Berk, R. A. (2009). Multimedia teaching with video clips: TV, movies, YouTube, and mtvU in the college classroom. *International Journal of Technology in Teaching and Learning*, *5*(1), 1–21.

Multimedia Teaching with Video Clips: TV, Movies, YouTube, and mtvU in the College Classroom

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How can video clips embedded in multimedia presentations be used to improve learning in college courses? To answer this question, a review of the theoretical and research evidence on videos and the brain is presented first. That is followed by a description of the theory of multimedia learning as it relates to videos and a review of studies using videos over the past four decades in college courses. The results of these studies and the verbal and visual components of a video potentially provide a best fit to the characteristics of this *Net Generation* of students and a valid approach to tap their multiple intelligences and learning styles. Concrete guidelines are given for using available video technology in the classroom, selecting appropriate video clips for any class, and applying those clips as a systematic teaching tool. The use of clips can also attain 20 specific learning outcomes. Toward that end, 12 generic techniques with examples to integrate video clips into teaching across the college curriculum are described.

Keywords: videos, videos and learning, videos and the brain, videos and multimedia learning, Net Generation, technology in the classroom

INTRODUCTION

Using videos in teaching is not new. They date back to prehistoric times when cave instructors used 16mm projectors to show cave students examples of insurance company marketing commercials in business courses. Now even DVD players are history. So what's new? There are changes in four areas: (a) the variety of video formats, (b) the ease with which the technology can facilitate their application in the classroom, (c) the number of video techniques an instructor can use, and (d) the research on multimedia learning that provides the theoretical and empirical support for their use as an effective teaching tool. A PC or Mac and LCD projector with speakers can easily embed video clips for a PowerPoint® presentation on virtually any topic.

This article examines what we know and don't know about videos and learning. Detailed reviews of the theory and research on videos and the brain and multimedia learning and the extensive literature on how videos have been used in college teaching over the past four

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decades are presented. These reviews provide the springboard for proposing specific learning outcomes and a dozen generic techniques to integrate video clips into multimedia teaching across the college curriculum. The article is divided into five sections: (a) why use videos in teaching? (b) technology tools in the classroom, (c) selecting appropriate videos, (d) 12 generic techniques for using video clips in teaching, and (e) conclusions.

WHY USE VIDEOS IN TEACHING?

When you watch a movie or TV program, superficial and even deep feelings and emotions are elicited, such as excitement, anger, laughter, relaxation, love, whimsy, or even boredom. These emotions are often triggered or heightened by the mood created by specific visual scenes, the actors, and/or the background music. A video can have a strong effect on your mind and senses. It is so powerful that you may download it off the Internet or order the DVD from Amazon along with the CD soundtrack so you can relive the entire experience over and over again. This attraction to videos extends to movies, TV programs, commercials, and music videos. So how can faculty in all courses use video clips as an instructional tool so their students can experience the powerful cognitive and emotional impact they can provide? Quite possibly those students eventually may want DVDs of their classes.

LEARNING OUTCOMES

What is the learning value of video clips in the classroom? Here are 20 potential outcomes to ponder:

1. Grab students' attention;
2. Focus students' concentration;
3. Generate interest in class;
4. Create a sense of anticipation;
5. Energize or relax students for learning exercise;
6. Draw on students' imagination;
7. Improve attitudes toward content and learning;
8. Build a connection with other students and instructor;
9. Increase memory of content;
10. Increase understanding;
11. Foster creativity;
12. Stimulate the flow of ideas;
13. Foster deeper learning;
14. Provide an opportunity for freedom of expression;
15. Serve as a vehicle for collaboration;
16. Inspire and motivate students;
17. Make learning fun;
18. Set an appropriate mood or tone;
19. Decrease anxiety and tension on scary topics; and
20. Create memorable visual images.

After you have finished pondering, consider the theoretical and research evidence related to these outcomes, which is reviewed in the next two sections on videos and the brain and videos and multimedia learning.

VIDEOS AND THE BRAIN

There are hundreds of volumes on the topic of the brain. However, the primary interest here is only on how a video is processed in students' brains to facilitate learning. This review

covers: (a) core intelligences of verbal/linguistic, visual/spatial, musical/rhythmic, and emotional, (b) left and right hemispheres, (c) triune brain, (d) brain wave frequencies, and (e) video-brain conclusions.

*Core intelligences***.** Among Gardner's 8.5 multiple intelligences (Gardner, 1983, 1993, 1999, 2005; Gardner & Hatch, 1989; Kagan & Kagan, 1998; Marks-Tarlow, 1995; Williams, Blythe, White, Li, Sternberg, & Gardner, 1996), verbal/linguistic, visual/spatial, and musical/rhythmic are core intelligences in every student's brain. Here are brief descriptions:

Verbal/linguistic: Learn by reading, writing, speaking, listening, debating, discussing, and playing word games

Visual/spatial: Learn by seeing, imagining, drawing, sculpting, painting, decorating, designing graphics and architecture, coordinating color, and creating mental pictures

Musical/rhythmic: Learn by singing, humming, listening to music, composing, keeping time, performing, and recognizing rhythm

These three intelligences are part of that unique profile of strong and weak intelligences that every student possesses. Neuroscience research has confirmed the physical difference in the neuronal networks of each student's brain (Zull, 2002). Instructors can only work with what each student brings to the classroom.

This "pluralistic view of the mind" permits faculty to think of exposing their students to a wide range of learning strategies. Drawing on from four to six intelligences allows virtually every student to use their strength intelligences as well as to strengthen their weaker ones. Videos can tap verbal/linguistic and visual/spatial, and even musical/rhythmic (Gardner, 2000; Veenema & Gardner, 1996).

Goleman's (1998) emotional intelligence is also tied to videos. (*Note*: Gardner's intrapersonal and interpersonal intelligences are similar to Goleman's emotional intelligence.) *Intrapersonal* involves self-reflection, self-direction, self-motivation, controlling impulses, planning, independent study, and metacognition; *interpersonal* emphasizes relating, cooperating, empathizing, teaching, leading, connecting with others, resolving conflicts, and social activities. The music alone in videos can elicit emotional reactions of liking or disliking and excitement or arousal (North & Hargreaves, 1997; Robazza, Macaluso, & D'Urso, 1994). Video clips can be used to communicate with learners at a deeper level of understanding by touching their emotions.

*Left and right hemispheres***.** There are separate hemispheres of the brain that relate to two ways of thinking: verbal and nonverbal (Gazzaniga, 1992; Sperry, 1973). The left hemisphere is predominately the logical and analytical side that processes information sequentially as in mathematics, logic, and language. It is also the verbal side that is structured, factual, controlled, rational, organized, planned, and objective (Miller, 1997). In contrast, the right hemisphere is the nonverbal, creative side which is spontaneous, emotional, disorganized, experimental, empathetic, subjective, intuitive, and seeking relationships. It focuses on art, color, pictures, and music (Jourdain, 1997; Polk & Kertesz, 1993).

A video clip engages both hemispheres. The left side processes the dialogue, plot, rhythm, and lyrics; the right side processes the visual images, relationships, sound effects, melodies, and harmonic relationships (Hébert & Peretz, 1997; Schlaug, Jancke, Haung, Staiger, & Steinmetz, 1995).

*Triune brain***.** A cross section of the brain would reveal that it has three layers: (a) the stem or *reptilian* brain (5%), which performs basic tasks, such as breathing, pulse, and heart rate, determines the nature of sound, its direction, volume, and its potential threat, (b) the inner layer or *limbic* brain (10%), which is the center of our emotions, reacts to videos with appropriate emotions and long-term memory, and (c) the outer layer wrapper "bark" called the *neocortex* or cerebral cortex brain (85%), which controls hearing, vision, language, and higher-level functioning and responds to the video clip intellectually (MacLean, 1990). The

latter "thinking brain" absorbs the sounds of the reptilian brain and feelings of the limbic system and organizes them into a video production. This triune concept facilitates our understanding and creation of video clips.

*Brain wave frequencies***.** Another aspect of brain functioning is brain wave frequencies. Among the four types of waves—Delta, Theta, Alpha, and Beta—that relate to various levels of consciousness, the Alpha and Beta waves have particular implications for videos. Delta deep sleep or Theta shallow sleep, deep contemplation and free-flowing creativity may be characteristic of students in classes where the instructor just lectures. Alpha waves occur when students are in a relaxed state of awareness, such as after they wake up in class. The right hemisphere is primarily engaged in Alpha when they're reading, studying, or reflecting. The emotions are dominant and the left hemisphere's rationality drops out of sight temporarily. Slow, reflective, thought-provoking video clips foster Alpha waves. They relax the brain, which can be useful when reviewing content so it passes into long-term memory (Millbower, 2000).

Beta waves are the patterns of a fully awake mind, when the left hemisphere kicks into action. This is multitasking mode for the *Net Generation* of students. They are functioning at optimum speed. Fast action, Jackie Chan-*Rush Hour*, *Mission: Impossible*-type video clips can snap students to attention who are in a drifting Alpha or meditative Theta state. They are now super-alert, ready for whatever activities the instructor has planned.

Video-brain conclusions. The value of a video clip as a teaching tool lies in its potential to do the following: (a) tap the core intelligences of verbal/linguistic, visual/spatial, musical/rhythmic, and emotional (interpersonal and intrapersonal), (b) engage both the left and right hemispheres, (c) appeal to the reptilian, limbic, and neocortex layers of the brain to sense the nature of sounds, react to scenes and music emotionally, and appreciate it intellectually, and (d) manipulate students' Alpha and Beta brain waves to relax or alert them for learning when they're not sleeping in Delta or Theta waveland. It would be a shame not to stir up these intelligences, hemispheres, layers, and waves in the classroom to promote learning. For an opposing perspective on the inadequacy of the preceding cognitive neuroscience findings and their implications for educational practice, see Waterhouse's (2006a, 2006b) critical review of the evidence.

VIDEOS AND MULTIMEDIA LEARNING

Several theories of learning have examined the dual coding of *verbal communication*, including visual, auditory, or articulatory codes, and *nonverbal communication*, which may include shapes, sounds, kinesthetic actions, and emotions. The theories have been linked to multimedia and the research has tested various classroom applications. This section briefly summarizes pertinent findings for the use of videos.

Multimedia learning theory. Over the past decade a corpus of studies has accumulated that investigates the effects of multimedia strategies on learning. *Multimedia* typically refers to the presentation of material in two forms: auditory/verbal and visual/pictorial (Mayer, 2001). The strategies have included PowerPoint® (Mayer & Johnson, 2008), games (Moreno & Mayer, 2004, 2005), and computer-assisted video learning (Gay, 1986) in a variety of content areas, in addition to auditory and video media.

Mayer's (2001) cognitive theory of learning is activated through five steps: "(a) selecting relevant words for processing in verbal working memory, (b) selecting relevant images for processing in visual working memory, (c) organizing selected words into a verbal mental model, (d) organizing selected images into a visual mental model, and (e) integrating verbal and visual representations as well as prior knowledge" (p. 54). His theory represents an amalgam of Sweller's (1999; Chandler & Sweller, 1991) *cognitive load theory*,

Baddeley's (1999) *working memory model*, and Paivio's (1986; Clark & Paivio, 1991) *dual-coding theory*.

The results of Mayer's research indicate that the contiguous presentation of verbal and visual material as in videos with integrated dialogue or narration is most effective for novices and visual learners. That is, the use of meaningful video clips in teaching may be most appropriate for introductory courses, introducing complex topics in any course, lower achieving students, and visual/spatial learners. Certainly, all other topics and students may benefit as well.

Course applications. The empirical findings of research on the effectiveness of videos embedded in multimedia classes or modules are very encouraging. Numerous studies in specific areas such as teacher education have produced significant results favoring videos (Borko, Jacobs, Eiteljorg, & Pittman, 2008; Brophy, 2004; LeFevre, 2003; Moreno & Valdez, 2007; Pryor, & Bitter, 2008; Richardson & Kile, 1999; Seago, 2003; Sherin, 2003; Wang & Hartley, 2003). However, research in other areas is sparse. Over the past four decades most studies have concentrated in the mental and physical health fields, especially psychology and psychiatry, counseling, and medicine. The only other areas that received moderate attention are political science and management/leadership. The sources on those applications are listed in Appendix A.

A sprinkling of applications has appeared in 10 other areas, including nursing (Higgins & Lantz, 1997), sociology (Demerath, 1981;Tipton & Tiemann, 1993), health intervention (Eakin, Lichtenstein, Severson, Stevens, Vogt, & Hollis, 1998), interpersonal communication (Proctor & Adler, 1991), visual literacy (Teasley & Wilder, 1994), critical thinking (Leland, 1994; Payne, 1993), writing (Leland, 1994), second-language learning (Chapple & Curtis, 2000; Liu, 2005; Plass, Chun, Mayer, & Leutner, 1998; Salaberry, 2001), active learning (Greg, Hosley, Weng, & Montemayor, 1995), and multicultural diversity and sensitivity training (Pintertis & Atkinson, 1998; Tyler & Guth, 1999).

Conclusions. All of these studies furnish instructions and descriptive or experimental evidence of the effectiveness of the video applications to college teaching. Overall, most of the investigations support the dual-coding theory that more is better: multimedia auditory/verbal and visual/pictorial stimuli increase memory, comprehension, understanding, and deeper learning than either stimulus by itself. Learning in the pictorial conditions tested (video and audiovisual) was superior to learning in the verbal (audio) conditions. This is consistent with the *picture superiority effect* (Nelson, Reed, & Walling, 1976; Paivio, Rogers, & Smythe, 1968).

TECHNOLOGY TOOLS IN THE CLASSROOM

Our culture has been flooded with the burgeoning technology. It is almost impossible to keep up with all of the amazing products that keep hitting the streets. Among all of the tools currently available, which ones do students use and which ones have potential for classroom use? The answers to those questions are examined in the following two sections: (a) tools of the trade for students, and (b) tools for the classroom. Of course, by the time this article has been published, the information in those sections will be out of date. In fact, it's probably a good idea to delete these pages from this online journal. That's just the nature of the technology beast.

TOOLS OF THE TRADE FOR STUDENTS

Today's *Net Generation* of students is so sophisticated with technology that they have been branded as *digital natives* (Prensky, 2001, 2006). "Digital" is their native language. They are "native speakers" of the language of computers, video games, and the Internet. As

you observe these students, you will notice wires coming out of every part of their anatomy. Attached to those wires are MP3 players, iPods, iPhones or smart phones, PCs, and all the other tools of the digital age (Berk, 2008a, 2008b, 2008c; Berk & Trieber, in press).
That brings us to our first multiple-choice question:

What are they doing with all of this equipment?

1. Listening to music.
2. Playing PC/video games.
3. Talking on iPhone.
4. Sending text messages (TMs) or Twittering.
5. Watching videos and/or TV.
6. Multitasking on at least 3 of the above.
7. Multitasking on all of the above.

Recent estimates indicate these students spend from 6.5 to 11 hours per day multitasking on the above activities (Salaway, Katz, Caruso, Kvavik, & Nelson, 2006). They live in a complicated remixed, mashed-up, digital, mobile, always-on media environment (Jenkins, 2006; Oblinger & Oblinger, 2006; Tapscott, 1998). The students function at "twitch speed," thanks to their exposure to video games, MTV, and mtvU. They listen to music on their PCs, Macs, iPods, Zunes, Zens, iPhones, RAZRs, and BlackBerrys. Their experience with the technology has enabled them to master complex tasks and make decisions rapidly (Prensky, 2006). Classroom exercises need to extend these capabilities they already possess.

In contrast to these digital natives, instructors are referred to as *digital immigrants*. They still have one foot in the past and "digital" is their second language, as they continue to learn and sometimes struggle with it on the fly. For example, immigrants may still print out an e-mail, print a document to edit it, or phone someone to see if he or she received their e-mail. Do you know any colleagues like that?

TOOLS FOR THE CLASSROOM

For small group or class-size activities, videos can be played on a DVD player or video clips can be inserted into PowerPoint® slides on a PC or Mac with audio output from the sound system in the room. There are a variety of configurations. If an instructor runs into difficulty, an IT staff member or his or her students should be able to assist and find a way to play the video.

SELECTING APPROPRIATE VIDEOS

Choosing videos for classroom use involves several issues. This section provides guidelines for faculty in the following forms: (1) criteria for selection, (2) types of videos, and (3) sources for selecting videos. After this section, it will finally be time to consider 12 techniques for embedding video clips into teaching.

CRITERIA FOR SELECTION

Videos are rated from "G" for general audiences with no restrictions to "NR" where no one except rodents is allowed to watch it because it's so evil. More important are the content ratings for graphic violence, obscene language, nudity, sexuality, and gore. Commercial movies and music videos are out of control. Anything and everything are used to attract audiences. If a video clip or the whole movie is going to be used as a teaching tool, criteria must be established for what is appropriate and acceptable in a teaching-learning context. Each instructor should set his or her own standards for videos, just as standards may have

already been set for other types of classroom behaviors, such as offensive humor (Berk, 2002, 2003), inappropriate or disparaging comments, and issues of civility.

There are three sets of criteria that must be considered: (a) the students' characteristics, (b) the offensiveness of the video, and (c) the video structure. The first set of criteria relate to salient *socio-demographic characteristics*: age or grade level, gender, ethnicity, and language-dominance. Instructors know their students and these characteristics are a *must* consideration in choosing the right video.

The second set of criteria concerns the possible *offensiveness of the video* according the categories mentioned previously, plus content *irrelevant* to the reason for showing the video, such as: put-downs or ridicule of females, racial and ethnic groups, professions, politicians, and celebrities; mental or physical abuse of anyone; drug use; and other offensive content. Clear standards for "acceptable" content should be delineated. The video is being used to facilitate learning, not impede it. A student who is offended by a video clip will withdraw, turn off, and harbor anger, which are emotions hardly conducive to learning. What is interpreted as offensive is a very personal decision by each student based on his or her own values, beliefs, and principles. The instructor should make every effort to reject any material that is even borderline or potentially offensive. The pool of available videos is large enough that picking the right stuff should not be a problem. If it is a problem, the instructor should seek counsel from colleagues who would be sensitive to such issues. (*Note:* There are exceptions to this offensiveness rule, such as when really offensive content may be part of the information or message to be gained from watching the video. Students should be cautioned in those cases so they are emotionally prepared.)

Finally, the *structure of the video* must be appropriate for instructional use. The following guidelines are suggested when creating video clips: (a) length—as short as possible to make the point, edit unmercifully to a maximum of three minutes unless the learning outcome requires a lengthier extract; (b) context—authentic everyday language use unless purpose relates to language; (c) actions/visual cues—action should relate directly to purpose, eliminate anything extraneous; and (d) number of characters—limit number to only those few needed to make the point, too many can be confusing or distracting.

TYPES OF VIDEOS

There is a wide range of video categories that can be used in the classroom. The actual choice will depend on the instructional purpose or outcome and the characteristics of the students and their interests. The sources identified in the next section will suggest methods to obtain that information. In the mean time, here is a shopping list to keep in mind: (a) drama, (b) action, (c) romantic, (d) comedy, (e) romantic comedy, (f) documentary, (g) TV programs, (h) commercials, (i) college music videos (mtvU), and (j) faculty or student made videos.

All of these types of videos can evoke or induce anger, excitement, terror, activity, motivation, love, laughter, whimsy, tears, dreams, calmness, relaxation, sleep, and a coma. Videos can have powerful emotional effects. Instructors need to decide the effect they want to produce in a given learning situation. Applied inappropriately, the video clip can distract and decrease learning, even incite students to riot. Unless rioting is a specific learning outcome, instructors should be very discerning in their choices.

SOURCES FOR SELECTING VIDEOS

Videos selected for courses across the college curriculum are not the same as videos that are chosen for courses in film, video, and TV production, nonfiction and experimental cinema, digital media studies, and similar courses in film and critical studies and production.

The purposes are very different. Videos for the former consist of clips with which most if not all students in the class should be familiar; in the case of the latter, the intent is usually to study, produce, and critique videos with which they may be familiar or unfamiliar. The sections that follow cover published sources and Websites, identification of videos in the students' world, formal student survey, and technical sources for videos.

Published sources and Websites. Over the past decade, nearly a dozen books have been written on how to apply commercial movies to *management and leadership* courses, more than any other subject. Champoux alone has contributed several (2001b, 2001c) that present a structured system for using movie clips to illustrate and reinforce management and organizational behavior concepts as cases, experiential exercises, and visual metaphors. He provides detailed scene set-ups and points for discussion as well. Moreover, Champoux's most recent works (2004, 2005b, 2006, 2007) include workbooks and the actual clips on CDs on management, organizational behavior, management strategies, and human resources management. The videos can also be accessed online at http://featurepresentation.swlearning.com.

There are also five other volumes on these topics: Clemens and Wolff's (1999) book on what popular movies can teach about leadership challenges; DiSibio's (2006) work on leadership skills displayed in a dozen movies; Higgins and Striegel's (1999, 2003) books on management lessons in four movies and in corporate vision, entrepreneurship, logistics, and ethics; and Pluth's (2007) 101 clips on leadership, team building, sales, discrimination, and other topics with cueing times, plot summaries, scene context, and discussion questions.

Major works on other topics are limited to *English* and *sports and recreation*. Golden (2001) examined the links between 30 movies and literary study and textual analysis. Although intended for high schoolers, much of the material is also applicable to undergraduate English courses. Finally, O'Bannon and Goldenberg (2008) used 77 pop culture and documentary movies, categorized by topic and theme, to cover 19 core topics in recreation, sports, tourism, and physical education, such as environmental issues, diversity, and commercial recreation. The authors provide guidance on framing methods, discussion and reflection questions, and debriefing activities to engage students.

Websites that contain 100s of movies for teaching with lesson plans, learning guides, and indices by subject matter or themes (social-emotional or moral-ethical issues) include http://www.teachwithmovies.com and http://www.geocities.com/sportsmovies/SPMD_theme_index.htm?200719

Identification of videos in the students' world. With all of the video sources reviewed previously, the primary underpinning for the video techniques that follow shortly is to *pick videos the students recognize*, with which they are familiar and in which they have an interest. Therein lies the connection between their world and the content instructors need to cover. Where does one find videos in the students' world? The answer to that question leads us to our second multiple-choice item:

What is the most appropriate source from which to select videos for class?

1. *TV programs* based on Nielsen Media Research survey results for the college age group
2. *Movies* based on cult classics, Oscar winners, and most recent and popular flicks
3. *YouTube videos* that are top-rated or most often viewed
4. *mtvU music videos* targeted for the college audience
5. Informal and formal student surveys of what videos students watch
6. All of the above

Formal student survey. Let's chat about choice 5 for a few sentences. This choice means faculty should ask their students. Instructors should talk to them at every opportunity to find out the latest and most popular videos they are watching. Further, instructors should conduct a formal survey of their students at the beginning of their first class of the semester or prior

to that class online. This survey, which can be completed in less than 10 minutes, will furnish a wealth of video information. Here are eight steps to follow:

1. Pass out two 3 X 5 cards to each student
2. Ask the students to number each side of each card in the upper right corner with 1, 2, 3, and 4
3. On side 1, ask them to list their *3 favorite TV programs*
4. On side 2, list their *3 favorite movies* seen over the past 3–6 months
5. On side 3, list their *3 commercials*
6. On side 4, list their *3 music videos*
7. Ask students to pass the 1-2 card to the right and 3-4 card to left
8. Collect all of the cards (Of course, they will be all mixed up in the wrong pile.)

Now the instructor can collate, compile, categorize, compute, and identify the videos which their students are watching. He or she should take side one and create a frequency distribution of the top 10 TV programs the students are watching. A distribution should then be computed for each of the other three sides. Those distributions will yield four top-10 lists that can serve as the pool of videos from which clips can be extracted for the entire course. That's more than 40 different videos. Those videos should be used in conjunction with those the instructor chose to pick for particular outcomes. That composite list is probably the *most accurate inventory of video selections* an instructor can use.

Technical sources for videos. There are three principal sources from which to obtain the videos: original DVD, the Internet, CD clips with book. There are several factors to consider in using these sources. If the video segment needs to be extracted and converted to a format compatible with Microsoft's PowerPoint® (PP) for PCs, the Internet may already have the converted version; otherwise, the instructor will have to do the extracting and conversion with specific software, such as Sony *Vegas Movie Studio Platinum Version 7* or *8, DVD Shrink 3.2,* or *Cucusoft Pro Version 7.07,* unless he or she has a Mac. Extract only the clip from the video that you need to make your point. Other factors include the following:

Factor	***DVD***	***Internet***	***Books with CD Clips***
Cost	Expensive	Free or cheap	Cheap
Quality	High	Good—High	High
Format	Not PP compatible	Some PP compatible	Some PP compatible
Convenience	Moderate	Moderate—High	High
Most Recent Video Availability	Very good	Very good	Very good

TWELVE GENERIC TECHNIQUES FOR USING VIDEO CLIPS IN TEACHING

There are several resources for methods of using videos in the classroom and examples of clips for those methods. Books by Champoux (2001b, 2001c, 2004, 2005b, 2006, 2007), Clemens and Wolff (1999), DiSibio (2006), Golden (2001), Higgins and Striegel (1999, 2003), O'Bannon and Goldenberg (2008), and Pluth (2007) are very useful starting points for courses in business and management, English, and sports and recreation. The articles and presentations cited previously and in Appendix A also describe methods in particular subjects with specific movies. If you don't teach courses in the areas covered in these

sources, there is no generic listing of techniques you can apply. Of course, you can always create your own movies on your PC or Mac. Workshops for faculty are being offered on many campuses to combine image, music, and narration into documentary-style movies for classroom use (e.g., Kuriyama, 2007).

EIGHT STEPS FOR USING A VIDEO CLIP IN TEACHING

Based on the literature review above, the most common procedure for using a video clip in teaching consists of the following steps:

1. *Pick a particular clip* to provide the content or illustrate a concept or principle (*Note*: If you want students to view the entire movie, assign that viewing outside of class.);
2. *Prepare specific guidelines* for students or discussion questions so they have directions on what to see, hear, and look for. What's the point of the clip? Make it clear to the students;
3. *Introduce the video* briefly to reinforce purpose;
4. *Play the clip;*
5. *Stop the clip* at any scene to highlight a point or *replay clip* for a specific in-class exercise;
6. *Set a time for reflection* on what was scene;
7. *Assign an active learning activity* to interact on specific questions, issues, or concepts in clip; and
8. *Structure a discussion* around those questions in small and/or large group format.

These eight steps are the basic elements in most content applications.

You can use video clips in that mold or broaden your applications far beyond those steps. Seriously consider your students' survey results on TV programs, movies, commercials, and music videos. That 40-video pool should be your first choice. Then go to other sources. Don't think only about movies. There are loads of TV programs on DVD to which students can relate. Twelve generic techniques are suggested next.

ONE: PROVIDE CONTENT AND INFORMATION

This technique is the one that appears most frequently in the literature cited previously. The eight-step procedure above can be applied to any course content. The types of videos may range from National Geographic documentaries on specific animals, people, or regions to *Saving Private Ryan* (invasion of Normandy) to *Schindler's List* (holocaust) to *Rent* (Bohemian lifestyle) to *Columbo* or *Monk* (elements of a mystery). The list is endless. Although the specific clip may be used anywhere within the coverage of the material, the timing of the clip should be appropriate to the context.

TWO: ILLUSTRATE A CONCEPT OR PRINCIPLE

Instead of providing content, the clip can also be played to illustrate a concept already presented. For example, characteristics and descriptions of the following concepts can be seen in clips from the accompanying videos: family relationships (*Cheaper by the Dozen, Father of the Bride, Meet the Parents, Home Alone, Full House, The Cosby Show, Home Improvement*), anger management (*Anger Management*), race relations (*A Girl Like Me; This Is Being Black, This Is Being White; Bill Cosby Breaks It Down*), and self-esteem/media standards of beauty (Dove commercials: *Onslaught* and *Evolution* on YouTube).

THREE: PRESENT ALTERNATIVE VIEWPOINTS

In political science, international relations, and news journalism courses, debate procedure, format, strategies, and arguments can be analyzed by viewing actual debates between political candidates, especially presidential. Comparing clips from the original Kennedy-Nixon debates with those of more recent candidates can be extremely informative. Arguments by plaintiffs and defendants in a real courtroom setting can also be analyzed with a student or class decision reached prior to the actual decision by Judge Judy, Brown, Alex, Hatchett, or Christina.

Even clips from TV courtroom scenes or movies can convey powerful arguments. TV series such as *Boston Legal*, *Law & Order*, and *Shark*, and classics such as *Perry Mason*, *Matlock*, and *L. A. Law* can furnish lots of examples. The movie *The Great Debaters*, a David and Goliath tale, was played to maximum effect with a rousing and stunner of an ending in which debaters James Farmer and Samantha Booke from tiny black Wiley College in Marshall, TX, out-argue the white national debate champion team from none other than Harvard in 1935 on the topic of civil disobedience.

FOUR: APPLY CONTENT TO REAL-WORLD APPLICATIONS

Students want real-world applications to see the relevance of what they are learning. Videos can furnish very graphic, explicit examples of a wide range of content. They are particularly apropos for volatile, contentious, and negative behaviors, such as legal issues related to child and spousal abuse, rape, and pedophilia (*Law & Order: SVU*); racial slurs and degradation (*Crash*, *Soul Man*, and *The Great Debaters*); child birth (documentary vs. *The Cosby Show* or *Father of the Bride II*); covert CIA foreign operations in Afghanistan (*Charlie Wilson's War*); and incivility and harassment in the workplace (*The West Wing*). The visual depiction of a specific behavior or event can be a powerful addition to the verbal or quantitative explanation.

FIVE: SERVE AS A STIMULUS FOR LEARNING ACTIVITIES

Suppose you began class by darkening the room to total blackout. After a few anxious moments as the students are trying to anticipate what is happening, you play a short and, maybe, provocative video clip. It may relate to the previous class material or serve as the fireball stimulus package for a new topic. Consider the impact. What do you do when the lights come up? Your students' attention and interest are now in the palm of your hand.

You have several options: (a) ask students for their immediate reactions in an open discussion, (b) direct a small group collaborative learning activity with specific questions to answer, (c) ask pivotal questions about the clip to introduce the topic, (d) request students to write a minute paper response, or (e) engage students in a think-pair-share with or without a leading question. You could probably think of other learning opportunities that can be generated from the clip.

This technique can be used to open class, after a class break, or at any other time to segue to a summary or review of content or to introduce a new topic. There are so many news and real-life situations that can be used to stimulate individual and small and large group activities or even incite your students to riot in the classroom. One of the most obvious content areas is political science. For example, political interviews and commentary by pundits on *The Daily Show with Jon Stewart*, *The Colbert Report*, and real news programs (commercial and cable) can do the trick. If they don't work, try a YouTube video, JibJab parody, or excerpt from a reality or surreal world show.

SIX: PROVIDE A GOOD OR BAD APPLICATION TO CRITIQUE

One of the best techniques to generate student interest and hone critical thinking skills is to present a video clip of a Hollywood interpretation of a real-world application. They're rarely accurate, despite the credits given to expert advisors on the TV program episodes or movie. You can pinpoint certain good as well as bad practices that students can critique. Professional schools, such as law, medicine, nursing, and the police academy, could benefit greatly from media depictions of practices. Examples might include: courtroom protocol, lawyer behavior, ethics (*Boston Legal, Shark, L. A. Law, Law & Order,* and *A Few Good Men*); medical and nursing practices (*House, ER, Grey's Anatomy,* and *Scrubs*); medical examiner practices (*CSI, NCIS, Quincy, M.E., Crossing Jordan,* and *Dr. G, Medical Examiner*); and police procedure and crime solving (*Law & Order, Cold Case, Cold Case Files, CSI, Third Watch, Hill Street Blues, NYPD Blue, Reno 911, Mystery!*, and *Monk*).

SEVEN: EXAGGERATE A PARTICULAR POINT

There are a variety of strategies for exaggerating content, concepts, or examples. Hyperbole in movies and commercials can provide not only practical, but unforgettable, illustrations of particular points you want to convey. The visual images in a scene clip can rivet the attention of your students, especially when they have been prepared to search for the example. A few extreme examples of content in movie scenes include: parody and ridicule (*The Producers* and *Monty Python and the Holy Grail*), FBI agent behavior and procedure (*Miss Congeniality, Breach,* and *Hannibal*)), personality disorders (*A Beautiful Mind* and *Silence of the Lambs*), relationships across generations (*Meet the Parents, Little Miss Sunshine,* and *Spanglish*), personal coaching (*Hitch*), diplomacy and political decision making (*The West Wing* and *The American President*), and witness questioning (*A Few Good Men*).

EIGHT: SNAP STUDENTS TO ATTENTION

While covering content on any particular topic, consider inserting one or more videos at strategic points to snap students to attention. Clips from comedies are most effective for this purpose. For example, if you are discussing how to deal with disappointments, say: "When you get fired from a job or rejected by the admissions committee for a university graduate program, it's like getting kicked in the stomach with the wind knocked out of you or getting hit in the head with a brick." Play the scene from *Home Alone 2* where Kevin is on top of an apartment building throwing bricks at Marv down on the street, but hitting Harry in the head over and over again. This scene is hilarious. It makes your point, grabs your students' attention, and lightens the serious topic a bit.

NINE: INSERT INTO COLLABORATIVE LEARNING EXERCISES

Once you have used video clips as a regular teaching tool, require clips in relevant collaborative learning exercises, such as those where students are assigned to give examples of practical applications. Either you can provide a list of possible clips from which each group can choose or you can leave it open to the group with the requirement that you must screen their choice. Provide specific criteria on the purpose, execution, and outcomes of the exercise and how the clip should be integrated into the experience.

If appropriate and time permitting, you could schedule all or a few of these exercises to be performed in front of the whole class. A maximum time limit should be imposed. A 10-minute block is usually adequate. The class can then critique the performance and the

concept and the video clip can serve as the stimulus for discussion. This total class engagement and critical thinking activity can an unforgettable learning experience for everyone.

This collaborative learning activity matches the technology savvy, kinesthetic, experiential, participatory, team-oriented characteristics of the *Net Geners* and their cultural world (Berk, 2008a, Prensky, 2006). Moreover, instructionally, it draws on at least five of their multiple intelligences; leadership, artistic, technical, and video gifts; and learning styles; plus it fosters deep learning.

TEN: MOTIVATE AND INSPIRE

The pressure and stress students experience in their efforts to succeed in their courses, jobs, and life can be relieved, at least temporarily, by viewing a video clip with an uplifting message. The message may be related to the topic or not. You may be the only instructor to consider your students' mental health. A short video clip may make a gigantic difference in their moods, motivation, and attitude. Here are some scenes and videos to review that may be just what the instructor ordered:

1. Speech by Rocky Balboa to his son on dealing with rejection and failure. (*Rocky Balboa*)
2. On leaving a legacy. (*Big Fish*)
3. Following your dream. (*The Pursuit of Happiness*)
4. Motivational moments for writers to write. (*Finding Forrester, Finding Neverland*, or *Freedom Writers*)
5. Teaching. (*Mr. Holland's Opus, Lean on Me, Dangerous Minds, Coach Carter*, or *Mona Lisa Smile*)
6. John Nash, on the roof of a building at Princeton thinking about a thesis topic, says: "I need an original idea." Scene in the faculty club when he is told he will be receiving the Nobel Prize, as his colleagues come to his table one at a time to congratulate him and place their pens on the table. (*A Beautiful Mind*)
7. Team motivation in football (*We Are Marshall* and *The Replacements*), basketball (*Glory Road*), swimming (*Pride*), and ice hockey (*Miracle*)

ELEVEN: PROVIDE A COMMERCIAL BREAK

When your students' eyeballs start glazing over or they're getting restless for whatever reason, go to a "Commercial Break." Since we're all used to a bazillion interruptions on TV for commercials, why not continue that practice in your classroom? Click a PowerPoint slide that says: *Commercial Break.* Follow it with a clever commercial from YouTube.com, MySpace.com, or veryfunnyads.com. It's a fun way to recharge your students and grab their attention back to resume your presentation. After the commercial, click a slide that says: *We now resume (your name) presentation already in progress.*

TWELVE: SIGNAL RETURN FROM A CLASS BREAK

If your class is two hours or longer, it's often advisable to take one or more breaks, maybe a short one every hour. Unless students have bladders the size of the Epcot golf ball or Foley catheters, breaks are essential. The question is: "What is a Foley catheter?" Google to get the answer. That's not the question. It's: "When students leave the room for the break, how do you get them back in a timely manner?"

There are several techniques worth considering. First, give them a set time to be back. Second, ring a bell or turn the light on and off five minutes before you're ready to begin.

Third, play a video clip from a TV program occurring in real time or one from *America's Funniest Home Videos* to signal it's time to take their seats and get ready to resume class. When the video stops, class resumes.

CONCLUSIONS

This article was designed to acquaint you with the potential value and uses of video clips in the college classroom. Video clips are a major resource for teaching the *Net Generation* and for drawing on their multiple intelligences and learning styles to increase the success of every student. There is a match between the media and the students' intelligences (Gardner, 2000; Veenema & Gardner, 1996). The learning potential of the clips was expressed as 20 learning outcomes at the outset and 12 specific techniques at the end. The material in between those anchors covered the theory and research on the brain and videos and the extensive literature on how videos have been used in specific disciplines over four decades. The research on videos and multimedia learning provides an empirical foundation for their use in teaching, especially with introductory courses and novice learners, to increase memory, comprehension, understanding, and deeper learning. It was also clear that additional evidence needs to be collected in all disciplines to support the various uses of video clips in college teaching. Examples of research in a variety of content areas were identified.

The technology requirements and the sources for selecting appropriate videos were also described. If you teach in one of the content areas in which there are clips and guidelines ready to use and many of those clips are on your survey top 40, you're in great shape. You only have to decide how you want to use the clips and where and when to embed them. If you teach in other disciplines, start with the top 40 and begin extracting the clips you want. Gradually, you will accumulate your own pool for use semester after semester. Draw on your creativity, imagination, and artistic gifts in applying these clips and those of your own choosing to your teaching. That will inevitably make the greatest difference in your classroom.

I challenge all instructors to incorporate video clips in their teaching and conduct classroom research on the effectiveness of the techniques they use. The clips can add a dimension to teaching that may change how you teach forever; your view of teaching and your students will never be the same. In the years to come, maybe, just maybe, students will request DVDs of your classes to download onto their iPhones and PCs. Then they can play and relive those magical teaching moments.

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APPENDIX A

Publications/presentations on applications of videos to teaching topics in psychology/psychiatry, counseling, medicine, political science, and management/leadership:

Psychology/Psychiatry
Anderson (1992)
Bolt (1976)
Boyatzis (1994)
Casper et al. (2003)
Chambliss & Magakis (1996)
Conner (1996)
Higgins & Dermer (2001)
Hemenover, Caster, & Mizumoto (1999)
Hyler (1988)
Hyler & Moore (1996)
Hyler & Schanzer (1997)
Kirsch (1998)
Miller (1999)
Miller (1987)
Misch (2000)
Murphy (1996)
Nissim-Sabat (1979)
Paddock, Terranova, & Giles (2001)
Swift & Wonderlich (1993)
Wedding & Boyd (1999)

Medicine
Alexander (1995)
Alexander, Hall, & Pettice (1994)
Crellin & Briones (1995)
Farré, Bosch, Roset, & Baños (2004)
Jones (2000)
Koren (1993)
Parkin & Dogra (2000)
Pollard (2002)

Counseling
Alex ander & Waxman (2000)
Brown (2005)
Davis (2000)
Gladstone & Feldstein (1983)
Harper & Rogers (1999)
Fleming, Piedmont, & Hiam (1990)
Hudock & Warden (2001)
Koch & Dollarhide (2000)
Larson et al. (1999)
Sheperis & Sheperis (2002)
Toman & Rak (2000)
Tyler & Reynolds (1998)
Tyson, Foster, & Jones (2000)

Management/Leadership
Bumpus (2005)
Champoux (2000, 2001a, 2005a)
English & Steffy (1997)
Rosser (2007)
Serey (1992)

Political Science
An (2002)
Anker (2003)
Cochran (2002)
Craciun (2004)
Kuzma & Haney (2001)
Self, Baldwin, & Oliverez (1993)
Weber (2001)