

Power of Digital Video Production in Developing Media Literacy Skills among K-12 Educators

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Abstract: Although media production is considered to be a time consuming, difficult, and expensive process, educators need to integrate media production into their curriculum in order to prepare new generation for media-rich culture. Rather than just being technical or peripheral, media production must be simple and central to the learning process. This paper promotes media literacy skills through media production. It is based on a qualitative research conducted in eight classes taught in seven different states and investigated one hundred and eighteen K-12 educators' experiences in the area of media education. Methodology includes analysis of media survey, questionnaires, responses to activities recorded on audio or video, transcripts of interviews, field notes, and the content analysis of multimedia projects and presentations. The study explored the wide range of meanings participants associate with media education and the impact of video production activities on their understanding of media.

Media Education

Media production needs to be integrated into the curriculum. Media Literacy and Media Production are listed under core curriculum content standards in some states such as Massachusetts and others, like New Jersey, have just added Media Literacy into their core curriculum standards. K-12 teachers now need training in the basic video production techniques and an understanding of how to integrate media production throughout the curriculum to enhance learning.

Although media production is considered to be a time consuming, difficult, and expensive process, educators need to integrate media production into their curriculum in order to prepare new generations for a media -rich culture. Rather than just being technical or peripheral, media production must be simple and central to the learning process.

Robert Kubey and Frank Baker conducted a study¹ on the curricular objectives, educational goals and frameworks developed by each of the 50 states in the US. They discovered that at least 48 state curricular frameworks now contain one or more elements calling for some form of media education, but *delivery* of media education in the United States still lags behind every other major English-speaking country in the world. According to Kubey & Baker, “the educational establishment is still often mystified about how to retool and retrain to educate future citizens for the new realities of communication.” Although the Kubey-Baker report outlines unmistakable and hopeful signs of development in the area of media education, we actually find that only a few states included media production in their framework.

Media Literacy was defined at the Aspen Institute in 1989 as “ability to access, analyze, communicate, and produce media in a variety of forms.” Media literacy is more than asking students to simply decode information that they experience in the media; they must be able to talk back and produce media. As Ernest L. Boyer said: "It is no longer enough simply to read and write. Students must also become literate in the understanding of visual images. Our children must learn how to spot a stereotype, isolate a social cliché, and distinguish facts from propaganda, analysis from banter and important news from coverage."

Media Production

The role of media production in media education has been an important topic of discussion among educators. With the help of new media and technologies, students will have more access and power to communicate and produce their own projects, presentations, and portfolios and share them with other students around the world.

¹ The research is at <http://www.med.sc.edu:1081/>

As Renee Hobbs states in her internet article “The Seven Great Debates of Media Literacy Movement,”² there is controversy over whether media literacy can be learned solely by deconstructing videos or whether it is necessary for one to learn how to create the videos. Therefore from a deconstructionist perspective, media production is a waste of time in reaching Media Literacy goals. In addition to hardware and software problems and equipment needs, inflexible scheduling in the school create difficulty for media production. “Child -created video is often resisted by teachers. They feel that there is no time for it after all the other demands on the curriculum are met, but a closer look shows that video tape production need not compete with other activities” (LeBaron, 1981). On the other hand, Adams and Hamm (p 32) encourage both the production and the analysis components of media education. They emphasize the importance of creating personal meaning from the visual and verbal symbols and being able to produce in the media culture (Adams & Hamm, 2000).

Digital or analog, the goal is to provide not only instruction but also access to the media production tools so that the students can experience the media from the producer point of view. Adams and Hamm continue (p 35) “The basic idea [behind video production] is by constructing visual communications... students could develop an understanding of media conventions by creating with the tools of the trade.”

Brunner and Tally argue the importance of exploring the challenges in media production such as learning the medium’s language, evaluating the suitability of the medium to the material, and identifying the target audience for the product (p.5). Brunner and Tally emphasize the fact that each medium has its own conventions. Each medium --Linear or Nonlinear -- has its own unique

² http://www.medialit.org/reading_room/article2.html

strengths and limitations. Students and teachers now must master new authoring skills in a nonlinear environment in order to interpret and represent knowledge (Brunner and Tally, 1999). Using video technologies activates the senses and symbolic thought, further developing one's intellectual abilities (Bruner, 1986). So instead of passive learners who read and analyze media texts and production, Potter stresses the importance of providing media tools to students so that they can produce their own media [video production]" (Potter, 1998).

If our goal is to prepare ourselves for the media -rich culture we live in, then we need to focus on learning how to identify the message and the audience in order to reach our goal – to educate students. The participants in my research were encouraged to think that process rather than the product was important in media production exercises. In addition, the participants were required to focus on the pre-production stage which emphasized storyboarding and script writing which constitute the main part of the exercise. Williams and Medoff said (p.235), "...focus the production away from technical expertise and toward the message and its interpretation."

Research

To date, few scholarly studies have investigated the digital video production in the classroom and impact of media production on media literacy education. This study attempts to fill the gap by outlining the natural links between education and communication. There is no current study that approaches media education from the point of view of adult learners.

This study describes the video production experiences of K-12 teachers who wanted to integrate video production and media literacy skills in the curriculum. In this study, by engaging in media production activities using camcorders and digital video editing software, participants

experienced the power of technology and the unique characteristics of media production in their classrooms.

Some of the research questions in the study were 1. AUDIENCE-Who are the participants and their personal experiences in creating media? 2. PROBLEMS- What common problems do the participants share in their media production activities? 3. SUGGESTIONS- What suggestions do participants make in order to improve teaching and learning about media through production? 4. MEDIA LITERACY- What does it mean to be a media literate person living in a media rich culture? 5. DESIGN- How to design effective instruction integrating media education?

The qualitative research process was used to investigate the experiences of the participants in the media production groups. Computer groups (CO) and Camera Groups (CA) were given 8 video production techniques to produce in their video magic activity.

Video techniques used for the magic exercise

1. Using Camera Lens- Zoom in/ zoom out and Close up
2. Shaky Camera - Rotate the Scene and Change Orientation
3. Cut and Jump cut
4. Transitions-Swish pan and Soft wipe: Match action/ color/ shape/ texture by focus/ defocus and fade to
5. Special Effect: Filter/ Blur
6. Special Effect: Key hole- Adding Credits, Title, Graphics and Text
7. Voice Over/ Music
8. Animation

Methodology

The qualitative research process was used to investigate participants' experiences in the area of media production. Methodology included analysis of the media survey, questionnaires, electronic journals in online discussion forum, field notes derived from on-site classroom observations, video production exercises, and midterm and final projects.

Course Activities and Instruments

Before the course, participants received an **electronic media survey** to fill out. The survey was designed to determine participants' interest, background and experience in media education and media production.

Most of the participants mentioned the power of the media language and grammar exercise, which was presented in the first part of the course. It was introduction to language and grammar of media exercise. In this exercise, the students learned the basic media production techniques and conventions. Through various activities and exercises, participants were exposed to elements, techniques, and conventions of media. Participants' responses to these activities were recorded as **field notes** after each class day. They were organized under themes and topics and listed in a spreadsheet document to facilitate analysis of participants' responses. Class exercises and projects were also studied.

One such class exercise was called the **Media Literacy Tree**. This activity was designed to explore the definition of media literacy at the beginning of the course. In their groups, participants discussed what constitutes the leaf, the fruit, the trunk, the branch, and the root of media literacy. Participants filled in the boxes provided next to the tree picture by defining what

the parts of the tree represent in discussing media literacy. They worked in groups to search for the definition of “media literacy.” At the end of the course, participants were asked to redefine “media literacy” in the questionnaire. Their answers were analyzed to ascertain how much their definition of media literacy changed after the video production activities.

During the data analysis, it was difficult to establish measures that were reliable, valid, and that fit authentically with the course being presented. It was much easier to measure factual knowledge than it was to measure critical thinking skills and understanding of media techniques and conventions. In order to gain better understanding of the research questions, observation of group discussions during the class activities and **reflection papers** after each weekend -- in addition to **electronic journals** and **online discussion** --were included in the study.

To continue discussions online, a Blackboard.com course account was provided to each participant in the camera and computer groups. It was used as a platform to post participants’ e-journals and homework assignments, to share ideas, and to generate questions and ideas. Electronic mail correspondence among the class members and with the instructor were also employed as content analysis materials. Participants’ homework, midterm and final projects were studied as an archival and secondary research material.

What I was really looking for were not changes in knowledge so much as sustained changes in response to the media production in general. It was impossible to measure participants’ experience using *pre* and *post* environment. Therefore, I designed a **questionnaire** to assess the effectiveness of media literacy training to measure the participants’ understanding of key media literacy skills. The questionnaire served two additional purposes: it offered students the opportunity to reflect on the activities and exercises and it teased out the differences between the

CO and CA groups. The questionnaire contained 23 open-ended questions. I also administered a **follow up assessment**, a week after the class, requesting participants to explain changes they made in their responses to media that resulted from the specific exercises in the course.

Results

Groups used camera for producing their projects not only enjoyed creating public service announcements, but also gained media literacy skills. A number of students said they learned more than the video production. One CA group participant said, "I am happy to have met you, because you have given me much more to think about than just the content of this class." Another one wrote, "More than learning video production, this course gave me chance to reflect on my own viewing habits and learned something about myself." They found the media literacy exercises and the resources were helpful in understanding media messages and its unique characteristics.

The participants from CA groups did not need so much instruction whereas CO groups needed the teacher present, show examples and practice their work in order to produce their projects. Learning the software for CO groups was much more difficult and needed more guidance than CA groups.

The purpose of the magic exercise was to put the students behind the camera. One of the CA groups participant wrote, "The effect that the magic exercise has only TV viewing is that I am more observant as to which techniques are being used and analyzing why it's being produced in that particular way."

Camera production was highly motivational indeed because the participants enjoyed working in creative ways to use the camcorders. The participants repeatedly said in their reflection papers

how much they enjoyed working with the camera. As one said, “I don’t believe what you see on television. All these statements are untrue, after recently producing a commercial, I believe anything is visually possible with the help of fancy equipment.” On the other hand, CO groups emphasized the need for detailed step-by-step instruction and more time to master the skills. Although “the instructor was enthusiastic and easy going”, students found the software confusing and frustrating.

Participants in CA groups created lesson plans integrating video production into the curriculum, whereas CO groups focused on lesson plans deconstructing ads, newspaper analysis, or unrelated topics such as butterflies. CO groups did not see the importance of video production in the classroom. They pointed out they prefer using the ready-made videos to use in the classroom. As one participant said “I wish I could take the time to develop a video but I know I would get frustrated and end up just looking for a video already made to fit into my unit” And added “It is better to deconstruct, constructing takes so much time and frustrating.”

'The camera never lies', 'seeing is believing,' and 'what you see is what you get' were accepted expressions. However, what we see on TV, or hear on the radio are constructions and they reflect the producers', authors', and camerapersons', journalists' point of view. By actively involving participants in producing media such as PSA (public service announcement), they understood the conventions of the medium. As they became the producers of their own media projects, they developed media literacy skills, and became informed consumers and citizen of the world.

Based on the participants’ reflections, media journal, class observation notes, common themes emerged. The table1 compares CA and CO groups.

Tasks Camera (CA) Groups/ On Camera Editing Computer (CO) Groups/ On Computer Editing

Tasks	Camera (CA) Groups/ On Camera Editing	Computer (CO) Groups/ On Computer Editing
Magic exercise	CA group students described the magic exercise as Positive experience	CO group students described the magic exercise as Confusing, frustrating experience
Ideas for integrating into the curriculum	<p>Definitely sees the need for media education “The media activities in the first weekend gave me some new ideas for teaching. I had never considered using video to teach point of view or perspective. I will be trying this in the Fall.” “I want to use the video camera more often. It is motivating for the students and I can add it into my speech therapy techniques.” “I hope to have students use a video camera/news clips/still shots to edit on Adobe Premier real-world applications of mathematics. I think it would be a great activity for those students who loathe math.”</p>	<p>Find it so time consuming and difficult Only two out of 20 students seemed to be encouraged to integrate media education. “I am going to use the commercial exercise that we did the first weekend before we came to class. This will be very helpful in which my students have to determine a way in which to advertise and market their product.” “I am more energized to get back to media literacy. I have not done much for the last 3 years. I had classes very difficult to trust out of sight and making videos means kids have to have some autonomy. But I will have a great group next year and I can use all this stuff to get back on the ball.”</p>
Color/ light	<p>“In general lighting is very important in mood and theme. I can’t help but think of ‘Crouching Tiger, Hidden Dragon’ and the use of color: for instance, the first martial arts fight in the streets of the ancient Chinese city was all in gray tones, lending seriousness to the scene; the martial arts scene in the bamboo trees was done with a very gentle blur against a backdrop of the green trees giving the whole scene an ethereal quality.”</p>	<p>Students mentioned that they focused on the activity not the mood or the effect on the audience. “In general, I think the different types of lighting help determine whether something has a more realistic feel or a more lighthearted feel. It helps determine whether the production has a warm or cold, comedic or dramatic. It sets the whole tone.” “This activity was done before we had any class discussions of lighting as an issue... consequently, we did not pay attention to this factor at all. We did not even think about trying to convey mood with lighting or anything else. We were focused on the activity only.”</p>
Effect on response to media	<p>The “magic” exercise put the students behind camera. “Media activities have made me less of a passive viewer and more</p>	<p>No significant effect detected. Only one student said, “The activities made me feel like I could be more of a producer, not just a viewer. I feel more confident that I can</p>

	<p>of an active viewer of media.” “The effect that the magic exercise has only TV viewing is that I am more observant as to which techniques are being used and analyzing why its being produced in that particular way.” “Don’t believe what you see on television. All these statements are untrue, after recently producing a commercial, I believe anything is visually possible with the help of fancy equipment.”</p>	<p>make simple versions of the things I see on TV.”</p>
<p>Key concept in media education</p>	<p>For CA media production is a key to learn media literacy. “The technical aspect of media education is the key concept. If you don’t know what hooks up to what or how to work a piece of equipment, the media education experience will not be successful.” “Media Education should include learning about the process of creating media as well as understanding how to utilize media effectively.” “Media education should teach students how to use the equipment, trouble shoot problems and the scientific principles behind the technology. Learning how to use the equipment should be the primary goal.” “I define the goals of media education as knowing how to integrate media technology into a classroom of your students. I think the key concepts in media education are teaching the learners to use the media equipment and then to show them how to edit their pieces of work.” “People should learn how media is created and trying to influence them.”</p>	<p>For CO, media production is very frustrating, time consuming. “I was very excited to learn Premier, but now I am disappointed and frustrated and need to back off. It is too expensive to set up, too time consuming to use as a busy teacher.” “Premiere is not very user friendly. It is difficult to understand the different terminology used, it doesn’t always work the same way twice. Having software and hardware that are out-of-date for the computer lab that we are working with takes away from the learning atmosphere and adds quite a bit to the frustration level.”</p>
<p>Time Management/ Allocation for the video “magic”</p>	<p>“I did not feel that we have enough time to film and at the same time internalize/ understand the process. I feel that all this was too</p>	<p>Time is an issue but it is perceived as an ongoing issue with technical difficulties. “More time to practice using the program.”</p>

<p>activity</p>	<p>new and I was so inexperienced that it took additional time just to get up to speed. I would do the same project much differently this weekend now that I have a better understanding from which to work.”</p>	
<p>Cooperative Learning</p>	<p>Group Work is highly appreciated. Participants enjoyed exploring and learning from each other. It provides cooperative learning and allows leadership skills. Participants took distinctive roles during the production. Group size of three or more is highly recommended.</p>	<p>Participants are editors. They found the group work challenging. Having more than two persons in the group generated problems.</p> <p>“... working in my group was challenging because we all had different ideas, and we were perfectionists. Therefore, we ran out of time to incorporate all of our ideas, and to get it to look exactly the way we had hoped.”</p>
<p>Discovery Learning vs. Trial and error</p>	<p>Discovery occurred while trying the various buttons on the camera. Also, they used various low-tech tools to create video magic such as Vaseline in front of the camera lens to create a blur effect. Animation is a great example.</p>	<p>Drill and practice- teacher presents how to use the digital editing software and CO group practiced the software to create videos. For instance, instructor showed how to superimpose a picture or text over a video and students practiced superimposing over and over to acquire the skill.</p> <p>“I think that it was fun creating the magic exercise. It was frustrating at times because we had no tutorial to guide us through the process. But it wasn’t too bad because you gave us a lot time to experiment with the Adobe Premiere Software. Learning through trial and error isn’t so bad as long as you are given plenty of time.”</p> <p>“I forget the camera angles we used. I remember simply experimenting with adobe premiere. So, we chose camera movements based on experimentation.”</p>
<p>Class Discussion</p>	<p>Created dynamic and productive discussions among the groups.</p>	<p>Generated discussions among group members but they frustrated each others editing style.</p>
<p>Suggestions for improvement</p>	<p>Emphasized the need for more time. All of the students’ reflections started with “I had so much fun” or “I enjoyed the video production activities.”</p> <p>“I found the magic exercise a great learning experience as well as a lot of fun. The only suggestion that I</p>	<p>Requested step by step instruction and easy to use software In addition to the difficulties of the software students expressed a great need for more hand on step-by-step instruction. Almost all of the CO participants suggested more detailed instruction and tutorials.</p> <p>“I did discover how to plan to create what it is you want people to see and interpret from</p>

	<p>would make would be to make sure that you give your students a little time to come up with an idea the previous day in order to allow them to bring in any props that they might find necessary... After all the work that was put into them, it was very satisfying to see the final product.”</p> <p>“Equipment and their uses, proper care and how to take a particular shot.”</p> <p>I really enjoyed viewing the tapes you had available. These gave me the insight as to how to do things if I had to tape. I felt the first day being asked to go and tape media before being told how to use the equipment was somewhat a waste of time and very frustrating at times because I was doing things, I later found out, incorrectly. I then needed to reteach myself the correct method.”</p>	<p>your video, but it was sometimes difficult to figure out how to do that on the software!”</p> <p>“The major frustration was being thrown into it without enough instruction in 1. <u>the use of the software</u> --- it’s fun now that we know how to use it, but it’s so powerful and so complicated that it’s TOO HARD to just give people and say “create a product” without instruction how to use the software.</p> <p>2. <u>the issues of video creation</u>. We had no idea how to do the transitions, or how long to leave an image on the screen so your eyes and brain perceived it as being there.”</p> <p>Student also mentioned that they focused on the activity not the effects of that activity.</p>
<p>Each medium provides different dimension in media literacy (Potter,1998)</p>	<p>CA groups experienced cognitive and emotional, as well as aesthetic dimensions of the project.</p> <p>Transparent learning occurred.</p>	<p>CO group focused mostly on aesthetic dimension of the project.</p>
<p>Students’ Level of Technical Proficiency</p>	<p>It did not require technical skills; students who considered themselves novices also excelled, producing very well organized and interesting projects at the end.</p>	<p>Students, who had previous technology skills, considered themselves intermediate or expert did better on their production. However they were the most frustrated because they came to this class hoping to learn more technical information than media literacy.</p>
<p>Focus</p>	<p>Process thinking</p> <p>Focused more on the storyline of their project.</p> <p>“We did not use any lighting differences due to being an initial novice about the production techniques. We concentrated more on what to do off camera than with the camera itself.”</p>	<p>Product oriented</p> <p>Focus was on the production, learning the technical skills. Participants created the techniques based on experimentation, not for a specific reason.</p> <p>“We wanted to experiment with the different tools. I don’t recall being able to put much time into thinking about the message we wanted to convey.”</p>

Storyboarding / Concept Mapping	<p>Storyboards were more elaborate and detailed. Original stories stayed close to the end product.</p> <p>They learned, "Planning is important."</p>	<p>They spent did less time on storyboarding more time on learning the software. CO participants did not want to spend time on storyboarding. They feel as if they needed to spend more time on learning the software.</p> <p>Only two groups attempted to write down their ideas. Then they decided to work on their project as they went along the timeline. Initial themes or ideas changed while students experimented the software. They created the techniques on the basis of experimentation with the software, not for a specific reason.</p>
Demonstration/ Presentation of their project	Very productive and stimulated more discussions.	Demonstration took only 30 second to 3 min. It did not stimulate discussions.
Instruction	<p>CA groups did not require much instruction in how to use a camcorder.</p> <p>Requires Much Planning</p> <p>Participants used their own footage and saw themselves in the video</p>	<p>Time Intensive</p> <p>Equipment Failure</p> <p>CO groups requested more details and more time to teach the software.</p> <p>Participants used ready made clips.</p>

Table 1: Comparison between the CA and CO groups

The most important lesson from this study is that video production is not only a great teaching tool for cooperative learning but is also highly effective in teaching point of view. Media production projects are important in enriching our curriculum. A media production project generates interest in the topic being studied, includes research, writing a script and storyboarding, and encourages group discussions. Students' media projects not only develop problem solving and interactive collaboration skills among students but also enhance learning, providing project-based, experiential and hands-on approaches to the media theory and its applications in the classroom.

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