequately addresses the issue of student voice. It seems in some ways that most of the assignments at Suburban and Urban Highs worked in opposition to the development of self-expression via video. Self-expression, though, was evident in the way students, for example, transformed classic or current commercials into humorous pieces that were in the format of a commercial but could not possibly have been used to sell anything. Additionally, the most interesting part of “The Good, The Bad, And The Techies” (#5) was that it seemed to show more self-expression in the choice of subject matter and intentions than many of the other projects, but the students seemed to lack the skills and time they needed to pursue their own interests. Finding a method to evaluate the larger issue of self-expression has not been made at this point, in part because it has not seemed a concern of anyone involved in video production programs, but self-expression is viewed as a topic that should be prioritized if high school video production is going to come close to meeting its potential.

Conclusion

The evaluation of programs and individual projects can meaningfully be undertaken by using only the edited and unedited videos of students and targeting the criteria of the clarity of a message,

technological proficiency, agency with the camera, and editing if the exceptions as noted above are considered. A short description by instructors of the assignments and available equipment would, however, make the process more meaningful, and short statements from students about their intentions would be particularly useful when editing is not completed. If such a comparison were made of the growing number of video production courses in American high schools, the pursuit of supporting and developing quality programs would be enhanced and an understanding of the development of student voice via video could truly begin.

Any attempt to develop a method of evaluating video production programs that does not examine finished products is, however, deemed meaningless. These are classes rich in potential to motivate and empower students, and their further reduction to being only about knowledge that could be answered objectively on a multiple-choice test would entirely rob them (and their students) of their potential. Suggestions of what makes a strong program from this project can be tentative at best due to the small sample size but are a beginning. Accordingly, whether or not communication as the ultimate goal is addressed in a course seems irrelevant because it is a goal that cannot be ignored, but having sufficient equipment and technical knowledge readily available seem crucial. Additionally, there are suggestions that the development of agency and self-expression would be enhanced by both the encouragement of exploration and experimentation and a context with fewer limitations (i.e. controls of exploration and experimentation). These suggestions may well apply to other subjects in high schools, including the more central ones of English and Social Studies, but this research is only a beginning and must be interpreted as such. Video is the new media for student voice and more evenly brings the worlds outside and within school together, but the potential for such courses appears to be highly depended on how it is structured.

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Table 1: General description of participating schools

School	*Official Enrollment*	*Student Ethnic Distribution*	*Orientation of Video Program*	*Number of Participants*	*Number of Projects*
Suburban High	2000*	45% European American* 40% Latino* 10% African American* 4% Asian American	Vocational	9	5
Urban High	3500*	80% Latino* 20% African American*	Media Literacy	11	8
Boarding High	600*	100% Native American	Digital Art	6	2

*These numbers are approximations (to protect anonymity) and only for Urban High was data available for the period under observation. The descriptions of Suburban High and Urban High rely on the previous year's data because the relevant data is not yet available.

Table 2: Video project descriptions

Project description	*Assignment*	*Participating Students*	*Comparison to other class projects*
From Suburban High			
1) "Mentos" commercial with only the unedited tape and notes about the edited piece available for analysis. It is about an effeminate male who gets beat up until he eats Mentos.	commercial	Bobby,* a male, 17 year old, 11th grade, self-described Hispanic, student, who was described by the teacher and a "Special Ed" student and two other male, apparently Latino youths, who were not interviewed.	This was a fairly standard commercial for the class. Several projects borrowed and transformed actual advertising sub-genres such as this. The technical skill displayed was also typical.
2) Untitled and unedited piece about violence/fighting. It includes interviews and a recording of mock fighting, being done for another video project.	final project selected from list of genres	Bobby from above, choosing to work by himself.	This was noticeably of lower quality. He had the excuse of a crashed hard drive for not editing, but observations indicated that he would not have completed it even without problems. The interviews and camera work also demonstrated a lack of skill.
3) "[Suburban High's] Performing Arts Senior Video 2002": a piece featuring seniors and shown at a school awards dinner for the Performing Arts. It consisted of still photographs, interviews, and music selected by featured students.	final project selected from list of genres	Bob,* a male, 15 year-old, self-described white freshman and two female, white, seniors, who were not interviewed.	The subject matter was unusual and needed special permission from the teacher. The girls requested the task, and Bob, having worked with them previously, continued working with them.
4) "Drunk Driving," recorded entirely by one student at his home with his sister playing the part of the driver, who has an accident.	commercial	Valic,* a male, 17 year old, self-described Caucasian junior and one apparently Latina girl and two apparently Latino males, who not interviewed.	One significant flaw was in the date and time stamp, which Valic had believed would be removable in the editing process, but otherwise this was a standard quality.

Project description	***Assignment***	***Participating Students***	***Comparison to other class projects***
5) "The Good, The Bad, And The Techies," a documentary of the student run television news program, which was broadcast via an intranet to classrooms four days a week.	final project selected from list of genres	Valic, from above, the Latina girl from above, and a male, 17 year old, self-described Caucasian, who considered himself a senior but was of ambiguous status because of being home schooled.	This project was quite unusual because of it subject and of poor quality, due in part to lack of time but also to lack of technical and compositional skills.
From Urban High			
6) Untitled and unedited piece about a male student who is frightened when he believes he is being followed but who turns out to me mistaken.	silent recording of event with a growing tension	Skinny,* a male, 17 year old, self-described Hispanic, 11th grader, Abbey,* a female, 16 year old, self-described Hispanic, 11th grader, Ed,* a female, 17 year old, self-described Hispanic, 11th grader, Turkey,* a female, 16 year old, self-described Hispanic, 11th grader, and one other Latina female, who was not interviewed.	This was of superior quality to most of the work done for this project, none of which was edited. It involved multiple retakes of the same scenes from different perspectives and a more complete "story."
7) Untitled and unedited piece about how to have safe sex, including interviews with a school counselor and an array of students and teachers and short skits.	"How to" video	Skinny, Abbey, and Turkey from above and Rosemary,* a female, 17 year old, self-described Hispanic, 11th grader.	This was of superior quality to most of the work done for this project, none of which was edited. It would, however, have been far too long but demonstrated more creative use of the camera and greater involvement with the subject matter.
8) "Don't Drink and Drive," about the efforts of some girls to prevent a drunk friend from driving, who then hits a pedestrian. It was recorded away from school.	Public Service Announce-ment	Skinny, Abbey, Ed, Turkey, and Rosemary from above.	This was the only piece to be fully edited the entire semester. Despite source material that was sometimes impossible to see due to the lack of light, some parts were ascetically pleasing.

Project description	***Assignment***	***Participating Students***	***Comparison to other class projects***
9) Untitled and unedited piece demonstrating how to make strawberry shortcake.	"How to" video	Abbey from above.	This was typical of this project, resembling others in the decision to go with easiest project of demonstrating how to cook something. Unlike many others, it sought to avoid the sound problems by using no sound. The intent was to edit in a voice over later, but this was never done.
10) Untitled and unedited piece demonstrating how to make a meal of chicken and cheesecake.	"How to" video	Tiffany,* a female, 15 year old, African American who is half Honduran and half Haitian, 10th grader and Rachel,* a female, 14 year old, self-described African American, 9th grader.	This was typical of this project, being yet another cooking video, though they attempted a whole meal rather than just one dish, but the both sound and the image were poor.
11) Untitled and unedited piece about safe sex, shot entirely at a table in the classroom with the students reading their lines and demonstrating the correct way to wear a condom. Another student did the camera work.	Public Service Announce-ment	Tiffany and Rachel from above.	This showed a greater involvement with the subject matter, displaying lots of research, but the video itself was of low quality because the girls did not involve themselves in any of the camera work nor in thinking about the camera or visual display.
12) Unfinished movie based on unwritten script with the sound lost during copying. Some of the video was destroyed by the student, who was angry about not being able to finish it.	fictional movie	Spike,* a male, 17 year old, self-described Latino and Spanish 11th grader with the assistance of several other students.	This was the only project being recorded in the class when a conflict with a project for another class brought about the end of all "movies." It demonstrated a great deal of thought and was described by Spike as proof that written script was not necessary.

Project description	***Assignment***	***Participating Students***	***Comparison to other class projects***
13) "The First 4," a set of football clips—taken at the high school games—to music with an array of special effects added.	a school news story	Spike from above, who was now a 12th grader, Cory,* a male, 16 year old, self-described Hispanic, 11th grader, and an apparently Latina female, who was not interviewed.	This showed little meaning or effort toward meaning but greater ascetics in its use of special effects well placed to music.
From Boarding High			
14) Untitled art piece without the intended music due to technical problems: It includes images of "Jesus," a church, a helicopter, and a mysterious rooftop antenna distorted by frequent zooming in and out. It was shot entirely on campus.	an art piece	Jerome,* a male, 15 year old, self-described Native American, freshman, and Wicket,* a male, 16 year old, self-described Native American-Zuni, 9th grader.	This was only one of two edited tapes in the class and was far superior to the other one, despite the problem with the computer that prevented an audio track from being added. It displayed ambiguous conflict with authority that was clarified in the interviews and a limited ascetic sense.
15) "Perspectives," a piece set to music with images of ceilings and trees at odd angles, a crow that seems to turn into a girl with wings, a skeleton of a bird (the only image borrowed and not from school campus), and the participating students.	an art piece	Linda,* a female, 16 year old, self-described Native American sophomore, Mike,* a male, 18 year old, self-described Native American sophomore, Stacy,* a female, 15 year old, self-described Native American freshman, and Armando,* a male, 16 year old, self-described Native American-Apache sophomore.	This showed a higher level of ascetics and somewhat more consistency in the themes, but there was not much difference between the three projects completed in this class.

*These pseudonyms were selected by students during interviews.