Formats: Video

To support your educational outreach and training efforts, you may decide to create additional videos, geared toward adult caregivers, teachers, librarians, and other formal and informal educators, that illuminate the curriculum underlying your program and model appropriate behaviors and teaching methods to meet your goals.

Video provides opportunities to watch other teachers and caregivers in action, implementing specific strategies and content in recognizable settings, through a process that unfolds over time. For example, the *Between the Lions* team created a video for parent workshops called *Leading the Way to Literacy*, which modeled effective strategies for building children's early reading skills at home.

If you'd like to find out more about the production of different video formats, check out the *Enhancing Education* site for general audience producers.

Characteristics of Video Media
- Video is the medium that you, as a producer, are most familiar with.
- Video can be distributed as "hard copy" on videocassette or DVD, digitized and delivered on the Web or CD, or distributed through specialized educational channels.
- Video is especially good at telling a story or showing things that require narrative structure or moving images.
- Video often has an emotional impact. It's great at "taking you there and making you care."
- VCRs are widely accessible in both classrooms and informal educational settings.

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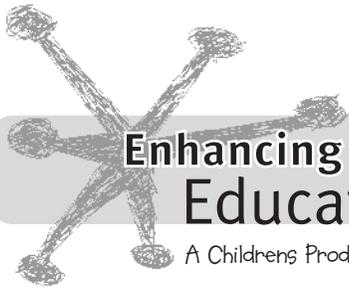
Enhancing
Education
A Childrens Producer's Guide

Formats: Video

Types of Video

Professional Development Video for Educators
Educators need, want, and benefit from seeing examples of effective practice. A video presentation can focus on particular educational content standards related to your program, or it can show how educators are using your project resources with real kids. A similar approach can be used for informal educators (after-school providers, museum educators) and parents. For example, the *Mister Rogers' Child Care Video Library* offers specific strategies for helping parents deal with children's angry feelings, problems with friendship, and other topics.

Enhanced DVD
DVDs have a digital advantage over VHS formats as educational outreach materials. They offer easy access to scene selection, eliminating the guesswork of finding a particular scene on tape. Also, enhancements can be created and packaged with the broadcast program, creating an experience that can be analogous to broadband delivery of supplemental materials. These enhancements can be tailored to curriculum objectives and provide additional information in a compelling and accessible format for children, especially in settings without Internet connections.

Video for the Web
When you produce video for the Web, you need to balance video production values and Web production values. Both should serve the educational mission. Ultimately, Web video appears in a context in which it is surrounded by other material, such as text, navigation, images, even computer desktop clutter. Accordingly, it is generally a small part of the overall presentation and must work within that presentation rather than seek to dominate it.

Formats: Video

Video Production & Distribution

As a video producer, you're probably more than aware of the process involved in making a video, and all the products described here are, in one form or another, videos. Yet each has its own particular content, production, post-production, and distribution considerations.

Here are step-by-step methods you can use or adapt for making a range of educational video materials, as well as particular things to keep in mind as you plan for producing and distributing them.

Formats: Video: Video Production & Distribution

Professional Development Video Production & Distribution

Here are some general steps for producing and distributing professional development videos as part of your educational outreach plan:

Develop the Concept
First, determine the issues you are trying to help educators address. In other words, what do they need? What images will help bring about changes in their teaching practices or their understanding? What is the guiding principle for the project? For example, to illustrate math standards with classroom video, you would need to examine the underlying spirit of the standards and the relationship between content (what is taught) and process (how it is taught).

Research your topic: Know the players; identify the issues, policies, and controversies; and locate the major resources and projects that already exist in this area. You may also want to review the National Staff Development Council (NSDC) teacher professional development standards.

Ask key questions, such as the following:
- Where will the videos be used -- for example, on the Web; in professional development worshops; for pre-service teacher education?
- Who is the audience? Be very specific about grade level and level of teacher expertise.
- What is the purpose of the videos? Is it to support curriculum, motivate educators, encourage reflection on practice, launch professional conversations, provide teachers with content knowledge? How will teachers use the videos to build on prior knowledge?
  (See Constructivism.)
- How will the videos fit in with the on-air broadcast?
- How will the videos fit in with other elements of your educational outreach program, such as your Web site, print materials, or online course?
- What is your budget?
- Do you need to create a schedule that corresponds to the broadcast, to when content is taught, or to when school is in session?

Formats: Video: Video Production & Distribution

Design the Project

To determine the project's scope, consider the following questions:
- Is the goal to capture a lot of classroom examples or dig deeply into a few examples? What are the important elements?
- How do children grapple with content, work with each other, and interact with the teacher or caregiver and the materials?
- How does the lesson develop?
- Is dual-language learning an issue?
- What kinds of rubrics are used?
- How is learning assessed?
- If you're at a school, what is the culture of the school community? How do you capture it?

Answers to these questions will help you determine the length of your videos, amount of animation, graphics, use of experts, narration, and the number of visits you will make to a site. Then, with the project scope in mind, you can create your budget and timeline.

Formats: Video: Video Production & Distribution

Assemble the Team

At this stage, you're ready to assemble the project team. As with any production team, you should look for people who can work well together, complement each other's strengths, and have the requisite skills to carry out their jobs. When choosing staff, make sure to hire people who are sensitive to the issues of working in schools.

This is also the stage at which to recruit advisors, develop their contracts, and hold an advisory board meeting. The board should include a cross section of content experts and practitioners. Clearly define their roles and responsibilities, especially how they can best work with the production team throughout the project. Create written expectations about the review process, such as timelines for reviewing, specific kinds of questions that will be asked, and examples of helpful vs. unhelpful comments.

Another phase of this stage is to provide opportunities for the staff to get steeped in the content. You may want to schedule "content school" led by an expert and/or practitioner for the project staff.

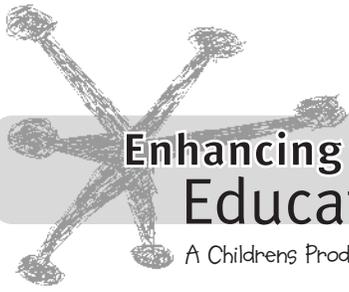*Formats: Video: Video Production & Distribution*

Pre-Production

During pre-production, develop criteria for selecting a classroom or field location to use when you videotape the lesson. Revisit your earlier question: What are you trying to capture? Then develop a process for gathering data from sites. Plan to collect data on many more sites than you will actually videotape.

If you're at a school, develop a protocol for how you will approach and communicate with the school representatives; for example, the superintendent's office, the principal, teachers, and parents.

Next, survey the sites, and review survey tapes with advisors against their list of site-selection criteria.

Once the sites are selected, work closely with the educators to identify what they are already doing, their strengths, and the needs of your project. Select the dates, times, and goals of your visits for videotaping. All along, remember to get clearances -- from parents, teachers, the school district office, etc. In preparation for the shoot days, talk with each educator to clarify what she will be teaching and how she expects the lesson to progress. Knowing this information will allow you to keep interruptions to a minimum.

Coordinate with others working on the educational outreach components of your project, such as Web site or print producers, to determine the artifacts they will need. For example, they may want materials such as student work, teacher-developed materials, textbooks, posters, or assessment instruments to incorporate into their educational outreach components.

Formats: Video: Video Production & Distribution

Production

Once you have the treatment (lesson plan) signed off by your advisors, you are ready to begin production. This is really no different from any video production, except that if you're in a school, class is in session while you're shooting, so keep the following tips in mind:
- Try to be unobtrusive by setting up before classes start.
- Identify and use a staging area away from classrooms and busy hallways.
- Avoid hallways when classes are changing.
- Try to negotiate the shooting day with the school schedule.
- Schools might also present particular logistical considerations, such as limited power supply, lack of elevators, and limited parking.
- Prepare the students for what is about to take place. Tell them not to look at the cameras or microphones.

The general process is really no different from the video production with which you are already well acquainted. But if you expect to stream these videos on the Web, consult a Web producer on the particulars of video production for the Web. You should also identify your graphic needs and meet with your designer so the graphics will be ready when you need them for post-production.

Determine the supporting voices you will need, such as teachers' and students', or experts' reflections or commentary. You will want interviewees who can speak succinctly and at a level appropriate to your audience. They may have to carry difficult pedagogical content, so the questions you ask, in some cases, may need to be very direct and almost didactic. It is very important for the teacher to define his goals.

Many classrooms and other educational settings are very dynamic, and attempting to capture the interchange between educator and child might require several cameras shooting at different angles. It is important to plan lighting and camera locations to allow for shooting in multiple directions. This may also require monitoring to take place outside the room.

One final note about the production stage: If you bring an advisor with you to the taping, it is important to clearly define her role ahead of time. The on-site advisor should be someone who can easily relate to the educators. Build time into the shoot schedule for advisor input.
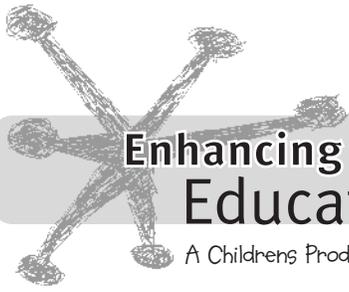
Formats: Video: Video Production & Distribution

Post-Production

Post-production, like production, is no different for teacher professional development videos than it is for other programs. It's always helpful to do a paper cut, assemble materials into a rough cut, and have the rough cut reviewed by advisors. Ask advisors to respond to the tape in writing. They should view the rough cut for clarity, educational rigor, accuracy, and usefulness to the target audience. This is also an opportunity to focus the lesson to better meet the objectives that have been defined for the video. They may not always agree. Part of your job is to balance advisor responses. You may also want to convene a series of focus groups to review the videos.

At this stage, answers to the following kinds of questions will help you further refine your videos:

• Do you need narration?
• How much background information (context) on the school, students, and teacher(s) do you need to provide your audience?
• How much do you let the viewer observe vs. how much do you tell the viewer?
• If you hire a narrator, what is the appropriate tone?
• What are the technical considerations? For example, if you are using an Avid system, how much of the footage do you digitize?
• What resources did the educator use that you will need to clear?
• What will your video open be?
• Will you have theme music?

As a final check, advisors should review the fine cut prior to narration record, music, online, and mix. This review is meant to catch any last-minute glitches. Finalize your packaging elements as you would with any other production.

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Formats: Video: Video Production & Distribution

Distribution

Distribution varies from project to project and organization to organization. Be aware of all the materials that comprise promotion and outreach for the broadcast and educational outreach. Provide written descriptions for promotional use to distributors and publicity personnel. Make sure that you provide an adequate inventory of tapes for screenings and promotion. Help the distribution effort by suggesting national organizations, conferences, and publications that may be interested in the videos. Professional organizations like the National Staff Development Council (NSDC), National Science Teachers Association (NSTA), National Council of Teachers of Mathematics (NCTM), and National Council for the Social Studies (NCSS) are often on the lookout for content to distribute.
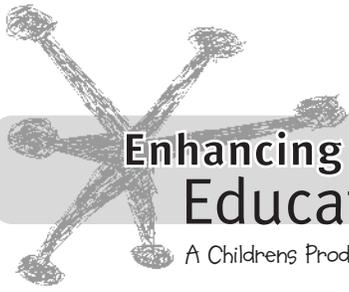
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Formats: Video: Video Production & Distribution

Shutdown

Shutdown differs from organization to organization, but the final activities usually include completing cue sheets and tying up the loose ends for licensing rights releases.

As a courtesy, provide copies of the videos to advisors, on-camera talent, and other participants.

Formats: Video: Video Production & Distribution

Enhanced DVD Production & Distribution

An enhanced DVD production team generally consists of a producer, writer, designer, production assistant, copyeditor, and programmer (to do DVD "authoring"). Production deadlines may be set several months before broadcast to allow time for authoring, testing, manufacturing, and delivery.

Your educational goals, budget, and production schedule will influence the decisions you make about DVD enhancements. Here are some general considerations to take in to account:

- What kind of enhancements might serve the educational goals of your project? Typical DVD enhancements include "bonus" video, such as interviews with the producer or director, or a behind-the-scenes look at the film's production (these extra video features may repurpose unused footage from the main program or be produced specifically for the DVD project); chapterized access to segments of the program that relate to a particular theme; and text or graphic content from related interactive features or print materials. Remember, anything on a DVD will be viewable as a television experience, even if it is viewed through a computer. Note that these materials may require additional clearances for DVD use.

- How many discs will your set include? Many factors influence this decision: the length of the ßprogram, the kind of enhancements you envision, formatting issues, and budget. If the program itself is very long, you might consider breaking it into parts across discs, with enhancements on each disc, or perhaps feature the full program on one disc with a second disc of bonus materials.

- How can you make your disc easy to navigate? Remember, your audience will navigate the interface with a remote control, not a mouse. Consider user testing a paper or Flash prototype to ensure that the navigational path is clear and intuitive and that all features are appropriately named.

- Will your disc work for people who are deaf, hard-of-hearing, blind, or visually impaired? The DVD format supports captioning, additional audio track for description, and audible menus.

- Who will encode the video programs? This currently involves digitizing the video and compressing it in the MPEG2 digital video format. Your post-production facility may or may not have this capability.

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Formats: Video: Video Production & Distribution

Enhanced DVD Production & Distribution (cont'd)

- What quality audio will you include? DVDs have many more audio options than standard video does. Inquire about how the program itself will be encoded, and be sure that all enhancements are produced similarly.

- Who will author the discs? Will you work with an in-house developer or an outside production company? When you make this decision, keep in mind that the quality assurance-testing component of a DVD project is an important, demanding, and repetitive process. Industry standards are still in development, and behavior still varies greatly across hardware, depending on age and manufacturer. If you're working with an outside production house, take its location into account, inquire about its review process, and adjust your schedule based on shipping times as required.

- What educational information, such as teacher-guide excerpts or questions for classroom discussion, might you include in the DVD packaging materials?

For more detailed information on DVD production, consult the *DVD Demystified* site at [www.dvddemystified.com/dvdfaq.html].

Formats: Video: Video Production & Distribution

Video Production for the Web

When you produce video for the Web, you need to balance video production values and Web production values. Both should serve the educational mission. Ultimately, Web video appears in a context in which it is surrounded by other material, such as text, navigation, images, even computer desktop clutter. Accordingly, it is generally a small part of the overall presentation and must work within that presentation rather than seek to dominate it.

Shooting Video for the Web
For both editorial and technical reasons, video shot for the Web should be simpler than conventional video intended for television broadcast. Shots should be slower than conventional video; for example, pushes and pulls should be gradual. When a set is dressed, it should be done simply. Busy background and complex lighting should be avoided. A good rule of thumb is to think of the computer compression protocol, not the human eye, as the first audience for the video. Range of color, speed of motion, and complexity of image all require more work in the compression phase and risk compromising the end product.

Editing Video for the Web
When you are editing video for inclusion on the Web, avoid fast cuts, complex edits, and lower-third material, which will be hard to read. You should, however, provide both captions and transcripts for all video included on a site.

Work this out in advance, as video and Web production process and terminology differ. Before any real shooting takes place, it is useful to do a "test flight" of how the video will be produced and ultimately served on the site. This is to ensure that all of the steps, formats, equipment, and personnel required are anticipated. You can pretest the video on paper or with an actual test shoot. At a minimum, you and all relevant personnel should consider the following questions:
- What is to be shot and why?
- In what size window will the video be displayed on screen?
- In what format will the video be acquired?
- What naming conventions will be established?
- How will the video be stored, logged, reviewed, and edited?
- How will chapter points be determined and recorded?
- How will the edited video be provided to the Web team?
- For what formats and bit rates will the video be encoded (QuickTime, Real, Windows Media Player; high, medium, or low bandwidth)?
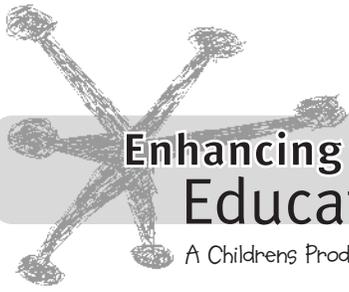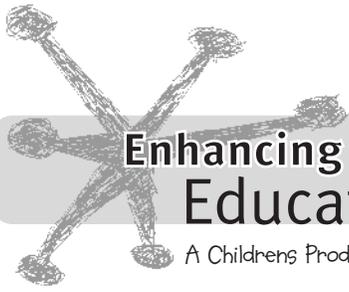
Formats: Video: Video Production & Distribution

Video Production for the Web (cont'd)

- How will captioning, transcripts, or other enhanced features be produced and displayed to the user?
- Will the video be used in any other way (for stills, print, etc.)?
- How will the video be served?
- How will the video rights be acquired and recorded?
- How will the video be archived?

During the test flight, these and other steps may be charted. Use a who/what/when/where grid during your preparations to make sure you understand and have accounted for all of these tasks.

Finally, Web video is time-consuming to encode, particularly if you provide it in multiple formats and bit rates. A rule of thumb is that every minute of final video will require 20 minutes of encoding time. This is exclusive of captioning or any other production needed on the encoded video, and of testing/quality assurance, which also takes time.

Formats: Video

Video Budgeting

The general rules of thumb for budgeting educational outreach videos apply to any kind of video production:

- As you would with any other professional production, strive for high quality.
- Define and develop the concept, production process, and production team roles as precisely as you can.
- To keep a budget on track, target specific formal financial review dates from the outset to see where the project needs to go and if there is money for what you think the project needs. Changes to the project will alter your budget. For example, let's say your budget is $90K, but as the production phase winds down, you discover you need to add a couple of shoot days. The money for your extra shoot days will have to come from another part of the budget or some other source (unless you have built in a contingency).
- Be aware of underlying rights of broadcast material. These may be an additional and significant cost in your budget. Also, budget the time necessary for the three review loops and realistic response times to each review.
- Think ahead about clearing rights for educational outreach elements when you budget your broadcast project. Clear for as many derivatives as you can up front (educational outreach, re-versioning, broadcast, companion Web sites, etc.). Rates are often better for multiple uses, and clearing "add-ons" rights later tends to be expensive.
- Structure your talent contracts and advisor agreements for derivatives as broadly as possible.

There are some particulars to keep in mind for budgeting professional development videos:

- Identifying shoot locations always takes longer than you think. Budget enough time and money for this process.
- Two or three cameras are more expensive, but often more efficient and effective than one.
- Don't skimp on audio. Without professional audible audio, you won't have a show. For example, try to use a wireless microphone on the educator so she can move around the room; or prepare the children so they know to wait for the boom mike to arrive before they talk.
- Build edit time for review and revision. Professional development video projects work best when there is plenty of review time and input from advisors.