Universal Instructional Design: Engaging the Whole Class

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UNIVERSAL INSTRUCTIONAL DESIGN: 
ENGAGING THE WHOLE CLASS

Douglas K. Rush and Suzanne J. Schmitz *

As law schools continue to diversify their student populations, legal educators are exploring how to better educate the lawyers of the future. The recently published Carnegie study of legal education has challenged legal educators to integrate the learning of legal theory with practical skills, and to do both within the context of building a professional identity. The Best Practices project challenges legal educators to find and adopt the best practices in setting educational goals, delivering instruction, and assessing student learning. In re-examining legal education, law professors should strive to engage as many students as possible. Legal educators can accomplish this by employing the principles of Universal Instructional Design, which will enable them to provide effective instruction to more students than ever before and maximize student involvement in the classroom.

The first part of this article discusses the increased diversity of today’s law student body. The second part explains the principles of Universal Instructional Design and applies those principles to legal education. The third part offers legal educators practical suggestions for implementing these principles. The appendix lists resources for further study.

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I. Background

The students in today’s law schools have changed. The number of college students who receive academic accommodation for learning disabilities has increased dramatically as a result of the passage of the Rehabilitation Act of 1973\(^4\) and the Americans with Disabilities Act of 1990\(^5\) (ADA). Almost ten percent of all college students report having some form of disability.\(^6\) Law schools have also experienced an increase in the number of students with disabilities.\(^7\) Disabili ties include physical disabilities such as vision, hearing, or mobility impairments, and learning disabilities including dyslexia and those presenting difficulties with math calculations, language, and handwriting.\(^8\) Universal Instructional Design seeks to develop an academic program to reach all those students in an inclusive format.\(^9\)

Not all students have similar learning styles. At least seven different learning styles have been hypothesized: print, aural, interactive, visual, haptic, kinesthetic and olfactory.\(^10\) The typical law school pedagogy is wedded to the Socratic methodology in spite of the recognition that students have different learning styles and the fact that increasing numbers of students with disabilities are entering law schools.

\(^7\) Linda F. Wightman, TEST TAKERS WITH DISABILITIES: A SUMMARY OF DATA FROM SPECIAL ADMINISTRATION OF THE LSAT, LSAC RESEARCH REPORT SERIES (1993).
Both the Best Practices Project and the Carnegie study call on legal educators to reconsider the use of the case-method or Socratic method of teaching. Law professors should re-visit their reliance on the Socratic method in light of the differing abilities and learning styles of the current population of law students who may benefit from different instructional techniques. To broaden their teaching methods, legal educators need to familiarize themselves with the principles of Universal Instructional Design which is the marriage of universal design and educational instructional design principles. Universal Instructional Design encourages faculty to develop curricula, teaching techniques and technology to make their classrooms accessible to students with differing learning styles and ability levels.

II. Universal Instructional Design

A. Universal Design in Architecture

The concept of universal design originated in an architectural context. The universal design concept was championed by Ronald L. Mace of the Center for Universal Design at North Carolina State University. Universal design began as an effort to integrate people with disabilities into the mainstream of society. Many of the architectural designs which were intended to make facilities accessible to individuals with disabilities actually benefit everyone. An iconic example of universal design principles is sidewalk curb-cuts. Sidewalk curb-cuts were originally implemented as a response to the Architectural Barriers Act of 1968 and the ADA which mandated the

12 Johnson, Creating Curb Cuts, supra, 9.
13 Id.; George, Inclusive Instruction, supra, 493.
elimination of physical barriers which impeded access for people with disabilities. However, it soon became obvious that sidewalk curb-cuts were beneficial to many people who were not disabled. Delivery people used the curb-cuts to wheel carts of materials to offices. Parents with baby strollers easily crossed streets with their small children. Aging baby boomers, who may not consider themselves disabled, find that sidewalk curb-cuts help them negotiate urban environments. Travelers with roller luggage could easily navigate city streets. Even skateboarders and bicyclists have found curb-cuts useful.

The principles of universal design are:

“Principle One: Equitable Use- The design is useful and marketable to people with diverse abilities.”\(^{16}\) The design should be developed for use by all people. The design should not stigmatize or segregate users and should be appealing to all.

“Principle Two: Flexibility in Use-The design accommodates a wide range of individual preferences and abilities.”\(^{17}\) Choice should be provided and the design should be adaptable to users of different paces and abilities.

“Principle Three: Simple and Intuitive- Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.”\(^{18}\) Complexity should be eliminated. The design should accommodate a wide range of intellectual ability and language skills. It should be consistent with user expectations and there should be prompt feedback after a user completes a task.

“Principle Four: Perceptible Information- The design communicates necessary information effectively to the user, regardless of ambient conditions or the user’s sensory


\(^{17}\) *Id.*

\(^{18}\) *Id.*
Different methods of presentation, including pictorial, verbal and tactile, should be incorporated in the design. Various techniques and devices should be used to recognize the different ability levels of persons encountering the design.

“Principle Five: Tolerance for Error- the design minimizes the hazards and adverse consequences of accidental or unintended actions.” The design should minimize unintended actions and should provide warnings of hazards or errors.

“Principle Six: Low Physical Effort-The design can be used efficiently and comfortably and with a minimum of fatigue.” Physical effort should be minimized, operating forces should be reasonable and users should be able to maintain neutral body positions.

“Principle Seven: Size and Space for Approach and Use- Appropriate size and space are provided for approach, reach, manipulation and use regardless of user’s body size, posture or mobility.”

B. Universal Instructional Design in Education

These universal design principles are being adapted to classroom instructional design. Instructional design is a systematic process of incorporating principles of learning and instruction into plans for teaching, materials and activities. Instructional design incorporates behavioral and cognitive learning theories and takes into consideration the differences among learners. These differences include the different intellectual

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19 Id.
20 Id.
21 Id.
22 Id.
24 Id. at 43.
development, cognitive styles, psychosocial traits, language development, and physiological characteristics of the learners.\(^\text{25}\)

One major goal of Universal Instructional Design is to approach educational instruction from an inclusive rather than an exclusive format. Historically, students with physical or learning disabilities were “accommodated.” This meant they were singled out for special treatment which could lead to stigmatization. Implementation of Universal Instructional Design principles would allow legal educators to create classrooms, materials and techniques accessible to all students regardless of learning style, language skills (including students for whom English is a second language), ethnic backgrounds, ability or disability.\(^\text{26}\) Dr. Sheryl Burgstahler suggests the following Universal Instructional Design principles be adopted in the context of the higher education classroom:

1. **Class climate.** Adopt practices that reflect high values with respect to both diversity and inclusiveness.
2. **Interaction.** Encourage regular and effective interactions between students and the instructor and ensure that communication methods are accessible to all participants.
3. **Physical environments and products.** Ensure that facilities, activities, materials, and equipment are physically accessible to and usable by all students, and that all potential student characteristics are addressed in safety considerations.
4. **Delivery methods.** Use multiple, accessible instructional methods that are accessible to all learners.
5. **Information resources and technology.** Ensure that course materials, notes, and other information resources are engaging, flexible, and accessible for all students.
6. **Feedback.** Provide specific feedback on a regular basis. Example: Allow students to turn in parts of large projects for feedback before the final project is due.
7. **Assessment.** Regularly assess student progress using multiple accessible methods and tools, and adjust instruction accordingly.

\(^{25}\) *Id.* at 55.
8. *Accommodation.* Plan for accommodations for students whose needs are not met by the instructional design.

Adopting Dr. Burgstahler’s Universal Instructional Design framework in higher education classrooms could include the following strategies:

**Class climate**\(^{27}\): Professors should demonstrate respect for all students and encourage the sharing of multiple perspectives. They should avoid stereotyping students. They should use teaching methods and materials that motivate students with different ethnic, age, gender and cultural characteristics. Professors should be approachable and available to students and should avoid segregating students by ability or disability.

**Delivery method**\(^{28}\): Professors should provide multiple methods of instructional delivery to accommodate different learning styles. They should use lecture, collaborative exercises, practical skills exercises, interactive and on-line instructional methods. Technology could be adopted to permit rapid feedback and assessment of student learning. Instruction should be provided in verbal as well as visual printed form. PowerPoint or other visual examples should be used during lectures and material should be posted on-line for easy student access. The content of the instruction should be made relevant by using practical, real world examples.

**Information resources**\(^{29}\): Professors should select course materials and books early to allow adequate time for the adoption of alternative materials for students with disabilities. Materials and texts should be selected which is available in multiple, accessible formats,

\(^{27}\) *Id.*

\(^{28}\) *Id.*

\(^{29}\) *Id.*
including digital electronic formats. Simple, intuitive materials and handouts should be utilized.

**Interaction**\(^{30}\): Professors should use student names wherever possible. They should use interactive teaching techniques. Office hours should be set, kept and students should be encouraged to visit often. Cooperative learning and group assignments should be adopted. Professors should provide feedback early and often. This may include giving multiple tests or written assignments throughout the semester. Students should be allowed to submit drafts of longer assignment for review and critique.

**Assessment**\(^{31}\): Professors should set clear expectations and provide clear and understandable grading methodology. Consistent standards should be set for all students. Clear expectations should be contained in the course syllabi including assessment methods, class attendance requirements, project deadlines and substantive knowledge and learning objectives. Students should be provided with multiple ways to demonstrate knowledge of the course content. Professors should consider giving tests which contain different formats including multiple choice, short answer and essay. Group projects, papers, demonstrations and student class presentations should be incorporated when possible. Unreasonable time deadlines should not be imposed. Professors should consider take-home or extended time on tests unless speed is an essential element of the instructional outcome.

\(^{30}\) Id.

\(^{31}\) Id.
Universal Instructional Design does not mean one teaching methodology fits all. Rather, it relies on multiple means of presentation, expression and engagement.\(^{32}\) Providing written class notes does not reach students with vision difficulties. Universal Instructional Design principles encourages faculty to present instructional material and receive student responses in multiple formats. The goal of Universal Instructional Design is to eliminate the need for accommodations because the design is so inclusive that no accommodation is needed. However, Universal Instructional Design is not a substitute for academic accommodations where required.\(^{33}\)

C. Universal Instructional Design and Legal Education

A recent symposium on lawyers with disabilities included a discussion of the use of Universal Instructional Design for law school classes and assessments.\(^{34}\) These principles offer legal educators helpful guidance as they reexamine their approaches to classroom instruction.\(^{35}\) Legal educators have been recently challenged to review their curricula for best practices. The critical principles underlying best practices for legal education are consistent with the principles of Universal Instructional Design. The Best Practices Project seeks to create and maintain effective and healthy teaching and learning environments. The Best Practices Project outlines these principles:

- Do no harm to students
- Support student autonomy

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\(^{33}\) Burgstahler, *Universal*, *supra*.

\(^{34}\) George, *Inclusive Instruction*, *supra*, 475.

\(^{35}\) *Id* at 498. The authors cautioned that there is a need for Universal Instructional Design principles to be validated in the context of legal education.
• Foster mutual respect among students and teachers
• Have high expectations
• Foster a supportive environment
• Encourage collaboration
• Make students feel welcome and included
• Engage students and teachers
• Give regular and prompt feedback
• Help students improve their self-directed learning skills
• Model professional behavior.\textsuperscript{36}

These best practices parallel several of the principles of Universal Instructional Design. For example, in creating a positive classroom climate, professors should foster a supportive environment, make students feel wanted and included, foster mutual respect, and live by the maxim to do no harm to students. Professors should encourage collaboration and establish means of interacting with student, delivery of the material, and providing information resources. Professors should support student autonomy, set high expectations, offer regular and prompt feedback, and help students improve their self-directed learning skills. Because law schools have so long relied on the one final exam at the end of the term,\textsuperscript{37} the most challenging of these for law faculty may well be providing regular and prompt feedback.

The principles of Universal Instructional Design provide practical means by which legal educators may incorporate the best practices of legal education into their classroom

\textsuperscript{36} Stuckey, \textit{Best Practices, supra}, 110-129.
\textsuperscript{37} Stuckey, \textit{Best Practices, supra}, 236
instruction. The suggestions for incorporating universal design into education are consistent with the recent recommendations for best practices in legal education.\(^{38}\)

III. Incorporating Universal Instructional Design into the Law School Classroom

A. Introduction

There are many resources that may assist legal educators in incorporating Universal Instructional Design into law school classrooms. The remainder of this article will focus on just a few steps law professors may take to incorporate these principles into their classes.

Take small steps at first. Faculty should choose one portion of one course to redesign each semester to avoid being overwhelmed by the changes in their curricula. Faculty members should evaluate the effectiveness of each change in order to determine whether the change works best for their instructional techniques. Successful methods can be incorporated into the curricula and unsuccessful changes modified or eliminated.

After each change is evaluated, modified or incorporated, another can be implemented until the courses are fully re-designed in a manner consistent with Universal Instructional Design principles. Partnering with a fellow faculty member at the same or another law school may be helpful. A coordinated effort by two or more faculty can

\(^{38}\) Id.
produce better ideas. Law school faculty may benefit from consultations with experts in
campus centers for students with disabilities.\textsuperscript{39}

Advanced planning is also critical to the incorporation of Universal Instructional
Design principles. Faculty may wish to use a teaching grant during the summer to
redesign one of their courses to incorporate Universal Instructional Design components.

B. Practical Suggestions: Getting Started

The suggestions listed here are meant to stimulate faculty planning and are not
exhaustive. The suggestions are presented in the order in which faculty might use them,
from selection of course materials through assessment of instructional goals. In
examining these suggestions, faculty may question where to start. One response is to
start small, with those ideas that seem more readily achievable. One early success may
spur more successes.

A second approach is to start by creating a climate that invites students to discuss
their learning needs. A statement in the syllabus that students are welcome to bring
questions to the professor or to offer the professor ideas for improving the course begins
to create the climate. An oral announcement during the first several classes establishes a
tone helpful to students feeling that their suggestions will be welcome. As faculty
members receive suggestions, they can make the changes most sought by the class if they

\textsuperscript{39} Many universities have centers for students with disabilities and law faculty may want to consult with
these experts. For those law schools without such a center, there is useful guidance on the web. \textit{See
Hamline University, Faculty and Staff Guide to Students with Disabilities},
http://www.hamline.edu/hamline_info/offices_services/student_relations/studentaffairs/disabilities_services/disability_home.html
(last visited Feb. 26, 2009). \textit{See also U. of Ca. at Los Angeles, Teaching Students with Disabilities: A UCLA Faculty Guide},
http://www.osd.ucla.edu/docs/Handbooks/FacultyGuide.htm
(last visited Feb. 25, 2009).
believe them appropriate. Such an invitation opens the door to further adoption of the principles of Universal Instructional Design and does so in a way that is responsive to student needs.

A third approach is to start with what counts most in the minds of many law students, the final exam. Faculty members should create multiple means of evaluation, make clear the standards for evaluation and grading, and promulgate the standards in several media formats. Faculty members should provide multiple opportunities for students to practice and prepare for the evaluations.

These three approaches: start with readily achievable ideas; creating a welcome class climate; and start with the evaluation – can guide the law school professor reading the suggestions that follow.

C. Selection of Course Materials

Professors should select course materials early and should consider whether the materials are available in digital formats.\textsuperscript{40} Currently, most of the major law publishers can provide digital forms of most casebooks and related materials. Students who receive the material in a digital format can convert the product into a format useful to them such as a Braille or large print version of the text. Other students will opt to have a screen reader device read the text to them.\textsuperscript{41} A screen reader is a software application that


interprets what is displayed on a screen, using voice, sound icons, or Braille. Screen readers are helpful to students with vision disabilities. Some students with learning disabilities benefit from screen readers by being able to listen to the text being read to them as they follow along in print.

Faculty members distributing supplemental material throughout the semester must plan ahead. As the school term progresses, professors should provide in advance of the class session any additional materials or handouts, including citations in order to permit students to access the material on-line and "take it in" in the format that works for them. Posting the material on a web-based course management system such as TWEN or Blackboard permits students to download the material in the preferred format. When students receive information on disc or in a digital format, they control how they "read" it. That is, they can enlarge the font or otherwise change the look of the material to make it easier for them to read and understand it.

D. Preparation and Posting of Syllabi

Designing the course syllabus also requires advanced planning and likely, some re-tooling. To reach students with various learning styles and disabilities requires that faculty alert students to the methods of teaching and evaluation being employed. The

42 Id.
43 Id.; George, Inclusive Instruction, supra, 493.
46 The ability of the student to control the document depends on whether it is produced in Word or WordPerfect, which permits student control. Documents produced in PDF format may not be subject to change by students. See AccessIT, Accessible File Formats in School Environments, http://access-it-online.info/public/showpub.asp?num=147 (last visited Feb. 25, 2009).
syllabus needs to be available to students in advance of the term for those who need to start early. At a minimum, a syllabus that meets the goals of Universal Instructional Design would include these items:

- Course goals and objectives
- Attendance and other class policies
- Required assignments and due dates
- Schedule of any other important dates
- Invitation to students with disabilities to meet with the professor to discuss any accommodations.

Professors as well as students benefit from posting the syllabus on the web. Doing so makes material available on-line to students throughout the semester. This will ease updating material each semester, will save paper and time spent copying and will provide accessibility to those with disabilities. Posting material on the web is a convenience for professors and students for whom travel is a challenge because of disability, work hours, community problems or family responsibilities.

E. Presentations in Class

Many law professors rely on the Socratic method or the lecture method. The Carnegie Study and the Best Practices Project recommend revisiting the widespread use of the Socratic method in legal education. Professors using it may still find alternative methods to encourage classroom dialogue between the professor and student.

47 Burgstahler, Universal, supra.
49 Stuckey, Best Practices, supra, ch. 6; Sullivan, Educating Lawyers, supra 75-78.
Explaining the Socratic method and its purpose to students will increase student understanding and give them some sense of control over the class, thus improving the class climate, the delivery of the material and student-faculty interaction.

There are a number of steps Socratic professors can take to help students learn. For example, some Socratic professors give a short lecture at the beginning or end of each class which summarizes the previous or present day's material. The summary can also be posted in an electronic format such as TWEN or Blackboard. Some Socratic professors write key vocabulary, legal concepts or key questions on the chalkboard or white board or project them on a power point slide. Some white boards are interactive, permitting professors to save in digital format what is written on the board in class. Professors may then post the material to a webpage or distribute to students in print or digital format.

Other professors using the Socratic method may use the whiteboard to record key concepts derived from the dialogue with students and save and share these concepts. Professors who use a chalkboard in class may reproduce the key concepts in a digital format available to students. Still other Socratic professors might assign a student to record and post key terms and concepts on-line. Any of these methods would expand traditional Socratic method into a multi-modal teaching style.

One issue of debate among law school professors is whether to permit students to videotape or audiotape classes for later review. Many students benefit from being able to

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50 Stuckey, Best Practices, supra, 130.
51 See Blackboard, supra; AccessIT, supra.
re-visit the class through a digital or analog recording. Some professors permit audio recording of their classes. Other professors fear that students will not attend class if an audio recording available. Professors can adopt policies to ensure attendance and participation, while permitting students to record their lectures for later review. Several law schools routinely digitally record classroom instruction and post those recordings to law school web sites for student use.

F. Multiple Formats for Lecture Material

Professors should offer the lecture material in multiple forms which assists not only for those who may have hearing impairments but also those who are visual learners. Suggestions may include:

- Use power point slides or other visual supplements
- Post key terms, concepts, questions or concepts in digital format prior to or during class
- Use a hearing interpreter or a real time transcription
- Take a few minutes of class time to discuss note-taking during lectures
- Distribute an outline of the lecture before or after class.

Professors who use lectures can benefit from tips on designing, delivering, and evaluating smart lectures, with tips on accommodating various student learning styles. For example, college professors are advised to break a lecture every 12-15 minutes to

53 George, Inclusive Instruction, supra, 496.
54 Bowe, Universal Design in Educ., supra; See also U. of Wash., DO-IT, Computers, supra.
include 2-4 minutes of when students interact with the material.\textsuperscript{56} This interaction could be an electronic quiz,\textsuperscript{57} a free-write exercise,\textsuperscript{58} a poll,\textsuperscript{59} or any other means of interaction.

As noted above, when students receive materials in an electronic format, they can adjust the product to fit their reading needs.\textsuperscript{60} Some educators recommend that lecturers distribute their class notes, but some legal educators are reluctant to do so. Some professors are concerned that students will miss class or "tune out" of class, relying on the notes. Another concern is that students will mine the lecture notes for answers, and in doing so, will fail to appreciate that the classroom is the laboratory for engaging in legal analysis. This latter concern can be addressed by frequent assessments to help students realize that legal education focuses on reasoning, not on answers. Finally, because their presentations depend on the responses of the students, legal educators cannot script their classes; and so they may not want to distribute materials in advance. Nevertheless, professors who choose not to post materials in advance, can offer multi-modal presentations of the materials by use of the other suggestions offered here.

G. Power Point Presentations

Many law professors accompany their lectures with power point slides. Power point presentations improve delivery of the material, provide multiple methods of access to information resources, and provide for interaction and communication. Power point slides should be posted in an accessible format. In preparing slides, professors should:

\textsuperscript{56} \textit{Id.}
\textsuperscript{57} See below for more on electronic quiz.
\textsuperscript{58} See below for more on free write.
\textsuperscript{59} See below for more on classroom performance systems.
\textsuperscript{60} Bowe, \textit{Universal Design in Educ., supra.}
• Use sans serif font
• Use large font
• Limit text to seven lines of seven words per slide
• Use light text on dark background.  

Some professors post the questions rather than the answers on the slides to emphasize the analytical nature of legal education. Some professors post the key language of the rule – a common law rule, statute, regulation, or Restatement – to focus students’ attention while parsing and applying the language. A number of universities offer online guides to the use of technology.  

H. Audio or Visual Recording of Instruction

Professors who use audio or video presentations already provide multimodal delivery. They too can enhance delivery with a few tips. Professors should consider closed captioning when using video presentations in the classroom. Professors using audiotapes should provide a transcript of the material which benefits not only those with hearing impairments but also those whose learning style is visual rather than aural. Some professors are adopting podcasts of class presentations. Podcasts are audio

63 See U. of Wash., DO-IT, Computers, supra; U. of Wash., DO-IT, Glossary, supra.
64 Id.
65 Campus Information Technologies and Educational Services U. of Ill. at Urbana-Champaign. http://www.cites.illinois.edu/edtech/investigate_edtechnologies/supported_systems/podcasting/index.html (last visited Mar. 24, 2009); Podcasting Plus, Division of Information Technology, U. of Wisc. Madison,
recordings available on the web. A professor could create a podcast of a class, guest speaker, material that might have been a "hand out," or optional background material. The above suggestions will increase physical access to the material, multiply methods of delivery, and increase accessibility to informational resources.

Law school classes should be designed to permit students multiple means of recording the material. Traditionally, students took notes on paper. More recently, they use laptop computers. While some professors fear the distractions caused by laptops, others appreciate their benefit to students. Class notes may be taken on a laptop with minimal physical effort and are easier to organize. Digital or analog audio tape recorders provide another opportunity for students to record notes with minimal physical effort. Again, some professors fear that students will disengage during class and “fast forward” through the audiotapes for the answers, skipping over the reasoning process. Legal educators who permit audio recordings or laptops computers should adopt classroom policies which discourage the distractions that can accompany their use and the potential for absences or disengagement that may occur. Professors concerned that their students will disengage from legal analysis might use periodic quizzes requiring legal analysis to emphasize the importance of focusing on legal analysis.

I. Pre- and Post-Instruction Writing Assignments


Professors should re-assess their approach to classroom assignments to incorporate Universal Instructional Design principles. Some professors begin class with a "free write" exercise, in which students write for three or so minutes on a topic of the day. For example, students might write about the difficulties of proving oral contracts as an introduction to the Statute of Frauds. Such an exercise, even if it precedes a more traditional Socratic discussion, involves all students, gives time to those who need to think before they speak, and benefits students of various learning styles.

Likewise, professors might end class by having students write or record what they learned from the class or make a list of areas which remain confusing to them and submit them those lists to the professor. Students could then send their questions to faculty via e-mail, text messaging, or through TWEN. This method of reflection at the end of class serves to help students focus on the learning objectives and alerts the professor to weaknesses in the class' understanding of the material under discussion. This procedure also helps students receive feedback concerning their understanding of the material covered in class.

J. Group or Collaborative Learning Techniques

Professors should consider incorporating group projects into their curricula. Discussion, role play, simulations, and demonstrations are among the suggested best practices of legal education and can provide instructional benefits to a broad variety of student learning styles and disabilities. Faculty members need not be experts at teaching through simulation, though careful planning is needed. For example, students in

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property might write and present closing arguments on nuisance, using the facts from a case as the evidence.\textsuperscript{68} This type of exercise helps students learn the substantive law, learn persuasive argument and learn the persuasive use of facts.

K. Electronic Classroom Response Systems

Another means of involving the entire class in class discussion, whether presented by lecture or Socratic method or otherwise, is to pose a question or ask an opinion of the entire class. Classroom performance systems\textsuperscript{69} such as “clickers” as well as features available through TWEN and Blackboard permit electronic posing of the questions and instantaneous reporting of the results, through graphs and charts.

This type of electronic enquiry, especially with instant report of the results, provides the class with immediate feedback as to their understanding of a case or rule. It also motivates those who did not do well on the question to focus on the material during the remainder of the class and review the issue after class. Polling also involves all of the class, appeals to students of various learning styles, and is fairly accessible to all. Seeing the range of opinion in the class may invite more spirited discussion and create a safe environment in the class as part of the Universal Instructional Design.

\textsuperscript{68} One property professor at Southern Illinois University uses this exact assignment as an exercise prepared out of class and performed in class. Many casebooks today contain lawyering exercises that help students master the material in ways other than those traditionally employed.

L. Other Technology Resources

Currently available technology permits professors to be even more creative in identifying multiple means of presenting material, engaging students in the material, and capturing their responses to the material. Blogs, webpages, podcasts and course management systems are only a few of the examples of the technology currently available to law professors which enable them to reach students of various learning styles and disabilities. Sources of information for professors on these and other techniques include the CAST webpage as well as the Do-It and AccessIT projects already discussed. Faculty may learn about the accessibility of the web resources through visiting the World Wide Web Compendium. Additional information on use of technology is available through the Center for Teaching at Vanderbilt University, the Illinois Center for Instructional Technology Accessibility, the Center for Teaching and Learning at the University of Minnesota, and other university webpages. This article does not purport to describe all of the technology available to law professors; rather, it offers examples of technology which may be helpful in applying the principles of Universal Instructional Design.

M. Assignments of Major Projects or Papers

70 Podcasts are audio recording available on the web. See also Vand. U., Center, supra; U. of Minn. Center, supra.
72 Supra note 8.
75 Vand. U. Center, supra.
77 U of Minn., Center, supra.
Professors should break major assignments into parts, require periodic submissions and provide prompt feedback, rather than assigning a large project which is due at the end of the semester. Some legal writing programs require students to submit appellate brief in parts. Students receive feedback after each submission. For example, students could complete the issue statement, statement of facts, summary of the argument, and so on, by various deadlines and receive feedback on each. This approach offers prompt and constructive feedback to students and permits them time to improve their final brief. A reflective exercise on the value of breaking major projects into manageable parts may prove helpful to students in their professional development.

Professors should consider creating alternative means of submitting written assignments. Students who commute, those with mobility problems, those with family or work commitments, or those at home because of illness will benefit from the chance to upload materials electronically rather than physically turning in the assignment. Electronic submissions may be as simple as sending an attachment with an e-mail or using the course management system. For example, TWEN has an assignment drop box feature which allows students to submit assignments using an exam number or other anonymous identifier.

N. Setting Office Hours

The purpose of law professor office hours is for the professor to be available to students at a set time. Faculty may fulfill this requirement by being physically present in the office or by being available through e-mail, instant message, the web, telephone, or

78 Burgstahler, Universal, supra; George, Inclusive Instruction, supra, 496.
79 e.g., TWEN Assignment Drop Box.
other means. Students with mobility impairments, students who need to stay home with a sick child, students with a part-time job off-campus, or those who commute may appreciate faculty being available through a variety of means. Faculty members should clarify expectations, however, concerning the conflicting demands on a professor's time. For example, a professor may refuse to take a phone call while a student is in the office. Faculty should also appreciate that some matters are best handled in person, while others can be quickly resolved without the need for in-person contact.

O. Assessing Student Performance

The typical law school method of assessing student performance remains the closed book, timed, written exam. Many law school professors have considered alternatives including open book exams, take home exams, and un-timed exams. Many law schools are using Exam Soft\(^{80}\) or other electronic programs to permit students to type rather than hand-write their exams. Permitting students to use software to prepare their exams meets the Universal Instructional Design goal of requiring minimal physical effort on the part of the student, while making exam reading much easier on professors.

Many professors are experimenting with other assessment alternatives. However, professors can design traditional exams to be more universally accessible. Advanced planning is necessary so that printed exams can be reformatted for those who need the exam in other formats. Professors using open book exams should consider whether the amount of material allowed to be brought into the exam disadvantages those with vision or other problems. In some instances, a diagram or other graphic may be more useful in

presenting the facts than a narrative; however, professors should avoid graphics unless they can be easily reformatted for those who cannot see them.

A take-home exam permits students to access the material in the students’ preferred style and is more equitable. Students can plan, write, and edit their work in a time frame suitable to their needs.\(^\text{81}\) No matter the form of the exam, professors can help all students prepare for exams by making available past exams typical of those currently being given. Professors can provide a model check sheet or grading rubric from a past exam or a practice exam to help students preparing for the exam.

Those professors who recommend CALI\(^\text{82}\) or other exercises and those who give practice exams are also acting consistently with the Universal Instructional Design goal of offering frequent feedback. Some professors assign written take-home problems throughout the semester on a graded or ungraded basis, but with some feedback for improvement. Feedback can also be given in class for all, presented by electronic means outside class,\(^\text{83}\) or presented individually on the assignment.

P. Academic Support Professionals

Academic support professionals are interested in tools used by students to master instructional content and to prepare for exams. The term "mind mapping" refers to organizing tools used by students who prefer to arrange materials in ways other than traditional linear outlining. These aids or tools can be as simple as index cards arranged

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\(^{81}\) George, Inclusive Instruction, supra, 493.
\(^{83}\) e.g., via TWEN, podcast, email, or other means.
on a desk or laid out on the floor, or pinned to a wall or as complex as computer software.  

Academic support professionals should be mindful of the need to share information, including announcements, through several modes of presentation. When preparing workshops, academic support professionals should follow the suggestions made earlier in this paper. Academic support professionals should also consider how to improve their in-person communications with students of various learning styles. One tip is to ask the student, at the end of a meeting, to repeat back the “take away” message or the task to be done. Student who verbalize the message tend to recall it.

Q. Resources Helpful to the Professor

There are many websites which can introduce law school professors to Universal Instructional Design principles, help them undertake re-designing their courses and offer practical suggestions. The AccessIT\textsuperscript{85} and DO-IT\textsuperscript{86} projects at the University of Washington are invaluable resources as is FacultyWare\textsuperscript{87} at University of Connecticut. The DO-IT project has practical and up-to-date suggestions on the use of computers when working with students with learning disabilities. Among many other topics, it discusses screen readers, computer organizational tools, talking calculators, and concept


\textsuperscript{85} World Wide Web Consortium, supra.

\textsuperscript{86} U. of Wash., DO-IT, Computers, supra.

\textsuperscript{87} U. of Conn., Faculty Ware: Tools for the Universal Design of Instruction, http://www.facultyware.uconn.edu/ (last visited Mar. 24, 2009).
mapping. Likewise, the CAST project seeks to develop technology based resources and strategies that will expand learning opportunities for all, including those with disabilities.

For ideas on teaching generally and specifically on teaching in diverse classrooms, the Derek Bok Center on Teaching and Learning at Harvard has numerous practical suggestions. These include "Teaching in Racially Diverse Classroom" and "Managing Hot Moments in the Classroom." Likewise, the Center for Faculty Excellence at Vanderbilt University, and Center for Faculty Excellence at University of North Carolina Chapel Hill have material on teaching for inclusion and Diversity and Learning material is available at the University of Indiana.

Guides for working with students with disabilities are available from most universities. Several such guides are available on university websites. Additionally, the Association for Higher Education and Disabilities has useful information for professors. In particular, the Center on Postsecondary Education and Disability at the University of Connecticut offers links to practical guides for professors. The Center for Teaching at Vanderbilt University, the Center for Teaching and Learning at the University of Minnesota and the Center for Faculty Development at the University of Connecticut offer guides for working with students with disabilities.

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89 Derek Bok Center for Teaching and Learning, http://bokcenter.fas.harvard.edu/icb/icb.do (last visited Mar. 24, 2009).
90 Vand. U. Center, supra.
93 Ass’n. on Higher Educ., Perspective, supra.
95 Vand. U., Center, supra.
Colorado offer practical tips for online and multimedia presentations, including how to design power point presentations for universal accessibility.

A list of resources is attached as an appendix.

IV. Conclusion

Legal educators can strive to incorporate the best practices of legal education and engage more students by adopting the principles of Universal Instructional Design. In doing so, professors will teach in a more inclusive fashion and eliminate much of stigmatization and exclusion that occurs when dealing with students with disabilities. Further, the incorporation of Universal Instructional Design principles will allow faculty to reach more students -- those with various learning styles, those for whom English is a second language and those with learning disabilities. Professors will better engage students of both genders and all ethnic and racial backgrounds as well.

The examples presented here are intended to open the dialogue concerning how legal educators can implement these principles. Professors who find a colleague and undertake three or four modifications in one or two courses each year will find renewed interest in teaching. They will be rewarded by knowing they have reached more students than ever before.
APPENDIX

UNIVERSAL INSTRUCTIONAL DESIGN

ADDITIONAL RESOURCES

1. FacultyWare: This site is the product of the Universal Design for Instruction project at the University of Connecticut, and it is designed to provide you with a broad range of information and tools to enhance the design and delivery of instruction for diverse college students. www.facultyware.uconn.edu.

2. DO-IT: serves to increase the participation of individuals with disabilities in challenging academic programs and careers. It promotes the use of computer and networking technologies to increase independence, productivity, and participation in education and employment. www.washington.edu/doit.

3. CAST: is a nonprofit organization that works to expand learning opportunities for all individuals, especially those with disabilities, through the research and development of innovative, technology-based educational resources and strategies. www.cast.org.


6. AccessIT: promotes the use of electronic and information technology (E&IT) for students and employees with disabilities in educational institutions at all academic levels. www.washington.edu/accessit.

7. W3C: The World Wide Web Consortium (W3C) develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential. www.w3.org.


12. Phillip Cohn, Learning *Disabilities in Law School: Coping with Traditional legal Pedagogy from the Classroom to the Workplace*, 15 INSIGHTS ON LEARNING DISABILITIES 16 (Nov. 2004).


15. Faculty Ware: Tools for the Universal Design of Instruction, University of Connecticut, http://www.facultyware.uconn.edu/.