

# Seattle University School of Law Digital Commons

---

Faculty Articles

Faculty Scholarship

---

2001

## I Know that I Taught Them How To Do That

Laurel Oates

Follow this and additional works at: <https://digitalcommons.law.seattleu.edu/faculty>



Part of the [Legal Education Commons](#), and the [Legal Writing and Research Commons](#)

---

### Recommended Citation

Laurel Oates, I Know that I Taught Them How To Do That, 7 *LEGAL WRITING: J. LEGAL WRITING INST.* 1 (2001).

<https://digitalcommons.law.seattleu.edu/faculty/338>

This Article is brought to you for free and open access by the Faculty Scholarship at Seattle University School of Law Digital Commons. It has been accepted for inclusion in Faculty Articles by an authorized administrator of Seattle University School of Law Digital Commons.

# I KNOW THAT I TAUGHT THEM HOW TO DO THAT

Laurel Currie Oates<sup>1</sup>

It has happened to all of us. Although we know that we have taught our students how to do something, they do not seem to be able to use what it is that we have taught them. For example, even though we have taught our students how to research a problem that required them to locate and apply a state statute, they seem lost when we ask them to research a problem that requires them to locate and apply a federal statute. Similarly, even though we have taught our students how to organize the discussion section of a memo that required them to set out and analyze the elements of a criminal statute, they do not see that they should use the same organizational scheme for a memo that requires them to set out and analyze the elements of a tort.

The frustrations that we have experienced are common ones. For years, teachers have complained that students are not able to recognize that information acquired in one class is also applicable in another class,<sup>2</sup> and employers have complained that their employees cannot apply the skills that they learned in school to real world tasks.<sup>3</sup> Although students can compute the acceleration of an object when the problem is presented to them in their physics class, they cannot solve the same problem when it is presented to them in “real life.”<sup>4</sup>

In response to these complaints, in the 1980s researchers began studying the problem of transfer, that is, the use of knowledge or a skill acquired in one situation to perform a different task.<sup>5</sup> In one of the first experiments on transfer, Gick and Holyoak<sup>6</sup> read

---

<sup>1</sup> Laurel Currie Oates is the Director of Legal Writing at Seattle University School of Law.

<sup>2</sup> Mary L. Gick & Keith J. Holyoak, *Analogical Problem Solving*, 12 *Cognitive Psychol.* 306, 349 (1980).

<sup>3</sup> See Miriam Bassok & Keith J. Holyoak, *Interdomain Transfer between Isomorphic Topics in Algebra and Physics*, 15 *J. Experimental Psychol.: Learning, Memory & Cognition* 153, 153 (1989).

<sup>4</sup> *Id.* at 154.

<sup>5</sup> Nancy Penington, Robert Nicolich & Irene Rahm, *Transfer of Training between Cognitive Subskills: Is Knowledge Use Specific?*, 28 *Cognitive Psychology* 175, 176 (1995).

<sup>6</sup> Gick & Holyoak, *supra* n. 2, at 351.

the following story to their subjects:

A small country fell under the iron rule of a dictator. The dictator ruled the country from a strong fortress. The fortress was situated in the middle of the country surrounded by farms and villages. Many roads radiated outward from the fortress like spokes on a wheel. A great general arose who raised a large army at the border and vowed to capture the fortress and free the country of the dictator. The general knew that if his entire army could attack the fortress at once it could be captured. His troops were poised at the head of one of the roads leading to the fortress, ready to attack. However, a spy brought the general a disturbing report. The ruthless dictator had planted mines on each of the roads. The mines were set so that small bodies of men could pass over them safely, since the dictator need to be able to move troops and workers to and from the fortress. However, any large force would detonate the mines. Not only would this blow up the road and render it impassable, but the dictator would then destroy many villages in retaliation. Therefore, a full-scale direct attack on the fortress appeared impossible.

The general, however, was undaunted. He divided his army up into small groups and dispatched each group to the head of a different road. When all was ready he gave the signal, and each group charged down a different road. All of the small groups passed safely over the mines, and the army then attacked the fortress in full strength. In this way, the general was able to capture the fortress and overthrow the dictator.<sup>7</sup>

They then presented their subjects with Duncker's<sup>8</sup> tumor problem.

Suppose you are a doctor faced with a patient who has a malignant tumor in his stomach. It is impossible to operate on the patient, but unless the tumor is destroyed the patient will die. There is a kind of ray that can be used to destroy the tumor. If the rays reach the tumor all at once at a sufficiently high intensity, the tumor will be destroyed. Unfortunately, at this intensity the healthy tissue that the rays pass through on the way to the tumor will also be destroyed. At lower intensities the rays are harmless to healthy tissue, but they do not affect the tumor either. What type of procedure might be used to de-

---

<sup>7</sup> *Id.* at 351.

<sup>8</sup> Karl Duncker, *On Problem Solving*, 58 Psychol. Monographs 1, 2-17 (1945).

stroy the tumor with the rays, and at the same time avoid destroying the healthy tissue?

For those familiar with the two problems, the parallels are clear. In both problems there is an object that must be destroyed. In addition, in both problems a direct attack will not work. Finally, in both problems the solution requires division and then convergence. The “force” must be divided and the object attacked simultaneously from several different directions. Despite these parallels, few of Hick and Holyoak’s subjects saw the connections between the two problems. After reading the fortress story, only 20% of the subjects used the division and convergence solution to solve the tumor problem.<sup>9</sup>

In the years since Gick and Holyoak’s experiments, most of the research on transfer has been done in well-structured domains<sup>10</sup> using isomorphic problems, for example, word problems that require students to use similar solutions. Within this context, researchers have identified four steps involved in transfer: problem representation, search and retrieval, mapping, and application.<sup>11</sup>

## PROBLEM REPRESENTATION

Most problems can be represented in a number of different ways: they can be represented in terms of their surface features, that is, the specific facts of the problem;<sup>12</sup> they can be represented in terms of their underlying structures, that is, those abstract features or principles that are relevant to the solution;<sup>13</sup> and they can be represented in terms of the procedures required to solve problem.<sup>14</sup> Research has shown that the way in which an individual represents a problem depends on his or her level of expertise.<sup>15</sup> As a

---

<sup>9</sup> Gick & Novack, *supra* n. 2, at 325.

<sup>10</sup> Although some researchers have distinguished problems in well-structured domains from problems in ill-structured domains, most researchers indicate that the extent to which a problem is well-structured or ill structured is relative and that the same principles apply. James F. Voss & Timothy A. Post, *On the Solving of Ill-Structured Problems*, in *The Nature of Expertise* 261, 262 (M.T.H. Chi, Robert Glaser & M.J. Farr eds., Univ. of Pittsburgh Press 1988).

<sup>11</sup> Zhe Chen, *Schema Induction in Children’s Analogical Problem Solving*, 91 J. Educ. Psychol. 703, 704 (1999); see Laura R. Novick, *Analytical Transfer, Problem Similarity, and Expertise*, 14 J. Educ. Psychol. 510, 511 (1988).

<sup>12</sup> Novick, *supra* n. 11, at 511.

<sup>13</sup> *Id.*

<sup>14</sup> Zhe Chen, *Analogical Transfer: From Schematic Pictures to Problem Solving*, 23 Memory & Cognition 255, 257 (1995).

<sup>15</sup> Novick, *supra* n. 11, at 518; see Brian H. Ross, *Distinguishing Types of Superficial Similarities: Different Effects on the Access and Use of Earlier Problems*, 15 J. Educ. Psychol.:

general rule, novices will represent the problem in terms of its surface features.<sup>16</sup> In contrast, experts will represent a problem in terms of its surface features, its underlying structure, and the procedures required to solve the problem.<sup>17</sup> For example, a novice would represent the fortress problem in terms of its specific facts: a fortress, a general who wanted to attack the fortress, and mines on the roads leading to the fortress. In contrast, the expert would represent the problem not only in terms of its specific facts but also in terms of the more general structure of the problem, that is, as a problem involving an object that must be destroyed but that cannot be directly attacked, and as the type of problem that can be solved using a division and convergence problem solution.

## SEARCH AND RETRIEVAL

Once individuals have represented the problem, they begin searching their memories for an analogous problem that they can use to solve the current problem. Three factors seem to affect this process.

The first factor is the individual's level of expertise.<sup>18</sup> Because novices represent problems in terms of their surface features, in searching their memories they look only for problems that involve similar surface features.<sup>19</sup> For example, when given the tumor problem, novices search their memories for prior problems involving tumors. In contrast, experts will search their memories not only for prior problems with similar surface features but also for problems that have the same underlying structure.<sup>20</sup> Thus, experts would search their memories both for problems involving tumors and for problems involving objects that must be destroyed but that cannot be directly attacked. The result is that while the novices would not find an analogous problem, the experts might.<sup>21</sup>

The second factor that affects the search and retrieval process

---

Learning, Memory, & Cognition 456,456 (1989).

<sup>16</sup> Novick, *supra* n. 12, at 518.

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> The finding that novices typically search for problems with similar surface features is illustrated in Legal Writing by the observation that, in researching a problem, most first-year students look for cases that have the same facts as the facts in their problem. For example, when asked to research a problem involving the search of a locked glove compartment, some students look only for cases involving the search of a locked glove compartment. Unless they are prompted, they do not look for cases involving other types of locked containers.

is the level of abstraction at which the individual represents the problem's surface and underlying structural features. Sander and Richard<sup>22</sup> have hypothesized that individuals look first for an analogy that shares, at a concrete level, the same surface and structural features as the problem that they have been asked to solve. For example, in learning how to use a text editor (word processor), individuals will look first to the domain of typing. If the first analogy that they look to is not sufficient to help them solve the problem, they will then look to a more abstract "domain."<sup>23</sup> If they cannot learn to use a text editor by referring back to their knowledge about typing, individuals will look to the general domain of writing. If they are still not able to solve the problem, then individuals will look to the even more general domain of object manipulation.<sup>24</sup>

The third factor that appears to affect the search and retrieval process is the way in which individuals store what they learn.<sup>25</sup> A number of researchers have suggested that knowledge is typically embedded in the context in which the knowledge was originally acquired.<sup>26</sup> Thus, when individuals learn a particular concept in a math class, that concept is stored with other information that they have learned in math. This storage system works well when the new problem is encountered in the same context as the old problem. When individuals encounter the new problem in math class, they will search their memories for similar problems encountered in math class. The system does not work, however, when the new problem is encountered in a different context. If the individual encounters the new problem at work, he or she will search for similar problems encountered at work and not for prior problems encountered in math class. As a result, it is unlikely that the individual will be able to retrieve the prior problem. Similarly, unless told to do otherwise,<sup>27</sup> our students will store new information about contracts with the other information that they have learned in contracts, new information about torts with the other information that they have learned in torts, and new information about legal writing with the other information that they have learned about legal writing.

---

<sup>22</sup> Emmanuel Sander & Jean-Francois Richard, *Analogical Transfer as Guided by an Abstraction Process: The Case of Learning by Doing in Text Editing*, 23 *Experimental Psychol.: Learning, Memory & Cognition* 1459 (1997).

<sup>23</sup> *Id.* at 1462.

<sup>24</sup> *Id.*

<sup>25</sup> Bassok & Holyoak, *supra* n. 3, at 153.

<sup>26</sup> *Id.*

<sup>27</sup> *See infra.* at 14-15.

## MAPPING

If the individual is successful in finding a prior problem, he or she then compares the prior problem with the new problem.<sup>28</sup> This part of the process can fail for either of two reasons. First, the individual may compare only the surface features of the two problems and not the underlying structures, a process that can lead an individual to incorrectly conclude that two problems are similar when in fact they are not.<sup>29</sup> For example, in working on a memo, students may decide that a case that they have located is analogous to their case because the facts of the two cases are similar: both cases involve one individual striking another individual with a baseball bat. In fact, one case may be a criminal case and the other a civil case or, even if the causes of action are the same, the issues might be different. In one case, the court may be deciding whether the trial court erred in denying a motion to suppress evidence and in the other it may be deciding whether the trial court's instructions were proper.

Second, the individual may compare only the underlying structures.<sup>30</sup> For instance, in comparing math problems, students may recognize that both problems require the use of the same equation but not be able to determine which variable goes in which slot.<sup>31</sup> Even though the first problem is by far the more common of the two problems, for transfer to occur, the individual must be able to map correctly both the surface features and the underlying structures.<sup>32</sup>

## APPLICATION

The final step in the process is the application of the solution from the first problem to the second problem. Although this part of the process is usually relatively easy, it sometimes fails because the individual does not know the procedure for solving the first problem and cannot, therefore, transfer that solution to solve the second problem.<sup>33</sup> In addition, it sometimes fails because the individual does not make the necessary adaptations.<sup>34</sup> In a study in which sub-

---

<sup>28</sup> See Sander & Richard, *supra* n. 22, at 1461.

<sup>29</sup> Brian H. Ross, *Distinguishing Types of Superficial Similarities: Different Effects on the Access and Use of Earlier Problems*, 15 J. Experimental Psychol. 456, 457-458 (1989).

<sup>30</sup> Laura R. Novick & Keith J. Holyoak, *Mathematical Problem Solving by Analogy*, 17 J. Experimental Psychol.: Learning, Memory & Cognition 398, 398-99 (1991).

<sup>31</sup> Bassok & Holyoak, *supra* n. 3, at 153.

<sup>32</sup> Chen, *supra* n. 14, at 256.

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

jects were first read a problem in which mechanics chose the cars that they repaired and then a problem in which salespeople chose which mechanic repaired which car, a number of subjects did not make the adaptations that were required to correctly solve the problem.<sup>35</sup>

Having identified the four steps involved in transfer, researchers have now begun to identify techniques that can be used to enhance the likelihood that transfer will occur. Although the research is limited, there appear to be four things that we can do as Legal Writing professors to enhance the likelihood that our students will be able to use what we teach them in the context of one memo on their next memo assignment and in their practice as lawyers.

***1. We need to provide our students with a number of examples that have similar structures but different surface features.***

Over and over again, researchers have found that transfer is more likely to occur when students have been presented with a number of different examples that have similar underlying structures and problem solutions but different surface features.<sup>36</sup> In such situations, students are likely to develop general schemata that are not tied to specific facts, which increases the chances that the student will be able to retrieve an analogous example during the search process.<sup>37</sup>

Thus, in teaching legal research, instead of providing our students with one example of how to research a problem that requires them to locate a statute and the cases interpreting and applying that statute, we should provide them with a number of different examples. Similarly, in teaching our students how to organize a discussion section that involves the analysis of elements,<sup>38</sup> we should provide multiple examples.

There are at least two ways in which we can do this. If there were enough time, we could assign a number of different research projects that required students to locate statutes on a variety of

---

<sup>35</sup> Todd L. Chmielewski & Donald F. Danserreau, *Enhancing the Recall of Text: Knowledge Mapping Training Promotes Implicit Transfer*, 90 J. of Educ. Psychol. 407, 412 (1998).

<sup>36</sup> Chen, *supra* n. 11, at 704; see Miriam Bassok, *Transfer of Domain-Specific Problem-solving Procedures*, 16 J. Experimental Psychol.: Learning, Memory & Cognition 522 (1990); M.L. Gick & K.J. Holyoak, *Schema Induction and Analogical Transfer*, 15 Cognitive Psychol. 1 (1983).

<sup>37</sup> Chen, *supra* n. 11, at 704.

<sup>38</sup> Laurel Currie Oates, Anne Enquist & Kelly Kunsch, *The Legal Writing Handbook* 125 (2d ed., Aspen L. & Bus. 1998).



different topics in a variety of different jurisdictions. In addition, we could assign a number of different memo problems in different areas of law that required students to do an elements analysis. Most legal writing programs do not, however, have the ability to assign multiple research projects and memo problems. As a result, if we are to provide our students with multiple examples, we will need to provide them with these examples in their reading assignments and during class. For example, before our students go to the library to do their first research project, we should provide them with multiple examples of how to locate a statute and the cases interpreting it. Similarly, before we have them write their own memos, we should provide them with several sample memos in which the author had to set out and analyze a series of elements.

***2. In providing our students with multiple examples, we need to emphasize the underlying structures of those examples and not their surface features.***

We need, however, to do more than provide our students with multiple examples. Because novices tend to represent problems in terms of their surface features, we must help our students look beyond the facts of the individual examples to their underlying structures.

Researchers have found that there is a much higher rate transfer in those fields in which the underlying structures are taught through context-free examples than there is in the fields in which the underlying structures are taught in the context of specific fact patterns.<sup>39</sup> For example, there is a higher rate of transfer in algebra classes in which students are taught the abstract equations first than there is in physics classes in which the equations are taught in the context of specific physical events. While algebra students are able to transfer the equations that they learn in algebra to physics, physics students are not able to transfer the equations that they learned in physics to other content areas.<sup>40</sup>

Researchers have also found that transfer can be substantially increased by specifically teaching students underlying structures and then providing them with examples of those structures in specific fact situations.<sup>41</sup> For instance, Bassok and Holyoak found that students who had been taught the algebraic equation for solving arithmetic-progressions problems and who were then provided with

---

<sup>39</sup> Bassok, *supra* n. 36, at 522.

<sup>40</sup> Bassok, *supra* n. 3, at 153.

<sup>41</sup> *Id.*

examples of how to apply the equation in a variety of different situations could easily transfer the equations to constant-acceleration problems in physics.<sup>42</sup>

Finally, researchers have found that in some situations transfer can be enhanced through knowledge mapping.<sup>43</sup> Instead of presenting underlying structures in text form, they are presented through diagrams that emphasize how the various pieces of information are related.<sup>44</sup> In Legal Writing, such diagrams can take a number of different forms: They can be used to teach a process, for example, the process of researching a particular type of issue (see the Class Plan 1 set out below); to teach a structure, for example, the typical structure of a memo that requires an analysis of elements or the balancing of competing interests (see the Class Plan 2 set out below), or the decision-making process that a court would go through in deciding a particular issue.<sup>45</sup>

What this research suggests is that we can enhance transfer through a two-step process. The first step would be to present the underlying structure in its abstract form, preferably in the form of a diagram. The second step would be to provide our students with several examples that illustrate how this structure appears in specific fact situations. Our lesson plans for these types of classes might look like this:

---

<sup>42</sup> *Id.* at 164.

<sup>43</sup> Chmielewski & Dansereau, *supra* n. 35, at 407.

<sup>44</sup> *Id.* Chmielewski and Dansereau's research also suggests that training students to use knowledge mapping is itself transferable. Students who have been trained in knowledge mapping appear to apply the strategy in new situations.

<sup>45</sup> For an example of this type of diagram, see Oates et al., *supra* n. 38, at 185.

**Class Plan 1**  
**Teaching Students to Locate a Statute and the**  
**Cases Interpreting and Applying That Statute**

Before coming to class, students should have read material in their textbook on codes.

5 minutes: Introduce the topics that will be covered during class and set up the problem: As a lawyer, you will often need to locate a statute and the cases interpreting and applying that statute.

5 minutes: Show students the following research plan, briefly discussing each of the steps in the plan.

**Research Plan**

<b>Legal Question:</b>	<u>Whether a particular statute applies or how a particular statute should be interpreted or applied</u>
<b>Jurisdiction:</b>	<u>(Can be either federal or state)</u>
<b>Type of law:</b>	<u>Statutory</u>
<b>Search terms</b>	<hr/>

Step 1: Use the subject or topic index to locate the applicable statutory section(s). (Use the search terms listed above; as a general rule, move gradually from the narrowest to the broadest search term.) Look up the potentially relevant section(s) in the bound volumes of the annotated code.

Step 2: Determine whether the statutory section(s) that you have located have been amended or repealed by checking the pocket parts and, if there is the possibility of recent legislation, LEXIS or Westlaw.

Step 3: Read and analyze the relevant statutory section(s), identifying the elements and applying each of the elements to the facts of the client's case. Also locate and read (a) the official comments, if any; (b) any introductory sec-

tions (for example, sections setting out the purpose or effective date); and (c) any cross-references.

- Step 4: If it is clear that the elements are (or are not) met, stop. If it is not clear whether the elements are met, continue.
- Step 5: Locate potentially applicable cases using the Notes of Decision following the statute in both the bound volume and in the pocket part.
- Step 6: Read, analyze, synthesize, and cite check those cases that appear useful.
- Step 7: If necessary and appropriate, use LEXIS or Westlaw to locate cases from other jurisdictions that have interpreted or applied an identical or similar statute. Read, analyze, synthesize, and cite check the cases that you find.
- Step 8: If necessary and appropriate, check the legislative history. (See research plans No. 3 and No. 4).<sup>46</sup>
- 15 minutes: Using the research plan as a guide, walk the students through the process of locating a particular statute and the cases interpreting the statute. Show students the books that they would use and what they would find at each stage.
- 10 minutes: Walk students through a second example that involves the same underlying structure but different facts.
- 10 minutes: Present students with a third example that involves the same underlying structure but different facts and have them tell you how they would locate the statute and cases.
- 5 minutes: Summarize the material covered in class and

---

<sup>46</sup> Oates, *supra* n. 38, at 85, 497-498.

assign a research project that requires students to locate a statute and the cases interpreting it.

### **Class Plan for Teaching Students How to Organize the Discussion Section of a Memo That Requires Students to Set Out and Analyze a Series of Elements**

#### **Reading Assignment:**

Before class, students should read several sample memos that required the authors to set out and analyze a series of elements.

- 5 minutes: Introduce topics to be covered and the problem: How should you organize a discussion section for a problem that requires you to set out and analyze a series of elements?
- 10 minutes: Walk students through the basic plan for organizing a series of elements, explaining why each piece of information is included and why the information is presented in the order that is set out in the plan.

#### **Plan A: Organizational Plan for An Elements Analysis Discussion Section**

- I. Set out the general rules
  - Set out the more general rules before the more specific rules and exceptions
  - Identify the elements
- II. Raise and dismiss the undisputed elements
  - Identify the undisputed elements and explain why they are not in dispute
- III. Analyze the first disputed element
  - Set out the specific rules
  - Provide the attorney with an il-

illustration of how the specific rules have been applied in analogous cases.

- Set out the moving party's assertion and arguments
- Set out the responding party's assertion and arguments
- Predict how you think the court will decide this element

#### IV. Analyze the second disputed element

- Set out the specific rules
- Provide the attorney with an illustration of how the specific rules have been applied in analogous cases
- Set out the moving party's assertion and arguments
- Set out the responding party's assertion and arguments
- Predict how you think the court will decide this element

10 minutes: Walk students through the first example using the basic plan as a guide. Show students the general rule section, the section in which the author raised and dismissed the elements that are not in dispute, the discussion of the first disputed element including the paragraph(s) in which the author set out the specific rules, the paragraph(s) in which the author used analogous cases to illustrate the application of one or more of those specific rules, the paragraph(s) in which the author set out the plaintiff's arguments, the paragraph(s) in which the author set out the defendant's arguments, and the mini conclusion.

10 minutes: Walk students through a second example. This time, have the students label each part of the discussion section.

10 minutes: Help students begin drafting an outline for

the discussion section of their memo. What material should go in the general rule section? What should go in the specific rule section for the first disputed element?

5 minutes: Summarize the material covered during class and instruct students to complete the outline of the discussion section for the next class.<sup>47</sup>

(Additional plans that were developed by individuals who participated in this workshop at the Legal Writing Institute's 2000 Conference are set out at the end of this article.)

***3. We need to have students determine how the various problems that they have worked on are similar and different.***

In several experiments, researchers have been able to increase transfer by encouraging their subjects to look for similarities in problems with similar problem structures but different surface features.<sup>48</sup> In an experiment involving students at the University of Michigan, Catrambone and Holyoak<sup>49</sup> divided their subjects into four groups. Group 1 read the fortress story and fireman story, a story that has the same underlying structure as the fortress story, and then wrote down the ways in which the two stories were similar; Group 2 read the fortress story and an unrelated story and then wrote down the ways in which the two stories were similar; Group 3 read the fortress and fireman stories but did not do the comparison; and Group 4 read the fortress story and an unrelated story but did not do the comparison.<sup>50</sup> Each group was then asked to solve the tumor problem. The results were striking. While 47% of the students in Group 1 solved the problem, only 16% if the students in Groups 2 and 3 and 25% of the students in Group 4 solved it.<sup>51</sup> Similarly, Brown, Kane, and Echols<sup>52</sup> were able to increase transfer in young children by telling them that one of the "rules of

---

<sup>47</sup> *Id.* at 125.

<sup>48</sup> See Bassok, *supra* n. 36, at 522.

<sup>49</sup> Richard Catrambone & Keith Holyoak, *Overcoming Contextual Limitations on Problem-Solving Transfer*, 15 J. Experimental Psychol.: Learning, Memory & Cognition 1147, 1148-49 (1989).

<sup>50</sup> *Id.* at 1148-1149.

<sup>51</sup> *Id.* at 1149-1150.

<sup>52</sup> Ann L. Brown, Mary J. Kane & Catherine H. Echols, *Young Children's Mental Models Determine Transfer across Problems with a Common Goal Structure*, 1 Cognitive Psychol. 102 (1986).

the game” was to look for the common elements in several stories.

In our classes, we can do the same things. For example, after we have shown our students several examples, we can ask them to articulate the ways in which those examples are similar. In addition, after our students have completed their second memo, we can ask them to compare their second memo to their first memo. How were the audiences for the two memos the same? How were the purposes for which the two memos were written similar? In what ways were the decision-making processes involved in analyzing the issues the same? In what ways were the discussion sections similar? Were they able to use similar writing strategies in composing both memos? Similarly, after our students have completed their first brief, we can ask them to compare the brief to the memos that they have written. By making our students do these types of comparisons, we help them build the surface, structural, and procedural representations that facilitate transfer.

***4. We need to tell our students that they should look to prior problems for help in solving the current problem.***

In a variety of experiments, researchers have established that transfer is substantially increased when subjects are told that they should look to prior problems that they have solved for help in solving the current problem. For instance, in Gick and Holyoak’s study,<sup>53</sup> while only 20% of the subjects who read the fortress problem spontaneously applied the division and convergence solution to the tumor problem, 92% used the solution after being given a hint that they should use the fortress problem in solving the radiation problem.<sup>54</sup> Sanders and Richard<sup>55</sup> have suggested that the hint caused the subjects to view both the fortress and radiation problems in a more abstract way. In particular, it allowed the subjects to view rays, like an army, as being divisible. This process facilitated both the search and retrieval processes and the mapping process.

Thus, it seems likely that we can increase transfer by specifically instructing our students to look to prior projects for guidance in working on their current project. For instance, in assigning a new research project, we should specifically tell our students that they should think about the other research projects that they have done to determine which ones involved similar types of research

---

<sup>53</sup> Gick & Holyoak, *supra* n. 2.

<sup>54</sup> *Id.* at 345-46.

<sup>55</sup> Sander & Richard, *supra* n. 22, at 1480.



questions. In addition, we should specifically tell our students that they do not need to reinvent the wheel each time that they sit down to write a discussion section. The more efficient approach is to search their memories for problems that involved similar analytical structures and then use the organizational schemes that they used for those problems as models for organizing the discussion section for the current problem.

## CONCLUSION

What the research establishes is that it is not enough to simply teach our students how to research a particular issue or to write a particular memo. If we want our students to be able to transfer what we have taught them to a new situation, we must change the ways in which we teach. We must provide our students with multiple examples, we must teach the underlying structures of those examples, and we must teach our students to look for the similarities between the problem that they are working on and other problems that they have encountered. If we teach in this way, instead of simply teaching our students how to research a particular issue or how to write a specific memo, we will be teaching them how to research a variety of issues and to write a wide array of memos and briefs.

## **Appendix**

**The following lesson plans were created by individuals who attended the 2000 Legal Writing Institute Conference**

### **Example 1:**

#### **Class Plan for Teaching Students How to Write a Persuasive Statement of Facts**

##### **Version 1**

**This class plan was prepared by the following individuals:**

- Mark Broida, California Western School of Law
- Steve Johansen, Northwestern School of Law of Lewis and Clark College
- Lou Sirico, Villanova University School of Law
- Barbara Wilson, University of Missouri - Kansas City School of Law

#### **Before Class:**

Before class, students should read the sections in their textbook on writing a persuasive statement of facts.

5 -10 minutes: Begin the class by introducing the topic: writing a persuasive statement of facts. When students drafted the statement of facts for their objective memoranda, they tried to present the facts objectively. Do they want to do the same thing when they draft the statement of facts for their brief? Why or why not? What was their goal in drafting the statement of facts for an objective memorandum? What is the advocate's goal in writing the statement of facts for a brief?

10 minutes: Describe four or five techniques that students can use in drafting a persuasive statement of facts, for example, (1) creating a favorable context, (2) placing favorable facts in the positions of emphasis at the beginning and end of the statement of facts, the beginning and end of paragraphs, and the beginning and end of sentences, (3) giving favorable facts more "airtime," (4) placing favorable facts in

the main clause and unfavorable facts in dependent clauses, and (5) selecting words with favorable connotations. For each technique, show the students several examples from different cases.

10 minutes: Show students a section of the statement of facts from their last objective memorandum and ask them how they might use the techniques that you have just described to rewrite the objective statement of facts so that the facts are presented in the light most favorable to the appellant. Rewrite several sentences.

15 minutes: Divide students into pairs or small groups and have them rewrite the same section of the objective statement of facts so that the facts are presented in the light most favorable to the respondent.

5 minutes: End the class by reviewing with students the advocate's goal in drafting a persuasive statement of facts and some of the techniques that they can use to write a persuasive statement of facts.

**Homework:**

Assign the first draft of the statement of facts for the appellate brief.

**How this class plan promotes transfer:**

This class has been designed so that it promotes two types of transfer. By explicitly talking about the differences between an objective statement of facts and a persuasive statement of facts, the professor reminds students about their prior learning and helps them determine which parts of that prior learning they can transfer to this new situation. In addition, in explicitly describing the techniques that students can use to turn an objective statement of facts into a persuasive statement of facts and providing the students with several examples of each technique, the professor is increasing the chances that the students will be able to use these techniques in a variety of different circumstances.

**Example 2:****Class Plan for Teaching Students to Write a Persuasive Statement of Facts****Version 2**

**This class plan was developed by the following individuals:**

- Tom Blackwell, Appalachian School of Law
- Denise Meyer, University of Southern California Law School of Law
- Kathryn Sampson, University of Arkansas School of Law, Fayetteville
- Thomas Trahan, Texas Wesleyan University School of Law

**Before Class:**

Students should read the sections in their assigned textbook on writing a persuasive statement of facts.

In addition, the professor should make arrangements with four students to tell the stories that are going to be used as examples in class. One student is asked to prepare to tell the traditional story of the three pigs, another student to read Schizca's *The True Story of the Three Pigs* (if you do not have a copy of this book, you can get a complimentary copy from West), another student to tell the conspiracy theory account of Kennedy's murder, and another student to tell the Warren Report account of Kennedy's assassination.

**In Class:**

15 minutes: Begin class by having the selected student tell the traditional story of the three little pigs. Then have the next selected student read Schizca's version. After the students have heard both stories, have them identify the ways in which the stories are the same and different. In both stories, was the "theory of the case" the same?

In both stories, was the story told from the same point of view? Were the same facts included in both stories? Which facts were emphasized in the first story, and which were emphasized in the second? How were the favorable facts emphasized

and the less favorable facts de-emphasized? How were the word choices the same or different?

15 minutes: Repeat the same exercise using the two versions of Kennedy's assassination.

15 minutes: Help students develop a list of the attributes of a good advocate (for example, the ability to view the same facts from different points of view, the ability to create a theory of the case, the ability to weave facts together into a "story" that supports a particular theory of the case) and a list of the techniques that good advocates use in drafting a persuasive statement of facts (for example, telling the story from the client's point of view, placing favorable facts in the position of emphasis, giving more airtime to favorable facts, placing favorable facts in shorter sentences, selecting words with favorable connotations.)

5 minutes: Assign the first draft of the statement of facts. In doing so, explicitly tell students that they should think about the examples that they have just heard and the attributes and techniques that they have just identified.

### **Homework:**

Students should prepare the first draft of the statement of facts for their brief.

### **How this class plan promotes transfer:**

Unlike the prior class plan, which used a deductive approach, this one uses an inductive approach. Instead of explicitly laying out for the students the attributes of a good advocate and the techniques that good advocates use in writing a persuasive statement of facts, the professor helps the students "discover" those attributes and techniques. Nonetheless, this class plan employs several techniques that have been shown to promote transfer: (1) instead of providing students with a single example, the professor uses two examples with very different surface features but the same underlying structures; (2) the professor helps the students identify the underlying structures by having them compare and contrast the examples, and (3) the professor explicitly tells the students to

transfer what they have learned in class to their own writing assignment.

### **Example 3:**

#### **Class Plan for Teaching Students How to Write a Persuasive Statement of the Issue for a Trial or Appellate Brief**

**This class plan was prepared by the following individuals:**

- Kay Holloway, Texas Tech University School of Law
- Jennifer Jolly-Ryan, Northern Kentucky University Salmon P. Chase College of Law
- Sharon Pocock, Quinnipiac University School of Law
- Susan Reinhart, University of Michigan English Language Institute
- Ruth Vance, Valparaiso University School of Law

#### **Before Class:**

Before coming to class, students should read four examples of an objectively written fact statement and issue statement.

#### **In Class:**

5 minutes: Introduce the topic by talking about the role that the issue statement plays in a trial or objective brief. Would an advocate want to draft issues statements like the ones that the students read before coming to class? Why or why not? What is the advocate's goal in drafting an issue statement?

10 minutes: Show students several examples of well-written persuasive issue statements. What characteristics do the well-written persuasive issue statements have in common? Then show students some poorly written persuasive issue statements. How are these issue statements different from the well-written ones?

10 minutes: Help the students articulate the characteristics of an effective persuasive issue statement by helping them develop a checklist for cri-

tiquing persuasive issue statements.

15 minutes: Divide students into small groups and have each group rewrite one of the objective issue statements from the examples that they read before coming to class. Instruct the groups to draft one issue statement from the plaintiff's point of view and another from the defendant's point of view.

10 minutes: Have one or two groups share their issue statements. Have the group or class critique the drafts using the checklist that the class developed.

### **Homework:**

Assign the first draft of the issue statement for their own briefs. In doing so, explicitly remind your students to use the checklist that they have developed in class to critique their own drafts.

### **How this lesson plan promotes transfer:**

The authors of this lesson plan have used an inductive rather than a deductive approach in teaching their students how to write a persuasive issue statement. Instead of identifying for their students the characteristics of a well-written persuasive issue statement, they have helped their students identify these characteristics by having them look at a number of examples.

What distinguishes this class from other inductive classes is that the authors have incorporated activities that have been shown to promote transfer. For example, by having students prepare a checklist that sets out the characteristics of a well-written persuasive issue statement, the authors have highlighted for their students the underlying structures that they want their students to learn. In addition, by showing their students multiple examples with different surface features, they have enhanced the chance that their students will be able to apply those underlying structures to new situations. Finally, they have explicitly told their students to use what they have learned in class in writing their own issue statements.

**Example 4:**

**Lesson Plan for Teaching Students Teaching  
How to Organize the Argument Section of a Trial or  
Appellate Brief**

**This lesson plan was prepared by the following individuals:**

- Karin Mika, Cleveland State University, Cleveland-Marshall College of Law
- Samantha Moppett, Arizona State University College of Law
- Terrill Pollman, University of Nevada, Las Vegas, William S. Boyd School of Law
- Barbara Tyler, Cleveland State University, Cleveland-Marshall College of Law

**Before Class:**

Before coming to class, students should read a sample memo and a brief based on the same topic. In addition, they should read one or two other well-written sample briefs.

**In Class:**

- 5 minutes: Introduce the topic to be covered during this class. How should you organize the argument section of a trial or appellate brief?
- 10 minutes: Begin by having students compare the types of information contained in the discussion section of the objective memo with the argument section of the brief based on the objective memo. Do both contain the same types of information? Is that information presented in the same order? Why or why not?



10 minutes: Describe the basic principles that students should use in organizing the argument section. For example, tell your students that most attorneys try to take advantage of the positions of emphasis by placing their strongest arguments at the beginning and end of the argument section. In addition, describe for your students the most common organizational patterns used in briefs.

15 minutes: Walk your students through the sample briefs having them determine (1) whether each author took advantage of the positions of emphasis and (2) the organizational schemes that each author used.

10 minutes: End class by leading a brainstorming session in which your students talk about which of their arguments are their strongest arguments and about which of organizational schemes might work best for their strongest argument.

**Homework:**

Have students determine the order in which they are going to present the arguments in their brief and the organizational scheme that they are going to use in presenting each argument.

**How this class plan facilitates transfer:**

The authors of this class plan have facilitated two types of transfer. First, they have helped their students transfer what they learned in writing objective memos to writing a brief by helping students identify which parts of their prior learning are relevant. Second, they are helping their students transfer their new learning to new situations by identifying for their students the underlying structures that they want their students to learn and by providing their students with several examples in which the surface features are different but the underlying structures are the same.

**Example 5:****Class Plan for Teaching Students to Construct Arguments  
Based on Analogous Cases**

**This class plan was prepared by the following individuals:**

- Cynthia Adams, Indiana University School of Law, Indianapolis
- James Dimitri, Indiana University School of Law, Indianapolis
- Tom Wilson

**Note:**

This class is the first class in a two-part series. In this class, the focus is on grouping cases, identifying the common threads, and stating principles based on those principles. In the next class, students will learn how to use those principles and the cases that they are drawn from to state a principle, to provide their reader with examples of how that principle has been applied in analogous cases, and to apply that principle to their case by comparing and contrasting the facts in their case to the facts in the analogous cases.

**In Class:**

- 5 minutes: Begin class by asking students to name the different types of legal arguments: factual arguments, arguments based on analogous cases, and policy arguments. Tell them that in this class the focus will be on how to construct arguments based on analogous cases. Then talk briefly about why courts are persuaded by arguments based on analogous cases: In our legal system, judges look to precedent in determining how to decide the cases before them. They try to decide like cases in like ways.
- 5 minutes: Outline for students the first part of the process that attorneys go through in constructing arguments based on analogous cases.
- They identify the analogous cases.
  - They group the cases by their holdings, for example, placing the cases in which the court

found that a particular right had been infringed upon in one group and the cases in which the court found that the right had not been infringed upon in another group.

- They look at the cases in each group, identifying the common thread or threads.
- Once they have identified the common threads, they state that “thread” as a principle.

15 minutes: Present four or five short case descriptions that set out the facts of the cases and the courts’ holdings. Then walk students through the process set out above, having them (a) group the cases by their holdings, (b) identify the common threads, and (c) state principles based on those common threads.

20 minutes: Present a second set of four or five short case descriptions. This time, divide the students into pairs or small groups and have the pairs or small groups walk through the process of grouping the cases, identifying the common threads, and developing principles based on those common threads. Have several of the pairs or groups, share their groupings, common threads, and principles.

5 minutes: End class by instructing students that they should go through the same process with the cases that they have located in researching their memo or brief problem. Tell them that they will use the principles that they developed in the next class to construct the arguments that they will set out in their memos.

### **How this class plan facilitates transfer:**

This class plan incorporates three of the techniques that have been shown to facilitate transfer. The class begins with the professor explicitly setting out the underlying structures that he or she wants the students to learn, in this case, the first part of the process that attorneys use in constructing arguments based on analogous cases. The professor then provides the students with two examples that have different surface features. Finally, the professor tells the students that they should transfer what they have learned

and practiced in class to their own memo assignment.

### **Example 6:**

#### **Class Plan for Teaching Students How to Present an Effective Oral Argument**

**This lesson plan was prepared by the following individuals:**

- Susan S. McKenzie, Case Western Reserve University Law School
- Kay Kavanagh, University of Arizona, James E. Rogers College of Law
- John Matson
- Bill Galloway, Seattle University School of Law
- Tracy Bach, Vermont Law School

#### **Reading assignment:**

Before coming to class, students should read the materials on oral advocacy from their assigned legal writing textbook.

5 minutes: Introduce the topic of oral argument by explaining the context in which oral arguments are presented (for example, motion practice and appeals), the audience for an oral argument (for example, the judge or judges, opposing counsel, the client), and the purposes the argument serves (for example, to identify key areas of dispute and respond to the court's questions).

10 minutes: Describe for students the characteristics of an effective oral argument.

10 minutes: Show students a videotape of an effective oral argument.

10 minutes: Show students a videotape of a second effective oral argument from a different case or have students observe a live oral argument presented either by the professor, a member of the moot court board, or a guest attorney.

10 minutes: Have students identify the things that both advo-

cates did that were effective. For example, did each advocate open the argument with a statement that caught the attention of the judge and focused the judge's attention on the issue that was being discussed? Did each advocate set out the key facts in the light most favorable to his or her client? Did each advocate present the rules and cases in the light most favorable to his or her client? Did each advocate respond to question with a one or two word answer and then a more detailed explanation? Did each advocate "talk" to the court rather than read a prepared speech? Note: This list should track the characteristics of good oral argument set out at the beginning of class.

### **How this class promotes transfer:**

In this class, the authors have incorporated three of the four techniques that have been shown to promote transfer. They have set out the underlying principles (in this case, the characteristics of an effective oral argument), they have provided their students with two examples that illustrate those underlying principles but that have different surface features, and they have asked their students to compare the two examples identifying the ways in which they are similar.

### **Example 7:**

#### **Class Plan for Teaching Students How to Develop a Theme or Theory of the Case for Their Briefs and Oral Arguments**

#### **This class plan was prepared by the following individuals:**

- Robin Meyer, University of Texas School of Law
- Deborah McGregor, Indiana University School of Law, Indianapolis

### **Before Class:**

Students should read the sections in their assigned textbook on establishing a theme or theory of the case. In addition, if they have not already heard the story, students should read *The True Story of the Three Little Pigs*, and, if they are not familiar with the case, *Fallwell v. Hustler Magazine*.

**In Class:**

- 5 minutes: Identify the topic for this class: Good briefs and oral arguments have a coherent theme or theory of the case.
- 5 minutes: Describe for your students the characteristics of a coherent theme or theory of the case.
- 10 minutes: Ask students to write down in twenty-five words or less, the wolf's theme or theory in the story *The True Story of the Three Little Pigs*. Then ask students whether the wolf's theme or theory has the characteristics of a coherent theme or theory. Why or why not?
- 10 minutes: Have the students identify both the plaintiff's and the defendant's themes or theories in *Fallwell v. Hustler Magazine*. Do those themes or theories have the characteristics of a good theme or theory? Why or why not?
- 15 minutes: Divide students into small groups (either plaintiffs together, defendants together, or half and half) and have each group identify several possible themes or theories that they might be able to use in writing their briefs and presenting their oral arguments. Then have students evaluate each possible theme and theory. Which has the most characteristics of a good theme or theory of the case?
- 5 minutes: Bring the class back together and summarize the material that has been covered.

**Homework:**

Have students write out the theme or theory of the case that they plan to use in writing their brief and preparing their oral argument. In addition, have students write out why they believe that their theme or theory has the characteristics of an effective theme or theory.

**How this class plan promotes transfer:**

In drafting this class plan, the authors have incorporated a

number of the techniques that have been found to promote transfer. They begin class by explicitly laying out for their students the characteristics of a good theme or theory of the case. They then provide their students with multiple examples that have different surface features but the same underlying structures or characteristics. Finally, they emphasize those underlying structures by having students discuss how those structures are used in the examples. In addition, they also provide their students with the opportunity to practice what they have learned both in class and then outside of class.

### **Example 8:**

#### **Class Plan for Teaching Students to Use Topic Sentences, Signposts, and Transitions Effectively**

**This lesson plan was prepared by the following individuals:**

- Kim Coats, University of Arkansas Law School at Fayetteville
- Alvin Dong, University of Denver College of Law
- Susan Maxson, American University Washington College of Law
- David Sammond, McGeorge School of Law
- Terry Seligmann, University of Arkansas Law School at Fayetteville
- Claire Winold, Widener University School of Law – Delaware

#### **Before Class:**

Before coming to class, students should read the materials in their assigned textbook on topic sentences, signposts, and transitions.

#### **In Class:**

5 minutes: Begin class by explaining why topic sentences, signposts, and transitions are so important in legal writing. Legal readers expect that topic sentences, signposts, and transitions will be used to make clear how the discussion section is organized and to signal changes in topic.

15 minutes: Begin by walking students through two or three

pieces of non-legal writing (for example, newspaper or magazine articles) in which the authors have used topic sentences, signposts, and transitions effectively. For each example, highlight the topic sentences with one color of marker and the signposts and transitions in another color. Next walk the students through one or two examples from legal writing. This time, have the students identify and highlight the topic sentences in one color and the signposts and transitions in another color and have students explain why the authors' use of topic sentences, signposts, and transitions is effective.

15 minutes: Divide students into pairs or small groups. Give each group a handout that sets out two or three paragraphs from their last memo in which the topic sentences, signposts, and transitions have been deleted. Have the students rewrite the paragraphs adding the topic sentences, signposts, and transitions.

15 minutes: Have two or three pairs or groups share their re-writes with the rest of the class.

### **Homework:**

Instruct students to go through the draft that they are currently writing highlighting the topic sentences, signposts, and transitions. Then have them evaluate their own writing. Do they need to add any topic sentences? Any signposts? Any transitions? Do the topic sentences, signposts, and transitions that they have included provide accurate cues to their readers? Have they included too many signposts and transitions?

### **How this class plan promotes transfer:**

The authors of this class plan have used several of the techniques that have been shown to promote transfer. They begin their discussion of topic sentences, signposts, and transitions by having students draw upon their existing knowledge to identify the topic sentences, signposts, and transitions in non-legal types of writing. They then help students transfer this existing knowledge to legal writing by showing their students several different examples of how topic sentences, signposts, and transitions have been used ef-



fectively in legal writing. Finally, they explicitly instruct their students to transfer this existing and new knowledge to their own writing by having them rewrite an example from an earlier memo and the memo that they are currently writing.

### **Example 9:**

#### **Class Plan for Teaching Students to Write Concisely**

**This class plan was prepared by the following individuals:**

- Catherine Wasson, Widener University School of Law – Harrisburg
- Karen Eby, Oklahoma City University School of Law
- Anna Hemmingway, Widener University School of Law – Harrisburg
- Wanda Temm, University of Missouri – Kansas City School of Law

#### **Before Class:**

Students should read the material in their textbook on writing concisely.

#### **In Class:**

5 minutes: Introduce topic by explaining the importance of writing concisely. Why is it that students must learn to write concisely? If possible, include a story that emphasizes the importance of writing concisely or that illustrates that the profession values concise writing.

15 minutes: Teach four or five techniques that students can use to make their writing more concise. For example, you might want to cover the following:

- Glue words v. working words
- Base verbs v. nominalizations
- Active voice v. passive voice
- Word-wasting idioms, etc. (legalisms)

For each example, provide the students with two or three different examples.

10 minutes: Working as a class, rewrite a paragraph from the memo that your students are currently writing using the techniques that you have just taught.

15 minutes: Divide the class into pairs or small groups and have each pair or small group rewrite a second paragraph using the techniques that you have just taught.

5 minutes: Review for students the importance of concise writing and the various techniques that they can use to make their own writing more concise.

**Homework:**

Instruct students to rewrite their own memo using the techniques that they have just been taught and practiced.

**How this lesson plan promotes transfer:**

In this lesson plan, the authors have used three of the techniques that have been shown to promote transfer. They begin the lesson by explicitly setting out the underlying structures that they want their students to learn, in this instance, techniques that students can use to make their writing more concise. They then provide their students with multiple examples that have different surface features but that share the same underlying structures. Finally, they instruct their students to transfer this information to new situations. Students are first told to transfer to samples provided by the professor and then to their own writing.



# Practices and Procedures

**Legal Writing**  
The Journal of the  
Legal Writing Institute

