

Are You Doing It Backward? Improving Information Literacy Instruction Using the AALL Principles and Standards for Legal Research Competency, Taxonomies, and Backward Design

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Are You Doing It Backward? Improving Information Literacy Instruction Using the AALL Principles and Standards for Legal Research Competency, Taxonomies, and Backward Design*

Nancy B. Talley**

AALL recently approved Principles and Standards for Legal Research Competency for law students and lawyers that can be used by academic law librarians to design curricula that will help correct deficiencies in law students' information literacy skills. These principles and standards focus on developing legal professionals' ability to conduct legal research, use and analyze information, transfer knowledge between subject areas, and reflect on learning experiences. Neither the principles themselves nor the publications on which they are based explain how the principles are to be incorporated into the curriculum. Backward design can be used by librarians to create information literacy instruction, assessments, and activities that facilitate student learning of the principles and standards.

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Introduction

[W]hile incoming law students are clearly intelligent and capable, and have excelled academically at every previous stage of their education, the available data suggest that many incoming students have information literacy deficits that will affect them through their career in law school and on into the practice of law¹

¶1 Academic law librarians are in a position to help improve information literacy deficiencies observed in today's law students. The approval of the Principles and Standards for Legal Research Competency (Research Principles and Standards) by the Executive Board of the American Association of Law Libraries (AALL), in July 2013,² provides the perfect opportunity for academic law librarians to design information literacy instruction, assessments, and activities tailored to the skills set forth in the Research Principles and Standards. The key to developing and implementing effective information literacy instruction, assessments, and activities is to borrow from the field of education by incorporating taxonomies and backward design into the curriculum design process, because these concepts have been used successfully to facilitate learning for decades.³

¶2 Paul D. Callister, a prolific library scholar, has written extensively on legal research instruction.⁴ Most notably, Callister developed a pedagogy⁵ for legal research by creating a taxonomy—based, in part, on Bloom's taxonomy—tailored to legal research instruction, which was meant to help students remember, understand, apply, analyze, and make conclusions about their legal research results.⁶ In a 2010 article, Callister proposed, as a method for implementing the taxonomy, a list of research competencies that corresponded to the different levels of his taxonomy

1. Ian Gallacher, "Who Are Those Guys?" *The Results of a Survey Studying the Information Literacy of Incoming Law Students*, 44 CAL. W. L. REV. 151, 192 (2007).

2. AM. ASS'N OF LAW LIBRARIES, PRINCIPLES AND STANDARDS FOR LEGAL RESEARCH COMPETENCY (approved July 11, 2013) [hereinafter RESEARCH PRINCIPLES AND STANDARDS], available at <http://www.aallnet.org/Documents/Leadership-Governance/Policies/policy-legalrescompetency.pdf>. In July 2013, the Executive Committee of AALL approved the Research Principles and Standards, which had previously been named the AALL Legal Research Competencies and Standards for Law Student Information Literacy (AALL Standards). See *AALL Legal Research Competencies and Standards for Law Student Information Literacy*, AM. ASS'N OF LAW LIBRARIES (approved July 2012) [hereinafter *AALL Legal Research Competencies*], <http://www.aallnet.org/main-menu/Leadership-Governance/policies/PublicPolicies/policy-lawstu.html>. The substantive content is identical in both publications. The primary change between the AALL Standards and the Research Principles and Standards is that AALL expanded the coverage of the latter to include the entire legal profession and not only law students. The Research Principles and Standards are relevant to information literacy instruction, as they provide standards and competencies related to all aspects of information literacy.

3. See Paul D. Callister, *Time to Blossom: An Inquiry into Bloom's Taxonomy as a Hierarchy and Means for Teaching Legal Research Skills*, 102 LAW LIBR. J. 191, 193, 2010 LAW LIBR. J. 12, ¶ 5; GRANT WIGGINS & JAY MCTIGHE, *UNDERSTANDING BY DESIGN* (2d ed. 2006); L. DEE FINK, *CREATING SIGNIFICANT LEARNING EXPERIENCES* 63, 73–74 (2004).

4. Callister, *supra* note 3, at 191, ¶ 1. See also Paul Douglas Callister, *Beyond Training: Law Librarianship's Quest for the Pedagogy of Legal Research Education*, 95 LAW LIBR. J. 7, 2003 LAW LIBR. J. 1.

5. A pedagogy includes both a theory and a method of implementing the theory. Callister, *supra* note 3, at 191, ¶ 1.

6. *Id.* at 199–210, ¶¶ 18–41.

and activities that could be used to improve students' legal research skills.⁷ The learning activities discussed by Callister are to be used as "motivation" for librarians to develop their own teaching tools incorporating taxonomies.⁸

¶3 While Callister's taxonomy can be used in the information literacy context to help librarians select Research Principles and Standards to teach students complex skills such as how to analyze, apply, and make legal conclusions, I believe a more extensive discussion of a method for designing and implementing information literacy instruction, assessments, and activities is needed. Callister's article is silent on instruction techniques and does not thoroughly explain how each activity develops the skills in the research competencies or what assessment tools should be used in connection with the activities.⁹ Callister welcomes continued development of a pedagogy for library instruction and has acknowledged that an open discussion is necessary to improve legal research instruction; he has also set an example of "borrowing from the field of education."¹⁰ Thus, in this article, I expound on Callister's ideas and explain how instruction, assessments, and activities can be created using backward design to teach students the skills set forth in the Research Principles and Standards.

¶4 Backward design is a well-regarded curriculum design technique used in the field of education that involves a structured, three-step process for creating educational experiences for students.¹¹ Backward design inverts the steps of the traditional instruction design process, in which the focus has customarily been on planning activities and selecting textbooks, while academic standards are considered at the end of the educational experience to assess or evaluate students.¹² Unlike this traditional model, backward design requires instructors to select an academic standard at the beginning of the design process before creating assessments or designing a lesson's instruction and activities.¹³ With backward design, academic standards, such as the Research Principles and Standards, are at the center of the design process.¹⁴ Designing a lesson around academic standards, the central premise of backward design, facilitates learning.¹⁵

¶5 Using backward design as a method of implementing information literacy instruction is beneficial to librarians because the Research Principles and Standards, as well as influential publications on which they were founded, such as the

7. *Id.* at 212–18, ¶ 42.

8. *Id.* at 218, ¶ 43.

9. *Id.*

10. *See id.* at 193, ¶ 5.

11. WIGGINS & MCTIGHE, *supra* note 3, at 17–21; FINK, *supra* note 3, at 63.

12. WIGGINS & MCTIGHE, *supra* note 3, at 17; *see* Vicenç Feliu & Helen Frazer, *Outcomes Assessment and Legal Research Pedagogy*, 31 LEGAL REFERENCE SERVICES Q. 2, 184, 184–85 (2012) ("Assessment of learning has been largely a byproduct of course examination and the post-law school Bar examinations.").

13. WIGGINS & MCTIGHE, *supra* note 3, at 17–21.

14. *Id.*

15. *See* KEN BAIN, WHAT THE BEST COLLEGE TEACHERS DO 8, 17, 50–51 (2004); WIGGINS & MCTIGHE, *supra* note 3, at 14–16.

MacCrate Report¹⁶ and the Carnegie Report,¹⁷ do not specify how to implement information literacy instruction in the classroom. Without a method of implementation, even when instructors know what skills should be taught, they may not know how to effectively teach these skills to students.¹⁸ Instructors who do not know about backward design are apt to focus on learning activities and lecture preparation and not on what skills students should learn;¹⁹ as a result, their lessons facilitate learning “more by hope than by design.”²⁰

¶6 Backward design is also useful for teaching students important information literacy skills because it provides opportunities for students to transfer knowledge to new situations and to engage in metacognition, during which they reflect on their learning experiences—two concepts that are critical to learning and are incorporated into the Research Principles and Standards.²¹ Educators simply do not have sufficient time to teach students all topics, but when students learn how to transfer knowledge, they are able to apply their previous knowledge to new situations, issues, and problems.²² Law students and lawyers transfer knowledge routinely, as they are frequently presented with new factual situations that require them to apply their existing knowledge in a new way or under new circumstances. Similarly, law students can learn how to improve their research strategies or legal analysis skills when they are given opportunities to reflect on the effectiveness of their legal research. By using backward design, librarians expose students to many critical components of learning, which will help students learn the information literacy skills set forth in the Research Principles and Standards.

What Is Information Literacy?

¶7 *Information literacy* has been described as a “phrase that is not literally applicable or easily interpretable,” yet it has played an integral role in the lives of Americans since the mid-1970s.²³ The concept of information literacy was first discussed in 1974: “[P]eople [who are] trained in the application of information

16. AM. BAR ASS'N, SECTION OF LEGAL EDUC. & ADMISSIONS TO THE BAR, LEGAL EDUCATION AND PROFESSIONAL DEVELOPMENT—AN EDUCATIONAL CONTINUUM: REPORT OF THE TASK FORCE ON LAW SCHOOLS AND THE PROFESSION: NARROWING THE GAP (1992).

17. WILLIAM M. SULLIVAN ET AL., EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW (2007).

18. Dennis Kim-Prieto briefly discussed the fact that the MacCrate Report identifies necessary skills but not how to teach students these skills; he argued that the AALL Standards provide a “baseline” by which to evaluate learning to bridge this gap. Dennis Kim-Prieto, *The Road Not Yet Taken: How Law Student Information Literacy Standards Address Identified Issues in Legal Research Education and Training*, 103 LAW LIBR. J. 605, 613, 615, 2011 LAW LIBR. J. 37, ¶¶ 16, 21. While the AALL Standards do set forth competencies, which include skills that students should possess, I believe that they do not entirely close the gap between what skills should be taught and how to effectively teach those skills. Thus, I suggest the use of backward design to address this instructional issue.

19. WIGGINS & MCTIGHE, *supra* note 3, at 17.

20. *Id.* at 15.

21. *Id.* at 78, 216; RESEARCH PRINCIPLES AND STANDARDS, *supra* note 2, at [3–4].

22. WIGGINS & MCTIGHE, *supra* note 3, at 78.

23. Shirley J. Behrens, *A Conceptual Analysis and Historical Overview of Information Literacy*, 55 C. & RES. LIBR. 309 (1994).

resources to their work can be called information literates.”²⁴ During the 1970s and 1980s, the definition of information literacy became broader, to include the notion that information literacy was part of lifelong learning and to focus on the idea that information is used to solve problems in the workplace and in life.²⁵ Technological advances, such as the creation of the computer, also shaped the definition of information literacy, for instance, in drawing a distinction between information literacy and computer literacy.²⁶ In 1989, the American Library Association (ALA) formulated the definition that is most commonly used today, requiring an information-literate person to be “able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.”²⁷ In 2012, AALL adopted this definition of information literacy.²⁸

¶8 The most practical means of incorporating information literacy instruction into legal education is to integrate it into doctrinal courses in which librarians collaborate closely with faculty members, as part of a library component to a legal research and writing class or in an advanced legal research course. Librarians should take such integration seriously, because the American Bar Association (ABA) is considering an amendment to its standards for libraries that will expressly designate information literacy instruction as a service that must be provided by academic law librarians.²⁹

The History of the Research Principles and Standards

The MacCrate and Carnegie Reports

¶9 Long before the creation of the Research Principles and Standards, the legal profession discussed concepts relating to information literacy in the MacCrate Report and the Carnegie Report, two influential publications.³⁰ The MacCrate Report was a report from an ABA task force that was charged with “studying and improving the processes by which new members of the profession are prepared for the practice of law.”³¹ The MacCrate Report relied on statistical data to provide a historical picture of the legal profession in terms of law firm sizes and types of legal practices.³² Using these data, the MacCrate Report discussed the importance of certain fundamental skills that new lawyers entering the profession should possess,

24. *Id.* at 310.

25. *Id.* at 310–14.

26. *Id.* at 311–12.

27. *Presidential Committee on Information Literacy: Final Report*, ACRL: ASS’N OF COLLEGE & RESEARCH LIBRARIES (1989), <http://www.ala.org/acrl/publications/whitepapers/presidential>.

28. *AALL Legal Research Competencies*, *supra* note 2.

29. Memorandum from Kent D. Syverud, Council Chairperson, and Barry A. Currier, Interim Consultant on Legal Education 1 (Feb. 22, 2013), available at http://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/council_reports_and_resolutions/20130222_notice_and_comment_standards_chs_6_7.authcheckdam.pdf.

30. AM. BAR ASS’N, *supra* note 16; SULLIVAN ET AL., *supra* note 17.

31. AM. BAR ASS’N, TASK FORCE ON LAW SCH. & THE PROFESSION: NARROWING THE GAP, STATEMENT OF FUNDAMENTAL LAWYERING SKILLS AND PROFESSIONAL VALUES 1 (1992).

32. *See generally* AM. BAR ASS’N, *supra* note 16.

namely problem solving, legal analysis and reasoning, and legal research.³³ The MacCrate Report is also significant to information literacy because it discussed expanding legal research instruction beyond bibliographic instruction into a more process-oriented model in which students are taught to resolve real-world problems using comprehensive legal research skills, such as the development of research plans and the analysis of legal information.³⁴

¶10 Though the Carnegie Report did not expressly address legal research, it has nevertheless influenced information literacy in legal education.³⁵ The Carnegie Report advocated a fundamental change to legal education in which the case-dialogue method would be balanced by practical and ethical instruction, with the goal of teaching law students how to be lawyers.³⁶ The Carnegie Report analyzed how students learn, discussed transfer of knowledge from one area to another, and recommended that students reflect on their learning experiences.³⁷ Specifically, the Carnegie Report argued that one of the main purposes of legal education is to teach students how to transfer knowledge to new situations:

The point of much teaching in law schools is to foster students' ability to transfer their learning so that they can apply what they have learned in one context to another, different one. Making this aim conscious, so that the instructor actively tests students' progress in such transfer, is another well-attested contributor to better learning.³⁸

The Carnegie Report also asserted that one benefit of the cognitive apprenticeship was that it allowed students to reflect on or think about their "knowledge and performance in relation to models supplied by their teacher."³⁹ The MacCrate Report and the Carnegie Report are rooted in educational theory, and the concepts these reports promote are incorporated throughout the Research Principles and Standards.

The Research Principles and Standards

¶11 In 2009 and 2010, members of the Joint Special Interest Section Committee on the Articulation of Law Student Information Literacy Standards created a draft of the AALL Standards, the precursor to the Research Principles and Standards.⁴⁰ The Law Student Research Competency Standards Task Force of AALL (AALL Task Force) was charged by AALL with reviewing and applying the draft AALL Standards "to reflect the ever-changing landscape of practice."⁴¹ In 2011, the AALL Task Force presented a report to the Executive Board of AALL that became the basis for the

33. *Id.* at 121–98.

34. *Id.* at 148–50.

35. See generally SULLIVAN ET AL., *supra* note 17; PRINCIPLES AND STANDARDS, *supra* note 2, at [1].

36. SULLIVAN ET AL., *supra* note 17, at 56–59.

37. *Id.* at 62.

38. *Id.*

39. *Id.* at 61.

40. Kim-Prieto, *supra* note 18, at 609, ¶ 7; AALL *Legal Research Competencies*, *supra* note 2.

41. Kim-Prieto, *supra* note 18, at 610, ¶ 8; see also AALL LAW STUDENT RESEARCH COMPETENCIES AND INFORMATION LITERACY PRINCIPLES REPORT (April 2011), available at <http://www.aallnet.org/archived/Advocacy/AALL-Recommended-Guidelines/Student-Research-Principles.pdf>.

Research Principles and Standards.⁴² In July 2012, AALL's Executive Board approved the AALL Standards.⁴³

¶12 In July 2013, the Executive Board approved the Research Principles and Standards.⁴⁴ The Research Principles and Standards continue to highly value information literacy instruction and seek to have librarians incorporate them into many aspects of library instruction, including curriculum design.⁴⁵ The Research Principles and Standards comprise five principles: (1) knowing the legal system and legal information sources, (2) gathering information through effective and efficient research strategies, (3) critically evaluating information, (4) applying information effectively to resolve a specific issue or need, and (5) distinguishing between ethical and unethical uses of information and understanding the legal issues related to discovery, use, or application of information.⁴⁶ Each Research Principle and Standard includes a list of skills (competencies) that legal professionals should possess to be considered information literate, but AALL does not provide guidance on how to implement the Research Principles and Standards to teach law students and lawyers the necessary information literacy skills.⁴⁷

¶13 The Research Principles and Standards mirror many of the fundamental legal research skills set forth in the MacCrate Report, such as requiring law students to understand state and federal judicial systems and differentiate between secondary and primary sources.⁴⁸ The Research Principles and Standards also incorporate some of the more analytical skills included in the MacCrate Report, such as recognizing that an information-literate student can develop a research plan and analyze legal issues and sources.⁴⁹

¶14 In addition to adopting many aspects of the MacCrate Report, the Research Principles and Standards also reflect important concepts discussed in the Carnegie Report. The idea of transfer of knowledge is directly incorporated into Principle IV of the Research Principles and Standards:

C. An information-literate legal professional understands when research has answered all questions posed, and when it provides sufficient background to explain or support a conclusion.

Competencies:

....

2. Identifies scholarship from other disciplines relevant to resolving a specific issue.

3. Understands how courts or other legal decision-makers have applied materials from other disciplines in the past, and determines when material from these disciplines might be persuasive in resolving a particular issue.⁵⁰

42. *AALL Legal Research Competencies*, *supra* note 2.

43. *Id.*

44. PRINCIPLES AND STANDARDS, *supra* note 2, at [1].

45. *Id.* at [3].

46. *Id.* at [4–10].

47. See *Id.*

48. *Id.*; AM. BAR ASS'N, *supra* note 16, at 157–59.

49. RESEARCH PRINCIPLES AND STANDARDS, *supra* note 2, at [5] (Principle II.B.2).

50. *Id.* at [8] (Principle IV.C).

Metacognition, an equally important concept, is also included in Principle IV of the Research Principles and Standards:

B. An information-literate legal professional modifies initial research strategies as necessary.

Competencies:

....

2. Reflects on the successes or failures of prior strategies for integrating new information into the analysis; and utilizes concepts, theories, and facts from prior research to continue the process.⁵¹

By incorporating important aspects of the MacCrater Report and the Carnegie Report into the Research Principles and Standards, AALL recognized the impact that these influential publications have had on information literacy in legal education.

The Need for Information Literacy Instruction

¶15 Results from several studies show that law students do not possess sufficient information literacy skills. In 2012, the ALL-SIS Task Force on Identifying Skills and Knowledge for Legal Practice conducted a survey that provided insight into how seasoned lawyers and judges perceive the legal research skills of law students and new lawyers.⁵² The responses to the survey suggest a deficiency in those skills:

The young lawyers and law students I have worked with almost never start with secondary sources, which means that they begin case research without understanding either the general principles or the particular catch-phrases of the area they're working in.

Their research is case-dominated, and they lose the serendipity of library research as I remember it. A problem is their inability to imagine and find analogous cases or cases representing general principles outside the particular field in which they're working

....

Most new law school graduates I have worked with are not thorough enough. They find a case they think is on point and then stop. They do not review enough cases and do not make sure the on-point case they found is the current standard. They rarely go to sources beyond case law or statutes unless requested. Legislative history, governmental opinion letter, [and] statute annotations, are good sources of information that they do not typically use.⁵³

¶16 The results from additional studies and surveys suggest similar deficiencies in law students' and young lawyers' information literacy skills. A common complaint from judges and lawyers is that law students are not efficient legal researchers.⁵⁴ Another deficiency observed is a lack of knowledge about the basic structure

51. *Id.* at [7–8] (Principle IV.B).

52. ALL-SIS TASK FORCE ON IDENTIFYING SKILLS & KNOWLEDGE FOR LEGAL PRACTICE, A STUDY OF ATTORNEYS' LEGAL RESEARCH PRACTICES AND OPINIONS OF NEW ASSOCIATES' RESEARCH SKILLS (June 2013), available at <http://www.aallnet.org/sections/all/storage/committees/practicetf/final-report-07102013.pdf>.

53. ALL-SIS TASK FORCE ON IDENTIFYING SKILLS & KNOWLEDGE FOR LEGAL PRACTICE, SURVEY RESULTS (May 2012) (on file with author).

54. Carolyn R. Young & Barbara A. Blanco, *What Students Don't Know Will Hurt Them: A Frank View from the Field on How to Better Prepare Our Clinic and Externship Students*, 14 CLINICAL L. REV. 105, 117–18 (2007–2008).

of court systems, as reflected in student externship journals.⁵⁵ One student wrote, “I didn’t know there was a research department in Superior Court.”⁵⁶ Another student’s journal entry states, “I had no idea that *law in motion* [sic] was such a busy part of the court calendar.”⁵⁷ Finally, one student admitted, “I wasn’t really sure about the difference between federal courts and state courts when I got my externship—I just knew that state courts provided parking and federal courts did not.”⁵⁸

¶17 The results from yet another survey show that new lawyers lack skills necessary to find information, including the ability to use a library catalog:

Most [new associates] do not know how to use a library catalog to find materials. Most of them do not know how to use an index. Most of them do not know the difference between the table of contents and the index. Most of them think that they need to go directly to researching case law online, and are unaware of how secondary resources should be used.⁵⁹

In addition, many law students do not use fundamental legal resources, such as books, journals, and other secondary sources:

[A] surprising number of respondents infrequently used basic materials like books, journals, and periodical indexes. Almost half of the respondents were unfamiliar with the library catalog. The survey also reveals that despite their lack of research experience and knowledge, students view themselves as adequate if not good researchers.⁶⁰

Survey results such as these should be a wake-up call for law librarians. Law librarians can help rectify these deficiencies by designing information literacy instruction targeted to the Research Principles and Standards.

Callister’s Taxonomy

¶18 Callister developed his pedagogy for legal research by creating a taxonomy based, in part, on Bloom’s taxonomy.⁶¹ The categories of a taxonomy build on one

55. *Id.* at 110.

56. *Id.*

57. *Id.*

58. *Id.* at 110–11.

59. Patrick Meyer, *Law Firm Legal Research Requirements for New Attorneys*, 101 *LAW LIBR. J.* 297, 314, 2009 *LAW LIBR. J.* 17, ¶ 52.

60. Kathryn Hensiak, Stephanie Burke & Donna Nixon, *Assessing Information Literacy Among First Year Law Students: A Survey to Measure Research Experiences and Perceptions*, 96 *LAW LIBR. J.* 867, 868, 2004 *LAW LIBR. J.* 54, ¶ 5.

61. Callister, *supra* note 3, at 199, ¶ 18. Bloom’s taxonomy consists of the following six categories: Knowledge—Student provides evidence that he or she “remembers, either by recalling or by recognizing” some concept he or she has previously experienced.

Comprehension—Student shows evidence that he or she knows what is being communicated and makes some use of the information.

Application—When presented with a new situation, student correctly uses a distinct concept or idea to address the new situation.

Analysis—Student is able to break down communications into their parts and determine how they are organized.

Synthesis—Student shows evidence that he or she is able to use parts to form a whole.

Evaluation—Student “mak[es] judgments about the value, for some purpose, of ideas, works, solutions, methods [and] materials.”

TAXONOMY OF EDUCATIONAL OBJECTIVES: THE CLASSIFICATION OF EDUCATIONAL GOALS; HANDBOOK 1: COGNITIVE DOMAIN 18 (Benjamin S. Bloom ed., 1956).

another, requiring a student to use the skills in the more elementary categories to master the more complex skills.⁶² The categories Callister discusses in formulating his taxonomy include (1) remembering, (2) understanding, (3) applying, (4) analyzing/synthesizing, (5) concluding, and (6) metacognition.⁶³ Callister's taxonomy altered Bloom's taxonomy in two significant ways. It combined Bloom's "analysis" and "synthesis" categories;⁶⁴ and it replaced Bloom's "evaluation" category with a "concluding" category, to emphasize that law students must learn how to make legal conclusions,⁶⁵ and a "metacognition" category, referring to a student's ability to reflect on the legal research experience.⁶⁶ Callister's inclusion of metacognition is significant because it provides an opportunity for law students to improve their legal research skills by reflecting on their learning experiences and asking questions, such as "Should I have modified my research techniques to better solve the problem?"⁶⁷ Callister's taxonomy should be used by librarians to help them select Research Principles and Standards that teach students complex skills, such as how to analyze and apply information, make legal conclusions, and reflect on learning experiences. Once Research Principles and Standards have been selected, the librarian can then use backward design to develop assessments, instruction, and activities.

The Backward Design Model of Curriculum Design

¶19 Backward design is a curriculum design method that has been used at all levels of education, including law school clinics, to promote student learning.⁶⁸ Backward design consists of three phases that must be approached in the following order: (1) identify the desired results by considering academic standards (i.e., Research Principles and Standards), (2) determine what evidence will show that the students have achieved the desired results from the Research Principles and

62. Bloom, *supra* note 61, at 15.

63. Callister, *supra* note 3, at 199–212, ¶¶ 18–41.

64. *Id.* at 205–09, ¶¶ 27–36.

65. *Id.* at 209, ¶ 37.

66. *Id.* at 210–12, ¶¶ 39–41.

67. *Id.* at 210–11, ¶ 39.

68. See Bruce E. Fox & John J. Doherty, *Design to Learn, Learn to Design: Using Backward Design for Information Literacy Instruction*, 5 COMM. INFO. LITERACY 144 (2012) (discussing the creation of podcasts at the college level to facilitate learning of information literacy skills through backward design); Wallace J. Mlyniec, *Where to Begin? Training New Teachers in the Art of Clinical Pedagogy*, 18 CLINICAL L. REV. 505 (2012) (discussing using backward design in law school clinics); FINK, *supra* note 3, at 73–74 (explaining the application of backward design in undergraduate education); Carolyn Grose, *Outcomes-Based Education One Course at a Time: My Experiment with Estates and Trusts*, 62 J. LEGAL EDUC. 336 (2012) (discussing outcomes-based education in the context of doctrinal courses, which appears to be similar to backward design. However, outcomes-based education does not begin by selecting an academic standard, a critical step in backward design. Rather, in the outcomes-based approach, professors formulate their own desired outcomes.); Margaret Butler, *Resource-Based Learning and Course Design: A Brief Theoretical Overview and Practical Suggestions*, 104 LAW LIBR. J. 219, 2012 LAW LIBR. J. 19 (touching on the idea of "backward planning" in legal research instruction, but does not follow the steps of backward design in the suggested approach. Butler acknowledges that her article is not based on academic standards, such as the Research Principles and Standards, and she does not explain how activities should be created using her suggested model.).

Standards (i.e., competencies or assessments), and (3) create learning instruction and activities that relate to the specific academic standards.⁶⁹ Backward design reverses how instruction has traditionally been designed by identifying academic standards at the beginning of the planning process as the focal point of the entire academic lesson, which is a “much more careful statement of the desired results.”⁷⁰

¶20 The second step in the backward design process is to create assessments that are closely aligned with the academic standards to provide students with opportunities to apply what they have learned.⁷¹ The best authentic assessments are realistic, require judgment and innovation, and allow students to practice the subject.⁷² Assessments should not simply elicit “easy-to-score responses to simple questions.”⁷³ Rather, assessments should take various forms, including in-class observations, dialogue, quizzes, exams, research exercises, and peer assessment.⁷⁴ Complex research exercises are consistent with the principles of backward design, including the opportunity for self-reflection:

[R]esearch related to a factual scenario may involve selecting appropriate secondary sources, choosing the format of selected material, deciding to change course upon hitting a roadblock, demonstrating how to use a good case from one jurisdiction to find similar cases in another, and considering whether you are safe to stop, among many other things. Multifaceted problems naturally test students’ ability to form a coherent plan.⁷⁵

Evaluation tools, such as rubrics, may be created to grade assessments.⁷⁶

¶21 The final phase of backward design requires instructors to create engaging and effective learning activities, which may include direct instruction.⁷⁷ If direct instruction is used during a lesson, it should provide students with a road map of where the lesson is going and equip them with the knowledge to achieve the outcomes set forth in the academic standards.⁷⁸ Instructors must ask themselves, “When should I engage in direct instruction and when not?”⁷⁹ Instruction can take many forms and is not limited to presenting lectures.⁸⁰ Direct instruction can be most effective if it is “just in time” and not “just in case,” for example, when an instructor intervenes to clarify student understanding during the lesson.⁸¹ Instruction can also take the form of facilitating a learning experience with a follow-up reflection or discussion.⁸²

69. WIGGINS & MCTIGHE, *supra* note 3, at 17–21.

70. *Id.* at 17.

71. *Id.* at 146, 150, 153–55.

72. *Id.* at 154.

73. GRANT WIGGINS, *EDUCATIVE ASSESSMENT: DESIGNING ASSESSMENTS TO INFORM AND IMPROVE STUDENT PERFORMANCE* 21 (1998).

74. Simon Canick, *Legal Research Assessment*, 28 *LEGAL REFERENCE SERVICES Q.* 201, 206–11 (2009).

75. *Id.* at 207.

76. WIGGINS & MCTIGHE, *supra* note 3, at 175–76.

77. *Id.* at 18–21, 192.

78. *Id.* at 19.

79. *Id.* at 245.

80. *See id.* at 242–43.

81. *Id.* at 243.

82. *Id.*

¶22 Engaging and effective activities require genuine application to real-world problems with opportunities for students to have hands-on experiences.⁸³ To be effective, the activities must spark students' interest and keep their attention throughout the entire educational experience.⁸⁴ Instructors can maintain students' interest with activities that can be applied to a variety of situations.⁸⁵ Students must also be provided with prompt feedback throughout the lesson.⁸⁶ One critical benefit of designing activities using backward design is that activities in which students apply what they have learned increase their learning and achievement: "Courses that emphasize applying course material, making judgments about value of information and arguments, and synthesizing material into more complex interpretations and relationships are highly related to educational and personal gains."⁸⁷ Using backward design allows librarians to create information literacy assessments, instruction, and activities in manageable steps to ensure that the entire lesson is cohesive and focused on helping students learn important information literacy skills.

Sample Exercises Applying Backward Design, Callister's Taxonomy, and the Research Principles and Standards

¶23 Many librarians may intuitively approach instruction design by considering outcomes or standards before creating assessments, instruction, and activities for students, without realizing that the formal process of backward design exists. However, it is always useful to consider one's own design strategies and how the instruction design process can be improved by incorporating aspects of backward design.

¶24 The following examples apply backward design to help foster students' information literacy skills. For each, I chose a Research Principle and Standard (or multiple Research Principles and Standards), using Callister's taxonomy to ensure that my selections teach students the more complex skills of analysis, application, and making legal conclusions. Next, I designed the lesson's assessments, instruction, and activities, with a focus on creating engaging and effective real-world activities that allow students to develop the skills necessary to transfer knowledge to new situations and reflect on their learning experiences. The examples also include sample assessment techniques and show how feedback can be incorporated into a lesson. These examples are meant solely to provide guidance to librarians on how to design information literacy instruction using backward design. Backward design can be used to develop numerous educational experiences for students that go beyond these limited examples.

83. *Id.* at 195.

84. *Id.* at 201–02.

85. *Id.* at 202.

86. *Id.* at 206 (quoting NATIONAL SURVEY OF STUDENT ENGAGEMENT, CONVERTING DATA INTO ACTION: EXPANDING THE BOUNDARIES OF INSTITUTIONAL IMPROVEMENT (2003)).

87. *Id.*

Example 1: Are You a Cost-Efficient Legal Researcher?

*Applicable Research Principles and Standards*⁸⁸

Principle II: A successful legal researcher gathers information through effective and efficient research strategies.

- A. An information-literate legal professional selects appropriate research sources. Corresponding AALL competencies as evidence of desired outcomes:
1. Identifies and analyzes the appropriate legal issues that need to be researched.
 2. Recognizes the authority or authorities governing particular legal issues.
 3. Knows which print or electronic, primary or secondary, sources contain appropriate and current content on the issue being researched.
 4. Recognizes how tools facilitate research tasks due to content or organization, such as use of controlled vocabulary, synopses, annotations, or headnotes.
 5. Knows how to check the content of sources and validate the completeness and currency of the selected sources.
 6. Supplements or validates preliminary results with additional tools.
- B. An information-literate legal professional constructs and implements efficient, cost-effective search strategies. Corresponding AALL competencies as evidence of desired outcomes:
1. Articulates the precise legal issues that need to be researched, whether in the context of:
 - a. traditional litigation practice,
 - b. regulatory practice, or
 - c. transactional practice.
 2. Develops an appropriate research plan for each discrete issue.
 3. Knows how to appropriately use available resources to research and understands the relative advantages of different methods of finding information.
 - a. Differentiates among various available online search platforms to employ those that are best suited to the task at hand, and
 - b. Understands the operation of both free and subscription search platforms to skillfully craft appropriate search queries.
 4. Identifies the most cost-effective sources, calculating cost of use against time on research.

*Explanation of Assessments, Instruction, and Activities*⁸⁹

¶25 The librarian should begin the lesson by explaining to the students that the lesson is meant to increase student awareness of how to provide cost-efficient legal services to clients and that each student will be required to use primary and secondary sources to draft a memorandum, summarizing a particular cause of action

88. Excerpted from *Principles and Standards*, *supra* note 2, at [5–6].

89. This lesson is adapted from one designed by Jay Feiman, Distinguished Professor of Law, Rutgers School of Law, Camden, New Jersey. I was involved in presenting the research component of this lesson in Professor Feiman's business torts class.

within a jurisdiction and keeping track of the time spent on legal research and writing the memorandum. The Librarian and the students should engage in a discussion about primary and secondary sources with a focus on the cost associated with using each type of resource. She should ensure that the students have fundamental knowledge about various primary and secondary sources that will be used during the lesson. The Librarian can gauge the students' understanding by asking them questions about primary and secondary sources and how they are properly used. During this discussion, she should also provide the students with a billable-hour range for young lawyers in the area as well as a cost breakdown for using the various resources.

¶26 The Librarian should provide the students with a fact pattern that includes a particular cause of action or legal claim (e.g., defamation, negligence, breach of contract, etc.) and tell them that they must use primary and secondary sources (paid databases and the library sources available in the library catalog) to briefly discuss the cause of action in a memorandum. She should require the students to keep track of the amount of time that they spend conducting research and drafting the memorandum. The students should also identify the legal resources that they use to complete the assignment (e.g., cases from restricted-access databases, such as Westlaw, LexisNexis, or Bloomberg Law; secondary sources in the library's collection; or other sources such as government web sites, etc.).

¶27 When the class reconvenes, the librarian should collect the memoranda (including the information about time spent on the assignment) and lead a discussion about the sources that the students used. The memoranda serve as the summative assessment. Once the students' memoranda have been graded, the librarian must provide feedback to the students through a conference or e-mail. An ongoing assessment could be to have the students revise their memoranda if their initial versions did not conform to the assignment requirements. Feedback about progress and problems must be provided to the students after each draft. A final aspect of the assignment should be for the librarian to have the students briefly describe (verbally or in writing) how they would change their research plan or strategy if they were presented with a similar problem in the future.

Example 2: How Reliable Is the Authority Supporting Your Pleading?

*Applicable Research Principles and Standards*⁹⁰

Principle III: A successful legal researcher critically evaluates information.

A. An information-literate legal professional knows that information quality varies.

Corresponding AALL competencies as evidence of desired outcomes:

1. Consistently applies criteria to evaluate the reliability of information, including but not limited to
 - a. authority,
 - b. credibility,
 - c. currency, and
 - d. authenticity.

90. Excerpted from RESEARCH PRINCIPLES AND STANDARDS, *supra* note 2, at [6–9].

2. Understands that these criteria are relevant for both print and online, and legal and non-legal, sources.

Principle IV: A successful legal researcher applies information effectively to resolve a specific issue or need.

....

D. An information-literate legal professional applies and integrates research into a persuasive document.

Corresponding AALL competencies as evidence of desired outcomes:

1. Cites authority consistent with locally accepted rules, ensuring that cited references can be located by the reader.
2. Organizes and integrates content, quotations, or forms, and paraphrasing in a manner that supports the argument, brief, analysis, or transaction.
 - a. Chooses an appropriate communication format and style for the intended audience; and
 - b. Integrates charts, maps, or photos into the document or presentation for maximally persuasive effect, when appropriate.

Explanation of Assessments, Instruction, and Activities

¶28 The librarian should begin the lesson by explaining to the students that the focus of the lesson is to teach them how to effectively evaluate sources by having each student draft a complaint to be filed in federal court (select a venue), along with an e-mail or memorandum to the senior attorney discussing the reliability of sources used to draft the complaint. This lesson includes a lecture component in which the librarian should focus on teaching the students how to evaluate sources for reliability of information. During the lecture, the librarian should provide examples of secondary sources and electronic resources that are credible, current, authentic, and written by an author with authority, along with examples of resources that do not meet these criteria.

¶29 The librarian should provide the students with a problem ostensibly from a senior attorney, directing the students to draft a complaint to be filed in federal court asserting a civil cause of action, such as civil RICO, employment discrimination, or race discrimination. In drafting the complaint, the students should be required to use both primary and secondary sources to determine the elements of the causes of action and the procedural requirements. The students must communicate their research results to the senior attorney in writing, discussing their research plan,⁹¹ correctly citing the resources used, and explaining how each

91. A thorough discussion of legal research plans can be found in Caroline L. Osborne, *The Legal Research Plan: A Comprehensive Examination of the Current Approach* (Washington & Lee Legal Studies Paper No. 2012-15, Apr. 2, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2033236. The elements of a legal research plan are "(1) identification of legally relevant facts both known and unknown; (2) statement of the legal issue or issues; (3) statement of jurisdiction; (4) identification of useful sources and the order in which they are to be used; (5) identification of search terms." *Id.* at 3. For the purposes of this lesson, an effective research plan should reflect the student's understanding that research should begin with using secondary sources, such as treatises, as a means of finding primary sources, such as statutes or case law. The student's research plan should also include the use of the court procedural rules and any secondary sources used to help interpret these rules.

resource meets the reliability criteria set forth in the AALL Research Principles and Standards identified above. At the end of the lesson, the students should be required to write a short essay about any confusing aspects of the assignment and how they resolved this confusion or what questions still remain. The complaint, memorandum or e-mail to the senior attorney, and short essay serve as assessments because they allow the librarian to determine each student's understanding of the material. The librarian must provide feedback about each separate learning activity to the students.

Example 3: What Was the Legislature Thinking in Enacting This Statute?

*Applicable AALL Research Principles and Standards*⁹²

Principle IV: A successful legal researcher applies information effectively to resolve a specific issue or need.

....

- C. An information-literate legal professional understands when research has answered all questions posed, and when it provides sufficient background to explain or support a conclusion.

Corresponding AALL competencies as evidence of desired outcomes:

....

2. Identifies scholarship from other disciplines relevant to resolving a specific issue.

....

4. Locates background information to help answer a legal issue or need by using resources such as:
- a. records of constitutional conventions,
 - b. legislative histories,
 - c. administrative histories,
 - d. trial or appellate briefs, or
 - e. economic, policy, business-specific, social, psychological, historical, or other inter-disciplinary research.

Explanation of Assessments, Instruction, and Activities

¶30 The librarian should begin the lesson by informing the students that the lesson involves teaching them how to find legislative history and having them draft a memorandum making a determination as to whether a court case was correctly decided based on the legislative history of a statute. In the instruction portion of this lesson, the librarian should introduce the students to sources that allow them to find legislative histories, such as Congressional Information Service (CIS), United States Code Congressional and Administrative Code (USCCAN), Westlaw, LexisNexis, HeinOnline, GPO Access, and Congress.gov from the Library of Congress. The students should also be introduced to databases (if available) through which they can access secondary sources such as articles on legal and historical issues.

92. Excerpted from RESEARCH PRINCIPLES AND STANDARDS, *supra* note 2, at [8].

¶31 The students should conduct legal research and select a court opinion in which the judge made a statutory construction argument. Then each student should draft a memorandum making a conclusion as to whether the case was decided correctly or incorrectly based on an analysis of the statute's legislative history and any relevant secondary articles or publications. The students' memoranda serve as the assessment tool in this example because they allow the librarian to gauge the students' comprehension of all aspects of the assignment. Allowing students to produce multiple drafts of the memorandum may be helpful. The librarian must provide feedback to the students about each draft's strengths and weaknesses.

Conclusion

¶32 Information literacy should be a fundamental component of legal education through library instruction because students need strong information literacy skills when they enter the practice of law. AALL's commitment to developing information literacy skills was reinforced by their recent approval of the Research Principles and Standards. While the Research Principles and Standards provide guidance on identifying information skills, they do not specify how librarians should teach students these critical skills. This article discusses two important concepts, borrowed from the field of education, that academic law librarians can use to teach students information literacy and improve students' information literacy deficiencies. Namely, law librarians should use Callister's taxonomy to select appropriate Research Principles and Standards to develop students' analytical, research, and reflective skills, and they should use backward design as the method of implementing information literacy instruction, assessments, and activities because its three-step process facilitates learning.

¶33 The examples provided in the final section of this article can be used by librarians to guide the creation of their own information literacy lessons. I am following in Callister's footsteps by expanding the conversation about library instruction in the information literacy context. As Callister declared, "[i]t is a day for our profession to rise to the challenge of Curriculum 2.0, to demonstrate our ability to collaborate . . . and to invigorate our intellectual roots with new and better scholarship."⁹³

93. Callister, *supra* note 3, at 218, ¶ 46.

Appendix⁹⁴

Principles and Standards for Legal Research Competency

Principle I: A successful legal researcher possesses fundamental research skills.

Standards:

- A. An information-literate legal professional considers the full range of potential sources of information, regardless of type or format.

Competencies:

1. Differentiates between primary and secondary sources, and recognizes how their use and importance vary depending upon the legal problem or issue.
 2. Identifies and uses the most effective secondary sources to obtain background information, to gain familiarity with terms of art, and to put primary sources in context.
 3. Recognizes differences in the weight of authority among sources and applying that knowledge to the legal research problem.
- B. An information-literate legal professional understands the similarities, differences, and interrelationships among and between United States federal, state, and local legal systems.

Competencies:

1. Distinguishes between federal, state, and local systems of government; and understanding the processes and the interrelationships among them on all levels.
 2. Knows which legal information is produced, organized, and disseminated across levels and branches of government.
 3. Identifies appropriate resources to locate the legislative, regulatory, and judicial law produced by the respective government bodies.
 4. Understands and distinguishes between different types of primary law sources, and the weight, reliability, and binding or persuasive authority of each source.
- C. An information-literate legal professional understands the structure and interrelationships between and among foreign and international legal systems.

Competencies:

1. Recognizes that there are diverse structural frameworks for the various legal systems within the global community.
2. Recognizes basic similarities, differences, and interrelationships among and between various types of legal regimes, e.g., United States law, foreign law, and international law.
3. Identifies information resources that will increase depth and breadth of knowledge regarding a specific legal system.
4. Recognizes that other countries and supranational organizations may produce, organize, and disseminate their legal information in different ways, and knows how to find the needed information for a particular legal system.

94. PRINCIPLES AND STANDARDS, *supra* note 2.

Principle II: A successful legal researcher gathers information through effective and efficient research strategies.

Standards:

- A. An information-literate legal professional selects appropriate research sources.

Competencies:

1. Identifies and analyzes the appropriate legal issues that need to be researched.
2. Recognizes the authority or authorities governing particular legal issues.
3. Knows which print or electronic, primary or secondary, sources contain appropriate and current content on the issue being researched.
4. Recognizes how tools facilitate research tasks due to content or organization, such as use of controlled vocabulary, synopses, annotations, or headnotes.
5. Knows how to check the content of sources and validate the completeness and currency of the selected sources.
6. Supplements or validates preliminary results with additional tools.

- B. An information-literate legal professional constructs and implements efficient, cost-effective search strategies.

Competencies:

1. Articulates the precise legal issues that need to be researched, whether in the context of:
 - a. traditional litigation practice,
 - b. regulatory practice, or
 - c. transactional practice.
2. Develops an appropriate research plan for each discrete issue.
3. Knows how to appropriately use available resources to research and understand the relative advantages of different methods of finding information.
 - a. Differentiates among various available online search platforms to employ those that are best suited to the task at hand, and
 - b. Understands the operation of both free and subscription search platforms to skillfully craft appropriate search queries.
4. Identifies the most cost-efficient sources, calculating cost of use against time on research.

- C. An information-literate legal professional confirms and validates research results, incorporating existing work product and expertise.

Competencies:

1. Understands the necessity of validating case holdings through the use of citators such as Shepard's, KeyCite, or other citation-based methods of updating case law.
2. Analyzes research results using prior knowledge and experience on the topic in particular, as well as one's general knowledge of legal principles.
3. Recognizes the benefits of requesting assistance from knowledgeable individuals, or an institution's knowledge management system.
4. Understands when to stop the research process.

D. An information-literate legal professional documents research strategies.

Competencies:

1. Records all pertinent information for future reference, such as:
 - a. resources and methods used,
 - b. information considered, and
 - c. reasons for selecting or rejecting various authorities or resources.
2. Understands and utilizing proper citation forms.

Principle III: A successful legal researcher critically evaluates information.

Standards:

A. An information-literate legal professional knows that information quality varies.

Competencies:

1. Consistently applies criteria to evaluate the reliability of information, including but not limited to
 - a. Authority,
 - b. Credibility;
 - c. Currency; and
 - d. Authenticity
2. Understands that these criteria are relevant for both print and online, and legal and non-legal, sources.

B. An information-literate legal professional evaluates legal information through cost-benefit analyses.

Competencies:

1. Understands that there are costs associated with legal research, regardless of type, publisher, or format.
2. Demonstrates cognizance of the intersection of cost and efficiency in the selection of information format, and exercising professional judgment to choose the best source to serve the research parameters.
3. Understands the costs and benefits of mediated and disintermediated searching, and using this knowledge to revise research strategies when necessary.

C. An information-literate legal professional understands the importance of reviewing information obtained.

Competencies:

1. Clarifies or refines the research question as needed.
2. Updates or expands the research.
3. Identifies and addresses any contradictory authority.

Principle IV: A successful legal researcher applies information effectively to resolve a specific issue or need.

Standards:

- A. An information-literate legal professional synthesizes research problems in an analytical approach to legal research.

Competencies:

1. Synthesizes legal doctrine by examining cases similar, but not identical, to cases that are the current focus of research, in order to articulate how courts should apply current authoritative and relevant case law.
 2. Uses research results to craft or support arguments that resolve novel legal issues lacking precedent, when appropriate.
- B. An information-literate legal professional modifies initial research strategies as necessary.

Competencies:

1. Understands research as a recursive process, and expanding or narrowing research queries after discovering unanticipated results.
 2. Reflects on the successes or failures of prior strategies for integrating new information into the analysis; and utilizing concepts, theories, and facts from prior research to continue the process.
 3. Identifies historical sources or scholarship from other disciplines relevant to resolving a specific issue.
 4. Recognizing when specific questions within the larger research problem have not been answered with the information compiled, by either:
 - a. Recognizing when the ultimate questions presented have not been fully answered through the research already obtained, or
 - b. Realizing when sufficient research has been completed to address the legal issue or information need.
- C. An information-literate legal professional understands when research has answered all questions posed, and when it provides sufficient background to explain or support a conclusion.

Competencies:

1. Identifies unresolved issues and incorporates analogous background as appropriate if research has not clearly resolved all ambiguities or uncertainties within the issue posed.
2. Identifies scholarship from other disciplines relevant to resolving a specific issue.
3. Understands how courts or other legal decision-makers have applied materials from other disciplines in the past, and determines when material from these disciplines might be persuasive in resolving a particular issue.
4. Locates background information to help answer a legal issue or need by using resources such as:
 - a. records of constitutional conventions,
 - b. legislative histories,
 - c. administrative histories,
 - d. trial or appellate briefs, or
 - e. economic, policy, business-specific, social, psychological, historical, or other inter-disciplinary research.

- D. An information-literate legal professional applies and integrates research into a persuasive document.

Competencies:

1. Cites authority consistent with locally accepted rules, ensuring that cited references can be located by the reader.
2. Organizes and integrates content, quotations, or forms, and paraphrases in a manner that supports the argument, brief, analysis, or transaction.
 - a. Chooses an appropriate communication format and style for the intended audience; and
 - b. Integrates charts, maps, or photos into the document or presentation for maximally persuasive effect, when appropriate.

Principle V: A successful legal researcher distinguishes between ethical and unethical uses of information, and understands the legal issues associated with the discovery, use, or application of information.

Standards:

- A. An information-literate legal professional understands and articulates the factors that determine the ethics and legality of information use in conformity with a lawyer's obligations to the court, the bar, and society.

Competencies:

1. Comprehends and complies with laws and organizational (firm, school, court) rules on access to information resources and storage and dissemination of information.
 2. Understands intellectual property issues such as licensing, copyright, and fair use of copyrighted material.
 3. Accurately articulates privacy, confidentiality, security, diligence, and other ethical issues related to research and practice in accordance with the Model Rules of Professional Conduct, the Model Code of Professional Responsibility, or the prevailing local law governing legal ethics.
- B. An information-literate legal professional applies the laws, rules, and other legal authority that govern a lawyer's use of information in the course of practice.

Competencies:

1. Uses citation of sources to respect authors' intellectual property rights and accurately indicates where the words and ideas of others have been used.
 2. Comprehends and complies with license and subscription agreements.
- C. An information-literate legal professional understands that research skills are among the set of professional skills that are continuously learned and re-learned throughout one's professional life.

Competencies:

1. Understands local requirements for continuous legal education.
2. Affirmatively undertakes training on research platforms as new iterations reach the market.
3. Comprehends that legal research skills, like legal standards, are "moving targets" subject to further refinement and development as the universe of legal knowledge (and legal research tools) expands.