



ST. MARY'S
UNIVERSITY

Digital Commons at St. Mary's University

Faculty Articles

School of Law Faculty Scholarship

1987

Audiovisual Enhancement of Classroom Teaching: A Primer for Law Professors

Vincent R. Johnson

St. Mary's University School of Law, vjohnson@stmarytx.edu

Follow this and additional works at: <https://commons.stmarytx.edu/facarticles>



Part of the [Legal Education Commons](#)

Recommended Citation

Vincent R. Johnson, Audiovisual Enhancement of Classroom Teaching: A Primer for Law Professors, 37 J. Legal Educ. 97 (1987).

This Article is brought to you for free and open access by the School of Law Faculty Scholarship at Digital Commons at St. Mary's University. It has been accepted for inclusion in Faculty Articles by an authorized administrator of Digital Commons at St. Mary's University. For more information, please contact sfowler@stmarytx.edu, egoode@stmarytx.edu.

Audiovisual Enhancement of Classroom Teaching: A Primer for Law Professors

Vincent Robert Johnson

I. Reasons, Objectives, and Objections

It is difficult to imagine a successful trial attorney presenting a complex case to a jury without the aid of demonstrative evidence to clarify and amplify his presentation.¹ Similarly, it is increasingly hard to avoid the idea that the same audiovisual techniques are appropriate—if not essential—to the contemporary law school classroom. The subject matter of the law proliferates daily in both bulk and intricacy, and the portion of instructional hours which can be devoted to any given topic correspondingly diminishes. At the same time, because of a declining applicant pool,² many law schools find themselves educating students with a very wide range of academic abili-

Vincent Robert Johnson is Associate Professor at St. Mary's University School of Law, San Antonio, Texas.

This article is based on a paper the author prepared for the 1985 Annual Meeting of the Association of American Law Schools in Washington, D.C., where he chaired a program of the Teaching Methods Section on audiovisual enhancement of classroom teaching. The author gratefully acknowledges the comments of his colleague Professor Geary Reamey and the assistance of the following students at St. Mary's: Mr. John P. Palmer, '88, and Ms. Sue Bentch, '87.

1. See Thomas J. Murray, Jr., *Videotaped Depositions: Putting Absent Witnesses in Court*, 68 A.B.A.J. 1402 (1982) ("Demonstrative evidence . . . [is] vital to the task of educating and persuading courts and juries"); Peter Perlman, *Seeing is Believing—Making Proof More Meaningful*, 17 *Trial*, June 1981, at 34 ("It is no longer adequate to present an injury case through testimonial evidence alone"); Note, *Plaintiff's Use of "Day in the Life" Films: A New Look at the Celluloid Witness*, 49 *UMKC L. Rev.* 189 (1981) [hereinafter cited as Note, *Plaintiff's Use of 'Day in the Life Films'*] ("attorneys throughout the country are realizing that demonstrative and real evidence are significant tools in keeping and shaping a juror's interest in a particular case"); Gregory P. Joseph, *Videotape Evidence in the Courts—1985*, 26 *So. Tex. L.J.* 480 (1985) [hereinafter cited as Joseph, *Videotape in Courts*] ("The use of videotape evidence is becoming widespread in contemporary litigation. The creative potential is virtually limitless"); Gregory P. Joseph, *Demonstrative Videotape Evidence*, 22 *Trial*, June 1986, at 60 [hereinafter cited as Joseph, *Demonstrative Videotape Evidence*] ("Demonstrative videotape exhibits are routinely being offered in trial courts, and with considerable success"); Fred Misko, Jr., *Videotape for Litigation*, 26 *So. Tex. L.J.*, 485 (1985) ("Videotape is rapidly becoming a valued medium for the litigator . . . [and] is indeed an effective tool"); Michael Botein, *Videotape in Legal Education: A Study of Its Implications and a Manual for Its Use* 3 (New York, 1979) ("practicing lawyers have used . . . [videotape] increasingly in adjudicatory proceedings during the past few years").

2. See, e.g., Nancy Blodgett, *Law School Applications Plummet*, 71 A.B.A.J. 47 (May 1985).

© 1987 by the Association of American Law Schools. Cite as 37 *J. Legal Educ.* 97 (1987).

ties and struggling to meet the needs of their weakest students without depriving the best of their just fare. One characteristic shared by most students currently enrolled in law school is that, willingly or not, they are products of the electronic media generation, having been nurtured on ever more pervasive forms of audio and video media, at home, at play, and in earlier schooling.³ From this common experience, legal educators should take their cue.⁴

Audiovisual aids are already widely employed in the practice of law,⁵

3. Cf. Perlman, *supra* note 1, at 34 (citing *Television and Human Behavior*, at 1-10 (1979)): "This is the age of the 'television generation.' By the time the average high school student has graduated, he or she has spent 11,000 hours in the classroom and 15,000 in front of a television set. Televisions can be found in 98 percent of American homes, and the average family spends 6.9 hours each day watching it. People believe what they see on television."
 4. Cf. Jerry D. Todd, *An Experiment in Multi-Media Education in Business*, 1 *Communitas: The Faculty Journal of St. Mary's University* 29 (Spring 1986) ("Growing enrollments in business courses, coupled with budget constraints and the desire to maintain teaching quality, have resulted in greater use of innovative teaching techniques at colleges and universities in the U.S.," including multimedia applications).
 5. The use of audio and visual media, and in particular videotape, is now ubiquitous in law practice. Police departments and prosecutors, for varying reasons, regularly film the conduct and speech of persons arrested for drunk driving, the testimony of the victims of child abuse, and the confessions of criminal defendants. Personal injury attorneys, for both plaintiffs and defendants, use videotape to record the scenes of accidents and to illustrate the operation of products. Others have found that the introduction at trial of a videotaped deposition is considerably more effective than having an attorney read into the record the same information. Two good articles briefly surveying recent trends in the field are Bill Crawford, *Eye, The Jury*, *Third Coast: The Magazine of Austin*, 4 January 1985, 45 ("In a civilization whose populace is more inclined to watch "St. Elsewhere" than read St. Aquinas, the only surprise is that it has taken so long for video to invade the legal system"), and Joseph, *Videotape in Courts*, *supra* note 1, at 453 (ABA Subcommittee Report on multiple civil and criminal applications). See also Janine Warsaw, *Elements of a \$12 Million Personal Injury Case*, 72 *A.B.A.J.*, June 1986, 42, 45-46 (discussing use of enlarged photographs and of discovery, testimonial, and therapy videotapes); Mahlon G. Funk, Jr. & Harry J. Hicks, III, *Admissibility of "Day in The Life" Films in Virginia*, 18 *U. Rich. L. Rev.* 751 (1984) ("In recent years, audiovisual technology has taken an increasingly prominent position in courtroom procedures"); Misko, *supra* note 1, at 485 (discussing use of videotape for depositions, "day in the life" films, accident reconstructions, and recording of experiments); Murray, *supra* note 1, at 1402; Perlman, *supra* note 1 (discussing video depositions, "day-in-the-life films," and "blown-up" documents); Sherwood Allen Salvan, *Videotape for the Legal Community*, 59 *Judicature* 222 (1975); Guy O. Kornblum, *Videotape in Civil Cases*, 24 *Hastings L.J.* 9 (1972) (containing citations to numerous early works on law-related use of videotape); Note, *Videotape: A New Horizon in Evidence*, 4 *J. Mar. J. Prac. & Proc.* 339 (1971); Joseph, *Demonstrative Videotape Evidence* *supra* note 1, at 61 ("videotape circumvents . . . logistical and substantive problems").
- Some estate planners argue that the videotaping of a will execution may be an important step in seeing that the testator's wishes are carried out, since a video record can help to prove the maker's capacity and intent, as well as the lack of undue influence. See Gerry W. Beyer, *Videotaping the Will Execution Ceremony—Preventing Frustration of the Testator's Final Wishes*, 15 *St. Mary's L.J.* 1, 6-7 (1983).
- Many tort lawyers now prepare for use in settlement negotiations or for admission at trial often heart-rending "video settlement brochures" or "day-in-the-life" films, which graphically depict the differences in the victim's life before and after an accident and the difficulties encountered in performing even simple daily activities. See Crawford, *supra*, at 45, 47-49; Perlman, *supra* note 1, at 36-38; Monty L. Preiser & Mark L. Hoffman, "Day-in-the-Life" Films—Coming of Age in the Courtroom (Parts One and Two), 17 *Trial*, August 1981, at 26, 30 ("numerous cases" have allowed admission), and 17 *Trial* September 1981, at 41;

continuing legal education,⁶ and in most fields of higher and professional education, including medicine, psychiatry, and business.⁷ While law schools have not been swept along by this trend, the idea that audiovisual devices can be used to enhance law teaching is certainly accepted to some degree for even the most hardened skeptic would find it difficult to picture a professor—even a law professor—without a blackboard and chalk close at hand.⁸ Indeed, most law professors would probably concede the utility of videotaping, for critique purposes, student performances in skills-related courses such as trial advocacy, client counseling, and settlement negotiation. Yet, what little empirical evidence exists suggests that modern media techniques have had little impact on the traditional law school classroom.⁹ Thus it is relevant to ask whether audiovisual media can effectively augment the teaching of standard *substantive* law courses, and, if so, how?¹⁰

Funk & Hicks, *supra*, at 780 (majority of courts will admit such films); Edward W. Pikula, The Evidentiary Aspects of "Day in the Life" Films, 69 Mass. L. Rev., 59 (1984) (increased use likely); Note, Day-in-the-Life Films: The Celluloid Witness Comes to the Aid of the Plaintiff, 33 S.C.L. Rev. 577 (1982); Note, Plaintiff's Use of "Day in the Life" Films, *supra* note 1, at 178; see also Annot., Visual Recording—Not Subject of Suit, 41 A.L.R.4th 877, 894 (1985) (personal injury victim's physical condition admissible). In an effort to counter the effect of "day in the life" films, defense lawyers have begun to produce videotapes dramatizing the conditions surrounding the occurrence of accidents—such as, for example, the unavoidable pressure and frenzied pace inherent in an intensive-care nursery where life-and-death decisions are made. See Turnabout Is Fair Play, 21 Trial, September 1985, at 79, 81; see also Annot., Motion Pictures as Evidence, 62 A.L.R.2d 686, 698 (1958) (use to show malingering or physical condition of party); Joe G. Sweet, The Motion Picture as Fraud Detector, 21 A.B.A.J. 653 (1935); Guy O. Kornbloom & Paul E. Rush, Television in Courtroom and Classroom, 59 A.B.A.J. 273 (1973) (use of videotaped experiment to impeach expert's testimony as contrary to physical facts); Warsaw, *supra*, at 45 (discovery videotape used to impeach defendant).

6. Kornbloom & Rush, *supra* note 5, at 273, 276.
7. See Ronald Dresnick, Uses of the Videotape Recorder in Legal Education, 25 U. Miami L. Rev. 543, 566 (1971) (discussing medical schools and higher education generally); Botein, *supra* note 1, at 1-3 (psychiatry and medical schools); see also Todd, *supra* note 4, at 1 (business schools).
8. Botein notes that even Socrates drew diagrams in the sand. Botein, *supra* note 1, at 3.
9. "A sort of Gutenberg mentality prevails." Paul R. Baier, What is the Use of a Law Book Without Pictures or Conversations? 34 J. Legal Educ. 619, 629 (1984); *id.* at 621 and n. 10 (no knowledge of prior use of film or tapes in teaching constitutional law). One study conducted in 1974-1975—apparently the first of its kind—indicated that videotape technology was used by only five percent of all law teachers and was limited, for the most part, to interactive contexts and clinical applications. See Botein, *supra* note 1, at 2, 9, 10, 16, 31, and 35. "[T]he greatest use . . . was in 'skills' courses and the lowest use in 'conceptual' courses." *Id.* at 11. Yet virtually no law professors in the study encountered "any significant hostility" by colleagues to the use of videotape, and more than 75 percent encountered no form of "resistance" whatsoever. *Id.* at 25.
10. The Botein survey, *supra* note 1, revealed that during 1974-75, 22 law teachers used video resources in criminal law or criminal procedure, eight in family law, two in administrative law, and six in property-related courses. *Id.* at 14. Thus there is reason to think that such technology may be productively used in any course if appropriate resources are available and the professor is willing to experiment. But even where audiovisual aids are already being used, there appears to be room for improvement. *Id.* at 15 (survey indicated that many law teachers failed to use videotape in potentially useful ways). For an excellent discussion on the use of tapes and films in teaching constitutional law, see Baier, *supra* note 9, at 619.

First, we must consider a critical question, *Why bother?* Are not keen understanding of a legal field, superior forensic skills, and rapier wit sufficient to stand a professor in good stead? Well, frankly, many might say "no." Students complain of boredom, particularly in the second and third years;¹¹ practitioners and others charge that many who graduate are ill prepared to assume the roles for which they are hired;¹² and disciplinary and malpractice actions predicated on incompetence continue to increase at alarming rates.¹³ While it would be simplistic to attribute all these maladies to the general lack of audiovisual enhancement in law school teaching, the plausible connections between audiovisual assistance and teaching effectiveness, and between good teaching and student interest and performance, cannot be ignored. Those knowledgeable about learning theory suggest that the relationship may well be significant.¹⁴ For example, empirical studies have demonstrated that the significance of the sense of sight in the process of learning and retention is 85 percent, while the significance of the sense of hearing is only ten percent and the remaining senses only five percent.¹⁵

11. See E. Gordon Gee & Donald W. Jackson, *Current Studies of Legal Education: Findings and Recommendations*, 32 *J. Legal Educ.* 471, 474 (1982) (where students were asked to rate law school on a four-point scale from boring to stimulating and interesting, "the most positive evaluations came in the first year, while reported interest declined in both the second and third years"; "by the fifth semester, . . . [only] about 20 percent found their work to be stimulating"); David F. Cavers, *Signs of Progress: Legal Education*, 1982, 33 *J. Legal Educ.* 33, 40 (1983) ("the Socratic method, however diluted, has become boring to many students who have already spent one or two summers and perhaps fifteen or twenty hours a week during the school year in law offices"); Thomas L. Shaffer & Robert S. Redmount, *Lawyers, Law Students, and People* 37 (Colorado Springs, Colo., 1977) (discussing 1972 Packer-Erlich report of the Carnegie Commission on Higher Education, and speculating that the real problem may be professor boredom); Dresnick, *supra* note 7, at 554; Baier, *supra* note 9, at 627 and n. 42.
12. See James R. Nielsen, *The Flaw in Our Law Schools*, *Newsweek*, June 11, 1984, at 15 (discussing deficiencies in lawyer training and suggesting that videotape and tape-and-slide programs can be used to address those problems); Warren Burger, *The Special Skills of Advocacy: Are Specialized Training and Certification of Advocates Essential to Our System of Justice?* 42 *Fordham L. Rev.* 227, 231-33 (1973) (criticizing inadequate courtroom performance); Shaffer & Redmount, *supra* note 11, at 25-28 (legal education fails to prepare students for interpersonal and psychological dimensions of the practice of law); Dresnick, *supra* note 7, at 551 (discussing the lack of human relations training).
13. See Robert H. Aronson & Donald T. Weckstein, *Professional Responsibility in a Nutshell* 61 (St. Paul, Minn., 1980) (describing proliferation of legal malpractice suits in 1970s); Timothy K. McPike & Mark I. Harrison, *The True Story of Lawyer Discipline*, 70 *A.B.A.J.*, September 1984, 92 (increasing number of disciplinary actions); cf. Duke Norlinger Stern, *Reducing Your Malpractice Exposure*, 72 *A.B.A.J.*, June 1986, 52 ("By all measures professional liability is an increasing problem").
14. See Association of American Law School, *Annual Meeting—Teaching Methods Section* (1985) (two audiotapes; comments of Robert J. Menges) [hereinafter cited as AALS]; Jerold E. Kemp, *Planning and Producing Audiovisual Materials* 6, 4th ed. (New York, 1980) (audiovisual media can make education more productive, more individual, more immediate, and more equal for learners, and can give instruction a more scientific basis). Other sources discussing the relationship of learning concepts to audiovisual media are collected in Robert J. Menges, *Teaching-Learning Experiences for College Students and Other Adults: A Selected Annotated Bibliography*, Occasional Paper No. 12, Center for the Teaching Professions, Northwestern University, 59-63, 5th ed. (Evanston, Ill.).
15. Misko, *supra* note 1, at 485 (citing Costopoulos, *Persuasion in the Courtroom*, 10 *Duq. L. Rev.* 384, 406 (1972)); Perlman, *supra* note 1, at 34; Pikula, *supra* note 5, at 60.

Presumably, this and similar findings argue in favor of using visual media to augment the spoken word. In short, *law professors should bother, not because the effort is certain of success, but because whatever the strengths of American legal education, it seems obvious that it can do even better.*

Audiovisual enhancement of classroom teaching can advance a number of fundamentally important pedagogical objectives:

Clarity¹⁶—Visually presenting key language, the subtopics of a lecture, the elements of a tort, or the essential considerations in an area of the law on a slide or overhead transparency can clarify the student's understanding of the informational content of a course. Graphically depicting the flow of a commercial transaction, the parties and claims involved in complex litigation, or the physical layout of an accident site can achieve a similar effect. To the extent that the message is clear, the student's comprehension and retention of information is likely to be better than it would otherwise be.¹⁷

Variety—Empirical research suggests that despite the lip service legal education pays to the Socratic method, "sixty to ninety percent of the typical large law class (and most are large) is lecture."¹⁸ By using audiovisual techniques to provide a change of pace, it is possible to fight boredom and to

16. The usefulness of any audiovisual device in legal education depends upon the goals of the enterprise. No doubt it may be contested whether clarity is one of those goals. Some—those of the "hide the ball" school of legal pedagogy (see Shaffer & Redmount, *supra* note 11, at 174-76, discussing the technique)—apparently would hold that it is not the role of law professors to impart information, but merely to raise questions for students to consider and then draw their own conclusions. See *id.*; Dresnik, *supra* note 7, at 553-54 (1971) (discussing "Socratic" method). I agree that many of the critical jurisprudential and ethical issues in the study and practice of law are not susceptible to pat solutions and that there is much that must be left to the student to resolve. Nonetheless, it seems to me that some amount of information transmittal, relating to the past and current status of the law, is essential in law school so that one can intelligently address important questions of the legal policy and theory. Consequently, clarity and speed in constructing this abecedarian base of information is, to me, of legitimate importance. Cf. Dresnick at 549, 553-54 (the Socratic method wastes time and intellectual energy, forces students to rely too heavily upon the printed word, and "runs counter to all learning theory").
17. See Kemp, *supra* note 14, at 15 (citing C. R. Carpenter, Psychological Concepts and Audio-Visual Instruction, 5 AV Communication Rev. 361-69 (1957): "More information can be learned more enduringly when materials are meaningfully and systematically organized than when they are unorganized or poorly organized"); *id.* (citing Edgar Dale, Principles of Learning, 29 The News Letter, Bureau of Educational Research and Service, Ohio State University, Columbus, January 1964: "The clearer, the nearer, the more realistic and relevant the statement of the desired outcomes, the more effective the learning. If the learner cannot see the target clearly, the chances of hitting it are not good"). See also Todd, *supra* note 4, at 29-30 (citing Frank N. Pierce & Joseph R. Pisani, The Multimedia Approach to Marketing Education, 1971 Combined Proceedings, American Marketing Association 50-54 (Chicago, 1971): "many students have greater comprehension and retention levels"); Dresnick, *supra* note 7, at 582 ("Used responsibly and creatively . . . [videotape] can accelerate perception and understanding"). Cf. Sherwood Allen Salvan, Videotape for the Legal Community, 59 Judicature 222 (1975) ("Both trial and appellate advocacy are better understood when actual cases are presented visually"). But see Kemp, *supra* note 14, at 21 (citing Robert M.W. Travers, Research and Theory Related to Audio-Visual Information Transmission (Kalamazoo, 1967); "oversimplification can have a deleterious effect").
18. Shaffer & Redmount, *supra* note 11, at 9, 162.

better maintain student's attention,¹⁹ and sustained interest, of course, is the first prerequisite to learning.²⁰

Vividness—Some matters are best conveyed nonverbally and thus a picture, a drawing, or a cartoon caricature may be a more appropriate means of communication than the spoken or printed word.²¹ Other matters, though susceptible to verbal description by the professor, are conveyed more pointedly and memorably by a tape or movie of the actual participants in a case (e.g., an audiotape or videotape of a jury charge in a negligence case or of an interview of a client seeking legal services).²² By the same token, audiovisual aids are a more effective means of pursuing objectives relating to the affective

19. This has also been found to be true for administering tests. See Vincent R. Johnson, *The Video Essay Question: An Experiment in Teaching Professional Responsibility*, 50 *Mo. L. Rev.* 591, 598 (1985) (regarding the use of a videotaped essay question on a final examination, one student remarked that it was "a great break from the doldrums of normal exams," and another commented that it was "a unique and useful change of pace for testing"). Cf. Murray, *supra* note 1, at 1402 ("A well-done video presentation may serve as a stimulating change of pace in a trial").

20. See Kemp, *supra* note 14, at 13: "[A]n individual reacts to only a small part of all that is taking place at any one instance. . . . Hence, one needs first to design material that will attract the attention and hold the interest of the learner. . . ."; *id.* at 15 (citing C. R. Carpenter, *Psychological Concepts and Audio-Visual Instruction*, 5 *AV Communication Rev.* 361-69 (1957): "Variations operate to sustain attention, to instigate interest, and to broaden the pattern of learning. Variations of stimuli in all probability aid students to generalize and apply more widely and surely what they have learned"; *id.* at 16 (discussing Robert M. Gagne, *Learning Theory, Educational Media, and Individualized Instruction* (Paper presented at the Faculty Seminar on Educational Media, Bucknell University, Lewisburg, Pa., November 16, 1967): "Gaining and maintaining attention" is among the most important events in instruction). See also AALS, *supra* note 14 (comments of Robert J. Menges on tape one: "One of the real scandals of postsecondary education is the lack of attentiveness during class—which I take to be more of a teacher problem than student problem, since students can very well be attentive when the stimulation is correct").

21. See, e.g., AALS, *supra* note 14 (comments of Thomas L. Shaffer on tape one, describing the use of slides of newspaper and magazine cartoons to illustrate the link between physical surroundings and power in the lawyer/client relationship; *id.* (tape two; Robert J. Menges: "We remember objects more easily than we remember abstract words. . . . Images will stay with the students and help them to recall the principles"). See also Dresnick, *supra* note 7, at 551: "Current methods of legal education emphasize the verbal aspects of communication at the expense of the non-verbal aspects. It is even arguable that the case method undermines development of skills in this area. Scientific evidence and recent experiments with videotape and audiotape recorders demonstrate that the non-verbal aspects of communication . . . are teachable."

22. See Dresnick, *supra* note 7, at 589:

"[With videotape, the] real life drama of the law is transported to the classroom, giving the student the opportunity to come face to face with real situations in a supervised setting. The television image can convey emotions and impressions to an extent that would be impossible to achieve in any other medium";

Johnson, *supra* note 19, at 592 (video allows greater degree of verisimilitude and permits focusing on interpersonal dynamics). Cf. Perlman, *supra* note 1, at 36 (citing Miller, *Juror Responses to Videotaped Trial Materials: Some Recent Findings*, 1975 *Personality and Social Psychology Bulletin*, 56169: "recent studies support the conclusion that jurors who view videotaped testimony retain more information from the latter portions of the testimony than jurors who view the same testimony live); Murray, *supra* note 1, at 1402 (in "[w]ritten depositions . . . [t]he demeanor of a witness . . . is substantially lost in the process of reading back disembodied words from a printed transcript").

(as opposed to the cognitive) domain of learning.²³

Speed—Time is at a premium in law school. Aids such as slides and overhead projection enable the professor to place before the class relevant material more expeditiously than would be permitted by conventional means of presentation, such as chalk and blackboard, while at the same time pacing the presentation.²⁴

Moreover, where a professor teaches students who differ widely in academic ability, certain media—particularly overhead projection—can allow a professor to identify the main path clearly so that the weaker students will not be left hopelessly uncertain of what is expected when, for the benefit of the better students, the discussion turns to more abstruse issues of policy and theory. Not only will the medium help to ensure a minimum level of comprehension,²⁵ but the students will generally have greater tolerance for theoretical detours, since they will be assured that the professor will continue to chart the basic course clearly.

No one would suggest that any amount of media technology can ever take the place of a skillful, dedicated teacher at the front of any classroom. In a word, there must be teaching before there can be teaching enhancement.²⁶ Nor would it be proper to ignore the concern that showmanship or theatrics may elevate the form over substance, for mere packaging cannot be permitted to take the place of solid scholarship.²⁷ Yet surely the risks of exploring relevant media alternatives are no greater than those posed by ignoring the issue of whether such devices can play an integral role in the law teaching

23. See Botein, *supra* note 1, at 7 (videotape “may allow a teacher to . . . promote intellectual and emotional involvement on the part of students”); *id.* at 30 (“On the basis of law teachers’ observations it would . . . be fair to conclude that most students will find a simulated client interview more insightful than a simulated ethical problem”); Johnson, *supra* note 19, at 592–93. As to the cognitive, affective, and psychomotor domains of learning, see generally Kemp, *supra* note 14, at 15–16 (citing authorities). See also Dresnick, *supra* note 7, at 590 (use of videotape can help develop skills in dealing with people).

24. See Todd, *supra* note 4, at 29–30 (citing Pierce & Pisani, *The Multimedia Approach to Marketing Education*, 1971 *Combined Proceedings*, American Marketing Association, 50–54 (Chicago, 1971): “larger amount of information can be disseminated in a given time period”).

25. Cf. Kemp, *supra* note 14, at 13:

“[W]hile any one perceptual experience is uniquely individual, a series of perceptions by different persons can be related to become nearly identical. . . . The audiovisual field rests on the assumptions that people learn primarily from what they perceive and that carefully designed visual experiences can be common experiences and thus influence behavior in a positive way.”

26. But see Douglas K. Newell, *Ten Survival Suggestions for Rookie Law Teachers*, 33 *J. Legal Educ.* 693, 703 (1973) (“A teacher can improve by self-examination and hard work. Perhaps great teachers are born and not made but I see no reason why those who are not naturally great cannot be made better”).

27. Cf. Botein, *supra* note 1, at 33: “[P]art of . . . videotape’s attraction to students may lie merely in its novelty. But the mere existence of novelty is analytically irrelevant. Novelty may be quite helpful if it attracts thoughtful student attention and does not wear off quickly; it may be very dangerous if it attracts superficial student attention and wears off very quickly.”

process. If changes in the general educational landscape are any indication, these media have a place, and a future, in legal education—not necessarily in every course or in every classroom, but at least in some.

It of course takes time and effort to integrate audiovisual aids into one's teaching, but the time need not be great or disproportionate to the result.²⁸ Indeed, the fact that some investment of time is required may be one of the benefits of the process, for during that time the professor will think about his subject, plan his presentation more carefully, and endeavor to improve, modernize, and upgrade his materials.²⁹ Presumably, the result will be instruction of a higher quality, so students are likely to appreciate and benefit from the effort.³⁰

What follows is a *brief* discussion of four media—overhead projection, audiotapes, videotapes, and slides—which, though generally obvious alternatives to traditional methods, remain unexplored (and unlikely to be explored) by most law professors.³¹ My objective here is neither to describe in exhaustive detail the history or potential applications of these media, nor to recount the technology or mechanics underlying each process.³² Rather, the article will largely be concerned with very practical, indeed mundane, matters—matters that I hope will be of use to the uninitiated, particularly those teaching at schools where modern media have had little impact on the teaching of law.³³ What media techniques may most profitably be adapted to

28. But see Todd, *supra* note 4, at 31 (“[O]ne principle appears to be universally true with respect to multi-media projects: They will always take more time than originally planned”).

29. See Todd, *supra* note 4, at 30.

30. Student reaction to the use of audiovisual media is to some extent a measure of its success. In a study conducted in a business school setting, where slides and films were regularly used in conjunction with a structured lecture format, a survey of student opinion indicated that about three-fourths of the class preferred the lecture with audiovisual aids to other legitimate alternatives, and about three-fourths also felt that the use of audiovisual materials should be kept at their current level or expanded, while hardly any students found the format undesirable. See Todd, *supra* note 4, at 34–35. In another experiment, involving the use of a videotaped essay question as part of the final examination in a law school course on professional responsibility, 85 percent of the students viewed the experiment “favorably” or “very favorably,” and many indicated that the format should be repeated. See Johnson, *supra* note 19, at 596–98.

31. See note 9, *supra*.

32. A very good basic handbook on using audiovisual media, which should be in every law school's library, is Kemp, *supra* note 14. It contains numerous illustrations, pictures, and references to other works. All of the media discussed herein, as well as several others, are considered there in admirable detail. See also Michael J. Langford, *Visual Aids and Photography in Education* (New York, 1973).

33. Many of the observations set forth here are personal in nature, the result of trial and error by one who now uses these devices on a very frequent basis in teaching torts and professional responsibility. When I started using audiovisual aids in my law classes at St. Mary's University three years ago, I knew little about such equipment or the ways in which it could be used. There were few colleagues to whom I could turn for advice, since no other professor regularly used such media in teaching substantive courses. In fact, the equipment I first used had to be borrowed from undergraduate departments of the university. In the interim, with the generous support of the law library director and staff, St. Mary's has done much to develop media resources for use both in class and out. While I remain the only professor at the school to integrate audiovisual assistance into my teaching on a regular basis, at least a few of my colleagues now venture to do so from time to time.

substantive law teaching? What problems are likely to arise? What inquiries should one make in selecting equipment? I will discuss these and similar questions. In addition, I offer a number of concrete suggestions relating to class usage and development of audiovisual resources at the institutional level.³⁴ Although I emphasize practical applications rather than learning theory, it is not because I consider theory unimportant. This emphasis is merely a reflection of the fact that while frequently no amount of sound reasoning will convert one who is undisposed to employ a new idea, furnishing a few hard facts to a willing listener who would not otherwise seek them out may be sufficient to spur him into action. My objective here is simply to provide a basic orientation for those who may have some interest in the field but who know little about it.

None of the devices discussed herein requires great mechanical or electronic sophistication to operate. Just as one need not understand electrons or the theory of electrical energy to be able to turn on a light or operate a TV, a professor can remain blissfully ignorant of many scientific or mechanical details and yet employ audiovisual media effectively in his teaching. Even true Luddites can feel at home.

Because of the large variety of equipment presently available, the rapidly changing nature of the relevant technologies, and other marketing variables, I will not try to provide, except in the most general terms, information relating to costs: audiovisual dealers, however, can readily furnish the relevant figures.³⁵

II. Overhead Projection

A. Strengths

Transparencies for overhead projection can accommodate words, drawings, cartoons, and, to a greater or lesser extent, pictures, since anything that can be photocopied can be made into a transparency.³⁶ For words, the projected image is frequently larger and more readable than information written on a blackboard. The preparation process (described below) is simple and inexpensive, and, most important, requires little equipment or lead time. Transparencies can be made literally within a few minutes—which

34. General information about audiovisual resources is available from the International Communications Industries Association, 3150 Spring Street, Fairfax, VA 22031. One of many useful pamphlets published by this organization is a bibliography on "Designing A-V and Video Facilities."

35. It may be noted with some degree of certainty that considerable savings, in terms of a bulk discount, may be available when a school purchases several items from a dealer as part of a single agreement.

36. Copyright limitations may apply to the reproduction, display, or performance of certain works. There appears to be no problem, however, with the overhead projection of a photograph, chart, diagram, cartoon, graph or similar work in classroom teaching at a nonprofit educational institution. See Howard R. Lurie, *Can I Copy?: A Practical Guide to Reproduction Rights under the Copyright Law for University and College Faculty and Staff* 10 (Villanova, Pa., 1982); Kemp, *supra* note 14, at 58.

may be particularly advantageous to an instructor when last moment preparation for a class suggests new ideas for overhead presentations. Depending on how they are produced, transparencies can be of permanent quality and can be filed for future use, needing little more than a file folder for storage space. If the original copies from which transparencies are made are also preserved, they can be easily revised, if necessary, and other transparencies made.

Overhead projectors are very simple to use³⁷ and allow the professor to maintain eye contact with the class while having complete control over sequencing and rate of presentation. By partially covering a transparency, then gradually revealing it, or using overlays, complex ideas may be separated into elements and presented progressively. Professors who briefly review the previous session at the beginning of each class can also incorporate into their recap a brief look at the transparencies from the earlier class to refresh the students' memories.³⁸

B. Weaknesses

Not all classrooms are physically suited for overhead projection. First, the ceiling must be high enough and the seating positioned in such a way that all students can clearly see the images projected. There must also be sufficient space so that the projector is readily accessible to the professor and yet far enough from the screen so that the images are large enough to be read. Perhaps most important, the professor must be able to have convenient control of the lighting in the room. There must be enough light for students to take notes and participate in discussion and for the professor to see and be seen. The ideal setting for overhead projection is an amphitheatred classroom without windows, where the lights are on dimmer switches and the controls are near the professor so that the lighting may be readily changed if appropriate during the course of the class. Other situations, however, may also be workable. If, for example, the lights for the entire room are on multiple switches, one of which controls illumination at the front of the room, it may be sufficient to turn those lights off. This situation, however, may have the undesirable side effect of placing the professor somewhat in the dark in comparison to the rest of the room.

Overhead projectors tend to be large pieces of equipment and, as with other audiovisual aids, there may be a problem of transporting the projector to and from class each time it is used. This difficulty may be obviated if there

37. See Langford, *supra* note 32, at 29 ("There is little to adjust other than the focusing and tilt of the head unit").

38. The practice would appear to be educationally sound. See Kemp, *supra* note 14, at 15 (citing C. R. Carpenter, *Psychological Concepts and Audio-Visual Instruction*, 5 *AV Communication Rev.* 361-69 (1957)):

"[N]othing absolutely new is ever learned effectively with one exposure. Repetition functions to reinforce and extend learning and to make the learned information more enduring. . . . Repetition with variation provides time for learning and time for learning is absolutely essential." (Emphasis in Kemp.)

is a storage closet in the classroom, if the projector is permanently mounted to a stand to prevent theft, or if an A-V assistant can be counted on to set up and remove the device for each use.

C. Overhead Projection Equipment

The most important consideration concerning the overhead projector itself is of course the quality of the image produced. In this regard, not all overhead projectors are created equal. The clarity of images projected by two different machines may vary considerably, particularly if one is an older model. Anyone who is going to use an overhead projector should give the machine a trial run to make sure the image can be read without difficulty. Those seriously interested in using this medium on a regular basis should have an equipment dealer demonstrate a state-of-the-art model at the law school, side by side with any projectors the school already owns. They should also pay attention to how much noise the machine's fan makes in cooling the projection bulb.

There are at least three basic varieties of overhead projectors: (1) standard, (2) enlarging, and (3) collapsible. For most classroom purposes, a standard model, similar in size and appearance to the overhead projectors everyone in education has seen at one time or another and normally light enough to be easily transported with two hands, will be sufficient to project an image of readable size. An enlarging model is often a little bulkier and heavier and is generally more expensive. It produces a somewhat larger image appropriate for use in auditoriums and large classrooms. Collapsible varieties, which also tend to be more expensive than the standard model, are lighter and designed more compactly for maximum portability. Normally they reduce to the size and shape of a brief case, although this convenience generally comes with some sacrifice in image quality.

When purchasing a projector, you should ask whether the glass top is designed to reduce glare into the user's eyes, whether there is a built-in auxiliary bulb that can easily be turned on if the first bulb burns out, and whether (particularly in the case of standard and enlarging models) a protective cover clips over the projector to protect it during transportation. Anyone who anticipates moving an overhead projector about on a regular basis should actually pick it up and follow the anticipated route to see how convenient or inconvenient it is to do so, especially where notebooks or texts need to be moved to and from class at the same time.

Screens permanently mounted in the classrooms where overhead projection will be used are of course most desirable. If the screen electronically retracts into the ceiling, it is best to have a switch that requires only a flip to move the screen up or down, rather than one that requires continuous depression of a lever or button. Otherwise the professor may find it necessary, in the often hectic moments before or after class, to devote 10 or 15 seconds to holding the control until the screen goes into position. Where the screen does not retract, mounting the screen at an angle between the ceiling and front wall eliminates the "keystone" effect that will otherwise result from projecting the top of the transparency a greater distance than the

bottom—but normally this slight distortion is not a significant disadvantage. Of course portable screens can be used.

Dealers can readily provide advice as to what size screen is most appropriate for a particular area. However, a simple 2 x 6 rule of thumb can be used for selecting appropriate screen size. That is, the first row of seats should be no closer than 2 screen widths from the screen, and the last no further away than 6 screen widths. The ideal arrangement for seating is a 70-degree fan-shaped configuration, with the center perpendicular to the screen; but other arrangements are often workable, particularly when furniture can be moved. In a rectangular room it may be best to place the screen at the narrow end, or in a square room to angle the screen across a corner and turn the seating to face it. Where seating is all on one level, the bottom of the screen should normally be at eye-level or slightly higher so that it will be visible from the last row.

Although a table of regular height at the front of the classroom may provide a sufficiently convenient surface and work space on which to place the overhead projector, movable stands made specifically for that purpose are available and normally allow ample room for organizing the movement of transparencies onto and off of the projector.

D. Making Transparencies

Transparencies can be made in at least three ways,³⁹ and the chosen method will likely be a function of the professor's skills, available time, and standards of quality, as well as the accessibility of equipment and materials.⁴⁰

1. *Felt-tip Markers*. The most elementary method consists of simply writing on a transparent film with a felt-tip marker. Depending on one's handwriting and the amount of text, this may be a perfectly satisfactory means of reproduction. Markers are available in different colors and come with permanent or nonpermanent ink. The latter allows the transparency to be washed clean for future use, whereas the former permits indefinite retention of the completed transparency. Even when a transparency is produced by one of the other methods described, marking pens can be used in class for the purpose of filling in blanks, for example, where the steps in a tax calculation are being illustrated.⁴¹ Where such use is planned, care should be taken to allow sufficient space for the write-in, since it is difficult to write very small under classroom conditions.

2. *Photocopier*. Only slightly more involved than using markers is production of a transparency by use of a photocopier. Most copiers that feed letter-size sheets of paper (as opposed to, for example, paper on rolls) will

39. More elaborate and more time-consuming methods of transparency preparation—presumably of little interest to most law professors—are discussed in Kemp, *supra* note 14, at 20712.

40. Kemp, *supra* note 14, at 203.

41. "Grease pencils" may also be used to write on transparent film. The image produced tends to be of a rather poor quality and smears easily. Felt-tip markers are clearly superior.

accommodate electrostatic transparency film, which is specially designed for use in plain paper copiers. Anything that can be copied onto paper can be reproduced in black on the transparency film with approximately the same clarity, and the resulting permanent image can be used or stored without risk of smearing.

3. *Transparency Maker.* The most complex of the three basic methods of transparency production—which is still rather simple—involves the use of a special machine called a transparency maker that uses infrared transparency film. The original is prepared just as it would be for photocopying, placed against a sheet of infrared film or between multiple sheets of the film, then run through the machine for a period of about 4 or 5 seconds. The result is a transparency of very high quality. The darkness or lightness of the image is controlled by a graduated exposure setting on the machine. To test the setting, a partial strip of film may be run through the machine. While generally this method of production is a bit more expensive than the other two, the cost per transparency is still rather low and may well be justified by the improvement in quality. Unlike the photocopying process, the use of infrared transparency film allows images to be reproduced in any of a variety of colors. The principles on which the process is based require the images on the original to be produced with heat-absorbing material, such as lead or carbon-based ink or typeface. The ink from a felt pen will generally not meet this requirement and will therefore produce no image on the film when fed through the transparency maker. The same is true where any carbon-based image is covered with transparent tape. These problems can be remedied, however, by photocopying the non-heat-absorbing images and then running the photocopy through the transparency maker. Photocopies make excellent originals and can be kept on file for later revision or integrated into one's notes.

Film for each of the described methods can usually be obtained in a range of color tints and thicknesses. Special reverse image films allow the production of light images on dark backgrounds. Cardboard frames for mounting transparencies are also available. The cardboard border, when placed around the transparency, ensures that the projected image has a crisp, clear outline on the screen, and to some extent it makes handling easier. The disadvantage is that framed transparencies are considerably more bulky to store, which may be a significant problem if the medium is used frequently. An alternative is pre-framed transparency film, which is simply a larger sheet of film, with an opaque border printed around the transparent center. While this eliminates the thickness problem of the cardboard frames, the end product is still too large to store in a standard file folder.

E. Transparency Lettering

Where numbers or letters are to be used on a transparency, thought must be given to making sure that the projected images will be large enough to be read. Ordinarily, pica or elite type, and passages photocopied from books and articles, will be too small to be easily discernible by the classroom audience. In contrast, the type produced by an "Orator" element for an IBM

or similar typewriter may well be of sufficient size, depending upon the shape of the room and the projection space. And the same is true for the larger typefaces generated by various personal computer word-processing programs. It is often useful to type each word with a capital letter followed by smaller letters, so that the first letter forms a large visual hook onto which the eye can readily fasten. Words typed with all small or capital letters may be more difficult to read.

Where larger images are desired for headings or simply because fewer words or numbers are involved, it is always possible to print by hand. A considerably more professional image, however, can be produced by a lettering system, which is a machine the size of a typewriter which transfers onto transparent tape crisp, clear images similar to newspaper headlines. The tape is then placed either directly onto a transparency or, preferably, onto the black-on-white layout from which the transparency will be made. A variety of typefaces is available. Lettering systems come in at least two forms, neither of which is inexpensive. The manual type requires the operator to rotate a large dial to the appropriate location for each letter to be made. The automatic variety has a keyboard that enables the operator to type quickly the desired words, which will then be produced automatically while the operator is free to do other things. Some of the automatic machines have an electronic visual display that shows what has been typed, so that the items may be checked for punctuation and spelling. Although a manual system is less costly than the automatic, it seems bound to be unduly tedious and time-consuming in the long run—so much so that it may significantly discourage professors from using it. A law school should think very hard before deciding against the automatic keyboard variety.

F. Hints on Usage

Select a good room early. If you think you may want to use overhead projection, consider the classrooms best suited to that medium, then ask to be scheduled to teach in one of those rooms. This preparation will avoid conflicts caused by the need to switch rooms once the semester has started.

Be economical in expression. Students often feel compelled—even if you assure them that it is not necessary—to copy down everything projected by an overhead. Transparencies composed of lengthy text run the risk of grinding a class to an abrupt halt while students scurry to transcribe the material. Moreover, a complex transparency may be confusing to the viewer and thus lose its effectiveness.⁴² To some extent these problems can be alleviated if you routinely place on reserve photocopies of the transparencies or supply students with handouts of the projected material. Of course, if a handout is being furnished, it may be unnecessarily duplicative to present the same material on an overhead—although some learning theorists argue

42. Kemp, *supra* note 14, at 201.

that such redundancy itself serves a useful purpose in the educational process.⁴³

Choose colors carefully. Some images (e.g., blue, black, or purple) are easy to read on any color background. Others (e.g., red on a clear transparency and green on a yellow transparency) are more difficult, particularly where the lettering is small and there is significant ambient light. Do a trial run to see what works in your classroom, and solicit student comments.

Store transparencies in the sequence that you used them. If you do so, you can readily consult them next time you teach the course. In addition, it may be useful to integrate into your class notes photocopies of the transparencies, or of the originals from which they were made, to remind yourself of what you did last time.

Consider class size. One educator has written: "In smaller classes and especially where the lecture method is not the dominant teaching method, the multi-media format is less than ideal. It is, however, well suited to the large class where interpersonal contact and discussion have been thwarted."⁴⁴

III. Audiotapes

A. Strengths

Audiotapes require minimal equipment, can be used in virtually all classrooms, and can be easily filed and stored for future use. Tapes of sufficiently high quality for classroom playing ordinarily can be made with a simple, inexpensive, easily operated, portable cassette recorder.⁴⁵ The application of this medium is limited only by the imagination of the law professor. Properly employed, a *short* tape segment can bring to the classroom a useful sense of the legal culture by vividly recreating events from everyday practice, such as settlement negotiations in the law office or instructions to the jury in court.

B. Weaknesses

Improperly used—particularly in long, uninterrupted segments—audiotapes suffer all the disadvantages that may otherwise attend the unaided spoken word, engendering in the class not only boredom but resentment that the professor is not "teaching." In addition, it is difficult for the professor to alter the sequence of the rate of communication of the information on an audiotape.

43. But see *id.* at 13: "Noise is any disturbance that interferes with or distorts transmission of the message. The factor of noise can have a serious impact on the success or failure of communication. . . . [I]n planning materials the factor of redundancy is often used to overcome the effect of evident or anticipated noise. . . . Some examples of redundancy . . . [include] projecting a visual and distributing paper copies of the same material for study." (Emphasis in original).

44. Todd, *supra* note 4, at 31.

45. A useful, detailed discussion on recording sound is set forth in Kemp, *supra* note 14, at 152-64.

C. Audiotape Equipment

Many small tape recorders are capable of playing with sufficient volume and clarity to be fully audible in most classrooms. Thus it is usually not necessary to have facilities and equipment available for connecting the recorder to a public address system. A recorder with a readily visible tape counter is preferable so that the professor can easily determine where to start or stop a tape, especially if he needs to rewind it between back-to-back classes. Cassette tapes, as opposed to those that run from reel to reel, are more convenient for use and storage.

D. Hints on Usage

The shorter, the better. Use audiotapes to provoke discussion or to illuminate a specific point. Otherwise they lose their impact and frustrate students.⁴⁶ For example, to give my torts students a glimpse into the world of appellate advocacy, I begin one class with a four-minute segment of a particularly aggressive exchange between counsel and the court in a case argued before the Seventh Circuit. Inevitably the tape prompts students to ask a number of good questions about the appellate process.

Scan continuing legal education tapes for choice segments. Law libraries often purchase copies of conference audiotapes, and the quality of presentation is frequently high. In listening to these recordings, look for small portions that may be integrated into classroom presentations. It often provides a nice change of pace for students to listen briefly to comments of a seasoned practitioner on a specific topic. For example, rather than discussing "Mary Carter Agreements" in class, I use a six- or seven-minute tape in which a top lawyer comments on such arrangements. The comments are opinionated and provide a stimulating basis for class discussion.

Keep the best on file. If you find a tape segment which you are likely to want to reuse in the future, it may be worth the time to record that portion at the beginning of a new tape; then properly label and file it. As long as no copyright problems arise,⁴⁷ you will avoid the trouble of trying to relocate the desired material within a longer, but less relevant, recording.⁴⁸ In addition, it may be useful to place in a single file folder all notes relating to audio and videotapes used throughout the year, so that they too will be easily accessible.

46. See *id.* at 195:

"The recording should not be a lecture. Listening only to a voice for 5-6 minutes may be acceptable, but when you approach 10 minutes of continual listening, student interest drops."

47. See generally, *supra* note 36, and *infra* note 61, and the sources cited therein.

48. Entire tapes can be quickly duplicated by machines made for that purpose. Where only a portion of the tape is desired, duplication is best performed not by playing the tape aloud on one machine and recording on another, but by running a cable between the output and input jacks on the two machines. Most tape recorders have such jacks, and an appropriate cable can be inexpensively obtained from any electronics store.

Cultivate sources. Ask others to let you know if they come across useful audio materials.⁴⁹ Practitioners may be willing to tape actual client interviews for your class to use, and former students clerking with courts may be able to bring to your attention particularly interesting portions of tape-recorded proceedings. Of course, the consent of the parties involved should always be obtained.

Consider using a taped homework assignment. In my professional responsibility course I have students prepare for a class that focuses on the unauthorized practice of law by listening to one of several copies of a 40-minute tape I made with a non-lawyer business consultant whose activities arguably infringe upon legal practice. Their task is to listen to the conversation and attempt to articulate, with relation to the tape and in light of their reading assignment, what constitutes the practice of law as opposed to the practice of some other discipline. Copies of the tape and tape recorders are made available through the law library. For another class, I have students listen to a tape I made about the local attorney-grievance process after attending a hearing with an attorney charged with wrongdoing. I could present this material as a class lecture, but by assigning the tape outside of class, I can save class time for activities that involve greater professor-student interaction and furnish a better opportunity for providing students with educational feedback.⁵⁰

Be creative! A professor I know has used a tape of an actual conversation with an elderly client seeking a will to illustrate the interpersonal dimension in estate practice and to set forth the terms of a drafting assignment in his property settlement course. Another professor uses taped segments of oral arguments at the United States Supreme Court to enliven his course in Constitutional Law.⁵¹

IV. Videotapes

A. Strengths

More than any other medium, videotape can add an entirely new dimension to law teaching. "It can take entire classrooms to situations that would

49. Cf. Botein, *supra* note 1, at 24, 28 (study indicated that the single most important factor in determining whether a law professor used videotape in teaching was contact with colleagues who made fruitful use of videotapes and that professors were very willing to share their videotape resources with colleagues at their school or at other institutions.)

50. See Kemp, *supra* note 14, at 194:

"Differences in learning rates, the desire to replay a section of a recording, and the need for time to think about something just presented all indicate that for effective learning to take place each person should be allowed to use a recording at his or her own pace.

"A key feature of successful instruction with tape recordings is the opportunity for an individual to interact with the material being presented. This requires answering questions, solving problems, using the information, or applying the concepts or principles."

See also Botein, *supra* note 1, at 8 (suggesting videotapes might be used as "homework"); Baier, *supra* note 9, at 625 (out of class use of recordings for constitutional law class).

51. See Baier, *supra* note 9, at 625; see also *id.* at 626 and 631 (use of judicial and presidential addresses).

normally be inaccessible, unobservable, or where the presence of the class would contaminate the event. The television image can depict processes and problems. It can demonstrate skills. It can expose classrooms to people and identities that they would otherwise never see."⁵² In a very real sense, videotape is the next best thing to personal contact or first-hand experience, while also being an essentially intimate medium.⁵³ Professionally prepared or "canned" tapes are frequently of very high quality, and offer the opportunity to present in particularly vivid fashion everything from the reality of the courtroom or law office to lectures by the most eminent scholars.⁵⁴ In addition, the short amount of time required for videotaping, the reusability of videotapes, and the immediate playback capability of the medium make videotaping⁵⁵ student participation in performance-oriented courses, such as legal interviewing and counseling, arbitration, negotiation, and trial advocacy, an unparalleled opportunity for constructive criticism directed toward the development of better lawyering skills.⁵⁶ Videotaping may also be profitably employed to preserve for future reference or archival purposes faculty lectures, presentations by visiting jurists and scholars, and other special events. The equipment required for video recording and playback is generally simple to use, except perhaps for editing.⁵⁷

52. Dresnick, *supra* note 7, at 558. See also Kornbloom & Rush, *supra* note 5, at 276.

53. Mary Lynn Crow, *Teaching on Television* 11 (Arlington, Texas, 1977).

54. Numerous video resources are collected in Ellen J. Miller & Timothy H. Hallahan, *The Media Guide for Lawyers* (Owings Mills, Md., 1982). Among the better-known high-quality videotapes used in law schools are: Irving Younger, *How to Take, and Pass, a Law School Exam*, National Practice Institute (Minneapolis, Minn. 1983) (one tape); Irving Younger, *Trial Evidence Series*, National Institute for Trial Advocacy (St. Paul, Minn. 1975) (13 tapes); American Bar Association Consortium for Professional Education, *Dilemmas in Legal Ethics* (1977) (6 tapes); Lawrence Dubin, *Professional Misconduct: Conversations with Victims* (Arlington Heights, Mass. 1977) (one tape); *What Went Wrong? Conversations with Disciplined Lawyers: A Documentary* (Birmingham, Mich., 1985) (one tape); American Bar Association Consortium for Professional Education and the National Institute for Trial Advocacy, *Training the Advocate: The Pretrial Stage* (Chicago, 1985) (14 tapes).

55. The production, editing, and duplicating of videotape recordings is discussed in detail in Kemp, *supra* note 14, at 262-73.

56. See generally Crow, *supra* note 53, at 11; Dresnick, *supra* note 7, at 584-88 (discussing value of feedback based on videotape). There are of course risks to self-made videotapes. As has been noted in the context of videotapes prepared for use at trial:

"If the production is so amateurish that the disparity between the video presentation and what people are accustomed to by way of TV is striking, there may be a serious detraction from the impact of the content. A poorly done recording, moreover, will reflect unfavorably on the competence of the attorney offering the deposition, thereby damaging his or her credibility.

"Too many video depositions end up looking like home movies." Murray, *supra* note 1, at 1402.

57. "[V]ideo recording and playback equipment is no more complicated to operate than a home movie camera or audio tape recorder. Video equipment generally yields fruitful results with greater ease than does photographic paraphernalia. Moreover, no special lighting is needed with videotape equipment, so the site for the taping need not be converted into a Hollywood set."

Kornblum *supra* note 5, at 11 n. 8.

B. Weaknesses⁵⁸

Proper facilities for making and showing videotapes—including cameras, monitors, recording and playback units, editing equipment, and stands—require a substantial capital investment.⁵⁹ A law school can, however, acquire these items gradually, purchasing first only those necessary for playing rather than recording, and using mobile units that can be moved from room to room to maximize their availability. While the portability of equipment increases its flexibility and availability to both faculty and students, it also causes greater wear and tear, thus shortening the life of the equipment, and also increases the likelihood of theft. The cost of purchasing or even renting prerecorded videotapes can also be very high—considerably more than the amount that would be spent on adding a new written volume to the library collection. Thus, assembling a significant video library becomes an expensive proposition.

C. Videotape Equipment⁶⁰

The tape on which images are recorded is contained in a cassette and generally comes in one of two widths, three-quarter-inch (U-matic) or half-inch. Since half-inch tape is available in either of two formats (VHS or Beta), there are thus at least three basic varieties of playback equipment, each of which can be used to show only a single type of tape. Most professionally produced tapes that would be of interest to the law professor are three-quarter-inch, and therefore it is probably most important for a law school to have this size unit. In contrast, home video cassette recorders (VCR's) generally work on half-inch tape. Because it may be useful to record a television segment at home for later classroom use as long as copyright is not a problem⁶¹, and because the professor or students may wish to create a videotape by using a camera from a home VCR, it may be advantageous for a school to have at least one half-inch unit of each variety. (A home unit may

58. See Botein, *supra* note 1, at 32–34 (potential dangers of videotape use include inordinate demands on time of teachers and students, excessive costs, disruption of the teacher's analytical framework or course's internal logic, damage to the egos of teachers or students, and superficiality).

59. But see Pikula, *supra* note 5, at 59 (quoting Weinstein, Evidence sec. 1001(2)[03] at 1001–22 (1982)):

"The rapid development of video-tape technology has increased the importance of motion pictures in trials, 'partly because the equipment is so inexpensive and easy to operate that many firms can keep equipment on hand and use it as needed. The tapes are relatively inexpensive, easy to store, and require no processing before they can be replayed.'"

60. See generally Ellen J. Miller, Choosing Video Equipment for the Law Office, 69 A.B.A.J. 898 (1983).

61. Nonbinding guidelines adopted by copyright proprietors and educational users in 1979 to govern the use of off-air recordings by nonprofit educational institutions generally provide that a recording may be used for teaching purposes within ten school days of the date it is made and retained no longer than 45 calendar days. See Eileen Cooke, Off-Air Copying Update: Guidelines, Advice to Educators in Modern Copyright Fundamentals, ed. Ben H. Weil & Barbara F. Polansky, 115–16 (New York, 1985). Presumably, uses falling within these guidelines will be relatively safe from suit for copyright infringement. Although the 1976 copyright statute contains an express exemption from liability for certain uses of

record at a different speed than the school unit is capable of playing back. For this reason, it is best to select a machine that can function at multiple speeds.)

To view a videotape, one needs a video cassette playback unit and a television monitor. Some playback units do only that—play back prerecorded tapes. Other playback units, generally more expensive, both play videotapes and record them off the air or when used in conjunction with a camera. Whether a school should buy a video cassette player/recorder rather than a straight video cassette player will depend on the need to make videotapes and whether other equipment is available for the purpose.

A playback unit should have a tape counter that is easily visible so that it is possible for the professor to advance or rewind the tape to the desired position if the entire tape is not being shown. It may be preferable for the counter to face up rather than forward, since units are often located below eye level. Because institutional equipment may be subject to heavy use, it should generally be of a commercial grade, purchased from an AV distributor, rather than of the type designed for home use. Fast- and slow-motion features on a playback unit are probably not too important to a law school. In contrast, it is frequently very useful to be able to freeze or pause the tape at a given point, so that the professor and class can comment on what they have just viewed.

The number of monitors required for classroom videotape viewing will depend very much upon the size and configuration of the room. One writer has suggested that, as a rule of thumb, there should be one large monitor for every twenty students.⁶² Depending on the distance of the students from the monitors, two 19" monitors—which sometimes sell for about the same price as one 25"—may be better than one unit of the larger size. In any event, a monitor smaller than 19" should probably not be used. A commercial grade monitor is preferable to a regular television, since it will more likely be able to play at a sufficiently audible level without distortion and will have the proper jacks for wiring the unit to the playback machine and, if necessary, to other monitors. Permanent monitors, if affordable, can be securely mounted in classrooms to alleviate the need for transportation of equipment, reduce the possibility of theft, and encourage use by faculty because of the equipment's convenience.

videotapes in face-to-face teaching, they probably do not apply to the use of off-air recordings. To come within the exception, the performance or display must (1) be made from a legitimate copy, (2) take place in a classroom or similar place devoted to instruction, (3) be part of a systematic course of instruction (not shown for recreation, entertainment, or cultural reasons), (4) be given by an instructor or pupil at a nonprofit educational institution, (5) not be televised, and (6) be attended only by instructors (including guest lecturers) and pupils. See Jerome K. Miller, *Using Copyrighted Videocassettes in Classrooms and Libraries* 24 (Friday Harbor, W. Va. 1984). Since the first requirement is likely not met when a video segment is recorded at home for classroom use, this exemption from liability for copyright infringement would not be applicable. But see Lurie, *supra* note 36, at 11. Of course, securing the permission of the copyright holder will always avoid legal problems. See *id.* at 17; Miller *supra*, at 65.

62. See Botein, *supra* note 1, at 64.

The need for a television monitor is of course obviated if the law school has a media viewing room with a large screen television where classes can be scheduled and tapes can be shown.

In cases where portable monitors will be frequently transported, care should be taken to select sufficiently sturdy stands, particularly if the monitors will be moved between buildings. Stands vary in height, and while the taller stands—which hold the monitor about 50 to 60 inches above the floor—are less stable than their shorter counterparts, height is generally necessary to ensure adequate visibility for all students. Some stands are made with a lockable lower compartment in which the playback unit, tapes, and miscellaneous cables can be stored. Because the wiring that goes from the unit to the monitor or from monitor to monitor can eventually be damaged, it is useful to keep extra cables on hand. Where equipment is set up on an ad hoc basis, it is important, if at all possible, for the professor to make sure that it is in proper working order before the beginning of class.

In making videotapes, the quality of the camera will have a greater effect on the quality of the ultimate presentation than will any other piece of equipment.⁶³ Color cameras are of course more expensive than those that tape in black and white. While some cameras are equipped with built-in microphones, the use of a separate microphone closer to the speaker is often desirable. Lapel microphones tend to be preferable to table-based microphones, since the latter may pick up the sound of rustling papers or objects placed on the table.

D. Hints on Usage

Again, the shorter, the better. Only the most interesting videotapes should be shown for a full class period.⁶⁴ The objective, remember, is to stimulate, provoke, or deepen—not to numb. Moreover, it is a good rule to always allow some time for class discussion of what has been viewed. For example, I use several one-minute lawyer television commercials as a basis for discussing the rules on lawyer advertising and the dynamics of image-building. The periodic playing of these brief TV spots helps to keep the students attentive and make the discussion concrete.

Take advantage of library services. Ask the librarians at your law school to call to your attention advertisements for videotapes and new acquisitions that the library has made. It is likely that they will be not only helpful in purchasing, renting, or otherwise obtaining information about video materials but grateful that you show an interest in the development and use of the collection.

Some libraries employ a media services librarian who, among other things, coordinates the use and movement of audiovisual equipment. This service can be a great convenience if it means that the professor need only

63. Murray, *supra* note 1, at 1404.

64. Cf. Warsaw, *supra* note 5, at 45 (“a videotape [at trial] has to be used with discretion—it can't be a film that goes on endlessly”).

make a request for the equipment to be set up at a given place and time. It may be advantageous for you to encourage this coordination of services.

Experiment! A greater degree of verisimilitude to law practice can be brought to a class by the use of a "video essay question" as part of the final examination for the course. In teaching professional responsibility, I experimented with this format. Students were shown a videotape of a simulated law office transaction and given transcripts of the dialogue so that they could refresh their recollection, if necessary. They were asked to discuss critically what the lawyer did well or poorly in dealing with his clients and what he should have done differently. The student reaction was very favorable.⁶⁵

On a different occasion, students in that same course were required to design an advertisement for a hypothetical law firm which complied with the applicable professional regulations in a particular jurisdiction. While some produced black-on-white layouts that were made into overhead transparencies and critiqued in class, others recorded short audiotape commercials, and a few chose to videotape television spots.

Acquaint students with audiovisual technology. Many law firms, particularly those which represent personal injury plaintiffs, are beginning to resemble recording studios because audio and video equipment is increasingly being used in the negotiation and litigation of cases.⁶⁶ Students should be made aware of these developments. To the extent that they have had some experience with hands-on use in their courses they will be better prepared to succeed in practice.⁶⁷

Don't ignore unlikely resources. Frequently videotapes dealing not with law but with related disciplines such as medicine and psychiatry can be successfully integrated into law school courses. For example, in my professional responsibility course, I use a medical tape about a seriously maimed burn victim who wants to be allowed to die to raise issues concerning the lawyer's role in the client's decision-making process and legal representation of repulsive and unpopular clients.⁶⁸

Consider employing videotapes in advising students. Some professors find that a large portion of their counseling duties involve dissemination of essentially the same information to students who are ready to receive that data at different times—as, for example, when students are instructed on how to write a resume or a cover letter when seeking employment or on how to take an exam. It may be worth considering the possibility of making a short

65. See Johnson, *supra* note 19. See also Alfred D. Mathewson, "Video Exam Exhibit," in *Innovations in Legal Education* (Matthew Bender, New York, NY 1987) (pamphlet; describing video exam used in Business Association I course at University of New Mexico School of Law). Teachers of psychiatry have also used videotaped examination questions. See Botein, *supra* note 1, at 8.

66. See generally Crawford, *supra* note 5.

67. Cf. Dresnick, *supra* note 7, at 581-83 (discussing benefits of student use of videotape equipment).

68. See Robert B. White, *Please Let Me Die*, (University of Texas Medical Branch at Galveston, Library of Psychiatric Disorders (Galveston, 1974).

videotape on such subjects for students to view before they come to your office for counseling tailored to their particular needs. The objective would be not to replace the very important high-touch advising component of the law school experience with a cold piece of videotape, but to make personal exchanges between advisor and student better informed and more productive.⁶⁹

*Avoid the talking head.*⁷⁰ Unless the individual is especially dynamic or captivating, lengthy, uninterrupted footage of a speaker standing at a podium is likely to bore the audience. The genius of videotape is that it can bring to the classroom events that could not otherwise be conveniently created there. If you use videotape to do what professors have always done well in personal, accessible fashion, such as present a lecture, you may be at a distinct disadvantage.

Exercise care in filming graphics. Graphic images, such as numbers and figures, require high resolution reproduction. Self-produced videotapes of such images, made by filming a blackboard, for example, tend to be disappointing in quality. It may be advisable to have the necessary segments commercially produced, then spliced into the tape.

V. Slides

A. Strengths

Depending upon the desired application, slides may offer advantages over both overhead projection and videotape. Unlike the former, which allows for only limited-quality reproduction of pictures, slides can present with clarity and vividness anything capable of being photographed well (e.g., an accident site, the scene of a crime, or a courtroom). In the process, it can invigorate the classroom. As Paul R. Baier has aptly said: "A picture is a door to ideas. It illuminates, it refreshes. It can kick an emotion out of you . . . [or] can guide a philosophy into you. A picture can inspire."⁷¹ Moreover, in comparison to videotape, the equipment required is relatively minimal.

Virtually all cameras use slide film, and, in any event, print negatives can be made into slides. Thus most law professors already own and are familiar with at least one of the two pieces of equipment basic to this medium (the other being the projector). Once slides have been made, they can, if properly cared for, be permanently retained for future use.

69. Cf. Botein, *supra* note 1, at 8 ("Videotape . . . could relieve teachers of teaching highly repetitive and simple materials—for example, legal research—to which a teacher's presence adds little").

70. See Crow, *supra* note 53, at 8-10 ("simply taking photographs of what is traditionally done in a regular classroom and then showing those pictures on television is not using television for the unique medium that it is").

71. Baier, *supra* note 9, at 621-22.

B. Weaknesses

The chief disadvantage of slides is that, in the absence of special facilities, production normally requires considerable lead time, which necessitates planning far in advance of use. Consequently, slides tend to be impractical for frequent use and are best employed for selected topics of recurring interest. In addition, the cost of film and developing likely exceeds, on a per visual basis, that, for example, of producing a high quality overhead transparency. While graphics, such as letters, numbers, and diagrams, can be photographed with slide film, it is generally necessary to use a tripod and perhaps special lighting to achieve the same quality of image as could be more easily obtained with an overhead transparency. Commercially produced graphics slides can be of a very high quality, but they may be so expensive as to restrict their use to only the most important projects.

As with overhead projection, the lighting in the classroom will be an important consideration in determining whether slides can be employed effectively. In addition, where front (as opposed to rear) projection is involved, it is necessary to determine whether the projector can be conveniently placed in an accessible location with an electrical outlet from which the proper size of image can be projected. (For audiovisual purposes generally, as well as for student use of tape recorders during class, the ideal arrangement is to have outlets mounted throughout the room, immediately beneath the desk tops, if possible.) If the classroom is tiered and there is some flexibility in seating, it may be advantageous to have the students leave the last row of seats in the center section empty, since this may be a good location to set up a slide projector. Where seating is on one level, it is necessary to use a stand capable of holding the projector such that the slide image is projected above student heads, unless a center aisle allows otherwise.

C. Equipment

The most popular type of slide projector houses slides in a circular carousel tray, which holds about 80 slides. The projector affords sufficient flexibility in advancing or reversing the sequence of presentation. The disadvantage is that carousel trays are bulky and, if multiple trays are used to hold numerous sets of slides permanently, storage may be a problem. This difficulty may be obviated by storing only the most lengthy slide collections in trays or by placing several slide series in the same tray. Repeatedly inserting and removing slides from a tray before and after each presentation can be tedious and also risks damaging the slides and confusing the sequence.

To enable the professor to face the students as much as possible and enjoy maximum mobility in the classroom, it is best for the projector to be able to advance, reverse, and focus by remote control.

Synchronization mechanisms are available to coordinate the use of multiple projectors so that one slide can dissolve smoothly into the next without black breaks in between. Typically, two projectors and the

synchronization device are held, one above the other, by a special stand that perfectly aligns the projected images. This type of optical dissolve can significantly enhance the quality of presentation and is particularly impressive when used with graphics slides to build a concept sequentially, point by point, or to develop a complex subject progressively. (For example, the first slide can verbally represent the first of several relevant points; the second slide, points one and two; the third, one, two, and three; and so forth.) Equipment is also available for synchronizing slides to an audio recording.

D. Hints on Usage

*Keep an eye open for new material.*⁷² Throughout the year you may spot situations that could be developed into hypotheticals for class discussion. (For example, you may see a dilapidated building that poses a risk of injury to persons using the adjacent sidewalk, or a store that forever advertises its once-a-year sale.) Instead of merely discussing these facts abstractly in class, photograph the scene and use the slides to spur discussion and heighten students' awareness of how evidentiary particulars can illuminate legal analysis.

Limit the number of slides. Too many are as bad as too few. Generally plan on at least 15–20 seconds per slide.

Make sure old slides are clean. There are several products on the market that can be used to clean slides.

VI. Conclusion

Select equipment with care, familiarize yourself with it, and make a good faith effort to integrate it into your teaching. Frequently ask yourself how your courses could be strengthened, enriched, or invigorated by the use of audiovisual media and, if necessary, set goals as to what you want to try during the course of a semester. As you consider your options and develop a plan, you will find that you will be thinking more clearly about your subjects and your teaching, and that effort will have a positive influence on the quality of your performance.

Do not be afraid to take chances. Only by experimenting with various media will you discover what works well for you. Discuss ideas and results with colleagues and, above all, solicit candid opinions from students. Because the students' perspective differs from yours, their thoughts and comments can be an invaluable asset to refining your style of presentation.

72. As has been well said in another context:

"The collection of interesting materials is an on-going process limited only by the range of your imagination. Newspaper stories and ads, television shows, cartoons, solicitation letters, your own consumer and business dealings can provide current examples of problems and principles which are often more exciting and understandable to students than a case note of some nineteenth-century appellate decision."

Newell, *supra* note 26, at 695. Physical props—e.g., handcuffs, binoculars, a replica of the Palsgraf package—can be as effective in the learning process as audiovisual media. These, too, are things one can collect over the course of time to use in conjunction with appropriate cases.

Save good materials for future use, and revise those which need perfecting. If you find something that is effective, plan to use it again at an appropriate time, for good ideas do not come often.

The greatest difficulty law professors face in using audiovisual media is not technical complexity, nor time, nor student reticence. Rather, the obstacle is inertia—the fact that such devices have seldom been used in law schools.⁷³ All that is necessary to overcome this inertia, however, is to make a commitment to try one new technique each semester in each course. Not all media will necessarily work well with all courses, but with a little experimentation, it will be easy to find what fits and what does not. With little to lose and much to gain, the opportunity should not be ignored.

73. Cf. Salavan, *supra* note 17, at (“The legal profession did not stop using scribes until 300 years after the Gutenberg flatbed press had been developed. . . . [I]t is hoped that the time between the availability and use [of videotape] will be somewhat less”).