

LAW SCHOOL ACADEMIC SUPPORT PROFESSIONALS' PERCEPTIONS
ABOUT DEVELOPMENT OF STUDENTS' CRITICAL THINKING

DISSERTATION

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For my father, Stuart Brosseit, who dedicated his life
to helping others achieve their potential.

Abstract

Law School Academic Support Professionals' Perceptions

About Development of Students' Critical Thinking

Recent research suggests that many U.S. students graduate from college with under-developed critical thinking skills. College graduates with deficits in critical thinking skills who pursue legal education face difficult barriers to academic and professional success which, if not effectively addressed, may impact the affected students, as well as the legal profession and society as a whole. Legal education is likewise facing intense criticism regarding educational practices and graduates' level of preparation for the competent practice of law. The purpose of this study was to construct a comprehensive theory of the development of critical thinking skills in law students. Through a process of grounded analysis, the researcher developed a conceptual model of the development of critical thinking in law students based on interview data collected from 14 academic support professionals at third- and fourth-tier law schools in the U.S. The model, referred to as the Critical Thinking in Law Students (CTLS) Model, considers student learning needs, student learning challenges, and legal education system challenges, and identifies twelve factors to optimize the development of critical thinking in law students. The CTLS Model may help law school governing authorities, law school administrators, law school faculty, law school academic support professionals, and law students better understand how critical thinking develops in law students so that students may achieve their full academic, intellectual, and professional potential.

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CHAPTER I
THE PROBLEM
Introduction

Recent research suggests that many U.S. college students graduate with underdeveloped critical thinking skills (Arum & Roksa, 2011; Blaich & Wise, 2011). In 2011, sociologists Arum and Roksa released their book, *Academically Adrift: Limited Learning on College Campuses*, documenting the results of a recent large-scale study sponsored by the non-profit Social Science Research Council which found striking deficits in critical thinking skills among U.S. college and university students. Arum and Roksa specifically noted deficiencies in critical thinking, complex reasoning, writing, and academic motivation. Recent results from the ongoing Wabash National Study (2011) support Arum and Roksa's findings of limited gains in critical thinking among U.S. college students. The Wabash National Study, sponsored by The National Institute for Learning Outcomes Assessment, tracked the learning outcomes of over 17,000 students from 49 colleges and universities since 2005 (Blaich & Wise, 2011). Results from this study indicate only modest gains in critical thinking among college students overall, with many students experiencing declines or a lack of growth in critical thinking during college (Blaich & Wise).

The types of deficiencies in critical thinking skills identified as widespread among today's college students represent the primary skills required for success in the study and practice of law (Rapoport, 2012; Yakowitz, J., 2010). DeGroff (2012) noted that the current generation of law students has been characterized as "less adept than previous generations with the process of organizing and synthesizing information, and...less motivated to engage in the process," and that today's students "have developed a

primarily passive relationship to information” (p. 1). Yet society now, more than ever before, depends upon lawyers to resolve its most challenging issues using advanced reasoning, informed thinking, and sophisticated communication skills (Tacha, 2013). In addition, lawyers play a critical part in maintaining social justice around the globe. A strong legal education system helps to protect the rule of law for future generations (Tacha). Based on the vital role that legal education serves, members of the academy should pay particular attention to deficiencies in critical thinking skills among law students.

Statement of the Problem

Recent large-scale reports and surveys suggesting poorly developed critical thinking skills in college students have created a focus on critical thinking greater than any that has previously existed (Arum & Roksa, 2011; Blaich & Wise, 2011; Boghossian, 2012). In their book, *Academically Adrift: Limited Learning on College Campuses*, Arum and Roksa (2011) offered detailed insight into the nature of the deficits in critical thinking skills among today’s U.S. college and university students. The longitudinal study conducted by Arum and Roksa tracked 2,322 students from 2005 to 2007 in 24 four-year colleges and universities throughout the U.S. utilizing data from the Collegiate Learning Assessment (CLA). Arum & Roksa found that 45% of the students in the study experienced no significant gains in critical thinking, complex reasoning, and writing skills during their first two years of higher education. The researchers further determined that after four years of higher education, 36% of the students still experienced no significant gains (Arum & Roksa). Nonetheless, 81% of the students surveyed in the study indicated that they planned to attain a graduate degree following the completion of

college, with 39% anticipating earning a doctorate or professional degree (Arum & Roksa).

The lack of development of students' critical thinking skills at the undergraduate level presents substantial barriers to success for many students entering law school, who may struggle under the academic demands of law school, and may graduate without the necessary skills to effectively practice law (Rapoport, 2012). These academic difficulties, which may prove particularly prevalent at third- and fourth-tier institutions, arise from the lack of an adequate foundation in conceptual thinking and a lack of exposure to academic rigor at the undergraduate level (Rapoport). In response to these challenges, law school academic support professionals at various institutions have implemented new types of courses and approaches focused on developing students' analytical skills, writing skills, and the other critical thinking skills associated with the successful study and practice of law (Burgess, 2011; Schulze, 2011; Schulze, 2012). These new courses and approaches, however, differ widely from institution to institution, and legal educators continue to search for more effective ways of improving law students' educational outcomes (Burgess, 2011; Fajans, 2011; Niedwiecki, 2012; Schulze, 2011; Schulze, 2012).

To optimize the development of critical thinking skills in law students, legal educators and law school administrators require guidance regarding the issues and factors associated with the development of critical thinking skills in law students. The academic support professionals who specialize in learning theory, pedagogy, and student success in the law school environment offer valuable insight into the nature of the problem and the potential solutions (Burgess, 2011; Rapoport, 2012; Schulze, 2011). A deeper

understanding of the development of critical thinking skills in law students may help legal educators and law school administrators design new instruction and implement more effective institutional approaches for improved learning outcomes (James, 2011).

Purpose of the Study

This qualitative grounded theory study explored the perceptions of law school academic support professionals regarding the most effective educational approaches for helping law students develop strong critical thinking skills. By eliciting the input of the academic support professionals responsible for academic outcomes in the law school environment, and by analyzing the emerging data via a systematic grounded theory study, the researcher constructed a comprehensive theory of the development of critical thinking in law students. The resulting theory offers new insight into the development of critical thinking skills in law students, which may help legal educators and law school administrators design improved educational approaches to assist law students in overcoming barriers to academic and professional success.

Theoretical Framework

While Facione provides the most complete definitions for critical thinking skills in *The Delphi Report* (1990), he does not purport to offer a framework through which one may conceptualize the theory behind critical thinking. The researcher thus utilized the conceptual model of critical thinking developed by Paul and Elder (2006) as the theoretical framework for the study. Paul and Elder's conception of critical thinking embodies three inter-related components that in combination offer a comprehensive framework for helping students apply critical thinking to reason effectively about complex issues. The three interrelated components in Paul and Elder's model, depicted in

Table 1, consist of: (1) elements of reasoning or thought, which represent the general thought processes inherent in comprehensive, logical thinking; (2) intellectual standards, which provide criteria that one may apply to assess the quality of one's reasoning; and (3) intellectual virtues, which reflect the values or habits of mind that promote development of critical thought, moral integrity, and responsible citizenship (Paul & Elder).

Students and teachers may use Paul and Elder's (2006) model to monitor and assess the development of critical thinking by systematically applying each of its three components. Students may refer to the first component of Paul and Elder's model, the elements of thought, to ensure that they implement the thought processes associated with effective critical thinking when learning or solving problems. Once students verify their application of the correct elements of thought, students may refer to the second component of Paul and Elder's model, the intellectual standards, to assess the quality and level of development of their critical thinking. Finally, once students establish their application of the elements of thought and assess the quality of their efforts using the intellectual standards, students may employ the third component of Paul and Elder's model, the intellectual traits, to ensure that they exercise their critical thinking in a thoughtful manner that will led to intellectual independence and responsible action.

Paul and Elder have applied their Theory of Critical Thinking to a number of topics relevant to legal education, including ethical reasoning (2009) and the art of Socratic questioning (2007; 2008). While Paul and Elder's (2006) model offers an established framework for viewing the phenomenon of critical thinking in law students, the creation of original theory remains the foundation and ultimate goal of grounded theory research. The researcher therefore considered Paul and Elder's model in the

context of the emerging data that formed the foundation of the theory that arose from this study.

Table 1: *Paul and Elder's Theory of Critical Thinking*

Elements of thought (processes inherent in logical thinking)

purposes, questions, points of view, information, inferences, concepts, implications,
assumptions

Intellectual standards (applied to elements of thought)

clarity, accuracy, relevance, logicalness, breadth, precision, significance, completeness,
fairness, depth

Intellectual traits (developed by applying intellectual standards to elements of thought)

intellectual humility, intellectual autonomy, intellectual integrity, intellectual courage,
intellectual perseverance, confidence in reason, intellectual empathy, fair-mindedness

Adapted from *The Miniature Guide to Critical Thinking, Concepts, and Tools* by R. Paul and L. Elder, 2006. Copyright 2006 by Foundation for Critical Thinking Press, Dillon Beach, CA.

Research Questions

The overarching research question guiding this study was: What are the perceptions of law school academic support professionals regarding the development of critical thinking skills in law students? To more specifically articulate aspects of the overarching question, the researcher also posed the following questions:

1. What factors affect the development of strong critical thinking skills in law students?
2. What teaching and learning approaches show the greatest promise for improving critical thinking skills among law students?
3. What are the most important things that legal educators and law school administrators can do to help students optimize their critical thinking skills?
4. How can legal educators and law school administrators best monitor and assess the development of students' critical thinking skills?
5. What additional training, support, and/or resources do legal educators need to help optimize students' critical thinking skills?

Research Design

The researcher employed a qualitative design for this study due to the purpose of the inquiry, which was to develop a deep, holistic understanding of the development of critical thinking skills in law students based on the perceptions of law school academic support professionals. The use of a qualitative approach offers the opportunity to examine the phenomenon of critical thinking in law students in an emergent, fundamentally interpretive sense, rather than a tightly preconfigured design (Creswell, 2007). The researcher utilized grounded theory for this study because the researcher desired to develop a novel theory of critical thinking in law students based on data collected from law school academic support professionals (Charmaz, 2011). The development of critical thinking in law students encompasses a broad array of constructs and considerations that the researcher may best explore by interviewing the law school academic support

professionals tasked with educational outcomes and systematically analyzing the resulting data to create a comprehensive, explanatory theory.

Significance of the Study

The significance of this study arose from the need for research-based guidance to help legal educators and law school administrators formulate effective strategies and approaches for improving critical thinking skills in law students. The deficits in critical thinking skills that researchers have identified as prevalent in undergraduate students often carry forward into the legal learning arena, presenting barriers to academic and professional success for law students (Jewel, 2008; Sauder & Lancaster, 2006). Such barriers may prove particularly challenging in third- and fourth-tier law schools, where many incoming students may have experienced less rigorous undergraduate educational environments that did not require them to develop the type of advanced conceptual skills necessary to effectively engage in legal education (Rapoport, 2012).

While researchers have investigated the ways in which students acquire advanced critical thinking skills in many academic environments, very little research exists concerning the development of critical thinking skills in the context of legal education (Bonner & D'Agostino, 2012). Legal educators and administrators may benefit from additional research-based guidance concerning the most effective methods for enhancing the curricular and pedagogical aspects in legal education (American Bar Association, 1992; Stuckey et. al., 2007; Sullivan et. al., 2007). Law school academic support professionals in particular may benefit because they typically hold responsibility for the design, development, and delivery of instruction affecting law student academic success and educational outcomes (Walker, 2013). This study may thus help legal educators,

administrators, and academic support professionals design and deliver better instruction to law students to help them optimize their critical thinking skills for proficiency and success in the study and practice of law.

Definition of Terms

Critical thinking, higher-order thinking, legal reasoning, and legal analysis are defined as “purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based” (Facione, 1990, p.3). Researchers and educators often use the terms critical thinking, legal reasoning, and legal analysis, synonymously to refer to the higher-order thinking constructs embodied in *The Delphi Report* (James, 2011).

Law school academic support professionals are law school employees whose positions entail institutional responsibility for student academic success, educational outcomes, retention, and/or bar passage (Walker, 2013). Law school academic support professionals may serve in faculty or administrative roles, depending upon the policies and practices of each institution.

Law school academic support program is “a comprehensive program designed to help law students succeed academically through a combination of substantive legal instruction, study skills, legal analysis, legal writing, and attention to learning styles” (Schulze, 2012, p. 22).

Third- and fourth-tier law schools are those 99 law schools with full accreditation from the American Bar Association not included in the top 100 law schools as listed in the 2013 *U.S. News and World Report* rankings (Appendix A).

Limitations and Delimitations

The participants in this study consisted of 14 academic support professionals in third- and fourth-tier law schools who volunteered to participate in the study. Because the study sample group consisted solely of self-selected participants, their views may not reflect the views of other law school academic support professionals. The researcher, as an academic support professional at a fourth-tier law school, bracketed his personal biases through the use of epoché (Creswell, 2013).

The fact that study participants self-reported the information obtained also constitutes a limitation. The risk exists that participants may have been reluctant to fully express their views and opinions out of concern for upsetting superiors, colleagues, or students. Finally, the researcher may have concluded that certain categories of data have reached the point of theoretical saturation when they warranted further investigation.

Delimitations in this study include the necessity for the researcher to conduct the interviews for this study via telephone as opposed to face-to-face. In addition, the study included only law school academic support professionals at third- and fourth-tier law schools. Another delimiter was the total number of participants.

Chapter Summary

In this chapter, the researcher described the problem and purpose for this grounded theory study. The researcher addressed the theoretical framework of critical thinking, and presented the research questions, the research design, and the significance of the study. The researcher also defined the terms used in the study, and addressed the study limitations and delimitations. In Chapter II, the researcher will review the literature associated with this study.

CHAPTER II REVIEW OF THE LITERATURE

Introduction

Development of critical thinking has served as a focal point of education throughout history (Lim, 2011). Critical thinking instruction equips citizens in democratic societies with contemplative and analytical abilities required to conduct society's affairs in the "right" way from both an intellectual and moral perspective (Lim, p. 784). While critical thinking has endured over the ages as a central concept in educational philosophy, the purposes served by formal education, and the emphasis of educational institutions throughout history, have evolved to reflect the changing needs of society (Guttek, 1995). In this section, the researcher will first review the history of education in general, followed by a review of the history of legal education, with an emphasis on the way in which educators develop critical thinking skills in students has evolved throughout the ages. The researcher will conclude this chapter by considering the status of critical thinking in modern legal education.

History of Education

Early emphasis on critical thinking in education arose largely in the legal and political arenas in antiquity when the earliest democratic societies were established (Greene, 2013). This emphasis on critical thinking in education has endured for over 2,000 years, and modern scholars still assert that critical thinking should be considered a basic academic competency alongside reading and writing (Alwehaibi, 2012). A review of the history of education illustrates the intrinsic role of critical thinking education in democratic societies and highlights the way in which education for critical thinking has evolved as society has matured and modernized (Cook, 2012).

Antiquity

Scholars consider Ancient Greece the birthplace of both education and democracy (Greene, 2013). In Ancient Greece, education focused largely on the art of reasoning and persuasion, which played a central role in the law and politics of the democratic Greek society (Greene). The ancient Greek philosopher Socrates, who lived from 470 to 399 B.C., developed a unique method of teaching reasoning skills to students by asking students questions carefully designed to cause them to question their assumptions and apply logic, deep thought, and reflection to solve challenging problems (Ripley, 2011). This approach to critical thinking instruction, now commonly known as the Socratic Method, represents one of the signature pedagogies of legal education today (Ripley).

Socrates left no writings of his work, and scholars often attribute current Western education methods to Socrates' pupil Plato, who taught students using the Socratic Method with a focus on logic and argumentation (Ripley, 2011). Aristotle, who studied under Plato, extended established concepts of legal rhetoric into non-legal contexts with his treatise *On Rhetoric*. Plato's treatise stated that strong persuasion required the speaker to use sound inductive and deductive logic (logos), effectively arouse the emotions of the audience in favor of his position (pathos), and hold a reputation for wisdom, virtue, and integrity (ethos) (Greene, 2013).

When Athens fell under Roman rule, the Roman philosopher and lawyer Cicero spread the Greek approach to reasoned disputation and the Socratic Method throughout the Roman Empire (Novikoff, 2012). In late antiquity, after the rise of Christianity and the fall of Rome, classical learning and religion merged and public disputation gave way to a monastic focus on education (Novikoff).

The Medieval Period

The cathedral schools that flourished in medieval Europe from 950 to 1200 provide valuable insight into the evolution of the foundational aspects of modern education. The Carolingian model of education that existed in the 10th century deviated from the prevailing educational model of the day by extending access to education beyond the clergy to include citizens (Prus, 2012). This broad approach to education served to civilize primitive cultures and unite them through Christianity, allowing education to spread beyond physical boundaries (Prus).

In preparing men for civil administration, as well as for church service, the Carolingian system focused on the study of *mores*, a Latin term that embodies the concepts of manners and good or proper conduct (Jaeger, 1994). The Carolingian educational system inculcated the liberal arts, particularly rhetoric, into the curriculum (Prus, 2012). By advancing the study of ethics and the liberal arts, the discipline of *mores* in the Cathedral Schools of the 11th century played a key role in the emergence of 12th century humanism (Jaeger, 1994).

In the late 11th and early 12th centuries, an intellectual reorientation referred to as the clash between reason and authority occurred (Jaeger, 1994). During what is commonly known as the 12th Century Renaissance, formal scholasticism and the study of *mores* gave way to a school of thought dominated by argumentation and the questioning of tradition (Novikoff, 2012). The new generation of teachers, concerned with philosophy and the application of intellect, often defied authority and questioned existing frameworks using philosophy and logic (Jaeger, 1994). The recovery of ancient texts, including key works from Aristotle concerning the dialectical process of forming and

refuting arguments, advanced the role of disputation in medieval culture (Novikoff, 2012). As the cathedral school system and educational philosophy of the Middle Ages yielded to the new era of independent thought, the prominence of logic, disputation, and critical thinking that largely defines today's Western culture and education arose (Jaeger, 1994).

The cultural and educational developments of the mid-10th century through the 12th century highlight the dominant role of education in cultural change (Prus, 2012). One of the most tangible developments of the period involved the transition from a charismatic culture based on oral tradition to an intellectual culture based on written tradition (Jaeger, 1994). This model of learning and philosophy oriented almost entirely toward the written word still exists today, defining the primary manner of learning in higher education. Another surviving legacy of the period concerns today's Western humanistic philosophy of education, which arose out of the formal study of mores in the cathedral schools (Jaeger). Today's liberal arts curriculum stems from the medieval trivium (grammar, rhetoric, and logic) and quadrivium (arithmetic, astronomy, geometry, and music), exemplifying the enduring influence of the educational paradigm of the Middle Ages (Bebbington, 2011).

The Colonial Period to Modern Day

Prior to the American Revolution (1775-1783), nine higher education institutions, the Colonial Colleges, were chartered in the American colonies (Rudolph, 1990). The settlers established the Colonial Colleges largely for religious purposes, to provide learned ministers and laymen for the colonies. The curriculum at the Colonial Colleges consisted primarily of divinity, theology, and Latin, pursuits which required discretionary

time and resources, and maintained an elitist nature dedicated to producing a superior class of pious leaders for the New World (Rudolph).

Following the American Revolution, founding figures including Benjamin Franklin and Thomas Jefferson employed education as a civic tool for building a nation requiring educated citizens (Ingrassia, 2012). This movement gave rise to general education across classes. The new educational philosophy also laid the groundwork for government support of education and the separation of church and state (Guttek, 1995). The nascent American system of higher education incorporated the German university model, with its emphasis on professorial research, helping to diversify the curriculum and develop a greater range of specializations extending beyond the traditional liberal arts curriculum (Ingrassia, 2012).

In the 19th century, immigration expanded the western frontier of the U.S., and introduced American society to a variety of customs and traditions (Guttek, 1995). During this period, the country began to develop into an industrial nation and form a new cultural heritage. As a result, religious control over schools further diminished. State and local governments began to exercise greater control over education and democratic ideals began to displace inherited social class distinctions (Guttek).

The Morrill Act of 1862, spurred by the social, economic, and political forces acting upon education, granted each state 30,000 acres of land for each senator and representative in Congress (Hayden-Smith, 2012). The income derived from the sale of the land supported colleges devoted to agricultural and mechanical instruction. The aim of this Act was to encourage the development at the college level of practical instruction in agriculture and industry to help serve the educational needs of an industrializing

society. A second Morrill Act followed in 1890, extending the 1862 Act to institutions serving African American populations in the former confederate states by providing direct monetary grants to support agricultural and mechanical colleges and universities. The institutions funded by the Morrill Acts, commonly known as land-grant colleges, played a key role in national growth, and many of the institutions still exist today, educating farmers, engineers, teachers, doctors, scientists, and others (Hayden-Smith).

The 20th century saw the further development of U.S. educational institutions. John Dewey exercised significant influence on the development of 20th century American educational theory (Fallace, 2011). Dewey (1916) viewed education as a largely cultural phenomenon, and believed that the scientific method, with its emphasis on problem solving, represented the most effective means of directing the process of change. Dewey emphasized that, as students use the scientific method, the experience of working with others to solve problems enriches their educational experience. Dewey's focus on shared experience and cooperation in learning reflected the democratic ideals undergirding the U.S. system of education, while his emphasis on scientific approaches to solving complex problems and the suspension of judgment reflected the centrality of critical thinking as an educational philosophy in the U.S. (Guttek, 1995).

Over the course of the 20th century, U.S. higher education institutions experienced large increases in enrollment and expansions of curricula in response to the continued democratization and diversification of the nation (Guttek, 1995). In 1954, the U.S. Supreme Court ruled racial segregation in schools unconstitutional in *Brown v. Board of Education*, overturning historical discrimination in education (Minow, 2013). In 1963, President Kennedy reflected the philosophy that had shaped the U.S. system of education

in a speech addressing the challenges facing higher education in the 20th century, emphasizing that "... this country reserves its highest honors for only one kind of aristocracy – that which the Founding Fathers called ‘an aristocracy of achievement arising out of a democracy of opportunity.’” (Gutek, p. 506).

History of Legal Education

Legal education plays a central role in democratic societies, where skilled reasoning and strong persuasion help to guide society, shaping its culture and destiny (Greene, 2013). Some of the most foundational principles of legal education that appear in the earliest written history still exist today, reflecting the enduring nature of education for logic, reasoning, and equity in civilized society (Greene). The science and methods of legal education have, however, undergone momentous change over the ages, giving rise to some of the central debates about the nature of legal education today (Ribstein, 2011).

Antiquity

During the early centuries AD, the Romans inherited the approach to legal thinking that arose with Socrates and Plato in antiquity, with its emphasis on principles of logic and careful reflection in reasoning (Greene, 2013; Novikoff, 2012). After the fall of the Roman empire, legal scholars referred to as glossators studied and annotated the texts of the Roman law with the intent of reconciling discrepancies to produce a comprehensive set of legal rules (Dehqan, 2010). Roman law hence became the first established body of law in the Western world, serving as a model for Canon Law and English Common Law (Greenberg & Sechler, 2013).

The Medieval through Pre-Colonial Period

Legal study became more formalized in the 12th century, when glossators founded the first school of law, the European University in Bologna, which served as a model for other Medieval law schools (Greenberg & Sechler, 2013). However, no formal educational requirements for lawyers existed, and in pre-Colonial England lawyers were trained primarily through apprenticeship (Wallis & Webb, 2011). The apprenticeship model of legal training led to the establishment of the more formalized Inns of Court system whereby law students would hire experienced professionals to teach them the law. The Inns of Court in England were eventually considered a type of university for training lawyers (Wallis & Webb). William Blackstone, the first lecturer of law at Oxford in 1753, helped to instill the study of law in the university system by urging law students to concentrate more on legal principles than on the procedural aspects of the profession often stressed in the Inns of Court (Lubert, 2010).

The Colonial Period to Modern Day

During the Colonial period, lawyers in the U.S. received their training through apprenticeship following the English tradition of the pre-Colonial era (Tacha, 2011). In the late 18th century, William and Mary College became the first university in the U.S. to grant a bachelor degree in law (Moran, 2013). Formal legal education continued to advance over the course of the 19th century, and more universities began to offer law degrees (Moran).

When Christopher Columbus Langdell became the first president of the Harvard Law School in 1870, he believed that universities could only appropriately teach law as a science to be studied in an academic setting (Cook, 2012). Applying the basic principles

of scientific analysis, Langdell advanced an approach to teaching legal doctrine through the study of published legal opinions, or cases, written by courts and judges (Spencer, 2012). The case study method provided the pedagogical basis for training future lawyers in methods of disciplined analysis (Cook, 2012). Langdell's case study approach represented a significant deviation from the prior prevailing pedagogical approach where students typically learned by reading summaries of the law prepared by third-parties (Spencer, 2012). The evolution of legal education from an apprenticeship to an educational science provided the foundation for mandating formal legal education and licensing as requirements for the practice of law (Ribstein, 2011).

After the founding of the American Bar Association in 1878, debates transpired regarding the desirability of formal educational requirements for lawyers, with some perceiving approaches such as the Langdellian case study method as unnecessarily formal, impractical, and counter-productive (Ribstein, 2011). Others believed that a legal profession educated solely through the apprenticeship model would consist mainly of legal technicians with a limited perspective, lacking in the thinking skills necessary to grasp the complex, sophisticated legal issues inherent in a developed society (Spencer, 2012). The debate regarding the appropriate balance between formal academic legal education and practical apprenticeship in legal education affected the educational requirements that aspiring lawyers would have to need to acquire in order to practice. The debate also concerned the requirements for teaching law, with proponents of the Llangdellian scientific approach arguing in favor of academic preparation for law professors and opponents of the Llangdellian approach favoring practical experience as preparation for teaching law (Spencer).

At the beginning of the 20th century, Oliver Wendell Holmes extended the academic view of legal education by spearheading the philosophy of legal realism (Ribstein, 2011). Holmes' philosophical stance proposed that legal education should equip students to look beyond the confines of published court opinions and employ public policy rationale to address pressing social issues. The Langdellian case study approach to legal education and Holmes' philosophy of legal realism, while embraced by some as significant improvements in the nature and quality of legal education, appeared to others as the over-intellectualism of legal practice and the distancing of legal education from the practical needs and realities of practicing lawyers and their clients (Ribstein).

The historical debate regarding the appropriate balance between theory and practice in legal education continues today, forming the basis for some of the sharpest criticisms of legal education reflected in the seminal publications on the subject, including the *MacCrate Report* (American Bar Association, 1992) and the *Carnegie Report* (Sullivan et. al., 2007). Contemporary criticisms of legal education often focus on the proposition that some of today's law school graduates lack the practical, ethical, and intellectual skills and the basic knowledge required to practice law. These criticisms reflect concerns with both the practical skills and the formal academic components of legal education (American Bar Association, 1992; Sullivan et. al., 2007). While the legal academy remains divided on the ideal balance between formal intellectual development and practical training, the primary concerns expressed today embody the common concept of the need for more effective ways of helping students develop strong critical thinking skills (American Bar Association, 1992; Stuckey, 2007; Sullivan et. al., 2007).

Critical Thinking

Modern approaches to critical thinking have roots in the foundational scientific methods of inquiry originating in antiquity (Cook, 2012). Aristotle used the scientific method of reasoning to demonstrate how one can discover universal truths through observation by employing inductive reasoning to reconcile abstract thought with observation. Following Aristotle's approach, induction became the foundation of scientific analysis in the 17th century, popularized by Francis Bacon. Induction, however, could not solve all scientific problems because inductive reasoning can never be free from theoretical preconceptions, making assumptions necessary (Cook).

Scientists addressed the limitations of inductive methods through the application of deductive logic, another form of reasoning advanced by Aristotle (Raymond, 2010). The deductive method, which equipped scientists to use syllogisms to infer new universal truths from those already established, proved valuable in a society experiencing rapid change and evolution (Cook, 2012; Raymond, 2010). Deductive reasoning, however, was limited by the necessity of empirical observation, which sometimes proved difficult or impossible (Cook, 2012). Over the course of the 17th century, scientists thus built upon the foundational tools of formal logic emanating from antiquity to conceptualize new methods of inquiry involving increasingly sophisticated methods of analysis intended to overcome human irrationality (Cook; Dempsey, 2011).

Definition of Critical Thinking

While no single accepted definition of critical thinking exists, the American Philosophical Foundation conducted one of the largest and most comprehensive studies on critical thinking and reasoning to date, publishing its findings in *The Delphi Report*

(Facione, 1990). *The Delphi Report* defined critical thinking as “purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based” (Facione, p. 3). Because *The Delphi Report* represents one of the most authoritative sources of information regarding critical thinking, the researcher will utilize Facione’s definition of critical thinking for purposes of this study.

The 46 critical thinking experts who contributed to *The Delphi Report* (Facione, 1990), including leading critical thinking scholars Ennis, Facione, and Paul, reached a consensus that critical thinking is comprised of six primary cognitive skills, each of which encompasses several sub-skills. The six critical thinking skills identified in *The Delphi Report* and their related sub-skills appear in Table 2 (Facione).

Table 2: *Critical Thinking Cognitive Skills and Sub-Skills in The Delphi Report*

<u>Skill</u>	<u>Sub-skills</u>
1. Interpretation	Categorization; Decoding Significance; Clarifying Meaning
2. Analysis	Examining Ideas; Identifying Arguments; Analyzing Arguments
3. Evaluation	Assessing Claims; Assessing Arguments
4. Inference	Querying Evidence; Conjecturing Alternatives; Drawing Conclusions
5. Explanation	Stating Results; Justifying Procedures; Presenting Arguments
6. Self-Regulation	Self-Examination; Self-Correction

Adapted from *The Delphi Report* by P.A. Facione, 1990. Copyright 1990 by The California Academic Press, Millbrae, CA.

The ability to “think like a lawyer” has long been considered the primary objective of legal education, and the essence of thinking like a lawyer is the ability to reason effectively in order to formulate sound solutions to complex, abstract problems (Gantt, 2012; James, 2011). Recently, legal education regulators have become increasingly focused on the development of problem solving skills as an explicit instructional objective of legal education (Gantt, 2012; James, 2011). The critical thinking skills embodied in *The Delphi Report* reflect the types of skills that legal educators should identify as learning objectives and endeavor to develop in students

because law students must develop strength in these skills in order to become effective problem solvers (Facione, 1990; Facione, 2013; Gantt, 2012; James, 2011).

Effective problem-solvers require strength in the skill of interpretation, which involves the ability to comprehend and express the meaning or significance of rules, procedures, data, and other criteria (Facione, 1990). Interpretation is a pre-requisite to effective problem solving because one must rely on the skill of interpretation to recognize a problem and describe it without bias (Facione, 2013). Analysis, the second critical thinking skill identified in *The Delphi Report*, requires one to identify inferential relationships among statements, questions, concepts, descriptions, or other forms of representation (Facione, 1990). Strong analysis lies at the core of effective problem-solving, as analysis is necessary to identify main ideas and unstated assumptions and to formulate and assess reasoning (Facione, 2013). Evaluation refers to one's ability to assess the credibility of statements or other representations (Facione, 1990). Strong problem-solvers rely on the skill of evaluation to assess the credibility and relative strength of various conclusions and interpretations (Facione, 2013).

The critical thinking skill of explanation requires one to state and justify one's reasoning and to present one's reasoning in the form of cogent arguments (Facione, 1990). Skill in explanation is necessary to communicate one's reasoning and the results of one's problem-solving efforts to others (Facione, 2013). Finally, self-regulation implicates one's ability to self-consciously monitor one's cognitive activities and results in order to question, confirm, validate, or correct either one's reasoning or one's results (Facione, 1990). Self-regulation is heavily implicated in problem-solving because this skill allows one to critically examine one's own views and to exercise control over one's

own problem-solving process (Facione, 2013). The critical thinking skills defined in *The Delphi Report* thus reflect the types of cognitive abilities implicated in effective problem solving and embodied in the concept of thinking like a lawyer (Facione, 1990; Facione, 2013; Gantt, 2012; James, 2011).

Modern Approaches to Education for Critical Thinking

One may conceive of the research concerning the development of students' critical thinking as pertaining to one of two primary educational counterparts: the curricular factors associated with the delivery of critical thinking instruction; and the pedagogical factors associated with the development of critical thinking in students. The curricular and pedagogical factors work in tandem to influence the way in which students' critical thinking skills develop (Abrami et. al., 2008). Researchers and educators should consider both curricular and pedagogical factors in designing effective approaches for the development of critical thinking (Abrami et. al.).

Curricular factors. Research suggests that curricular factors, most notably the context and format used to teach critical thinking skills, significantly affect the development of students' critical thinking skills (Abrami et. al., 2008; Gantt, 2012). A large-scale meta-analysis of 117 critical thinking studies based on 20,698 participants, concluded that critical thinking instruction delivered in the mixed-method format, where educators teach critical thinking skills explicitly as a separate track within a substantive course, produced the largest positive effects on students' critical thinking when compared to other formats for delivering critical thinking instruction (Abrami et. al., 2008). Educators obtained moderate improvements in students' critical thinking using the general approach where educators teach critical thinking skills in isolation, separately

from course content. Moderate improvement was also noted using the infusion approach where educators embed critical thinking skills into course content and explicitly establish critical thinking as a course objective. The smallest effects were obtained using the immersion method, where educators presume that critical thinking skills arise as a by-product of substantive instruction. Further, educators achieved the greatest positive effects in critical thinking instruction when instructors received special advanced training and/or extensive observation and guidance prior to teaching critical thinking skills, suggesting that the teaching practices and skills involved in critical thinking instruction differ from those required to teach substantive material (Abrami et. al.).

Similar conclusions were reached in a study investigating the most effective format for teaching problem solving skills to law students (Gantt, 2012). In this study, Gantt reviewed the relatively sparse data regarding the effects of interventions designed to improve problem-solving skills in law students. He drew heavily upon cognitive psychology principles and cognitive load theory in reaching the conclusion that law professors, whenever possible, should deliver instruction in problem-solving in conjunction with substantive doctrinal instruction. Gantt explained that students must have adequate domain-specific knowledge in a discipline before they can develop the necessary schema, or internal scripts, to help them solve complex problems. Students who lack the requisite foundation of substantive knowledge, particularly in a complex domain such as law, will reach cognitive overload if asked to apply and develop advanced mental skills while simultaneously grappling with the complexities of a challenging new discipline (Gantt).

Research conducted by Nievelstein, van Gog, Boshuizen, & Prins (2010) supported Gantt's (2012) proposition that conceptual domain-specific knowledge aids in the development of reasoning skills. The study conducted by Nievelstein et. al. employed think-aloud exercises to examine the reasoning skills of novice and expert legal learners arguing a civil law case with and without access to applicable legal authority. Nievelstein et. al. concluded that access to legal authority improved the accuracy of legal reasoning for advanced students, but not for novice students. The novice students' lower performance was attributed to a lack of conceptual knowledge of the legal domain. Nievelstein et. al. suggested that scaffolding may help novice law students develop the required conceptual knowledge while diminishing the cognitive load imposed by the search process.

Other studies have suggested that students working collaboratively can distribute their cognitive load over multiple working memories (Paas, Gog, & Sweller 2010). According to Paas et. al., students may potentially increase their collective cognitive capacity through collective learning efforts. This finding supports the use of collaborative learning approaches, particularly for students new to a particular discipline.

The preponderance of research into the curricular factors associated with the development of critical thinking thus emphasizes the domain-specific nature of critical thinking skills, and indicates that educators should teach critical thinking skills in the context of specific substantive disciplines (Gantt, 2012; Nievelstein et. al., 2010). These findings suggest that law students may best develop their critical thinking skills when instructors teach critical thinking skills in the context of substantive legal material, as opposed to material related to medicine, engineering, or some other discipline

(Nievelein et. al.). When considered holistically, the research concerning the curricular factors most strongly associated with critical thinking suggests that critical thinking instruction may prove most effective when provided explicitly by trained instructors as a separate track within a substantive course with appropriate domain-specific content in the relevant discipline (Abrami et. al., 2008; Gantt, 2012; Nievelein et al, 2010).

Pedagogical factors. In general, the courses and programs associated with gains in critical thinking implicate students' higher-order thinking skills, and often relate to constructivist-oriented pedagogical approaches such as writing, group learning, problem solving, case studies, interactive exchanges, and the integration of ideas and themes across courses or disciplines (Schmidt, van der Molen, & Wilco, 2009). One may view the various teaching approaches for critical thinking as falling into three primary categories: (1) active learning; (2) scaffolding; and (3) metacognition and self-regulated learning. Examining the learning theory and current research findings associated with each of these categories provides deeper insight into the nature of effective instruction for the development of critical thinking.

Active learning. Active learning represents a broad umbrella term encompassing a number of approaches designed to facilitate the development of higher-order thinking (Drew & Mackie, 2011). Researchers disagree as to whether active learning, often used synonymously with student-centered learning, constitutes a learning theory or a pedagogical approach (Drew & Mackie; Slavich & Zimbardo, 2012). Some researchers take the position that active learning constitutes a learning principle or value overlying three related categories of teaching methods: (1) collaborative learning, which provides that learning occurs best when done in groups; (2) experiential learning, which engages

students in activities that allow them to experience course content; and (3) problem-based learning, which provides students with the opportunity to approach and solve problems (Slavich & Zimbardo).

Theoretical foundation. To fully appreciate the nature of active learning, one must understand its supporting learning theory. Active learning approaches find their roots in the learning theories of Cognitivism and Constructivism (Yilmaz, 2011). Cognitivism, which evolved rapidly during the second half of the 20th century, seeks to understand the mental processes that learners employ to create meaning by examining the way in which learners acquire, process, store, retrieve, and activate knowledge to create meaning during the learning process (Hassan, 2011; Yilmaz, 2011). The ontological and epistemological underpinnings of Cognitivism arise from genetic and biological perspectives which view knowledge formation as stemming from the cognitive processes that take place as learners interact with their environment (Hassan; Lefmann, & Combs-Orme, 2013). Pursuant to Cognitivism, in order to help students create meaning, instructors should emphasize the active involvement of the learner in the learning process and strive to relate new concepts to the students' prior knowledge (Yilmaz, 2011).

The second learning theory underpinning active learning approaches, Constructivism, flows from the premise that learners actively create and interpret knowledge individually based on their past experiences and personal frame of reference (Hassan, 2011). Constructivism emphasizes the social aspects of learning and the idea that students generate knowledge when exposed to new information that may conflict with their previous understandings or impressions (Hassan; Slavich & Zimbardo, 2012). The ontological and epistemological bases of Constructivism hold that, since all

knowledge is constructed by individuals, knowledge does not exist independent of human knowing and always remains value-laden (Le Moigne, 2011). Applying the theory of Constructivism, in order to promote new understanding, instructors should emphasize the social and collaborative aspects of learning and should facilitate cognitive dissonance by exposing students to new ideas in ways they had not previously considered (Slavich & Zimbardo, 2012).

While the theories of Cognitivism and Constructivism differ somewhat in their focus and theoretical foundations, the distinctions between the two theories often prove less pronounced in practice due to the significant overlap among their primary tenets (Slavich & Zimbardo, 2012; Yilmaz, 2011). To better understand the theories of Cognitivism and Constructivism, one must examine the contributions of the researchers whose work is associated with these theories. Scholars primarily credit Jean Piaget (1896-1980) and Lev Vygotsky (1896-1934) with the development of the theories of Cognitivism and Constructivism (Yilmaz, 2011).

Piaget. Piaget's Cognitive Constructivist Theory provides that human beings progress through distinct stages in cognitive development as they actively seek new knowledge by interacting with their environment (Shahsavari, 2012). Piaget's research concentrated on the sequential development that children experience as they mature and adapt to their environment (Swiderski, 2011). According to Piaget, individuals form schemas, or mental structures for representing and organizing events and abstract concepts in accordance with the common patterns of relationships between concepts that tend to occur in any given environment (Yilmaz, 2011). In a learning situation, when one encounters new information, one relies upon one's schemata to draw upon prior

experience for understanding (Gantt, 2012; Yilmaz, 2011). As individuals experience new situations, they constantly restructure their schemata to account for new learning patterns (Yilmaz).

According to Piaget's theory, schemata change in one of three ways as one interacts with the environment and acquires new understanding (Swiderski, 2011). If new ideas do not conflict with an existing schema, one may incorporate the new ideas into existing schema by the process of assimilation (Swiderski). If, however, the new information does not fit the existing schema, one may modify one's own schema to accommodate the new information through a process known as tuning (Yilmaz, 2011). Finally, if one's existing schema cannot accommodate the new information, one may form an entirely new schema through the process of restructuring (Yilmaz).

In Piaget's view, the process of assimilating, tuning, and restructuring schemata account for an individual's cognitive development by facilitating the formation of increasingly sophisticated mental structures capable of organizing increasingly complex ideas and concepts (Swiderski, 2011). Under this theory, the development of one's schemata, rather than the amount of specific information amassed or one's ability to discern patterns, provides the key to expert performance by enabling one to organize and make sense of complex information (Gantt, 2012). Piaget's theory gives rise to modern learning principles such as the use of unifying themes to help learners avoid forming incorrect schema and the presentation of material in a context relevant to the learner (Yilmaz, 2011). Piaget's theory also supports assisting learners in developing the ability to impose structure on what they learn for better mapping and mental organization, using case-based reasoning to demonstrate the way in which experts approach problems, and

encouraging students to focus on the conceptual organization and categorization of material by searching for common themes (Yilmaz).

Vygotsky. Vygotski's theory of Social Constructivism focused on how the social aspects of learning affect the development of cognition (Bay, Bagceci, & Cetin, 2012). While Piaget believed that children's biological development precedes and dictates their learning progress, Vygotski proposed that social learning may precede biological stages of development (Yilmaz, 2011). Vygotski believed that people construct knowledge and understanding from social interaction, supporting the use of collaborative learning approaches (Wass, Harland, & Mercer, 2011).

One of Vygotski's central principles concerned the Zone of Proximal Development (ZPD), a theoretical concept that represents the gap between an individual's current level of learning and problem-solving ability and the potential level of development that the individual may attain with expert assistance (Hassan, 2011; Wass, et. al., 2011; Yilmaz, 2011). Pursuant to Vygotski's theory, learners can attain new levels of understanding only when they acquire the ability to conceptualize more advanced material. So long as new concepts fall within the learner's ZPD, the learner's level of understanding may advance through the guidance of more capable peers (Wass et. al., 2011). In the context of adult education, this includes other students, professors, and researchers (Wass, et. al.). Vygotski's theory supports providing learners with the opportunity to apply their knowledge to solve problems relevant to them and structuring collaborative learning so that peers in learning situations will fall at different levels of development (Yilmaz, 2011).

While Piaget's Cognitive Constructivist Theory to learning helps explain how learners assimilate new information, Vygotski's ZPD provides guidance for structuring learning exercises to promote the advancement of understanding through the assimilation of new information (Swiderski, 2011; Wass et. al., 2011). In accordance with the underlying theoretical tenets of Cognitivism and Constructivism, active learning pedagogical approaches rest on the central premise that students can optimize their potential for intellectual growth through reading, writing, discussion, problem-solving, and other forms of learning that engage learners in active participation and the creation of knowledge (Drew & Mackie, 2011; Slavich & Zimbardo, 2012). Modern research in neuroscience and cognition supports active learning approaches, finding such approaches generally effective in enhancing the way in which learners store information in the memory and organize information into meaningful knowledge (Hassan, 2011; Swiderski, 2011).

Scaffolding. Researchers have associated teaching approaches used to help students create mental connections between existing and new concepts with the development of critical thinking skills and deeper conceptual understanding in students of varying ages in many different disciplines, including law (Amiripour, Amir-Mofidi, & Shahvarani, 2012; Gantt, 2012). Psychologist Jerome Bruner built upon Vygotski's Theory of Social Constructivism and the ZPD to develop the concept of scaffolding, which refers to support given to a learner to help bridge understanding from a known concept to a new concept (Amiripour et. al., 2012; Wass et. al., 2011). Scaffolding helps a learner formulate new chains of association, beginning with concrete concepts that gradually become more abstract (Ramey, Young, & Tarulli, 2010). Scaffolding a learner

through the ZPD fosters critical thinking by helping the learner to better conceptualize complex material as the learner makes new, increasingly abstract associations between concepts (Ramey et. al.).

In 2010, Pol et. al. published an article summarizing the prior decade of research concerning scaffolding. The authors proposed a comprehensive framework describing scaffolding by reference to three common characteristics: (1) contingency, referred to as tailoring or adjusting one's approach to match the student's level of development; (2) fading, which represents the gradual withdrawal of support; and (3) transfer of responsibility, which entails shifting responsibility to the student. Pol et. al. emphasized that instructors can, and should, design and target scaffolding toward helping students develop specific aspects of their learning.

Metacognition and self-regulated learning. Self-regulated learning is one of the six primary cognitive skills identified in The Delphi Report and metacognition is a key aspect of self-regulated learning (Efklides, 2011; Facione, 1990; Robson, 2010). Strong metacognitive and self-regulation skills allow individuals to develop and execute effective strategies for learning and developing their own critical thinking skills (Facione, 2013). Together metacognition and self-regulated learning implicate both the skill and the desire, or will, to learn (McMillan, 2010). Because metacognition and self-regulation provide the means by which individuals may improve their own critical thinking, Facione (2013) considers these to be the most powerful of all critical thinking skills.

The concept of self-regulated learning stems from Bandura's Socio-Cognitive Theory, which emphasizes one's ability to regulate performance within one's environment (Bandura, 1991; Efklides, 2011; Yiu, Cheung, & Siu, 2012). Self-efficacy,

which refers to individuals' beliefs about their capability to achieve a particular goal or outcome, plays a central role in Bandura's theory because beliefs about efficacy affect self-monitoring and cognitive processing of performance, thus influencing the resulting outcomes (Bandura, 1991; Efklides, 2011). Self-efficacy contributes to students' academic success because students who consider themselves effective learners tend to attribute their failures to insufficient effort, while those who consider themselves ineffective often ascribe their failures to low ability (Bandura, 1991). As a result, learners with high self-efficacy for a learning task tend to maintain greater persistence and to use more effective strategies to achieve challenging learning goals (Ajala, 2013; Bandura, 1991). In contrast, learners tend to avoid tasks for which they have low self-efficacy, and to believe that their failures are beyond their control (Ajala, 2013; Bandura, 1991). Self-efficacy thus affects the perceived causes of successes and failures, which in turn influences self-regulation, performance, and outcomes (Bandura). Research indicates that learners can develop self-efficacy, supporting the use of strategies for improving self-efficacy as a deliberate pedagogical approach (Ajala, 2013).

Metacognition involves utilizing self-monitoring and self-regulation to devise effective strategies for achieving success in different situations and making adjustments as necessary to optimize performance and outcomes (Caliskan & Sunbul, 2011). Learners with higher levels of metacognitive awareness tend to use more deliberate learning strategies, and the effective use of learning strategies relates positively to academic achievement (Kallay, 2012; Sperling, Richmond, Ramsay, & Klapp, 2012). Research indicates that differences in learners' levels of performance are more strongly related to differences in their metacognitive abilities than to differences in their intellectual

abilities, suggesting that metacognitive ability can help learners' of all intellectual capacities optimize their performance and compete effectively in challenging intellectual tasks (Kallay, 2012).

In most cases, students will not optimize their learning skills in the absence of deliberate instruction in metacognition and self-regulated learning strategies (Kallay, 2012). Students who do not receive such instruction may, however, may develop some metacognitive and self-regulatory learning skills on their own (Kallay). Because metacognitive and self-regulated learning instruction equips students with the means necessary to develop their own critical thinking skills, such instruction plays a central role in optimizing students' academic and intellectual development (Stupinsky et. al., 2008).

Assessment. The assessment of critical thinking remains an important consideration in critical thinking instruction for at least two reasons: effective formative assessment can help learners acquire and develop strong critical thinking skills; and educators rely on summative assessment to accurately measure changes in students' critical thinking skills and the effects of programs designed to develop critical thinking (Embretson, 2010; Hassan, 2011). Institutions should seek to employ the critical thinking assessment approaches that will best advance the development of students' transferrable skills and knowledge and include both the formative and summative assessments (Chun, 2010). Critical thinking assessment can take many forms, including validated psychometric instruments, exams, and student exercises specifically evaluated for critical thinking using instructor rubrics or coding schemes (Almeida & Franco, 2011; Bell,

Kelton, McDonagh, Mladenovic, & Morrison, 2011; Butler, 2012; Rochford & Borchert, 2011; Saxton, Belanger, & Becker, 2012).

Carefully constructed multiple choice examinations incorporating the principles of Bloom's taxonomy can aid in assessing the higher-order thought processes associated with strong critical thinking (Kim, Patel, Uchizono, & Beck, 2012). Critical thinking scholars often advocate merging pedagogical practice and assessment through the use of performance tasks (Bensley & Murtagh, 2011; Chun, 2010; Shihab, 2011; Holdren, 2012). Performance tasks, sometimes referred to as authentic assessments, are simulated real-life scenarios designed to both develop and assess students' thinking skills in the context of the type of discipline-specific problems they will likely encounter in their professional work (Bensley & Murtagh, 2011; Chun, 2010; Shihab, 2011; Holdren, 2012). Performance tasks offer the advantage of advancing students' learning while simultaneously assessing their level of critical thinking development (Bensley & Murtagh, 2011; Chun, 2010).

Critical Thinking in Modern Legal Education

Criticisms that the legal academy has failed to adequately prepare students for the competent practice of law compound the issues surrounding students' weak critical thinking. Concerns regarding the efficacy and outcomes of legal education have generated a great deal of attention from those in legal academia, as reflected in prominent publications calling for reform in legal education, including the *MacCrate Report* (American Bar Association, 1992), the *Carnegie Report* (Sullivan, 2007), and *Best Practices* (Stuckey et. al., 2007). Legal educators, according to Stuckey et. al., generally ignore foundational educational principles, such as identifying learning objectives, selecting the appropriate educational approaches to obtain learning objectives, and

designing methods for evaluating the effectiveness of instruction. Despite such criticisms, law school curricula and teaching approaches have proven strongly resistant to change because legal educators remain constrained by longstanding tradition, a rule-bound mentality, and psychological resistance to self-assessment and change (Floyd, 2012).

Traditional approaches to legal education employ certain learning methods associated with the development of critical thinking. Such methods include an emphasis on critical reading (Shihab, 2011), instruction and experience in argumentative and persuasive essay writing (Barnhizer, 2011), the use of case studies as a primary teaching method (Nivelstein et. al., 2010; Noblitt, Vance, & Smith, 2010), instruction and experience in research (Barnhizer, 2011), and the use of the Socratic Method of questioning as a primary teaching technique (Paul & Elder, 2008). Despite the inherent strengths of the traditional legal education model, it fails to employ many learning approaches and well-established educational tenets that researchers have strongly associated with the development of students' critical thinking skills (Barnhizer, 2011).

From a curricular standpoint, researchers suggest that the legal academy should consider utilizing the mixed-method format, where professors teach critical thinking skills explicitly as a separate track within a substantive course (Abrami et. al., 2008). For optimum results, law professors must receive formal training in the design and delivery of critical thinking instruction (Abrami et. al.). Legal educators may achieve stronger critical thinking gains in students by considering additional ways to implement learning strategies associated with experiential learning, problem-based learning, and collaborative learning, the three primary types of active learning (Slavich & Zimbardo,

2012). Active learning methods in law school may also include more educational apprenticeship opportunities (Barnhizer, 2011; Schulze, 2012).

Beginning law students often find legal education baffling and unfamiliar, perhaps due to the heavy emphasis on the case study method and the Socratic Method of learning which present students with considerable ambiguity (Nivelstein et. al., 2010). Research suggests that legal educators may better facilitate connections between old and new concepts by implementing scaffolding approaches specifically targeted toward helping students develop the cognitive, metacognitive, and affective aspects of their learning (Pol et. al., 2010). Research further suggests that legal educators should provide students with specific instruction in metacognition and self-regulated learning, which may help students develop the cognitive strategies, motivation, and ability to achieve difficult learning objectives such as completing law school and passing the bar exam (Ajala, 2013; Bandura, 1991; Niedwiecki, 2012).

Contrary to the primary tenets of effective critical thinking instruction, legal educators seldom list the development of strong critical thinking as a learning objective, nor do they explicitly assess the development of students' critical thinking skills (Hatcher, 2011). In accordance with Hatcher's recommendation, defining critical thinking and incorporating the relevant skills into course objectives comprises a necessary first step to selecting an appropriate method of assessing students' critical thinking. Legal educators typically assess students' analytical skills through final exams (Niedwiecki, 2012; Schulze, 2012). Research suggests that this approach to assessment may not prove effective from either a formative or a summative standpoint unless the professor expressly stipulates and defines in the course objectives the critical thinking skills that

will be assessed so that students can deliberately develop them throughout the semester (Hatcher, 2011). Although many legal educators do not conduct any formative assessment, research indicates that formative assessment assists students with evaluating and developing their thinking skills during the learning process (Boghossian, 2012).

Law students' academic needs. Legal reasoning encompasses many complex cognitive skills (Nievalstein et. al., 2010). Deficiencies in skills such as critical thinking, analytical reasoning, problem solving, and writing present substantial barriers for law students because they represent the primary skills required for success in the study and practice of law (Rapoport, 2012; Yakowitz, J., 2010).

In his 2012 article, Rapoport explained that the needs of students coming from rigorous undergraduate institutions with heavy writing requirements differ from the needs of students who have had less demanding educational experiences. The former, who often attend elite law schools, tend to have a greater level of comfort with the type of abstract, conceptual thinking required of law students (Rapoport). The latter, who may be more likely to attend third- and fourth-tier law schools, often require extensive coaching and support in a range of under developed skills (Rapoport).

The role of law school academic support professionals. Some legal educators believe that law school academic support professionals hold the key to providing the answers to the current weaknesses in legal education because they possess the experience, resources, and educational expertise required to devise and implement innovative solutions to the most challenging issues facing legal academia today (Schulze, 2012). Law school academic support professionals typically maintain responsibility for developing the content, curriculum, and structure of their school's academic support

program (Schulze). Developing comprehensive law school academic support programs designed to advanced law students' critical thinking skills proves particularly challenging because little research exists concerning the development of critical thinking skills in legal education (Bonner & D'Agostino, 2012). Law school academic support professionals must therefore draw heavily on existing learning science research in other disciplines when designing their schools' academic support programs (Bonner & D'Agostino). The current study helps to address this gap in the research by providing deeper insight into the development of critical thinking skills in law students.

Chapter Summary

In this chapter, the researcher reviewed the history of education in general and addressed the history of legal education with an emphasis on the way critical thinking in education has evolved throughout the ages. The definition of critical thinking was established, and current approaches to education for critical thinking were discussed. The researcher concluded the section by considering the status of critical thinking in modern legal education.

CHAPTER III METHODOLOGY

Introduction

This qualitative grounded theory study explored the perceptions of law school academic support professionals regarding the development of critical thinking skills in law students. This chapter describes the methodology used in this study, beginning with the rationale for the study, then addressing the rationale for the research approach, the research paradigm, the role of the researcher, the research design and setting, the recruitment and selection procedures, the instrumentation, data collection, data analysis, quality and credibility, and ethical considerations. The chapter ends with a brief concluding summary.

Rationale for the Study

The researcher undertook this study to explore the perceptions of law school academic support professionals regarding the most effective educational approaches for helping law students develop strong critical thinking skills. The study was conducted partially in response to a strong line of recent research suggesting that many U.S. college students graduate with underdeveloped critical thinking skills (Arum & Roksa, 2011; Blaich & Wise, 2011). The lack of development of students' critical thinking skills at the undergraduate level carries forward, presenting substantial barriers to academic and professional success for law students (Rapoport, 2012). Concerns regarding the efficacy and outcomes of legal education compound the challenges that law students face (American Bar Association, 1992; Stuckey et. al., 2007; Sullivan et. al., 2007). To help law students succeed and excel in the study and practice of law, law school academic support professionals should seek new approaches for helping students develop strong

critical thinking skills (Burgess, 2011; Schulze, 2011; Schulze, 2012). Through this study, the researcher hopes to offer new insight into the development of critical thinking skills in law students, which may help legal educators develop better approaches for improved educational outcomes and student success.

Rationale for Qualitative Research Design

The research problem should guide the selection of a research paradigm (Creswell, 2009; Marvasti, 2008). The qualitative research paradigm establishes the meaning of a phenomenon from the views of the participants (Creswell, 2009). Qualitative inquiry is particularly useful in studying processes where a detailed description is required, the experience varies for different people, and participants' perceptions are germane to understanding the problem (Patton, 1990). In this instance, the researcher sought to understand, from the perspective of law school academic support professionals, the various factors influencing the development of critical thinking in law students. A qualitative research paradigm was thus employed to gain a deep, holistic understanding of these factors.

Rationale for Grounded Theory Methodology

The researcher utilized a Constructivist grounded theory approach for this study to develop a novel theory of the development of critical thinking in law students based on the perceptions of law school academic support professionals (Creswell, 2013). Grounded theory focuses on the development of concepts to generate a theory soundly grounded in data from the field (Mills, Bonner, & Francis, 2006; Thornberg & Charmaz, 2012). This research approach seeks to unravel the elements of a particular experience by studying individual, social, and organizational processes and uncovering the meaning behind

participants' words and actions (Cooney, 2011; Moustakas, 1994; Thornberg & Charmaz, 2012). The grounded theory methodology is particularly effective for studying broad-based phenomenon in education, such as the development of critical thinking skills in law students (Mills, et. al., 2006; Thornberg & Charmaz, 2012).

Research Paradigm

The choice of a research paradigm entails the making of philosophical assumptions (Creswell, 2007). In choosing a qualitative research approach, the researcher assumed reality is a matter of individual perception and that multiple realities therefore exist (Corbin & Strauss, 2008). The qualitative researcher thus sought to create an insightful description and interpretation of the problem under consideration, focusing on participants' perspectives in accordance with the following philosophical assumptions (Creswell, 2007).

Ontology

The ontological basis for this study rested on a social constructivist paradigm which assumes that individuals, including study participants and the researcher himself, create their own reality based on subjective meanings of their personal experiences (Creswell, 2007). The academic support professionals that participated in this study thus constructed their own versions of reality which do not exist independent of individual perspectives (Patton, 2008). This view of the nature of reality provides for multiple meanings, requiring the researcher to look for complexity in the phenomenon studied (Patton). The nature of a constructivist perspective lends itself to qualitative research by accommodating the multitude of sociological factors that influence individuals' perceptions of reality (Creswell, 2007). In accordance with this Constructivist paradigm,

both the researcher and the participants in this study constructed their own subjective impressions regarding the way in which critical thinking skills develop in law students based on their individual experiences in legal education (Corbin & Strauss, 2008).

Epistemology

From an epistemological standpoint, a social constructivist world view maintains that research and the participants remain intrinsically interrelated (Silverman & Marvasti, 2008). Thus, the researcher in the proposed study gained insight into his participants' perspectives through personal interviews while remaining cognizant of how his own view of reality influenced the study (Silverman & Marvasti). The researcher also acknowledged how his own background and experiences may shape his perceptions about the phenomenon under consideration. The researcher's background as a law school academic support professional helped to achieve closeness and a sense of collegiality with the study participants, allowing the researcher to lessen the distance between himself and the study participants (Creswell, 2007). Since the researcher has personal experience with the phenomenon under consideration, however, the researcher holds pre-existing perceptions about the topic. To bracket his beliefs, the researcher followed Moustakas' (1994) process of epoche, through which the researcher set aside preconceived impressions and focused on the participants' perceptions of the phenomenon under consideration. The researcher took care to avoid approaching the study as an expert, but instead approached the study as a learner, always open to new thoughts, perspectives, and interpretations.

Axiology

From an axiological perspective, the researcher recognized that personal values affect all qualitative research (Patton, 2008). The researcher openly acknowledged both his own values and those of the study participants. The researcher also took into account the social and cultural norms that may influence the values related to the study (Creswell, 2007). The researcher believes that the phenomena of critical thinking in law students derives meaning from the values, cultural norms, and social conventions of both students and educational institutions. Accordingly, sound qualitative research proved necessary in interpreting, understanding, and formulating a theory explaining the phenomena (Silverman & Marvasti, 2008).

Role of the Researcher

Since the goal of qualitative research is to understand phenomenon in their naturally occurring states, the researcher served as an observer during the study and did not attempt to manipulate the situation (Patton, 1990). The researcher remained in an interpretive role and sought to gain a deep, meaningful understanding of the phenomenon of the development of critical thinking in law students through concentrated interaction with the study participants (Patton). So that themes emerged naturally, the researcher remained focused on the meaning the study participants placed on the development of critical thinking skills in law students, rather than the meaning the researcher holds (Creswell, 2007). The researcher sought to provide a holistic account of the problem at issue, identifying the multiple factors involved and searching for unifying themes in an inherently complex environment (Creswell).

Research Design

Researchers use the grounded theory approach to derive a general theory of a process, action, or interaction based on the views of participants (Creswell, 2009). For this study, the researcher used a qualitative grounded theory research design to formulate a theory of the development of students' critical thinking skills during law school (Creswell). The researcher investigated this phenomenon by selecting and interviewing participants who have direct knowledge and experience with the development of critical thinking skills in law students in the law school environment where the process occurs, and who possess the expertise to conceptualize how students' critical thinking skills develop during law school.

Participants

Following sound principles of purposive sampling, the participants for this study consisted of law school academic support professionals in third- and fourth-tier law schools with at least three years of experience (Patton, 2008). In accordance with Creswell's (2007) guidelines for the number of participants in grounded theory research, the researcher will use public domain listings of academic support professionals to recruit 14 participants for the study from a national pool of approximately 300. Each participant in the study was: (1) a law school academic support professional; (2) with at least three years of law school academic support experience; (3) who was currently working in a third- or fourth-tier law school at the time of the study. The researcher chose to recruit participants from third- and fourth-tier law schools because students at those institutions tend to have a similar, often more intensive, educational need for the

development of critical thinking skills than students in more selective law schools (Rapoport, 2012).

Recruitment and Selection Procedures

Following approval of the Barry University Institutional Review Board (IRB), the researcher contacted prospective participants at third- and fourth-tier law schools throughout the country via email through a gatekeeper. The researcher's administrative assistant served as the gatekeeper since there is no centralized organization of law school academic support professionals in third- and fourth-tier law schools. The researcher asked the gatekeeper to distribute the recruitment flyer listing the criteria for participation (Appendix B) via email to prospective participants.

Compliance with the study criteria was determined based on the participants' responses. The researcher recruited participants from a cross-section of institutions, then contacted the potential participants and spoke with them directly to discuss the requirements of the study. Following this initial contact, the researcher admitted to the study 14 qualified participants who maintained an interest in participating. The researcher then informed and thanked candidates who did not qualify. Each of the study participants works at a different law school.

The researcher obtained signed letters of consent (Appendix C) from all 14 participants prior to the beginning of the interview process. The consent letter protects participants by emphasizing that participation in the study is entirely voluntary, and that the participant may withdraw from the study at any time without penalty. To encourage candor and openness during the interview process, participants were informed that pseudonyms or other non-identifying labels would be used to ensure their anonymity

(Creswell, 2007). The researcher kept all participant information confidential, both during and after the study, to protect participants. The researcher separated signed consent forms from the data and stored the consent forms, together with codes or other identifiers, in a locked file cabinet. Electronic data were kept in the researcher's password protected computer. Research data will be kept for a period of five years following the study, after which it will be destroyed.

Research Questions

The overarching research question guiding this study was: What are the perceptions of law school academic support professionals regarding the development of critical thinking skills in law students? To more specifically articulate aspects of the overarching question, the researcher posed the following questions:

1. What factors affect the development of strong critical thinking skills in law students?
2. What teaching and learning approaches show the greatest promise for improving critical thinking skills among law students?
3. What are the most important things that legal educators and law school administrators can do to help students optimize their critical thinking skills?
4. How can legal educators and law school administrators best monitor and assess the development of students' critical thinking skills?
5. What additional training, support, and/or resources do legal educators need to help optimize students' critical thinking skills?

Instrument

In accordance with qualitative research principles, the researcher served as the instrument of this study, utilizing materials appropriate for grounded theory research, including notes, memos, and diagrams (Charmaz, 2006). The researcher asked the participants open-ended questions (Appendix D) designed to permit participants to respond in their own terms (Corbin & Strauss, 2008; Patton, 2008). The researcher also employed member checking by seeking participants' input on the transcribed data to ensure accuracy.

Data Collection

After the researcher selected participants and obtained their informed consent, interviews were scheduled. Because the participants worked in law schools across the country, the researcher conducted telephone interviews rather than face-to-face interviews. With the permission of the participants, the researcher recorded the interviews using a handheld voice recorder to enable the researcher to focus and concentrate more carefully on the participants' responses during the interview process. To ensure confidentiality, the researcher conducted the phone calls in a private location. To facilitate the thorough and accurate analysis of data, transcripts from the recorded interviews were created with the assistance of a commercial transcription service after the transcriber signed the Barry University IRB Third Party Confidentiality form.

Data Analysis

The researcher used a primarily inductive approach in this grounded theory study to formulate a general theory about the phenomenon of critical thinking skills in law students (Charmaz, 2006). The researcher strove to produce findings resulting in sound

theoretical principles so that the findings may inform educators and others concerned with the phenomenon of critical thinking in law students (Corbin & Strauss, 2008).

Atlas.ti software was used to assist in the organization of notes, memos, and other data.

From the beginning of the data analysis process, the researcher began making comparisons and searching for unifying themes in accordance with Glaser's (1978) constant comparative approach. Memo writing was used as an analytical tool to facilitate the development of new thoughts and perspectives, and to memorialize ideas for future consideration and development (Charmaz, 2006; Corbin and Strauss, 2008; Glaser & Strauss, 1967). During the transcript review process, the researcher began coding the data by assigning identifying labels (Charmaz, 2006), employing coding as the fundamental analytic tool for theory construction (Mills, Bonner, & Francis, 2006). Charmaz's (2006) process of incident-by-incident coding was used for this study, and this approach proved highly effective in identifying conceptual similarities and differences between incidents. As suggested by Glaser (1978) and Charmaz (2006), the researcher used action words and gerunds where possible during initial coding to provide greater theoretical sensitivity for the researcher to detect the meaning and processes underlying participants' statements. This process ultimately resulted in the creation of the 63 initial codes depicted in Table 3.

After the completion of the initial coding process, the researcher carefully examined the transcript data in each code category, searching for broader unifying themes to gain a more conceptual understanding of the phenomenon pursuant to Charmaz' (2006) process of focused coding. Through this process, four primary categories emerged, each of which encompassed a grouping of codes. The researcher then

examined the codes under each primary category, further assimilating the data and identifying broader themes in each category. Ultimately, a total of 15 key themes emerged, with some primary categories encompassing more key themes than others. Finally, the researcher examined the data under each of the key themes, identifying 12 factors that participants collectively identified as being strongly related to the development of critical thinking in law students. To ensure that this study resulted in the development of a sound, comprehensive theory of the phenomenon of critical thinking skills in law students, the researcher employed integrative memo writing to parse out ancillary concepts and assimilate primary concepts (Corbin & Strauss, 2008).

Using this categorization process, the researcher connected codes and themes throughout the study to gain more abstract and theoretical insight into the phenomenon of critical thinking in law students (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978). This process allowed the researcher to move from mere description to comprehensive explanation and understanding (Corbin & Strauss, 2008). The researcher continued the data gathering and analysis process to the point of theoretical saturation, which occurs “when gathering fresh data no longer sparks new theoretical insights, nor reveals new properties of [...] core theoretical categories” (Charmaz, 2006, p. 113).

Throughout this process of comparing data for conceptual connections, the researcher employed drawings and diagrams to help visualize the conceptual connections between data and establish relationship between concepts. As the final step in the data analysis process, the researcher integrated themes by refining and connecting concepts to form a comprehensive theory of the development of critical thinking in law students.

(Corbin & Strauss, 2008). Figure 1, presented in Chapter Five, depicts the final conceptual model that emerged upon completion of data analysis.

Trustworthiness and Rigor

The quality of a qualitative inquiry study is closely associated with its credibility (Patton, 1990). For a study to be credible, it must include: (1) rigorous techniques and methods of gathering and analyzing data; (2) the credibility of the researcher; and (3) a philosophical belief in the qualitative paradigm. To maintain credibility, the qualitative researcher must ensure the accuracy of the findings by employing proper research procedures (Creswell, 2009). Sound procedures include sufficient breadth and depth of observations, the use of systematic procedures in analyzing data, and the establishment of strong links between data, argument, and analysis (Charmaz, 2006). To maintain qualitative credibility, a researcher's approach must remain consistent (Creswell, 2009).

The researcher employed both methodological and interpretive rigor when conducting the study in order to ensure that the study makes sense and speaks for itself (Cooney, 2011). The researcher focused on the use of sound methodological procedures, including iterative coding and memo writing, and the application of strong inductive logic to assimilate and synthesize the data gathered into sound theory (Charmaz, 2006). Triangulation was used to compare data from different sources to justify emerging themes (Charmaz; Cooney, 2011; Corbin & Strauss, 2008; Patton, 2008). The researcher employed triangulation to compare the researcher's personal observational data with interview data and to compare the perspectives of the various research participants (Patton, 1990).

The researcher also employed member checking by seeking participants' input on the transcribed data to ensure accuracy (Cooney, 2011). By seeking multiple perspectives on a theme, and by providing detailed descriptions of the setting, a rich, thick description was developed (Creswell, 2009). The researcher used Moustakas' (1994) process of epoché to bracket preconceived impressions and focus on the participants' perceptions of the phenomenon under consideration.

To bolster credibility, the researcher presented negative information that may run counter to emerging themes (Creswell, 2009; Patton, 1990). Qualitative research scholars recommend that researchers test rival explanations and, once the researcher has identified patterns and trends, closely examine cases that do not fit the pattern (Creswell, 2009; Patton, 1990). Failure to find strong alternative ways of interpreting data or contrary explanations helps strengthen the researcher's explanation and reinforce the validity of the study (Creswell, 2009; Patton, 1990). Because qualitative research remains situation-specific by nature, the researcher took care to avoid generalizing concepts and findings beyond their appropriate contexts (Patton).

Ethical Considerations

Ethical considerations the researcher employed in conducting this study included adherence to Barry University research procedures and to the study's methodology, voluntariness of participation, informed consent, and adherence to confidentiality during and after the study. The researcher sought approval from the Barry University Institutional Review Board prior to initiating the study and followed all IRB recommendations throughout the study. The Barry University Informed Consent form

(Appendix C) ensured that participants understood the nature and parameters of the study.

Chapter Summary

In this chapter, the researcher provided a detailed description of the proposed methodology, beginning with the rationale for the study, the research design, and the methodology. The researcher then addressed the research paradigm, the role of the researcher, and the research design. The instrumentation, data collection, and data analysis were discussed, as well as the criteria for trustworthiness and rigor and the ethical considerations.

CHAPTER IV FINDINGS

Introduction

This chapter will explore the findings of this grounded theory study. The primary research question for this study asked: What are the perceptions of law school academic support professionals regarding the development of critical thinking skills in law students? In this chapter, the researcher will address in detail the primary concepts and themes that emerged during data analysis as derived directly from the participants' interview statements.

Each participant in the study was a law school academic support professional with at least three years of law school academic support experience who was working in a third- or fourth-tier law school at the time of the study. Law school academic support professionals may serve in faculty or administrative roles, depending upon the policies and practices of each institution. The researcher chose to recruit participants from third- and fourth-tier law schools because students at those institutions tend to have a similar, often more intensive, educational need for the development of critical thinking skills than students in more selective law schools (Rapoport, 2012). Study participants provided their personal insights regarding the development of critical thinking in law students under conditions of anonymity to ensure that participants remained free to speak candidly about their experiences.

Data Coding and Analysis

The researcher began initial coding of data early in the data analysis process. The 63 initial codes that emerged are depicted in Table 3. These initial codes provided the foundation for the focused coding process, during which the researcher carefully

examined the transcript data in each code category, searching for broader unifying themes.

Table 3: *List of First-Round Data Codes*

1	Accuracy	23	Faculty Participation	45	Scarce Resources
2	Active Learning	24	False Confidence	46	Rigor
3	Affective	25	Feedback	47	Self-Assessment
4	Analysis	26	Grade Inflation	48	Self-Efficacy
5	Applied Practice	27	Grading Curve	49	Self-Regulation
6	Argumentation	8	Individual Support	50	Shared Governance
7	Assessment	29	Integration	51	Skills Training
8	Attendance	30	Leadership Style	52	Student-Professor Relationship
9	Bar Passage	31	Learning Objectives	53	Student Assistants
10	Central Responsibility	32	Learning Skills	54	Student Centered
11	Clarifying Expectations	33	Learning Styles	55	Supportive
12	Collaborative Learning	34	Making Connections	56	Synthesis
13	Communication	35	Maturity	57	Teaching Skill
14	Critical Reading	36	Metacognition	58	Tenure
15	Culture	37	Modeling	59	Testing Format
16	Downward Trend	38	Open-Mindedness	60	Top-Down Approach
17	Education Expertise	39	Outcomes	61	Tradition
18	Effort	40	Overwork	62	Undergraduate Major
19	Engagement	41	Participation	63	Underprepared
20	Inequality	42	Personal Problems		
21	Essay Writing	43	Process Training		
22	Evolution	44	Ranking System		

Through the focused coding process, primary conceptual categories began to emerge. Each of the primary categories of data encompassed several key themes that provide additional depth and dimension in understanding how critical thinking develops in law students. Several of the key themes encompass identifiable factors for success in

developing critical thinking skills in law students. Table 4 provides an overview of the relationship between the categories, themes, and factors that emerged from the data.

Together, these categorical components give rise to a comprehensive theoretical model of the development of critical thinking in law students.

Table 4: *Summary of Findings*

Primary Categories	Key Themes	
Category 1: Student Learning Needs	Theme 1a: Critical Reading	
	Theme 1b: Analytical Thinking	
	Theme 1c: Connecting Learning and Performance	
	Theme 1d: Self-Regulated Learning	
Primary Categories	Key Themes	
Category 2: Student Learning Challenges	Theme 2a: Under Preparation	
	Theme 2b: Weak Learning Dispositions	
	Theme 2c: Complicating Personal Factors	
Primary Categories	Key Themes	
Category 3: Legal Education System Challenges	Theme 3a: Evolving Instructional Necessities	
	Theme 3b: Need for Educational Expertise	
	Theme 3c: Inequality Among Legal Educators	
	Theme 3d: Limited Resources	
	Theme 3e: Sub-Optimal Grading Policies	
Primary Categories	Key Themes	Factors
Category 4: Factors to Optimize Student Performance	Theme 4a: Faculty-driven Factors	Factor 1: Student Success Focus
		Factor 2: Adequate Academic Standards and Expectations
		Factor 3: Individual Student Support
		Factor 4: Faculty Participation in Initiatives
	Theme 4b: Pedagogical Factors	Factor 5: Active Learning
		Factor 6: Thought Process Training
		Factor 7: Applied Practice
		Factor 8: Essay Writing
	Theme 4c: Leadership-Driven Factors	Factor 9: Formative Assessment and Feedback
		Factor 10: Top-Down Leadership Approach
		Factor 11: Institutional Outcomes Assessment
		Factor 12: Communication and Integration of Effective Educational Approaches

Primary Categories, Key Themes, and Factors for Success

Grounded theory analysis produced 63 data codes that the researcher, using an inductive reasoning process, further conceptualized into four primary categories, 15 key themes, and 12 factors to optimize student performance. Table 4 depicts the categories, themes, and factors that arose from the data. Each category represents a primary component of the conceptual model arising from the data. The key themes reflect the descriptive sub-components of each category that emerged from the data that convey in-depth understanding of the phenomenon. The factors to optimize student performance represent discrete components that participants identified as vital to the development of strong critical thinking skills in law students. A brief description of the meaning of each primary category, key theme, and factor for success and relationship to the overall conceptual model of the development of critical thinking in law students follows.

The first primary category identified by the researcher concerned student learning needs. Student learning needs represent the skill areas in which the widest gap exists between incoming law students' intellectual and academic skills and those required to optimize their critical thinking. In the category of student learning needs, the researcher identified four key themes, reflecting the participants' impressions of law students' most pressing learning needs: critical reading; analytical thinking; connecting learning and performance; and self-regulation.

The first key theme, critical reading, entails the ability to read actively and critically for deep, accurate, conceptual understanding. The second key theme, analytical thinking, reflects the ability to effectively employ sound logic and reasoning to identify relevant facts and reach valid conclusions under varying factual scenarios. The third key

theme, connecting learning and performance, encompasses the ability to see relationships between concepts, circumstances, subjects, contexts, and events in order to frame a cohesive understanding and accurate perspective to advance one's learning and performance. The fourth key theme, self-regulation, implicates the ability to effectively monitor one's thought processes, intellectual development, and problem-solving process, to accurately assess one's mental progress and make sound decisions about effective and efficient ways to employ one's resources, to reflect upon the efficacy of one's efforts, and to use all of this information to formulate increasingly effective approaches to learning and problem-solving. Together, these key themes reflect the participants' perceptions regarding the greatest learning needs of law students.

The second primary category, student learning challenges, consists of issues that impede law students from developing strong critical thinking skills. These issues hinder law students' performance, presenting barriers to success in the development of strong critical thinking skills. The researcher identified three key themes in this category: under preparation; weak learning dispositions; and complicating personal factors.

The first key theme, under preparation, refers to a lack of appropriate foundation in the mental skills necessary to learn effectively in the legal education environment. The second key theme, weak learning dispositions, encompasses the personal habits, perspectives, and/or behaviors that deter learners from engaging in the type of focused, sustained mental effort associated with the development of strong critical thinking skills. The third key theme, complicating personal factors, reflects the individual characteristics, circumstances, or conditions that hinder learners from maintaining focus and/or dedicating sufficient time and effort to their academic studies to develop strong critical

thinking. Collectively, these three key themes encompass the students' greatest learning challenges as expressed by the study participants.

The third primary category that arose was legal education system challenges. Legal education system challenges are issues that impede law schools from delivering the most effective education for the development of critical thinking in law students. The researcher identified five key themes in this category: evolving instructional necessities; need for educational expertise; inequality among legal educators; limited resources; and sub-optimal grading policies.

The first key them in this category, evolving instructional necessities, refers to significant changes in the learning needs of incoming law students. The second key theme, need for educational expertise, concerns the necessity for legal educators to acquire the training, experience, and/or skills necessary to employ the most effective evidence-based strategies and approaches for developing critical thinking skills in law students. The third key theme, inequality among legal educators, reflects the dynamic that persists in many law schools for educators who focus on teaching skills, including critical thinking skills, to be perceived as less intellectual than educators who focus on teaching specific traditional law school subjects. Such educators, participants explained, are often excluded from faculty meetings and committees, denied voting rights and tenure track opportunities, and subjected to substantially lower rates of compensation for longer work hours. The fourth key theme, limited resources, represents a scarcity of financial resources that often results in large class sizes, small academic support departments, and lack of individual attention to students. The fifth key theme, sub-optimal grading policies, addresses the use of a grading curve as the predominant method of assigning grades to

law students, which makes it difficult for students to accurately assess their progress and often causes an over-estimation of their level of academic preparation and achievement.

The fourth primary category, factors to optimize student performance, addresses the variables associated with the optimization of law students' critical thinking. This category includes the key themes of: faculty-driven factors; pedagogical; and leadership-driven factors. Each of these key themes encompasses a number of identifiable factors associated with the development of strong critical thinking skills in law students.

The first key theme under the category of factors to optimize student performance, faculty-driven factors, includes variables inherent in the instructional environment of a particular law school that are not related to specific teaching and learning strategies or techniques. These types of factors involve aspects of legal education driven largely by the individual and collective values and philosophies of the faculty and instructional personnel at a particular institution, perhaps because they arise primarily at the classroom level and may implicate academic freedom issues. Four factors arose under this theme: student success focus; adequate academic standards and expectations; individual student support; and faculty participation in initiatives. The first factor for success in this theme, student success focus, reflects an educational philosophy and environment that centers on meeting the educational needs of students as the top institutional priority. The second factor, adequate academic standards and expectations, entails ensuring appropriate academic rigor in the classroom by maintaining academic standards and expectations appropriately challenging for the development of strong critical thinking skills in law students. The third factor, individual student support, entails the provision of personalized one-on-one assistance to students. The fourth factor, faculty

participation in initiatives, entails the full involvement of all instructional personnel in educational initiatives and measures designed to advance the development of critical thinking skills in law students.

The second key theme under the category of factors to optimize student performance addresses the pedagogical factors associated with student performance. These factors reflect specific strategies and techniques for teaching and learning. The pedagogical factors for success that arose from the data were: active learning; thought process training; applied practice; essay writing; and formative assessment and feedback. These factors reflect the pedagogical elements that participants considered important for success in the development of critical thinking in law students.

Active learning represents learning approaches that engage students in completing challenging exercises and place responsibility for participation, progress, and results on the student. Thought process training entails providing students with explicit guidance in the mental processes, or steps, involved in learning and problem solving. Applied practice concerns educational activities that engage learners in repetitive practical exercises requiring them to utilize and evaluate the skills, concepts, and material being learned. Narrower in focus than active learning, applied practice reflects participants' perceptions that the internal higher-order thought processes inherent in legal education require structured application and individual practice to internalize. Essay writing represents narrative writing that requires students to effectively structure thoughts, concepts, arguments, and analysis in response to complex problems under varying factual scenarios. Formative assessment and feedback involves providing students with opportunities to gauge their performance and progress toward specific learning goals and

receive guidance on their work so that the student can formulate appropriate adjustments to optimize performance.

The third and final key theme under the category of factors to optimize student performance addresses the leadership-driven variables that affect legal education. These factors involve aspects of legal education that are heavily subject to influence from the leadership of a particular law school. While such factors may influence all aspects of legal education, including faculty-driven factors and pedagogical factors, participants perceived these factors to be largely driven by institutional leadership, and participants' comments associated with this theme tended to emphasize the role that institutional leadership plays in establishing, maintaining, and/or facilitating these particular factors. Three factors arose under this theme: top-down leadership approach; institutional outcomes assessment; and communication and integration of effective educational approaches.

Top-down leadership approach concerns the willingness and/or ability of deans and senior administrators to support and strongly advocate for educational initiatives and measures designed to advance the development of critical thinking in students. Institutional outcomes assessment represents opportunities for schools and educators to measure and analyze the collective learning outcomes experienced by students to aid in the formulation of effective policies, approaches, and standards to optimize learning outcomes at the institutional level. This factor differs from the formative assessment and feedback factor under the pedagogical factors theme in that formative assessment and feedback focuses on providing students with meaningful information to help inform and guide their progress, while institutional outcomes assessment involves providing law

schools and educators with institutional-level data and analysis to assess collective educational outcomes and inform institutional-level decision making. Finally, communication and integration of effective educational approaches involves implementing measures to ensure the dissemination of information within schools about effective educational strategies and approaches for the development of critical thinking skills in students, as well as the application by professors of this information in their teaching.

In the remainder of this chapter, the researcher will discuss each categorical component as expressed in the participants' words and explore the relationships between the components so that the reader may better understand the comprehensive model presented in Chapter 5. To protect the confidentiality of the participants, the researcher has paraphrased or removed any identifying statements in a way that preserves the accuracy and tone of the participants' comments. In the interest of brevity, the researcher has also omitted language, where indicated, when doing so did not affect the underlying meaning or tone of the participants' comments.

Primary Category 1: Student Learning Needs

In describing their experiences with the development of critical thinking skills in law students, the participants discussed the specific types of skills that students tend to lack. While the development of effective critical thinking in the legal education context requires a wide range of skills, the participants emphasized four specific types of skills that are vital to the optimization of law students' critical thinking, yet often deficient. The skills highlighted by the participants were: critical reading; analytical thinking; connecting learning and performance; and self-regulation. These are the areas in which

the participants perceived the gaps to be the greatest between the students' abilities and the requirements for success. Together, these key skills reveal the most critical student learning needs identified by the participants and establish the first primary category implicated in the development of critical thinking in law students.

Key theme 1a: critical reading. Many participants emphasized the need for law students to develop more effective critical reading skills, establishing the first of the four key themes in the category of student learning needs. Participants tended to stress that strong critical reading skills are a pre-requisite to effectively exercising the other types of skills involved in legal thinking. For example, when asked what types of factors affect the development of students' critical thinking skills prior to law school, one participant answered:

How much time they've spent reading books. Cultivating the attention span [to] read several thousand words at a time and hold those thoughts in their head for hours or days or weeks. The students who have read extensively have already developed that threshold ability before you can apply critical thinking skills. The law students who haven't read extensively get uncomfortable and have to catch up to develop that particular skill set.

Another responded in kind, discussing the value of learning to read analytically and directly associating critical reading with critical thinking. The respondent stressed the importance of reading for deep conceptual understanding, noting that students often lack experience in critical reading prior to law school:

...[Y]ears ago, when my kids were little, I did training for one of the Great Books, where you go to the elementary school and you have the students read a short

story, and it really is critical thinking skill. There's ambiguities. You flesh it out with the kids. 'And why, what does that mean?' It's not unique to law. I just think people haven't been exposed to it enough.

Another participant who expressed the importance of a sound foundation in critical reading noted that even students who may have read extensively prior to law school may still lack the type of critical reading skills necessary to excel in the study of law. This participant explained that law students must develop accurate critical reading skills due to the inherently adversarial nature of legal practice. In discussing the types of experiences at the undergraduate level impact the development of critical thinking in law students, the participant explained:

They're not really taught how to interpret written material. It's funny, you would think, for example, that studying literature would have taught them that, but they're not taught how to really understand literature. ... They get to law school, and as I said, you have to do it, and you have to do it accurately because somebody else is getting paid by the hour to do that. If you haven't done it, you're in trouble, because they're going to eat you for breakfast right in front of the judge.

Another who emphasized students' lack of preparation in reading for deep-level understanding noted that students who cannot follow and critically evaluate the conceptual basis of written material tend to respond with superficial personal opinions:

They're basically giving you gut reaction, not an analytical reaction, not 'How did this author put this together?' or 'What is the author trying to accomplish? How is he going about it specifically? Does that work?' They're not prepared for that, and

so they can't think on that level and just see the flaws in the logic of an opinion, or even to see the steps in the logic of an opinion.

Participants generally expressed the importance of reading for underlying meaning in legal education. An analogy to nesting dolls offered by one of the participants paints a vivid picture of the central role of critical reading for deep-level understanding in legal thinking, aptly illustrating the primary theme of the participants' comments:

I'll ask a question in class, and what I get is a very high-level description of the issue, but when it's time to drill down into the component parts, it's like one of those Russian dolls, those wooden dolls. You open the top and there's more inside. The more you go down into the wooden Russian dolls, the harder it seems to get. I'm not sure if that's because of access to all kinds of technology that allow you to do a lot of different things all at once... I don't know, but I have seen that and I think that's at least one of the major impediments that I've seen.

Through their statements, participants consistently emphasized that critical reading in the legal context means reading for deep conceptual understanding – reading actively, accurately, analytically, and critically – reading for the underlying meaning, rather than surface-level understanding. This insight helps place the key role of critical reading in legal education into context and explain its central relationship to other key critical thinking skills so that we may better understand why the participants viewed critical reading as a key prerequisite to effective legal thinking. The next key theme in the category of student learning needs, analytical thinking, remains closely and inextricably tied to the skill of critical reading.

Key theme 1b: analytical thinking. The second key theme that emerged in the category of student learning needs concerns the ability of law students to think in an analytical manner. Building upon the line of reasoning that emerged when discussing critical reading, participants emphasized that students often lack accuracy, logic, and deep-level understanding in their thinking, instead tending to employ personal opinion and surface-level thought. As one participant explained:

My definition of thinking like a lawyer is thinking very precisely about human relationships, human events, and the rules to gather them. Most students have never really had to do that. They think with their gut, and they have opinions, and they're bright, and they can come up with arguments for their opinions, but they've never had to think precisely about what caused what. 'Who has rights? Who has duties? What are the extent of those rights? Where do those rights end? Where do those duties end? What truly caused something so who should be responsible?' They never really had to do that.

Part of the challenge, participants noted, is that students have often been conditioned to look for immediate, definitive answers, rather than to engage in careful analysis. One participant expressed the nature of legal thinking and the necessity for students to develop a tolerance for ambiguity by reference to a "collision" of answers. The participants' comments illustrate that, in the study and practice of law, a number of potentially valid answers exist, and courts look to the parties' analysis to select the best solution from a range of potentially appealing alternatives. Law students must therefore learn to emphasize the careful analysis and evaluation of potential alternatives and avoid the tendency to focus on a single correct answer to legal problems:

Probably the biggest factor of all is that students come in looking for right answers. One of the things that I always tell my students is that a true legal issue is a collision of right answers. That is hard for them to really understand, particularly when it comes to taking tests. They come in to take an exam and they think, ‘Okay, I’ve been given a hypothetical and my job is to figure out what the right answer is,’ when in fact, the hypothetical sets up a tension between at least two potentially right answers. So they are struggling to guess which one was right and freaking out because they realize that they don’t know which one’s right, so they think they must be messed up.

Respondents explained that students who are not accustomed to higher-order analytical thinking, but are conditioned by their prior education and experience to rely on lower-order thinking and memorization to reach quick conclusions, tend to struggle on law school exams. This underscores the need for students to develop confidence in their reasoning skills and to avoid the tendency to arrive at superficial answers. As one explained: “[I]t’s not a memorization type exam. It is a fake client type, fact pattern scenario, where you have to [identify the relevant legal issues] and you have to hone in on the issue and what rule could possibly be raised, what argument you could make, what counter-analysis is required.”

Respondents emphasized the value of essay writing over memorization and multiple choice as a method of developing and assessing students’ analytical skills. For example, when asked what type of practice might help undergraduate students better prepare for law school, one responded: “More compare and contrast, less memorization, fewer multiple choice questions, more essays, more papers, which would help with

writing and analytical skills.” In discussing the primary factors that contribute to the development of strong critical thinking skills in law students, another participant echoed the perils of students relying on memorization over analytical thinking:

The primary step is making that shift in their approach to a problem and making them understand that we are not providing you with information so that you can memorize it and give it back to us in the same format. It is one of the reasons why the Socratic Method, I think, is so married to law school and actually does have such a great use because it requires you...I’m giving you a situation. I’m giving you a role but then, you’re constantly changing the situation so that they have to think about it in order to be able to keep up with you in class.

One respondent, however, pointed out that memorization does play a role in legal education by providing the foundation on which to base analysis. The respondent stated: “Professors make a huge mistake when they tell them in that...this is not a memorization class. Law school you can’t memorize, what really matters is analysis. BS! If you don’t memorize all those elements of that tort, you’re going to flunk.” This respondent’s comment reflects the proposition that students need to master the relevant legal rules, then apply them *vis-à-vis* specific facts to conduct effective analysis.

Respondents often cited a lack of preparation in critical thinking prior to law school as the reason many law students begin their legal education with deficits in analytical skills. The failure to develop students’ critical thinking skills, respondents explained, leaves students with increasingly widening gaps between the analytical skills they develop prior to law school and those required to succeed in the legal studies:

[O]ne of the reasons, and I had mentioned this before, that we had such a problem with critical thinking with law students is because they're not being taught critical thinking in elementary, junior high, high school, and undergrad. The skills of critical thinking and reading keep growing. The gap keeps growing between where they are and where they need to be when they get into law school.

Many students who have not received adequate instruction and practice in critical thinking prior to law school, another respondent noted, may not be accustomed to the intellectual effort required to develop strong critical thinking skills, and may have trouble adjusting. As this participant's comments illustrate, gaps in students' preparation present substantial barriers to students' ability to develop strong analytical skills during law school:

[T]hey need to commit to doing extra work to develop critical thinking. I think it's their perception and background from undergrad study, from whatever it is, that all they need to do is memorize, or all they need to do it take what has been in class and just know that material and not necessarily understand it. I don't think undergrad or any sort of education up to that point generally teaches an understanding, which I think is what they're missing. I think they know: 'Here's what the material is.' What they don't have is: 'Here's how I put all the material together.'

Another respondent also stressed how hard students have to work to overcome gaps in analytical skills. Part of the challenge for students, the respondent explained, is understanding the depth and accuracy of analysis the law requires. This respondent's comments illustrate how difficult it often is for students to appreciate that the level of

generality and superficiality that may suffice in other contexts will not prove adequate in the study and practice of law, and the need to adjust their efforts accordingly:

When students don't work hard [it is] because they don't understand how much they have to work, not because they're necessarily lazy, but they don't get that they have to work really hard and write down a lot of things, that generalization won't be enough. You really have to write down what the law is and not just gloss over it because you kind of get it.

Along with a tolerance for ambiguity, a preference for analytical thought over (or in addition to) rote memorization, and an appreciation for the intellectual effort involved in analytical thinking, participants emphasized the need for accuracy and precision in thought. In summarizing the nature of critical thinking in legal education, one respondent explained how the level of accuracy and precision required for effective legal thinking differs dramatically from the type of daily thinking to which most people are accustomed by reference to the way a triangle is described in the field of geometry:

From when you were just a little baby your parents are saying to you 'Look, a triangle.' Then you got to geometry and you weren't allowed to say, 'Yeah, it's a triangle because it's a triangle. Obviously it's a triangle.' You had to actually prove that it's a triangle using math. You had to use your little theories.

Using another poignant analogy, the same respondent explained how a geometry teacher described the transition from casual layperson-type thinking to learned professional thought: "My geometry teacher said 'We'd talk about how many of the students crossed over the bridge of fools that week when we went through the first few

weeks of school.”” This same type of intellectual realignment, the respondent noted, must occur for one to develop the ability to think critically in the legal field.

Some respondents perceived that particular fields of undergraduate studies may better prepare students for the type of precise, logical thinking required in law school. As one person stated:

In fact, you know who I find, with regard to legal writing, that surprises me, who are quick to understand it, are students who majored in math or engineering. They can think precisely. That doesn't bother them. They're used to having to think precisely and then having to justify it. The English majors and others... they think they can just kind of talk around stuff, but they don't have to think very precisely.

Another respondent identified certain types of activities at the high school and undergraduate level that may contribute to the development of the type of analytical skills required to excel in legal education, commenting that:

One of them, I can say from personal experience, is high school and college debate. When I say with a heavy emphasis on debate at the college level with the heavy emphasis on both inductive and deductive reasoning in those activities and the critical reading that's required of students that have some of those experiences to be successful, right?

Skilled legal thinking, as the same respondent explained, requires the ability to think flexibly using a full range of analytical approaches. This respondent's comments aptly exemplify the central role that analytical thinking plays in the development of critical thinking in law students and illustrates how the most successful law students

possess the ability to analyze legal problems logically and accurately for deep-level understanding:

All school requires both inductive and deductive reasoning at a really high level, whereas most people...I say most people, I haven't done research on this, but my guess is anecdotally working with students that most people are really good at one or the other, [but] not great at both. ... I think it's rare, when I say rare, it's probably the top five to ten people in the class that can do both of those really well.

As the participants expressed, effective legal reasoning requires mental acuity and the ability to employ multiple analytical approaches. The participants' comments reflect the nature and importance of skilled analytical thinking in legal education and help us better understand what defines exceptional thinking in the study and practice of law. The third key theme in the category of student learning needs, connecting learning and performance, concerns the challenges that students experience in making the mental connection between their learning activities and the skills and knowledge they must develop to succeed and excel in the study and practice of law.

Key theme 1c: connecting learning and performance. The third key theme that arose in the category of student learning needs concerned students' ability to make meaningful connections to help them process information in the context of a comprehensive framework of understanding. While the theme of making connections encompassed students' ability to synthesize intellectual concepts, participants often eluded to connection-making in a broader sense, one that could help students better understand the relationship between past and present experiences, between different

coursework and subjects, and between academic and professional experiences. The ability to make such connections, participants noted, helps students think critically and derive meaning from what may otherwise appear disjointed, unrelated information, circumstances, and concepts. One participant shared an analogy offered by a colleague that aptly illustrates the importance of making connections as a law student. The quote reflects the participants' proposition that students, regardless of prior ability or success, cannot fully access their intellectual talents and excel in the study of law until they are able to make connections between the way they applied and exercised their intellectual talents prior to law school and the way they need to apply and exercise their intellectual talents to excel in the legal learning domain. As the participant explained:

They come in using tools that have worked for them very well for their whole academic lives, and they don't necessarily translate into the new analytical skills that they're going to have to master. [My colleague] says it's like somebody who is a great painter, works with oils and stuff and can paint portraits and landscapes, and has decided to take up sculpture. All of a sudden, they are talentless until they can figure out how to manipulate the clay. Once they understand how you make the clay do what it's supposed to do, then all of their talent comes back. Law students are like somebody who has been... painting in oils, but they have no idea how to work in clay or work in marble or whatever. Until they learn the basics of how to manipulate that new medium, all their creativity, all of their artistic ability, is just on the sidelines.

Several participants referenced students' inability to connect their learning activities to their performance on law school exams. The failure of law students to make

connections between their preparation and their performance on law school assessments often causes students to under-value the importance of foundational law school learning activities, such as case briefing, note taking, and outlining. As one participant noted, law students often have trouble understanding how particular methods of studying and preparing relate to their performance on exams, which may cause students to fail to appreciate the value of legal learning exercises:

I really think all those skills ... note taking, listening in class, and outlining are all so interrelated and a lot of them didn't see that. They can look at the briefs online and they don't think that briefing is a big deal...and they're not realizing how this is a really good process to go through and make yourself ready for exams.

A different participant also used the example of case briefing to illustrate how students tend to view certain study activities in isolation, hindering the critical thinking and learning process. Students who do not understand how particular study activities contribute to their overall comprehension of the complex material and concepts involved in legal studies, the participant explained, often fail to realize the full value of their efforts because they lack the perspective to connect important aspects of their studies:

We have students that can make a case brief, and they know what the facts are. They know what the issue is, and they can write that the holding is, but they don't really see the bigger picture of why they need the case brief or the type of legally significant facts that should be included because they are relevant to the issue and the court's reasoning. They just put pieces together, but sometimes don't see the bigger picture.

Another respondent commented about the importance of law students making connections in order to understand why certain legal learning exercises can help improve the quality of their legal thinking. This respondent emphasized the value of experiential learning and clinical experiences in legal education in helping students make connections between theory and practice:

You can talk about to them about briefing cases all you want, but once they've done it, then you talk about it's a different experience.... Showing them things; I think that's probably the most helpful thing. One connection I always try and make them do is, this is what lawyers do.... The reason that you have to do all this stuff is this is what you will actually do to provide [legal services] to your clients.

Students' inability to make the necessary connections to appreciate the value of legal learning exercises proved to be a strong theme – one that participants repeatedly cited as negatively affecting students' critical thinking and learning outcomes. This difficulty in making connections between learning exercises and outcomes appeared quite persistent, despite participants' extensive attempts to help students connect the two at an earlier stage in the legal education process. One respondent summed up the phenomenon with a memorable metaphor that expresses students' inability to envision the significance of things they have yet to personally experience by referencing the concept of mortality. In describing new law students' lack of understanding and appreciation for the legal learning environment, the respondent explained:

[New students] don't see the law school circle of life yet. How everything's connected: the work you do before class, the briefs that you make, participating

and note-taking in class, how that feeds into creating an outline that's valuable and then using that outline to do practice questions, so that you do well on your final. If just one thing is out of place in that circle of life, then things go awry and trying to get students to see that everything we're asking you to do is building to something else. If you leave one part out, the next part of the circle suffers. Trying to see how everything's connected I think is difficult for students.

The same respondent offered a potential solution – the use of practical application exercises early in the semester to help student's realize how their learning approach throughout the semester affects their ability to perform well on the type of analytical tasks they will ultimately have to perform on exams. Providing students with the opportunity to practice applying the skills they are learning, and to experience first-hand how gaps in preparation impact exam performance, may help students come to the self-realization that their preparation is directly connected to their performance. Allowing students to self-discover their deficiencies, the participant noted, often proves far more effective than trying to explain to students how their study approaches affect their exam performance:

We try to use the practical type exercises to show the students and convince them that they don't know yet what they think they know. That tends to work, and we have them bring, sometimes, their outlines to class and we'll do practice questions, and we say: 'You can do them open outline.' A lot of times they will see that their outline is not helping them complete a practice essay or do a practice question. After that, we've convinced them that they're outlining needs retooling because they created their outlines from their notes and its decisions aren't

helping them. Sometimes we just have the practice reveal the holes, instead of us just saying it because that often isn't as effective.

In addition to understanding and appreciating the value of legal learning exercises, to think critically and perform well in the study and practice of law students also have to be able to make connections between legal concepts, categorize the concepts, and comprehend the relationships between the concepts. One participant noted that legal educators may inadvertently frustrate students' attempts to make such connections by teaching them using the case study method and testing them in the problem-based method. This may occur because the case study method often requires students to examine particular legal cases in great detail, while the problem-based method requires students to make connections on a broader, more conceptual level. As the participant cautioned: "Think about what goes on in a law school class and then think about what goes on in a law school examination. If they look like they are complete opposites of each other, how can one assist the other if they look nothing like each other?"

While most of the participants cited students' difficulties in making connections and commented on the need for students to make stronger connections at an earlier point in their legal education for more effective critical thinking, one respondent noted that most (but not all) students eventually reach the point where things begin to come together. The respondent's comments highlight the central role of connection-making in education:

There really is that magic point in law school where you see everything coming together. Some people don't get it. It never happens to them, but that's really just about sitting down. ... [S]omewhere along the line after taking half the classes, I

begin to see the connections between all this stuff. It was like my eyes opened, and I thought: ‘This is what education’s about!’

Students’ inability to make meaningful connections between their learning and performance remained a strong theme expressed by many participants. Participants observed that the resulting lack of appreciation for foundational learning activities on behalf of students often left students ill-prepared to succeed and excel in the legal education environment. The fourth and final theme in the category of student learning needs, self-regulation, underscores the difficulties many students have in understanding and managing their learning efforts.

Key theme 1d: self-regulation. The fourth and final key theme that arose in the category of student learning needs involves students’ ability to monitor and assess their academic progress and intellectual development, to make effective decisions about how to allocate their resources as learners, and to effectively direct their own learning efforts. Participants also spoke about the affective aspects of learning in the law school environment, and the need for students to develop confidence in their ability to master challenging new skills. As one participant explained:

One of the components of self-regulated learning is to be able to set your short-term and long-term goals. Set[ting] a plan on how you plan to achieve your short-term goals and how that leads to the long-term goals, monitoring those goals, then reflecting on your progress and then going back and making adjustments.

The same participant noted the importance of letting students know early on that they will have to assume primary responsibility for their learning in the law school environment. Emphasizing to students that they will have to take control of their own

academic and intellectual development can help them better appreciate the active role they will have to play in the learning process:

...[W]hen they come to law school, we tell them: ‘We are facilitators of learning and you are responsible for your own learning.’ Which means, if you don’t understand something, you are responsible for coming and seeking help. I think those kind of exercises put the onus for learning on them.

Participants noted that, because students are often confused by the unique nature of legal education, learning how to regulate their own learning may prove particularly challenging for many. Because legal education requires students to comprehend more complex abstract concepts than the typical undergraduate education, students may not be prepared to effectively manage their learning. One participant conveyed a common scenario where a student did not understand certain material and was ill-equipped to devise an effective solution to aid in her learning and understanding:

I had a student who in my academic support capacity came wandering in the other day and said that she just didn’t understand; she said civil procedure was just a mystery to her. She didn’t understand why the professor said that she needed to read certain parts of Article Three in the Constitution. She didn’t understand why she had to have the Federal Rules of Civil Procedure and there were certain sections that were assigned, and then she didn’t understand what the textbook was trying to show her.

Like many of the other respondents, the participant explained the particular approach the participant used to help the student gain clearer understanding and insight into her own learning. While the nature of such approaches differed between participants,

the common denominator involved providing the student with effective learning tools to help empower the student to take greater control over her own learning and academic performance. As the participant explained:

I did something I thought was relatively simple, and students have reported back that it helps. I said: ‘Why don’t you take some three-by-five cards and, for every group of Federal Rules that you are given, you’re given five or six at a time, write the rule number, a little blurb that says what the rule is about, the page number that it’s on in the code, and clip those together and take them to class with you and follow the sequence in which the professor talks about the rules. Once you’ve done that, put them in the order in which the professor discussed them. Then go back and take those cards and ask yourself, why was this one number one, this number two, and this one number three.’

In explaining the purpose of this seemingly simple exercise, the participant revealed the underlying educational value of the exercise to the student. Essentially, the participant provided the student with a new perspective on her own thinking and learning process so that she could exercise greater control over her own intellectual development. The participant explained: “What I was doing was showing her simply how to go from a very high-level abstract, ‘here’s a list of things you need to do,’ to how to operationalize it, and she got it.”

The participant went on to note, however, that other students who did not receive the same sort of guidance still did not understand the purpose of the exercise and were therefore unable to make effective decisions about how to regulate their own learning. This account illustrates the pervasive need for legal educators to provide students with

effective tools and instruction to help them effectively regulate their own learning efforts and to explicitly explain the importance of the learning approaches utilized. This type of approach can empower students to regulate their own learning and performance:

But she told me that there was a student in the classroom who was just looking at her like: ‘You’re crazy! Why are you wasting your time doing that?’ The good news is she now understands what the Federal Rules of Civil Procedure are in general. The bad news is there was another student who viewed that little technique of trying to figure out how to hook those rules together; they are not random, they are assigned in the order in which they are for a reason. Her thought was: ‘I wish the professor had just told me that.’ I said: ‘The professor didn’t tell you, you told yourself. You figured it out.’

Other participants likewise shared the strategies and approaches they had developed through years of experience to help students gain better insight into their own cognitive processes so that they are able to exercise more effective control over their own intellectual progress. Numerous respondents emphasized the importance of teaching law students how to self-assess their learning efforts so they will realize when they need help. When asked about promising pedagogical approaches, one respondent replied:

[H]elping students learn how to engage in self-testing, whether that is a two or three-question multiple choice quiz every week. If a student starts the course off strong and he’s getting all the multiple choice questions and then all of a sudden has two weeks where they got all the multiple choice questions wrong, they have noticed that something has gone wrong. They can pick out people to help them fix it.

Another participant who also advocated teaching students to self-regulate their learning emphasized that legal educators need to help students learn to assess the success of their own learning efforts. This type of self-assessment, the participant explained, can be undertaken by students themselves on an informal basis. As the participant explained:

You have to come up with ways for them to do more informal kind of assessment and teaching students how to do self-assessment.... One of the things that you do is you figure out how to teach students to monitor their own learning and to work with each other....

As one participant noted, however, some professors may not fully appreciate the learning value in having students undertake self-assessment exercises, such as writing out the answers to brief questions during class. Legal educators who do not appreciate the value of helping students develop their self-assessment skills, the participant explained, often emphasize covering more material over helping students develop effective learning skills:

The other problem is that professors, they don't see this as a learning opportunity. They see it as an assessment. They don't realize that value, necessarily, in having students write their thoughts, solve a problem on paper, that that is as valuable as standing there peppering some student with questions, having the entire class trying to answer some dialogue with one student about that case. They're feeling like: 'I'm not covering stuff; I'm not covering things.' Sure you are. You ask the right questions, you're covering it great. They're actually thinking on a deep level. They're just not talking to you right now. You've got them thinking.

In addition to stressing the value and importance of helping law students learn to assess and direct their own learning efforts, respondents discussed the affective aspects of learning in the law school environment. Respondents noted that affective factors may negatively impact learning in law students because the traditional law school pedagogy that is intended to challenge and refine students' reasoning often makes them feel inadequate. When discussing factors that may hinder the development of critical thinking skills in law students, one respondent replied:

I think the first is the fear of being wrong. They're afraid they're going to come up with the wrong answer. That gets reinforced by the fact that they're really talking to a professor who is a scholar in the field, who is pushing them to think critically so that no matter what they say, the professor has a counter-point to it, which makes them think they're stupid. If they don't understand what's going on, they think, no matter what I say, I'm never right. The professor has thought about this for ten or fifteen or twenty or thirty years, you know, and is able to think it through on levels they've never considered.

The respondent further elaborated that the competitive nature of law school and the ranking system commonly employed exacerbates feelings of intellectual inadequacy. This type of intimidating environment can have a negative impact on students' self-efficacy, and in turn negatively affect students' ability to effectively self-regulate their learning and performance:

I think the competition and just the nature of legal education with the ranking system. Those things, they don't want to be wrong and they don't want to look stupid in front of a bunch of people who are very bright. I think it does hinder

because I think they get so tangled up in trying not to look stupid that it gets in the way of their creativity, it gets in the way of their critical thinking. Instead of being bold in their thinking, they very quickly become cautious and timid in their thinking. Again, they're so busy trying to get the right answer that they're scared to death that they don't have it. Their thinking is timid. That's a big part of it.

The respondent suggested that explaining the nature of the Socratic Method, the traditional pedagogical approach employed in legal education, may help ameliorate unnecessary feelings of inadequacy:

I tend to tell my students that. I say: 'Look, I'm going to push your reasoning. It isn't because you're dumb that I can do it, it's because I've been writing about this. Anything you say, I'm likely to go the other way just to press the logic. It doesn't mean that you're wrong or that you're dumb.' I don't think they always get that. I don't think they always understand that their answer's not wrong. It's a collision of right answers and they got one of them, so the professor's now saying: 'What about this answer?' I think they think: 'Well, I guess I'm just an idiot, I should have thought of that.'

One participant's comment reflects the importance of self-efficacy in legal education, highlighting the importance of helping law students master effective self-assessment approaches so that they can better direct their own learning and gain confidence in their ability to develop new critical thinking skills. In discussing the work of a learning psychologist the participant found particularly helpful in the participant's teaching and academic support work, the participant noted:

She said among the learners there are those with kind of a fixed mindset where they say, they come into the world with all of the intellectual ability that they're ever going to get, and they're either successful with their level of intellectual ability or they're not. That's the fixed mindset people. The growth mindset people are the one who say, I come into the world with a certain level of intellectual ability that I can improve if I want to and if I work towards improvement, not assuming that what I've got, all I've got is what I came into the world with. This idea of the growth mindset is served by these kinds of assessments where the student can say: 'I only got four right the first time, but look at me now. I'm getting down to the end of the semester and I'm not missing anything.'

This participants' comments illustrate the importance of helping students learn to self-regulate their own learning and intellectual development so they can assume full responsibility and exercise independent control over their efforts. Together, the four key themes under the category of student learning needs: critical reading; analytical thinking; connecting learning and performance; and self-regulation describe the areas where the greatest gap exists between law students' existing skills and those necessary to optimize performance in the study and practice of law as expressed by the study participants. The next primary category, student learning challenges, addresses the challenges students face in addressing their learning needs to become more capable critical thinkers.

Primary Category 2: Student Learning Challenges

The second primary category that emerged, after student learning needs, was student learning challenges. While student learning needs define the skill areas where the widest gap exists between the students' abilities and the level of proficiency required to

optimize the development of critical thinking in the legal education context, student learning challenges represent the most significant barriers or impediments that law students face in closing the proficiency gap and optimizing their critical thinking skills. In this category, the three primary themes that emerged from the interview data were: under preparation; weak learning dispositions; and complicating life factors.

Key theme 2a: under preparation. One of the strongest themes arising under the category of student learning challenges was that of a lack of adequate preparation to participate in the type of critical thinking inherent in legal studies. Participants continuously noted that students arrive at law school grossly unprepared for the type of higher-order critical thinking they are required to exercise in the course of their legal studies. This lack of preparation, respondents noted, impedes the development of critical thinking in law students because, without the requisite minimum level of preparation and experience in critical thinking, students are unable to effectively participate in the legal learning environment without extensive remediation in critical thinking and analytical reasoning. As one participant explained when asked about the critical thinking skills of incoming law students:

I don't want to say it's deficient, but I will say that I don't think your average undergrad student who walks into law school has the necessary thinking skills to be successful. ... You have to have the critical thinking skills to be able to understand what each case means and then synthesize it all together, which is hard for a lot of students. They have to do all of that themselves. They're not being taught how to do that.

Another respondent likewise commented that many students are unprepared to participate in legal education. The participant explained that students are often unaccustomed to examining the reasoning behind their responses, suggesting that the lack of emphasis on critical thinking and analysis may be a cultural phenomenon:

Students do not have strong critical thinking, reasoning skills when they arrive in law school. I like to joke with them that we're a very conclusion-driven culture and everybody has an answer that they can spit out, but oftentimes have not thought through why they have arrived at that conclusion.

The participant further emphasized that legal educators need to recognize their students' lack of preparation and devise methods of addressing their deficiencies so they can become competent legal learners and practitioners. When discussing the most important things that legal educators and law school administrators can do to help optimize students' critical thinking skills in law school, the participant advised:

It may sound somewhat simplistic, but it is accept the reality of where your students are when they enter the building. If you accept that reality, then you have to do something to address the deficiencies that you're seeing. ... Why? Because they are going to be the lawyers of our future and they are going to be representing us, our friends, our family. Don't we want them to have a certain level of proficiency?

Other respondents also rated the level of preparation in critical thinking among incoming law students as quite low. For example, when asked about the critical thinking skills of incoming students, a respondent replied: "On a scale from excellent to poor, I would say for our students, on average, it's probably below poor. They are not strong in

that area.” Some even reported using formal assessments to measure the critical thinking skills of incoming students, with the same conclusions. As one respondent explained when asked to provide her impressions regarding the critical thinking skills of incoming students:

Well, we just did a diagnostic for all of our incoming 1L students. That diagnostic measures a number of skills, including motivation, self-discipline, time management, reading comprehension, critical thinking skills, just as a student coming in, and for the most part their skills are pretty low....

In addition to the consensus that many students arrive at law school without the necessary experience in critical thinking to learn effectively in the law school environment, participants also generally attributed students’ poor critical thinking skills to a lack of preparation throughout the education process. For example, when asked why students arrive with under-developed critical thinking, a participant commented:

That’s an excellent question. I don’t want to be one of the academics who likes to blame everybody before them; you know, we blame college, college blames high school, high school blames grade school; there’s obviously though something missing along the way as students are being educated.

When discussing the critical thinking skills of incoming law students, another commented: “Before they arrive at law school, I don’t know that undergraduate school really... I guess that would differ over discipline, but I don’t think undergraduate school challenges you to think about things critically.” The same participant elaborated further, suggesting that widespread deficits in critical thinking and analytical skills may have societal implications: “There are some exceptions though obviously with some

engineering and scientific applications, but for the most part we're raising the whole class of people who can [only] memorize and recite.”

While most participants noted widespread gaps in critical thinking preparation among incoming students, one participant reported observing a range of critical thinking skills among incoming students. Even this participant, however, noted that students are often inadequately prepared with respect to their critical thinking skills. As the participant commented when asked about the level of preparation of incoming students:

From my experience...I will say that it is quite a range for our institution....

Generally, I would say they are moderately skilled in those areas, so they're somewhat prepared to do the thinking that they are required to do in law school and that make them successful lawyers. Just from working with academic support, but also with legal writing, I would say that they are often, I would say, inadequately prepared.

The lack of an adequate foundation in critical thinking proved to be a very strong theme among participants. The vast majority of participants reported extremely poor critical thinking skills among their students. None of the participants reported that their students had generally strong critical thinking skills overall, and all routinely encountered students who lack the minimum preparation necessary to succeed and excel in legal education and practice. While students with underdeveloped critical thinking skills may acquire the necessary skills to succeed and excel through intense, sustained individual effort, students with generally weak critical thinking skills will struggle throughout legal education and practice in the absence of strong intellectual work habits. The second

theme in the category of student learning challenges, weak learning dispositions, explores the role that students' habits play in the context of legal education.

Key theme 2b: weak learning dispositions. The second key theme that emerged under the category of student learning challenges concerned students' learning dispositions. Respondents noted that many students had not developed the work ethic, intellectual stamina, or grit to effectively engage in the type of rigorous academic training inherent in legal education. This phenomenon presents serious challenges to the advancement of strong critical thinking skills since the development of critical thinking requires substantial concentration, effort, and persistence on the part of the learner. Respondents noted that learning efforts were frequently compromised by students' maturity levels, false confidence, and closed-mindedness. These type of dispositional weaknesses, as some noted, can exacerbate learning challenges for students who may also have underdeveloped skills that require sustained effort, focus, and perspective to overcome.

One participant expressed the important role that learning dispositions play in the development of critical thinking skills in the form of an equation for success based on effort and ability. In discussing the factors that influence the development of strong critical thinking skills in law students, the participant suggested:

Let's take innate ability time effort times focus, and that gets you outcome.

People who are really smart and don't do crap, do they develop their critical thinking skills? No, because they're lazy. But there's some people who don't have the best innate ability who actually follow through on the structure in law school.

From working with people in law school, I've been doing this for a dozen years, the people who actually will do it, they figure it out.

Another respondent commented that even students who are not inherently lazy may be unable to sustain the level of intellectual focus and effort required to learn effectively in the legal environment if they are unaccustomed to the level of effort required and unable to adjust to the increased expectations. The respondent noted that, while many students feel they are working hard if they spend thirty-five or forty hours per week on their studies, law school requires students to consistently spend fifty to sixty hours or more per week on their studies. When asked whether most students spend adequate time on their legal studies, the respondent explained:

No. ... Most of the students with whom I work are working harder than they ever had in their academic lives, but that's in part because they haven't worked all that hard prior to getting here.... From the law students' perspective, they're working in their minds twice as hard as they ever have before, but they're not working what I call law school hard.

Other participants also emphasized the importance of a strong work ethic for success in law school. Many even went so far as to consider intellectual effort and initiative as the most important factor for academic success in legal studies. For example, when asked about the factors that affect the development of strong critical thinking skills in law students, one participant responded:

The number one factor I see in any sort of improvement is the amount of time and effort the students take to put in outside of normal classroom interaction. Many students think as long as they go to class, they do a lot of what their professors

say, that that's enough, and don't realize that there's a number of things they need to do outside of that. That's the first thing. The persistence, the doing things above and beyond what they need.

In discussing the factors that contribute to success in law school, yet another respondent simply commented: "...[T]he students who work harder do better."

In addition to the level of effort students are willing and able to put forth, participants also observed a tendency on the part of some students to exhibit false confidence and a lack of maturity. Participants noted that these types of dispositions inhibit students' ability to improve and excel because they may discredit the feedback they receive from their professors and/or fail to seek help when needed. As one participant explained:

The only students I think can't, or don't, use the tools are the ones who just feel like 'I don't need this. I'm smarter than this. I'm smarter than you. I know what I'm doing. You have no idea what you're doing.' There's sort of a stubbornness factor that is going on there.... Those are the students who never improve.

Other participants also noted that arrogance can cause students to underestimate what it takes to succeed in law school. This type of disposition, which may be more prevalent among students who received high grades in their undergraduate studies, may impede students from exercising the initiative necessary to succeed under the increased intellectual demands of law school, and may cause students to overestimate their own intellectual abilities and levels of preparation. As one participant summarized when asked what type of factors hinder the development of critical thinking skills in law school:

I always say the most arrogant groups of students that you meet are incoming 1L's and 3L's after they've passed the bar. The incoming students come in with a lot of confidence, but most of them were at the top of their class and it was easy to make A's. They come in and they have an attitude about, 'I'm doing the work that's required,' underestimating what's involved and perhaps, even not even having great time management skills.

Throughout the study, respondents emphasized the central role that strong learning dispositions play in achieving success in the study and practice of law. Because many students arrive at law school with underdeveloped critical thinking skills, learning dispositions may prove to be a decisive factor for many students. The third and final theme in the category of student learning challenges, complicating personal factors, addresses the dynamics outside of the classroom that can interfere with students' learning efforts.

Key theme 2c: complicating personal factors. The third and final key theme that emerged under the category of student learning challenges related to the personal challenges that students face during law school. These types of challenges may take the form of individual learning issues and/or personal problems that students may experience. Complicating personal factors can result in mental and emotional distractions for students, and can cause them to have to divert time and attention from their studies. These types of distractions, respondents noted, often cause students to lose focus and detract from their intellectual development. As one participant explained:

...[P]ersonal issues that students experience ... have been a hindrance for us. We've just noticed it more and more over the last year. I'm not really sure why that is, but

that seems to be coming up more and more, dealing with a lot more stressed out students for whatever idea or reasons.

When asked why some students are less motivated than others to succeed, another respondent also cited personal problems and mental health as barriers to success: “I think sometimes there are other issues going on, whether it’s depression, or personal problems, things like that.” A different respondent elaborated on the type of mental health and chemical dependency issues that hinder learning, emphasizing that such issues can prevent otherwise capable students from achieving their goals:

You’ve got chemical dependency problems, mental health problems, and even some people who are at the top of the game. Mental health problems are widely distributed. Although they tend to be among the people who are struggling more in law school. In fact, we had a [student who held a high-profile position in the court system who] had a big-time anxiety disorder. [The student] eventually quit because [the student] couldn’t handle the anxiety [of the position].

In addition to mental health issues, respondents noted that family responsibilities, outside work, and personal commitments may interfere with legal studies. These factors may be more prevalent among older students, who often attend law school after earning their undergraduate degrees and working for a period of time. As one respondent explained:

A lot of our students also have families and outside commitments that take a toll on their law school experience. This isn’t all the young school that everyone comes from undergrad. These are a lot of people that are coming back for a second career and already have a job. Perhaps they’re working, or even if they’re

not working, have families and other commitments that are trying to get at their time, so making the full investment into law school is difficult and challenging.

When discussing factors that interfere with the development of critical thinking in law students, another respondent also noted that family commitments can interfere with legal studies: “Then of course once they get really started someone’s question them, do they have family commitments, are they really able to devote all their time to proceeding?”

In addition to outside responsibilities and commitments, respondents noted that personal learning styles may complicate the learning process for students who do not naturally learn well in the law school environment. This may occur because law school classes are often quite large, making it challenging for professors to address a range of learning styles, and/or because legal educators generally use the Socratic Method as a primary teaching approach and may have limited knowledge about or interest in accommodating individual learning styles with alternative approaches. In this respect, personal learning style may present a complicating personal factor for certain students who have difficulty learning in the law school environment. As one respondent explained:

...[T]he challenge that all teachers have is that, you’re sitting in a room with 40, 50, 60 students, whatever it is, and we cannot make the assumption that each of those people learns the same way. Whatever, even if you have a great tool, you have to recognize, it’s not going to work for every person in the room.

Understanding that you have to keep changing things up so that you’re trying to address the learning styles of everyone, is really, really important....

While the respondent suggested that professors may try varying their teaching approaches to better reach students with different learning styles, perhaps by integrating active learning exercises, the respondent acknowledged that, ultimately, the burden of determining the best way to learn in the law school environment falls on the student:

Yeah, I, myself, in the past, have tried to use different tests that are designed obviously to bring that stuff out, but I leave it to students now to self-assess and tell me what... You always encourage them to work on their own studies in the method that works best for them. They have no control over what happens in the classroom.

While numerous participants mentioned learning style as a potential impediment to learning, one participant explained that learning styles can actually be affected by the legal learning environment, making it difficult to rely on one's prior experiences for guidance regarding personal learning preferences:

I've started to drift away from learning styles, focusing a lot on learning styles.

Making students aware that they come to law school naturally, but also letting them know that their learning style is likely going to change in law school.

Different subjects are better understood in different ways. They are not always the ways that you are used to learning. There's been some studies on that too that say that people come into law school with many learning styles, but they generally tend to be more visual by the time they leave law school, just by the nature of legal education I think.

A different participant who did not favor the concept of learning styles noted that the law school environment may not align well with some students' natural way of thinking, and recommended that professors use a variety of teaching approaches to

harness students' innate intellectual talents. This participant provided a different perspective on why the utilization of different teaching approaches may help students learn more effectively, emphasizing that legal educators should employ a variety of teaching strategies and provide latitude for students to learn in the ways that best suit them. As the participant explained:

People are different in the way that they have learned to organize the world, and we don't necessarily teach in a way that makes that accessible. ... [To] some students, the world is represented visually, so we ought to take time to use visual representations of analytical processes and logical concepts. ... We ought to realize that the gunners who always want to talk probably learn by talking. ... We ought to use multiple approaches in our classrooms, besides the traditional Socratic Method, to get students to use their natural abilities to think rather than forcing them to conform....

While participants often cited complicating personal factors as a potential detriment to success in law school, more participants emphasized the first two themes of under preparation and weak learning dispositions. This may be because students with strengths in either of the first two categories may be better prepared to overcome complicating personal factors and remain focused on their studies. Nonetheless, all three key themes present serious challenges to learning and success in law school. The next category, legal education system challenges, addresses the complications that law schools experience in providing students with the best possible education for the development of strong critical thinking skills.

Primary Category 3: Legal Education System Challenges

After student learning needs and student learning challenges, the third primary conceptual category that arose consisted of challenges faced by the legal education system that may hinder legal educators in helping students develop strong critical thinking. Analysis of the interview data revealed five key themes within this category: evolving instructional necessities; need for educational expertise; inequality among legal educators; limited resources; and sub-optimal grading policies. These five challenges, according to the data, complicate the task of providing students with the best possible educational environment for the development of advanced critical thinking skills.

Key theme 3a: evolving instructional necessities. The first key theme under the category of legal education system challenges reflects the perceptions expressed by participants that the educational needs of law students have recently changed in significant respects, such that the traditional approach to legal education is no longer adequate. In this respect, participants often reported a strong downward trend in critical thinking skills among incoming law students, and discussed the challenges they observed as law schools attempt to adjust to meet the instructional needs of today's students. As one participant explained when asked about the critical thinking skills of today's law students: "I guess the easiest answer to that would be, I think there's been a significant decline in the past five years. ... Students are definitely struggling more than they did previously to just grapple with the idea of the way we want them to think about things." In addressing the same question, another respondent replied: "I will say that, in general, it feels as if though things are trending downward.... Along with their writing skills, I feel

like their thinking skills have, year after year, they're certainly not improving over the past decade....”

A different participant shared a story about the participant's father's experience as a high school teacher, suggesting that a general decline in students' critical thinking and reading skills has been occurring over the course of the last decade or so in the U.S. This historical perspective highlights the downward trend in critical thinking skills generally observed by participants, and suggests that the phenomenon is widespread in the U.S. The participant explained that students' critical thinking skills have declined so severely over the past several decades that her father could no longer assign basic reading that was commonplace in the past. As the participant explained:

My dad was also a high school teacher. He retired as soon as [I] entered law school. Let's see, that's [about 14 years ago]. ... There was a very short book about finance.... It was a really good book. It was very readable. ... He said by the time he stopped teaching there, he couldn't even assign... that book. ... People couldn't read it, couldn't get any information out of it that was useful. I guess I feel like it's [an] overall United States of America kind of battle....

Some respondents offered their insights into the reasons for the declines in critical thinking they observed. Many felt that advancements in technology have contributed to declines in critical thinking by giving students the impression that the answer to virtually any question can be obtained with a simple computer search. This seemingly quick and easy approach to problem-solving, participants explained, emphasizes instantaneous answers with little mental effort, analysis, or reflection, leaving students ill-equipped to engage in the process of critical thinking. As one respondent explained:

Nowadays, these kids just type in a word and Google and all the information is at their fingertips. They haven't developed the processing skills of how do I go about critically thinking to get from point A to point Z. They just want you to give them the answer. I think that really hinders their learning in the classroom, because they don't know how to follow a process to get to the answer. They just want you to hand it to them.

Another suggested that changes in undergraduate teaching methods over the past decades may leave students less prepared in their critical thinking and reasoning skills. Specifically, the participant felt that today's undergraduate education often focuses on students' personal opinions, as opposed to logical analysis and sound reasoning. The participant said:

[W]hen I was in law school over forty years ago... the way I was taught as an undergrad... is we were told to drill down. We were not asked the kind of subjective questions, even about something like the meaning of a poem. We were expected, if we asserted a proposition [such as]: 'This is the best poem I've ever read'... to explain why in the language of our discipline. I don't know that that's how students are being taught [today].

The same respondent suggested that more instruction and practice in logic, reasoning, and argumentation at the undergraduate level may help students better prepare for legal education. This type of preparation, the participant explained, would help strengthen students' critical thinking skills in preparation for legal studies. In describing how to prepare students for law school, the participant suggested:

...[I]f I could do one thing for every law student ... I would want each and every one of them, before they got to law school ... to have a course in basic logic; informal logic, not the formal, not the symbolic stuff, but just basic argument analysis, how to recognize an argument ... reading and understanding arguments, understanding fallacies in arguments, recognizing the fallacies and knowing how to avoid them.

Participants frequently emphasized the need for legal education to evolve in response to the changing educational needs of students. Precipitous declines in students' critical thinking skills, participants noted, require fundamental changes in legal education, since many students lack the foundational reasoning skills to effectively learn in the traditional law school environment. This transition, however, is not easy since current legal education methods have been developed over thousands of years, and since many legal educators remain skeptical about new educational approaches and reluctant to accommodate the learning needs of today's students. As one participant explained, the legal education system has a long history and a strong tradition that may impede efforts to implement changes to meet the evolving needs of today's students:

I think as a whole, I think it's just re-designing a system and not relying on the old manner, the old model for law school teaching, and being open to new ideas....
Now, I think a lot of schools don't want to change. They don't want to change the model. They don't want to change the approach. They don't want it to be service-driven.

Another participant expressed similar views about the resistance of law schools to change, noting that legal educators often believe they are talented teachers who do not need to change their approach. As the participant explained:

... [I]t's just resistance to change in general.... From that what I'm trying to say that they're like: 'Well, I made it through and this worked for me and I graduated' They're not buying into the process, but I think the failure to buying in is not just motivated by resistance, [some legal educators think]: 'Yeah, that's for the other guys who need it. I've got something that works really well. I do a good job.'"

Yet another person summed up the general perceptions of the participants regarding the difficulties law schools face in evolving to meet evolving instructional necessities. When asked what factors in legal education may tend to hinder the implementation of more effective methods of developing students' critical thinking skills, she replied:

Oh my God, where would I start? Just like I said before, to me, the greatest hindrance is just... it's almost like we're stuck in a rut...." Being able to just get people out of their comfort zone is somewhat of a problem.

Some participants observed changes beginning to occur as law schools attempt to address the learning needs of a new generation. These changes, however, are slow and difficult, and legal educators have a long way to go before their teaching catches up with the educational needs of today's students. As one participant explained:

As far as what we're doing as far as altering the approach, I would say it is beginning to happen, but slowly. The whole assessment movement in law school I

think is a nod towards the reality that we need to bring our teaching in law school into the twentieth century, not even the twenty-first century.

Changing instructional necessities and the need for legal education to evolve to address students' new learning needs proved to be persistent themes throughout the study. Participants observed that these changes are occurring very quickly, and that law schools are ill-equipped to adjust. Because legal educators often lack the educational background and expertise to effectively predict, assess, and address students' learning needs in the face of a complex and rapidly evolving education system, the second theme under the category of legal education system challenges explores the need for greater educational expertise among legal educators.

Key theme 3b: need for educational expertise. The second key theme that arose under the category of legal education system challenges concerned the need for greater educational expertise in law schools. A number of participants noted that legal educators, unlike professors in other disciplines, often have little formal training and experience in education. Participants frequently mentioned the need for law schools to include professionals with expertise in education on their faculties, and to provide training and support to assist faculty in devising the most effective teaching strategies and approaches for the development of students' critical thinking skills. As one participant explained:

Professors come in with zero training, so they do kind of what think they saw where they were in law school. They don't have a real understanding of what it is they're trying to test, how to test it in a way that's accurate, and how to assess what they're testing.

Another echoed the concern that most legal educators have little to no formal training in education. The participant observed:

The other thing is that I just think, generally, not all of our faculty have expertise in teaching and education...it's not like they've had formal training in pedagogical theory or about how people learn. They haven't had any of that, so they're going on what they've either seen from other professors and modeling that. [T]here's just a lack of knowing, having that background to even know what to do to make it different. They just don't have that training.

Another likewise stressed the need for educational training for law school faculty. In discussing what resources and support may help legal educators optimize students' critical thinking skills, the person explained:

They just need more educational training. ... The vast majority of them have zero education training and aren't teachers. Before they start, as they're going, they just need more education experience. ... All they have, all our professor has, is experience from the legal profession. ... Here's the problem, right?

To equip law professors with knowledge about how people learn, the same participant suggested that law professors should have a graduate-level understanding of education prior to teaching, whether they acquire it through formal schooling or another method. The participant suggested: "[Law professors] should potentially take enough hours or go through enough classes to have master's level idea of education students learn or any sort of training that helps them with that because that's what they don't have." Another participant also discussed the need for a greater emphasis on the development of teaching knowledge and skills among law school faculty, suggesting that

if the development of strong teaching skills are not given priority at the institutional level, the publication requirements of tenure will tend to remain the primary focus for many faculty members. In discussing this phenomenon, the participant commented:

I don't think once they start teaching anyone ever challenges them on that. It's left to their own device. If you care about it, you'll continue to read about it, but otherwise they just do the same thing they've always done. They're far more concerned about publishing and those type of endeavors which, they're on tenure track.

A different participant stressed the need for more educational expertise to assist law school faculty in developing effective teaching approaches, suggesting that supplementary education training for professors may prove helpful: "It goes back to having someone who can talk with ... [F]aculty ... about learning and how students learn and at least what people are saying now about how law students learn and what are effective teaching methods."

Some also noted that critical thinking and legal reasoning may come more easily to professors, making it difficult for some to break the thinking process down and develop effective teaching approaches for students. Since those who become professors often naturally excelled in legal studies, they may have a tendency to attribute students' lack of understanding to a general lack of intelligence, when often students just need more instruction in the thought process behind legal reasoning. As one participant articulated:

One of the big things, I think... One of the problems for professors is that professors, by definition, did very, very well in law school. They sometimes have

real difficulty understanding why others don't. They don't take the time to think through, what are the steps in my own thinking process and where can people trip up? They just have a tendency to think, didn't you read that? Aren't you smart enough?

In offering advice to professors, the same participant emphasized the importance of identifying and explicitly articulating the steps that effective legal thinkers follow in analyzing legal problems:

Number one, as far as the teaching approach, is that the professor has to sit down and ask himself, how do I figure this out, and where are the steps in that approach that people could trip up? Then I need to address that explicitly and help them get past that. That's more a preparation for teaching.

The participant further explained that those who naturally excel in legal analysis tend to think in a linear manner, while students are often unaccustomed to thinking in this type of orderly fashion. This disconnect, the participant explained, may cause students to fail to make important connections and form a cohesive understanding. Professors must recognize this difference and help students develop more organized, systematic thought processes. The participant offered the following insight into how professors may think differently from students:

I do think that professors tend to be linear thinkers, and they get a lot of students who don't think in a linear way. ... We tend to teach to the linear thinkers, because that's who we are. We think A, then B, then C, then D. There are others who are seeing A, B, C, and D as completely interrelated, and they're seeing it immediately, but they're not being presented material in that way.

The intellectual chasm between law professors and students and the need for legal educators to more effectively teach students the mental steps in the legal thinking process to students remained strong themes. As one respondent articulated with regard to the divide in thinking that may occur between professors and students and the need for professors to explicitly explain their thought processes to students:

One of the problems that I have seen is, as law academics at schools come from elite schools themselves, there's a difficulty realizing or accepting what sort of students they're teaching at their individual school. ... No matter how explicit you think you're being, you're leaving something out...and the more distance there is between you as an academic coming from an elite ivy league school and them coming from maybe a good state school, the more difficult it is at times to put yourself in that place.

The lack of educational expertise among legal educators proved to be a strong theme among participants. In light of the rapidly evolving educational needs of students, particularly the need for law students to develop greater strength in complex conceptual analysis, this lack of educational training and knowledge presents serious challenges for the legal education system. The third theme in the category of legal system challenges addresses a puzzling yet persistent inequality among legal educators that contributes to a lack of educational expertise among law school faculty.

Key theme 3c: inequality among legal educators. The third key theme that arose under the category of legal education system challenges is an inequality among legal educators that many participants believed negatively affects the ability of law schools to deliver the best possible education for critical thinking to students. In legal

education, participants explained, a perceived division exists between doctrinal faculty who teach traditional law school subjects and legal educators who specialize in teaching skills to students, including the type of critical thinking and analytical writing skills identified by researchers as widely deficient. Participants explained that many law school faculty believe that legal educators who specialize in teaching skills to students possess less intellectual capacity and expertise than doctrinal professors. As participants noted, this dynamic is quite pervasive in legal education, where those in skills-based disciplines, such as academic support and legal writing, are commonly excluded from faculty meetings and committees, denied voting rights and tenure track opportunities, and subjected to substantially lower rates of compensation for longer work hours. The result, in many instances, is that those professionals who tend to have more formal training and expertise in teaching and education are ostracized from the rest of the faculty. This dynamic, participants explained, makes it extremely difficult to advance the quality of teaching in legal education and sends a clear message that theoretical scholarship is valued over quality teaching and learning outcomes. When asked to what extent her institution supported and valued more advanced critical thinking teaching and learning approaches, one participant who had worked in academic support roles in several law schools shared a story:

When I started at [a certain law school], faculty would walk past me in the hallway, and I'd speak, and they'd turn their nose up and wouldn't even speak back. They would send e-mails back and forth, and talk about how they were going to take all of our money and why were we [the academic support professionals] down there. They would say stuff in front of students. It hasn't

gotten much better in the ten years that they started that [academic support] program. It's a shame, because those people that work in that program are hard workers, but they're not respected by the faculty.

The participant went on to explain that support from both the faculty and administration is necessary to enable academic support professionals to provide the best possible education for students:

The administration [at a certain law school where I worked] supported them, but it didn't really matter. At [another law school where I worked], the faculty was more supportive, and the administration was more resistant. You could get a little more done because you had faculty support, but you were always battling the administration, right?

The participant explained that both the faculty and administration at the law school where the participant currently works support the academic support professionals, perhaps because the school is under pressure from the law school governing agency to improve learning outcomes. When both the faculty and the administration accept academic support professionals as equals, the participant explained, the learning environment improves dramatically. When asked whether faculty resist the education training and assistance provided by the academic support professionals at the law school where the participant currently works, the participant replied:

Very little. The only resistance I encountered in the very beginning was some professors would say, 'I don't know how to do this, but if you'll help me understand how to do it, then I'll give it my best shot.' That was the only...they just didn't know. That was very short-lived, and I have to tell you, this group of

professors at this school are more progressive when it comes to getting down and dirty with students, of really doing these skill things.... Since then there's been no resistance. They voted to do this, to create these classes with blended skills. They have been really supportive.

The participant went on to say that the academic support professionals at the school where the participant currently works were recently granted faculty status and awarded pay raises at the behest of the faculty. Eliminating the distinctions between faculty and administration in academic support is important because, as the participant explained, students must master both doctrine and skills to succeed in the study and practice of law. The participant also emphasized that faculty status is important if academic support professionals are to have a voice in legal education and bring their educational expertise to bear for improved student learning outcomes. When the researcher asked the participant whether moving academic support professionals from administrative status to faculty status affects the willingness of the faculty to be receptive to new teaching and learning approaches, the participant said:

I think it's important. That was one of the reasons when I negotiated my contract, I insisted on being faculty. If you don't have a seat at the table where the decisions are being made, then you're just at the mercy of the people making the decisions, and they may not have all the information they need. It's critical that in the beginning at least, if nobody else is faculty, the heads of these [academic support] departments be faculty. They have to be there when the discussions about their departments are being had in faculty meetings. When decisions are

being made, they have to be there to advocate for their people and their programs, and often times students.

Most participants expressed that law schools where academic support professionals are accepted and valued on par with doctrinal faculty are a rare exception. Many participants reported experiencing a general lack of equality and acceptance at their institutions, and the single respondent noted above was the only participant to report eventual acceptance and relative equality at one out of several law schools where the participant had worked. This lack of acceptance can send a message to students that doctrinal knowledge is valued over skills-based instruction, further compromising efforts to help students develop strong critical thinking skills. As one participant articulated:

I'll put it this way, I have tenured faculty ... this is not unique at [my current law school], I hear these stories all the time ... they'll tell students: 'Why are you wasting your time with that? My class needs to take preference over anything else you're doing. ... They are telling the student: 'That's not as important as what we're doing in my class.

A different participant bluntly expressed the cultural divide among educators that exists at many law schools. When referring to the distinction between doctrinal faculty and academic support professionals in law schools, the participant commented: "There's this class system out there that [doctrinal faculty are] the intellectual elite, and then the rest of us [academic support professionals] who do the work."

A respondent who works at a law school where the academic support professionals receive administrative appointments, as opposed to faculty appointments,

offered the following comments regarding how the educational dynamics might differ if the academic support professionals were considered faculty members:

I think it would have a change because then we'd have a different kind of interaction with the faculty. We'd be present during the faculty meetings, and we could at least explain things or offer different perspectives, and I think the dynamics would probably change.

When asked directly whether faculty status for academic support professionals would facilitate the implementation of more effective pedagogical approaches for the development of students' critical thinking, the respondent resolutely replied: "Absolutely, without a question."

The inequality among legal educators proved to be a very strong and nearly unanimous theme among participants. In light of the pressing need for educational expertise in legal education, dynamics that minimize and ostracize legal educators with the strongest academic training and specialization in the learning sciences may prove particularly pernicious. The fourth theme in the category of legal education system challenges, limited resources, may contribute to these types of counter-productive attitudes among legal educators.

Key theme 3d: limited resources. The fourth key theme that emerged under the category of legal education system challenges concerned the scarcity of resources that many law schools are experiencing. Tight budgets affect the learning environment, often resulting in large class sizes and small academic support staffs. These conditions make it difficult for legal educators to administer and grade formative assessments and to dedicate extensive individual time and attention to students, and exacerbate the

challenges involved in meeting students' increasing need for remedial assistance, feedback, and individual support. In response, academic support professionals have had to devise new approaches to providing the best possible educational support with very limited resources. As one participant explained:

You have to come up with ways for them to do more informal kind of assessment, and teaching students how to do self-assessment. You can't ask somebody that's got 60-100 students to give four exams and individual feedback. That's just not realistic. ... One of the things that you do is figure out how to teach students to monitor their own learning and to work with each other...

Another respondent also noted the challenges of providing individual feedback in large classes, noting that students must often rely on a model answer in lieu of personal guidance from the professor:

Yeah, I mean, [students] usually don't get individualized feedback for their mid-term because ... the professor has fifty people in the class, or something, and they're not grading it usually.... [The students] get to see a model answer. The professor will go over it [in class].

Another respondent also acknowledged the challenge of providing feedback and guidance in large sized law school classes. When asked what types of impediments law professors face in implementing the most effective strategies for developing students' critical thinking, the participant offered:

I would think, for sure, class size and time, resources, all of that would be a challenge. Like I said ... we have anywhere from 80 to 100 students in the first-year class, and then they're sitting in a classroom of 80 to 100. It's not like they're

sitting in classes of 20. Professors are teaching 90 students a semester.... It's very difficult to then do those things along the way. I think that would be the biggest thing, is just the time and class size.

Another respondent noted that the large class sizes prevalent in law school reflect economic realities that create a tension with effective teaching and learning approaches. When asked whether large class sizes are as effective as smaller ones for developing critical thinking skills, the respondent replied:

Of course not. ... Do we teach in this method because we think it's the most pedagogically sound method of teaching? No, no one would say this is the optimal way for me to teach and for my students to learn. It is an economic model for law school. It is not a pedagogical model for law school. If that's the case, then if the economic realities don't kick in and change, then what do we do within those economic realities to make sure that we're implementing the most sound pedagogical approach in these classes?

The respondent explained further that, when professors are overloaded, they often rely on the professionals in the skills-based disciplines, such as legal writing and academic support, to pick up the additional workload and try to meet the students' educational needs. This creates tension between educators and compromises students' education because some faculty may attempt to enlist other professionals to assist them with their more challenging or laborious teaching tasks. As the respondent explained:

One of my concerns is that I don't want to be anybody's teaching assistant. I've been doing this longer than most of the people who are tenured faculty in the place right now, so I'm not going to be anybody's teaching assistant. If we want

to adopt a team approach to this, I'm more than happy to try that. There are those issues of status that keep creeping up, along with the economic realities.

This respondent, like several others, suggested that enlisting upper-class students to assist may help leverage scarce resources. Having students teach classes, however, may create additional complications and workload on behalf of the professors who must train and supervise the student teaching. The respondent suggested:

One way around the economic reality is to utilize second and third-year students. ... They're starting to utilize TA's more here at [my institution] and there are issues involved there, but they're not insurmountable. You have some very strong individuals who do this who are in your classes on a regular basis and they can be utilized as teaching assistants, especially when they are being monitored, when we are teaching them how to do some of this teaching as well.

Participants also suggested that professors can use technology to leverage scarce resources. As some noted, however, technology such as classroom clickers may have limitations with regard to the teaching and assessment of thinking skills, where essay exams and personal feedback are often more effective. As one commented: "You know, a clicker can only do so much when we're looking at trying to get feedback on a written essay exam. There's only so much you can do with a clicker." Similarly, the participant went on to explain, multiple choice quizzes and exams, which are far less time-consuming to grade, are often a poor substitute for essay exams in the assessment of critical thinking. While some professors may tend to adopt multiple choice testing under the auspices of bar exam preparation, many legal educators believe that multiple choice

assessments are a poor substitute for essay exams with regard to the development of critical thinking skills. As one participant explained:

I'm not a big fan of using multiple choice for improving critical thinking, or as a testing mechanism. However, it is one-half of the bar exam, so a lot of professors are using it so our students get practice for what will be bar exam-type questions. I think bar exam multiple choice questions are terrible. I guess they would argue that you can test critical thinking in the way that they developed these bar exam questions. I disagree with them. I don't think the multiple choice are very good in testing critical thinking.

In summing up the challenges to the development of students' critical thinking skills presented by limited resources, one participant cautioned legal educators and law school administrators against underestimating the expertise and resources required to provide effective academic support to bolster student learning and success. When asked what advice the participant would offer to legal educators and law school administrators, the participant emphasized:

One big thing, if you make the decision to have an academic and bar support program because you feel your students need it or your school needs it, then you need.... All of your decisions that you make need to be supportive of that. Which means you can't skimp on the money. You can't decide: 'Well, they don't need a budget,' or: 'We're going to have one person do all the work for 300 students,' and things like that. This is a real serious area of expertise in legal education.

The participant further explained that many faculty do not understand the nature of effective academic support and do not appreciate the scholarly body of knowledge and

the experience required to help students address complex learning issues. As the participant explained, many faculty mistakenly believe that anyone can provide such instruction, which can result in severely under-funded and under-staffed academic support departments. The participant observed:

I think too many faculty and administrators think anybody can do academic support because: 'It's just feel-good; it's not much more than that.' Because they don't take it seriously, they don't spend the money to fund it. They don't spend the money to staff it. They don't think about it intentionally about how this becomes part of the legal education system.

The participant concluded by cautioning legal educators and law school administrators that underestimating the expertise required to provide effective academic support and failing to provide the necessary resources to maintain a robust academic support department may prove particularly damaging in an environment where many students lack the skills and preparation to succeed in legal education without intensive skilled support:

I say they need to take academic and bar support very seriously, especially given the lessening skill levels of students coming in the door at law school. The competition for students with lower LSAT's than we have ever seen before. Something is going to have to be done proactively to make sure we don't lose those students once we let them into law school. That means they're going to have to take academic and bar support much, much more seriously and fund it and staff it and spend money to train the people and things like that.

As participants expressed, a lack of resources can impede law schools from providing the best possible education to students. Scarce resources often result in large class sizes, making it very difficult for legal educators to provide the type of personalized support many students need to succeed. In this type of environment, it is particularly important that law students accurately assess their academic progress and take initiative to address any deficiencies. The fifth and final theme in the category of legal education system challenges examines how traditional law school grading policies may impede students' ability to accurately gauge their level of academic accomplishment and intellectual development.

Key theme 3e: sub-optimal grading policies. The fifth and final key theme that arose under the category of legal education system challenges implicates traditional law school grading practices. Participants expressed that the application of a grading curve, the traditional method of law school grading, may interfere with learning because it makes it difficult for students to gain an accurate understanding of their performance and may prevent students from receiving the support they need to develop strong critical thinking skills. Participants also cited grade inflation as a deterrent to the development of strong critical thinking skills for the same reasons. These problems may be exacerbated, respondents noted, in an environment where the test scores and academic credentials of incoming law students is rapidly declining. As one participant explained:

If you struggle with critical reasoning and critical thinking, I don't know how you succeed in law school. The only thing at work in their favor is that a substantial number of their classmates struggle in the same fashion and, if we grade on a curve, then we're simply moving down what is an adequate grade to what would

be the content that we're getting back from the students.... What I'm seeing is students who, five years ago, would have been diverted into academic support are now getting a B minus or a B, and not because their performance is any better than their performance would have been five years ago, but because comparatively they're doing better than their other classmates are.

The participant further explained that, because the grading curve masks deficits in critical thinking and intellectual performance, at-risk students may not receive the support they need to develop strong critical thinking skills:

So those students; there is no intervention. There is no additional assistance going to them and the problem just gets worse and worse because ... my comment is this. We're actually deluding our students. We're part of the delusion. We're suggesting to them that their work is at above-average quality, when we know that it is not.

Because the typical law school grading curve often gives students an inaccurate and often inflated picture of their academic performance, the participant explained, students may fail to pursue the help they need to succeed in law school, on the bar exam, and in practice. This lack of transparency in grading may perpetuate and exacerbate deficits in critical thinking. For example, when asked whether students' perceptions about their own levels of development as learners affect their perceptions of what they need to do as learners, the participant replied:

Absolutely. ... More and more students were simply not taking bar preparation courses after their third year of law school because they believe they're fine. Why do they believe they're fine? Because they graduated with a 3.2 with honors....

Their critical reasoning skills are insufficient. How do I know? Because if they look at their classmates they'll realize: 'I graduated with a 3.2, I graduated with honors, but the average GPA was a 3.4.' They'll say: 'Wait a minute, I graduated with honors, but I'm actually below the average for my class.' That part they don't see.

Other participants also noted that, when students receive inaccurate and overly optimistic feedback on their performance in the form of inflated grades, at-risk students are not motivated to work harder or to seek help, placing them at increased risk of bar failure. Students who believe they are doing well academically will have little incentive to seek or accept additional help and support. As one participant cautioned:

I'm all about being honest with people. Don't give people C's if that answer would fail the bar exam. There's a lot of pressures in law school to do all sorts of stuff, but I don't want to be dishonest with people. One of the problems that develops in law school is this. I get students who say: 'I'm fine. I got all B's last year, and by third year of law school, I'll pass the bar exam.' You got a B in clinic, and negotiations, and client interviewing and counseling, and basket weaving for lawyers. That is not contracts and torts. It's one of the struggles you have with how do you continue to motivate people...how do we keep people on track. How do we keep them involved?

Another respondent who cited the grading curve as a deterrent to effective learning explained that the curve does not provide any benchmarks for students or professors to assess student learning and progress. In contrast to other graduate disciplines, the participant noted, law schools typically do not use objective standards for

grading. This, according to the participant, leaves professors and students with no standard to gauge performance. The participant instead urged law schools to use transparent methods of grading and require students to develop the necessary skills to meet objective benchmarks of performance and mastery. As the participant explained when asked what the participant meant by law schools coddling students and dumbing down legal education:

I'm going to give you the curve is my perfect example, right? ... For me, the curve says, as a professor, I don't really have to make sure you're learning what I want you to learn because I'm going to grade you based on how everybody else did. Instead of setting standards and then having the students meet them, and then changing and developing yourself so you can help meet your students where they are and bring them along, we just resort to the curve. ... Our standard is no standard. It's whatever the highest score, whatever the median in the class was. I think that's dumbing stuff down.

When viewed collectively, the five key themes in the category of legal education system challenges: evolving instructional necessities; need for educational expertise; inequality among legal educators; limited resources; and sub-optimal grading policies, help explain why law schools struggle to meet the educational needs of today's students. Each of the five themes is related, and often a particular challenge contributes to and exacerbates other challenges, creating a perfect storm of difficulty for legal education. The final primary category, factors to optimize student performance, introduces 12 specific factors that, according to the study data, contribute to the success of law students and the legal education system in overcoming the challenges identified.

Primary Category 4: Factors to Optimize Student Performance

Now that the researcher has addressed the student learning needs, student learning challenges, and legal education system challenges described by participants, the researcher will discuss the fourth and final primary category, consisting of the factors that may help optimize the development of students' critical thinking in law school. Three key themes arose under this category: faculty-driven factors; pedagogical factors; and leadership-driven factors. Under each of these key themes, participants discussed a number of specific factors that provide more detailed insight into the particular variables that, in the perception of the study participants, contribute to the development of students' critical thinking skills and help address the challenges discussed in the first three primary categories of data. This category differs from the others in that this category encompasses identifiable factors that participants associated with success in the development of critical thinking in law students.

Key theme 4a: faculty-driven factors. The first key theme, faculty-driven factors, includes variables inherent in the instructional environment of a particular law school that are not related to specific teaching and learning strategies or techniques. These types of factors involve aspects of legal education driven largely by the individual and collective values and philosophies of the faculty and instructional personnel at a particular institution, perhaps because they arise primarily at the classroom level and may implicate academic freedom issues. Four factors arose under this theme: student success focus; adequate academic standards and expectations; individual student support; and faculty participation in initiatives. By addressing these faculty-driven factors aspects of

legal education, legal educators may help students overcome barriers to learning and advance the development of their critical thinking skills.

Factor 1: student-success focus. The first factor that arose under the theme of faculty-driven factors was the need for a student-success orientation to legal education. As participants discussed, this entails creating a supportive environment that focuses on student learning needs and places the student-professor relationship at the center of the educational experience. One participant framed the desired dynamic in terms of a partnership with shared responsibilities and mutual obligations:

I think the very biggest thing is, they need to put student learning first. In legal education, we are way too professor focused. Way too administration focused. ... It has to be a partnership. ... In fact, in orientation, and even in our prospective student days, when the students come in and they're trying to decide where they want to go, we tell them: 'This is a partnership. Here's what you can expect from us. Here's what we will expect of you. We will work together to make sure you're successful, but it is a partnership.' I think it's important.

When asked what legal educators and law school administrators can do to help students optimize their critical thinking skills, the participant emphasized the value of student-professor relationships, acknowledging that large class sizes create challenges for developing close working relationships:

[T]he best thing that I've been able to do in my bar prep class is developing a personal relationship with the students, which really is impossible to do on a large scale. I've been working one-on-one with students, specially my students that are at risk, and I develop a relationship with them, and I meet with them and establish

trust with them. I've found that to be really effective way in teaching them and getting them to buy in to what I'm saying...

The participant elaborated on the significance of establishing close student-centered relationships with students by analogizing the student-professor relationship to an apprenticeship. As the participant explained, the nature of the student-professor relationship should enable the student to learn from the professor's experience, working side-by-side together:

The word mentor is ok, but I like to think of my students as almost my apprentices in the old guild sense, where I'm the master carpenter and I've been doing this forever, and here comes a young person who wants to learn how to do what it is that I do, that I kind of have them come alongside me, and sometimes that's just as simple as open door policy during office hours.

The participant cautioned that it is not always easy for law schools to adopt this type of approach, commenting that not all legal educators are interested in moving toward the new type of student-centered model:

I think as a whole, I think it's just re-designing a system and not relying on the old manner, the old model for law school teaching, and being open to new ideas....

Now, I think a lot of law schools don't want to change. They don't want to change the model. They don't want to change the approach.

A different respondent who also discussed the need for legal educators to work in a more collaborative, student-centered manner with students described the traditional law school model by reference to a popular movie depicting law school as a harsh, competitive environment where students must fend for themselves:

Say the old model is what you have seen, 'The Paper Chase,' where the professor comes in and you're reciting different parts of a brief and then the Socratic Method only, no other type of presentation style. No other type of engagement. Very fear-driven. Very competitive. No access to the professor. No concern. ... You're either going to be here, or you're not to be here, and yeah, look around, two of you won't be here anymore.' That's the old model, in my opinion.

The respondent then went on to explain how the new student-centered model can facilitate a more effective learning environment that produces more capable and satisfied attorneys:

I think the new model is: 'We're going to give you the value for your degree, and we're going to give you support, and we're going to help you make it through law school. We're going to make it practical, so that when you get out of here you can pass the bar exam and you can do something with your life with this law school degree. It will be meaningful, and to make you passionate about being a lawyer, and to make lawyers that are professional and ethical and want to do community service, and want to be involved and help others.' I think that is not the traditional law school model.

Another respondent who emphasized that law schools should provide a supportive, student-focused environment noted the importance of allowing students to feel comfortable trying and failing without unnecessary competition so that students can still work together effectively. In discussing what legal educators and law school administrators can do to help students optimize their critical thinking skills, the respondent advised:

For legal administrators or law school administrators, I guess I will say ... providing the most supportive environment we can for students so that they feel comfortable in trying and failing and challenging classmates but still being able to collaborate and communicate. To me, I think that's a baseline.

Participants generally expressed through their comments that a student-focused environment, where professors and students work closely together in a partnership with shared responsibility, can strongly contribute to student success. The need for an environment where students are encouraged to accept responsibility for their own learning and are closely supported in their efforts to do so may prove particularly pressing in circumstances where students arrive with underdeveloped intellectual skills and/or learning dispositions. The next factor associated with success, adequate academic standards and expectations, plays an important role in ensuring a productive academic environment conducive to the development of strong critical thinking skills.

Factor 2: adequate academic standards and expectations. While participants emphasized the educational benefits of moving toward a more student success focused culture in legal education, they also stressed the need for law schools to establish adequate academic standards and maintain high expectations to ensure appropriate academic rigor. Several participants expressed concern that law schools are not holding students to sufficiently high standards, causing the learning environment to suffer and leaving many students ill-prepared for the bar exam and the practice of law. Participants generally advocated for a student-centered educational culture with rigorous academic standards to best help law students develop their critical thinking skills. As one participant explained:

...I don't think our standards are set high enough. I think we coddle the students and we think: 'Oh, it's too hard, because [of] where they are.' We have to dumb down what we do and expect less, when the reality is we should be expecting the same as we've always expected and developing programs to help them bridge the gap. It's easier to just dumb down so you don't have to work harder.

Another cautioned legal educators against giving students inflated grades that do not reflect the achievement standards they will have to demonstrate on the bar exam and in the practice of law. As the participant cautioned: "Don't give people C's if that answer would fail the bar exam."

Other participants stressed the need for rigorous academic standards in all stages of education for development of strong critical thinking. For example, when asked what factors may hinder the development of students' critical thinking prior to law school, one participant responded: "Probably lack of practice of it; lack of rigor in undergraduate experience."

Some participants noted that law students may have difficulty adjusting to more rigorous academic standards if their undergraduate environment focused largely on lower-order thinking. As one participant articulated:

When I was [in college] it was more about giving information back than trying to think of that information or new factual situation or something. If you haven't even gotten good at giving the information back in some sort of form that you've written yourself, you created yourself, it's more about multiple choice questions and that sort of stuff. I just think it'll be very hard to move on to this next level.

The same participant further explained that academic standards and rigor in thinking, even prior to college, can affect a student's ability to develop the type of higher-order thinking skills required to effectively participate in legal education. In discussing the educational focus at the elementary level, the participant emphasized the higher-order thought implicated in the Common Core curriculum: "I think that that is definitely something I think people should consider with the Common Core apparently is really about thinking, much more than the design and memorization."

In addition to the relationship between academic rigor and higher-order thinking, another respondent explained that rigorous intellectual training and adequate academic standards are vital in law school because, upon graduation, students will be working in an inherently adversarial environment dealing with very serious issues that have profound effects on peoples' lives. This type of intellectual and professional responsibility, the participant emphasized, requires rigorous training to prepare:

Like I've said before, somebody's getting paid by the hour to go the other direction. They're waiting for you when you're in court. I always tell them the judge wants to go to bed at night believing she did what was right and what the law compelled. You've got to help her be able to do that. She is going to push to make sure that she is doing what the law absolutely requires, and she is going to push to try to see how what the law requires is also the right thing to do. These are serious issues in people's lives. Property and liberty and things are at stake, so nobody's playing here. Nobody's playing around here. They're going to push what you say because they're trying to get it right themselves. You got to be ready for that.

Throughout the study, participants emphasized the need for adequate academic standards and academic rigor to help students develop strong critical thinking skills. In a weak and unchallenging academic environment, participants conveyed, students will not undertake the challenging intellectual tasks required to strengthen their thinking skills. When viewed together, the two factors for success under the theme of faculty-driven factors, student success focus and adequate academic standards and expectations, compliment and support one-another by providing a challenging, yet supportive intellectual experience for students. The next section will address the pedagogical factors that participants associated with success in optimizing students' critical thinking skills.

Factor 3: individual student support. The next faculty-driven factor that arose for success in developing law students' critical thinking skills was the need for more individual student guidance and support. In addition to maintaining a student success focus and adequate academic standards and expectations, participants expressed the necessity of providing individual guidance to address the personal learning needs of each student. Participants expressed that individual attention helps students clarify expectations and facilitate student engagement and learning. As one participant explained:

I think as much individual feedback, as opposed to feedback in gross, that we can give our students is essential. If it's not individualized, then the student could get that delusion process. They will delude themselves ... 'Oh yeah, yeah, yeah. If I've gotten that one thing, I'll be fine.' No, you want to communicate very clearly what's going wrong and what's going well.

Another pointed out that individualized feedback and guidance often proves more effective than group feedback in the form of model answers because people tend to have different writing styles. Differences in communication styles often make it necessary for students to receive individual feedback in order to fully understand which aspects of an essay response are most important. As the participant explained, it is often difficult for beginning law students to distinguish the important aspects of different essay answers so they can accurately evaluate how their written work product compares to a sample answer:

I think individual feedback helps them the most, because I try to work with what they're doing.... I think some of them see some beautiful pieces of writing, then the professor might give it a sample answer. I do give them sample answers, but if I give them a sample answer that doesn't help them because I write very differently than they write.

Another respondent who stressed the importance of individualized guidance noted that the law school grading system, and the external law school ranking system, do little to encourage individual student support and do not reflect real world dynamics. The participant emphasized the value of individual feedback over mere letter grades in providing learners with accurate, valuable guidance:

It's interesting because, of course, you run into problems with some people are very highly motivated by grades and stuff like that. Obviously, a better system would be a system that provided individualized feedback on your progress toward relevant goals, kind of like the real world.

The respondent further explained how providing students with individual support and guidance fosters effective learning relationships between professors and students,

helping students overcome obstacles and succeed as learners. As the respondent explained, individual support can help establish relationships based on trust so that legal educators can better help students overcome obstacles to success:

[I]n the next three weeks, I'm going to have 120 meetings with students for half-an-hour, just to kind of get to know everybody. It's extraordinary, the sort of relationship I have with the students. If you sit down and talk to everybody, they're really like: 'Wow, there's somebody here who will talk to all of us!' Then, when something goes wrong, they call me.

When asked what are the most important things that legal educators and law school administrators can do to help students optimize their critical thinking skills, another participant echoed the general sentiment that legal educators should work with students at the individual level and avoid taking a generic approach to teaching. This participant's comments underscore the educational value of treating students as individuals and supporting them in a personal capacity:

[T]aking the time to work... individually with students, so it's not always a collective: 'You are 1L's.' It's Alex, and Ashley, and Melanie. I work with each one of you to support you, whether that's from a student services side or whether that's happening in the classroom. I guess, to me, that's probably one of the most important things.

By providing students with personalized individual support, participants explained, legal educators can help students avoid the tendency to overlook weaknesses in their work product, which reflect weaknesses in their skills and/or knowledge. Working closely with students can also facilitate relationships built on trust where

students are more likely to seek the advice and support of their professors. The next faculty-driven factor addresses the need for faculty to participate in new student learning initiatives.

Factor 4: faculty participation in initiatives. Participants consistently stressed the need for faculty to support and fully participate in initiatives that promote the development of strong critical thinking skills in law students. Many participants expressed encountering a range of attitudes among faculty with regard to accepting and employing new approaches to teaching law students. One participant placed faculty into three categories: those who are generally receptive to participating in new educational initiatives; those who want to participate, but who don't quite understand how to do the necessary things; and those who are opposed and unwilling to participate. The participant explained how academic support professionals can help encourage professors to participate, especially by providing training and support to the second type of group. The participant stated:

The willing ones are the best ones. The best ones because we can say: 'Here's an example of something that they're using at ... some other university. Those are ideal. We have the resources and the research within our areas to go ahead and give the faculty what they want or what they need, and then they can kind of delve on it from there.

Other respondents likewise noted that some faculty members are more open-minded than others when it comes to implementing new educational initiatives, with some faculty refusing to accept approaches different from those they experienced as law

students. This lack of support from faculty may seriously hinder the adoption of new, more effective legal education practices. As one participant commented:

Part of what gets in the way of law schools being able to implement this program is this buy-in that a certain faction of law faculty have. ... [T]heir basic argument against these things are that we've got to have standards and we didn't do it at Harvard.

Respondents acknowledged the challenges that faculty face in meeting all of their professional requirements, while still stressing the importance of full faculty involvement in the type of teaching initiatives associated with the development of students' critical thinking. When discussing what law school faculty and administrators can best do to foster critical thinking, one respondent replied:

From faculty, it's just integrating the methods. I mean, it's trying to provide those types of instruction. That's difficult. The response to that from faculty is, in a law school, I'm sure this is true in undergrad as well, that there's a publication of scholarship requirement so it's really difficult for faculty members to give multiple tests or mid-terms or whatever it is and do their research and do all that grading and provide all of that feedback.

Another respondent noted that while some faculty steadfastly refuse to accept and support new legal education approaches, most faculty want to help students but may need more education and support to fully participate in new initiatives. When asked what training or resources might help legal educators deliver the best possible instruction for critical thinking to students, the person said:

The vast majority of faculty want to do everything they can for the student. There are those who don't and you'll never reach them, but just education on what things work and what things.... When they learn what works, most of them are willing to do it. Educating them is the only thing that I can think of.

Another described co-teaching first-year courses with faculty members to help integrate skills instruction with substance, noting that this type of approach can be an effective way of providing professional development and educational expertise to faculty so they can better participate in new initiatives that help produce strong learning outcomes:

There's one credit hour of skills woven into the four credit hours of [substance]. ...Last time I taught it, I co-taught it with doctrinal faculty.... The doctrinal faculty person.... kind of struggled for a minute.... That was only in the beginning, and by the middle of the semester, he was really excited and enthused about the incorporation of the skills. After that, everything was just smooth as pie.

When asked whether skills-based instruction needs to be integrated into substantive law school courses, another participant answered strongly in the affirmative, noting that students often have great difficulty transferring skills-based instruction into their substantive courses when the two are taught separately:

That might be the hundred thousand dollar question. I'm going to kick it up. It's the million dollar question. My personal view, [is that skills-based instruction] needs to be in the substantive classes. I've already seen the disconnect where matters are addressed in [legal research and writing] or in academic support that

students don't carry those messages over into their substantive law courses. ... I would want [skills-based instruction] to go into the substantive law courses.

Through their statements, participants highlighted the importance of having the entire faculty actively involved in the development of students' critical thinking skills. The participants' emphasis on faculty participation is perhaps unsurprising in light of the participants' observation that students have great difficulty seeing the connection between learning and performance. Through faculty involvement in skills-based teaching, students may more readily be able to understand how their thinking skills directly relate to their performance in the context of their substantive courses. The next key theme, pedagogical factors, addresses the specific teaching and learning approaches participants associated with the optimization of student performance.

Key theme 4b: pedagogical factors. The second key theme under the category of factors to optimize student performance focused on law school teaching and learning practices. In this respect, participants suggested a number of specific educational strategies and approaches to improve the development of critical thinking in law students. The strategies and approaches that emerged from the data included: active learning; thought process training; applied practice; essay writing; and formative assessment and feedback.

Factor 5: active learning. In discussing the most effective educational approaches for the development of critical thinking skills in law students, participants emphasized the need for law schools to employ more active learning experiences. Often, participants noted that the Socratic Method, the law school signature pedagogy, seldom engages all of the students in the classroom. Participants further stressed the value of

collaborative learning in engaging students in large classroom settings, and some shared the approaches they have found most effective in their teaching. They also encouraged the use of more problem-based learning exercises that require students to actively apply knowledge, noting that the standard case study method alone may prove too passive to facilitate the type of deep-level thinking required for the development of critical thinking skills. When asked what pedagogical approaches best help students develop strong critical thinking skills, one respondent explained:

They're active exercises, and I think people retain information longer and better, more deeply, when they are actively engaged in the process and not just sitting passively in a classroom, hoping that the professor doesn't call on them. If they get called on and they don't know the answer, too often we just pass them by and say: 'Ok.' We go to the next person. Well, that person has now had no learning that has happened. I think the active exercises makes it more focused on the learner, and they have to do the heavy lifting, which results in better learning for them.

When asked what the most effective law school pedagogical approaches for the development of critical thinking have in common, the respondent emphasized the central role that active learning should play in legal education:

That it's student-driven. Even when we do the read out loud and think out loud exercises where I have students read a fact pattern and they have to stop and think after every sentence and you have a translator describe what that sentence means in relationship to the call of the question, those things are very active and the student

is doing the actual work. I think that's a big common piece. You can't do passive learning in law school.

The respondent further noted that certain pedagogical approaches may be preferable for teaching particular subjects, suggesting that legal educators should consider the nature of their respective subjects in selecting appropriate active-learning approaches:

I think it depends on the class. Some classes, constitutional law, may be really good for Socratic. Civil procedure may be better with very hands-on drafting assignments and things like that to get the students to learn. Court observations, and things like that, for evidence. Students can see an evidentiary hearing. That sometimes goes a long way in getting students to understand.

When asked to identify the common aspects of the most effective pedagogical approaches for developing strong critical thinking skills in law students, the participant replied: "I think they're all active learning, obviously. That's the easiest way to say, but the whole idea I guess, behind critical thinking is to force someone to use the information, but have to use it in a new way."

Another respondent who also identified active learning as the common aspect of the most effective teaching methods emphasized that exercises that effectively engage the entire class allow the professor and students to assess progress:

It goes back to this other thing that, again, for me, is this wanting to make sure that all students in the classroom are engaged. Somehow to keep people actively participating, but also by giving them benchmarks ... through the class to help them figure out if they're making their way through the material.

A different participant elaborated on the reasons why problem-based learning fosters the development of strong critical thinking skills in law students, suggesting that professors use a combination of the case study method and problem-based learning to achieve the best learning outcomes:

First of all, I think the problem-based method is much akin to what we do as lawyers. Folks are going to tell us a story, and let's resolve that problem. Let's figure out what really the crux of the issue is. I wouldn't take the case method and throw it out the window, because common law, case law, interpreting cases, those are important things, but when it's the only thing that we're doing....

Another respondent espoused the use of problem-based learning and collaborative learning in legal education in addition to the traditional Socratic Method, commenting that multiple choice type questions are less effective in developing critical thinking skills in students:

I do think the Socratic Method of critical thinking, it needs to be mixed up with other forms of teaching, and it can be different professors having different approaches. I think small group work, where you give them a problem and they work on it together, can be helpful. I think that, in particular, having small group exercises, where the professor first demonstrates how to approach the problem and come up with a solution, and then have the small groups work on it, and come back and talk about it with the professor as a group, the whole class, and then have the students to it individually on their own, is effective.

Respondents generally noted that, while the Socratic Method requires students to play a somewhat active role, it often fails to engage the entire classroom in active learning: In discussing the Socratic Method, one respondent expressed:

I think it's more active, but it's not as effective because a professor usually questions one person at a time. You give a student an exercise that they have to do, the whole class can do the exercise at the same time. Then you can have more conversation, as opposed to drill down questioning. I do think there's a place for the Socratic Method, I just don't think it should be the entire legal education experience.

Another participant also noted the limitations of using the Socratic Method as an active learning approach for the development of critical thinking skills:

...[T]he Socratic Method, in most traditional law school classrooms, it serves its purpose to a limited degree, I would say, in forcing people to use critical thinking. It is very limited because traditionally, the way we teach, we only talk to one or two students per class. The rest of them tend to disengage.

The participant went on to explain that many legal educators do not employ the Socratic Method in a way that engages the entire class. As the participant explained, failing to engage all of the students in the room can cause students to disengage from the learning environment:

First of all, I think, if you're going to be using the Socratic Method, you need to decide.... Lots of professors will have an 'on call' group, where you've got five or six students who are ... they've been told ahead of time: 'You could potentially be called on.' The rest of the class just is able to sit back and say: 'Ok, we're safe

with this class.’ I personally never do that because I want everyone, not necessarily to be intense the whole class, but at least engaged and be following the conversation because they know at any moment they may be called to participate.

In discussing active learning in legal education, a different participant shared a suggestion for engaging more students in the critical thinking process:

The other thing you can then do is, instead of engaging a single student, once you engage one student, turn to another one and say: ‘What do you think about that?’ If that becomes a routine in your class, that means they can’t become disengaged just because somebody else is on the hot seat.

Another respondent shared a similar technique for engaging a larger number of students in the classroom by having students work together as a “problem solving unit.” In discussing how the respondent used the Socratic Method to engage more students, the respondent explained:

I would call on students in groups of three. The first student I called on, I would call him or her lead counsel. The other two I would call co-counsel. The deal was that, as long as lead counsel was answering the questions ok and finding the right code sections, it was great. But if he or she got into trouble, they could ask for a lifeline. That meant the other two would now get; they’d become like a problem solving unit...I would say: ‘... [A]ll the other students who are in the room, your job is to...figure out what the answer is, because you may be next.’

Participant’s consistently identified active learning as a key factor in effective teaching for the advancement of critical thinking. As participants’ explained, engaging

the entire classroom in focused higher-order thinking facilitates the development of strong critical thinking skills in students. The next pedagogical factor for success that arose from the data, thought process training, provides students with effective guidance for advancing their critical thinking skills to new levels.

Factor 6: thought process training. In addition to active learning, participants discussed the need for law professors to explicitly communicate their thought process to students and to teach students systematic ways of working through the mental process of solving legal problems. This type of thought process training, participants noted, helps students develop mental road maps for analyzing legal issues. As one participant explained:

The faculty who like to teach, or who are willing to teach, critical thinking skills tend to prefer to go really into steps so you can lay them out, that step-by-step, see how it plays out and where all the nuances are, while based on my observation, the faculty who don't want to teach the critical thinking skills are the ones who..... They'll take the cases.... and expect them to just cobble together whatever they need to cobble together.

The participant then expounded on how effective professors model the problem solving process for students:

They will spend what seems like an inordinate amount of time dissecting cases.... Then they'll actually have closer to a true Socratic dialogue with students. Then they will continue to choose hypotheticals and make the student work with the piece of information or the ideas of that particular day. Then, unlike true Socratic

dialogues, they'll take a few minutes once they've taken it as far... and re-cap what just happened and illustrate the process.

The participant also stressed that it is the responsibility of all law school faculty to teach students the critical thinking process, and that all professors, regardless of their particular subject matter expertise, should view their subject as a vehicle for teaching thinking skills to students. The participant acknowledged that many law professors may feel unprepared to break the thinking process down for students, and suggested that professors begin by breaking down one aspect of the legal analysis process at a time to make the task more manageable:

...[I]n the teacher role, it is our job to break things down and find out what the piece-by-piece-by-piece process is so we can teach it to them. For faculty members who are afraid ... or it's not afraid, but reluctant to engage in that kind of breakdown because law school is complicated.... It may be not saying: 'Hey, it's my job to teach every single piece of this critical thinking in the legal domain.' Rather: 'I want to use my vehicle of torts to teach them how to make the case and how to raise the dissent and all the sub-skills that are part of that.' Or: 'I want to use my vehicle of contracts to teach analogical reasoning, how to make analogies with these laws, and how to draw out the things that pertain to law.'

In discussing ways that law professors can help students overcome obstacles that hinder the development of their critical thinking skills, another respondent also emphasized the importance of providing students with explicit instruction in the legal thinking process. In discussing instructional strategies for critical reading, the respondent suggested:

I think giving them very specific and practical methods for reading cases, for thinking through how they relate to other cases, how cases can be synthesized. I think being very specific about that. One of the things I always say to teachers is: 'How do you do it? Think back and think about how you actually do, and then explain that and demonstrate how that's done.'

The respondent also explained how to use a scaffolding type of approach to model effective problem-solving processes for students:

There's an old teaching trick that I've always used. It's a four-step method that I really love. It's, 'I'll do it and you watch; I'll do it and you help; you do it and I'll watch; you do it and I'll do something else.' I think if you teach that way, students grasp much more quickly what it is you're trying to get them to do.

The respondent explained that, by teaching students the thought process involved in solving legal problems, professors provide them with the foundational critical thinking skills necessary to solve any problem they may encounter:

I can't teach every case there is in constitutional law. That's impossible. What I can do is give them the keys to every case. That's my job. I've always said: 'It's like a 350-room mansion, and I've got to teach you how to take care of it. I don't have time to take you into every room and show you exactly what to do in each room. What I've got to do is show you some example rooms, show you how to work them and take care of them, and then hand you the keys to the mansion. That's my job, is to give you the keys to the 350 rooms, even though you and I won't walk into every room.'

When asked the most important things that legal educators and law school administrators can do to help optimize students' critical thinking skills during law school, the respondent emphasized the importance of teaching students the steps involved in legal problem-solving before expecting them to demonstrate effective legal reasoning skills on an exam:

I would say, number one, provide direct instruction in the kinds of analytical skills. ... The application of law, in fact, is a gigantic skill, so why not spend time teaching them how, specifically, you take a legal principle, apply it to a new set of facts, and explain why it applies in the way that it does? Tell them how to do that, and then give them practice doing it before you give them a three-hour exam on which their entire grade depends, where they may or may not have developed that skill.

When discussing how well law school develops students' critical thinking skills, another respondent also highlighted the need for legal educators to spend more time helping students master the legal thinking process:

I think that we have made too many assumptions about how well students are understanding what we are teaching, even as their performance on examinations get more and more deficient. ... When I talk to my colleagues about it, I say: 'All I'm saying is we need to be breaking down the analytical process more for students so they can see what they're supposed to be doing....'

Another participant summed up the need for a greater emphasis on thought process training in legal education, calling on legal educators to provide mental road maps for students to help them develop strong critical thinking skills, and emphasizing

that the most effective law professors focus on teaching their students the *process* behind legal analysis and problem-solving. In discussing the key aspects of the most effective pedagogical approaches for the development of critical thinking in law students, the participant stated:

I would say, and I probably, I don't know, you would probably have a better pedagogical term for this, but road mapping. The most effective faculty are the ones who, when they're teaching new concepts and new rules, what they do while they're teaching those, is they teach students: 'Here's the road map; here's step one of your analysis; here's the first thing you look for or look at.' Again, it's something I call road mapping; that's the most effective because the students now say: 'I have a process now that I apply or use when I'm doing any question....'

Thought process training proved to be a very strong theme among participants. Many participants emphasized that thought process training is absolutely necessary to help today's law students optimize their performance. Participants also noted that this method of teaching often proves very challenging for legal educators, who must break down complex thought processes and explain them explicitly to students. In conjunction with thought process training, participants also cited the next pedagogical factor for success, applied practice, as an absolute necessity in helping students optimize performance.

Factor 7: applied practice. Participants also stressed the need for law students to continuously engage in the application of their thinking skills as they learn new material and ways of thinking like a lawyer. In the absence of applied learning exercises, respondents explained, students will not have the opportunity practice applying new

thought processes, and students and professors will not be able to determine whether students are internalizing new ways of thinking so that they can solve novel legal problems. Narrower in focus than active learning, applied practice reflects participants' perceptions that the higher-order thought processes inherent in legal education require structured application and individual practice to internalize. As one participant noted, the failure to employ more applied methods of learning is a lost opportunity for law professors to help students develop their critical thinking skills:

I think with law schools specifically, what other hindrances we might have. We have such an opportunity in law school that oftentimes we don't embrace.... to come up with great ways to apply the things that we're trying to teach students or to make them think about them in a different way.

Another participant explained how professors can use the strategy of deliberate practice to give students structured opportunities to apply new thinking skills. When asked what factors most affect the development of strong critical thinking skills in law students, the respondent replied:

The first, and most important, is applied effort. Applied effort. It's not enough to put forth effort; it's got to be applied effort along the lines of the concept of deliberate practice. Deliberate practice.... consists of a small activity that is designed to improve someone's performance. ... [T]he number one factor for developing critical thinking skills is the applied effort that is basically engaging in the deliberate practice thing.

A second participant also advocated the deliberate practice approach for helping students develop strong thinking skills, acknowledging that time constraints may frustrate

the use of this type of approach. A different respondent, when asked what pedagogical approaches best help law students develop strong critical thinking skills, emphasized the importance of applied practice in the development of strong analytical skills: “My thoughts are, I think you’ve got to give them substantial opportunities to apply the law, the materials, the concepts, and to apply their analytical reasoning.” Another explained how professors can use applied exercises from legal analysis books to give students the opportunity to practice applying their thinking skills:

There will be an example of.... There’s one where there’s a banana peel exercise; where there’s a sign up that says: ‘No littering,’ and the day before it, a cop gives a ticket to someone for throwing a candy wrapper on the ground. Well, the next day, a woman drops a banana peel and the cop doesn’t give a ticket for that item. Now, if you have coffee grounds, is that more like the banana, or is that more like the candy wrapper? Should the cop give her a ticket? They’re kind of exercises like that were we flesh out, we make them take a side, whatever side they choose, then we make them argue for the other side to force them to stretch themselves.

A different participant, when asked to identify the common aspect of the most effective methods of developing strong critical thinking skills in law students, cited applied practice and feedback as the central factor for success:

Our big one is pushing for practice and feedback. I think that, for critical thinking, that’s what the students need, and what they’re missing. ... All of them come down to students have a set notion of whether or not they understand the material, and then someone, whether it be a group member, whether it be a professor, whatever it is, either confirms or rejects whether or not they understand this. It’s

the practice and the checking whether or not they understand it, and getting the feedback, and then making changes. It's just the idea of deliberate practice, right?

Through their comments, participants expressed that students require applied practice to internalize and advance their critical thinking skills. In the absence of adequate opportunity to practice and receive feedback in a deliberate, structured manner, participants explained, law students often struggle to master critical thinking and legal analysis skills. The next pedagogical factor for success, essay writing, may be viewed as a particular type of applied practice, although essay writing has specific benefits that warrant its inclusion as a separate and distinct factor for success.

Factor 8: essay writing. Participants stressed the need for law students to engage in essay writing for both formative and summative purposes. In this respect, some noted a disturbing trend toward using more multiple choice questions in law school, perhaps due to the large class sizes or the impression that multiple choice practice helps students prepare for the bar exam. Participants generally believed that over-reliance on multiple choice testing, particularly in the first year of law school, discourages students from exercising their analytical skills and makes it difficult for them to identify the steps in their reasoning. As one participant explained:

I think that multiple choice tests are a horrible, horrible tool to measure critical thinking or to introduce it.... [T]here's a big difference between selecting from which answer is right and walking through doing the thinking and the logical analysis required to come up with the answer to the question and identify collateral issues that may or may not be answered by that fact pattern. I think the

emphasis on multiple choice questions in law school is absolutely working against our critical thinking development goals.

While participants generally expressed the perception that essay writing holds many advantages over multiple choice as a testing format with regard to the development of critical thinking skills in students, one explained how a variety of assessment types may be used effectively, so long as they foster analytical thinking and deep-level understanding:

I do all kinds of assessments, not just essay writing. I also give them multiple choice assignment sheets, where... [y]ou have to say, using no more than two sentences, and using a fact-to-law analysis, why A is right and why B, C, and D are wrong. ... That exercise is designed to get them to practice the critical thinking and the process skills that we teach them for answering a multiple choice question.

In addition to pointing out the educational value of essay writing as a form of assessment, others noted that law students need to engage in repetitive essay writing to develop the ability to effectively present their analysis in writing, a skill that may be lacking from students' undergraduate education. When asked what types of practice would improve the development of critical thinking in undergraduate students, a respondent replied: "More compare and contrast, less memorization, fewer multiple choice questions, more essays, more papers, which would help with writing and critical thinking skills."

A different participant, when asked the same type of question, emphasized the value of essay writing in helping students develop foundational writing skills necessary for the successful study and practice of law:

They don't know the rules of grammar. They don't know some of the time what a complete sentence is. Although that's rare, it does happen. They have a very hard time organizing a paragraph with a topic sentence and an analysis that follows. ... Basic writing skills are the thing that needs to be improved at the undergraduate level.

Later in the conversation, the same participant explained the importance of having students focus on effective essay-writing skills in law school to develop a logical, structured approach to analyzing legal problems:

What you're supposed to do is go back into the hypothetical and pull out all, or most, of the statements in the hypothetical that support intentionality and put that all in a paragraph. What you get from them is something in the first paragraph that talks about intentionality, then something in the third paragraph that talks about intentionality, and then something in the fifth paragraph that talks about the fact that it was intentional.... [I]t's just all over the place.

As participants emphasized, essay writing provides students with the opportunity to exercise their critical thinking skills. Essay writing also allows both students and professors to view the steps in the student's thought process, which may prove invaluable in providing students with the skilled support and guidance necessary to optimize their critical thinking. The next pedagogical factor for success, formative assessment and

feedback, directly addresses students' need for accurate information regarding their performance and intellectual development.

Factor 9: formative assessment and feedback. Participants consistently emphasized the importance of formative assessment and feedback in helping students develop strong critical thinking skills. Many pointed out that the traditional law school method of testing students with a single summative exam at the end of the semester fails to provide students with the type of guidance they need throughout the semester to develop their thinking skills. Participants also stressed that students require detailed feedback on their work throughout the semester to strengthen their thinking skills. As one participant explained when discussing how legal educators and law school administrators can best monitor and assess students' critical thinking:

First thing is, they've got to give students the opportunity to do it and get feedback on it. The one exam at the end of the semester for a three-hour course is pedagogically stupid. ... As tough as it may be, students need to have multiple assessments through the semester, and individualized feedback on their performance on those assessments.

The participant went on to explain an approach to providing formative assessment and feedback to students to help strengthen their thinking skills:

I give them four exams and we meet individually after each exam and we walk through exactly what they did and why they were getting points here, and why they didn't get points here. ... They need that kind of direct instruction, and they need it from people who've thought through what it is they want the students to do.

The participant elaborated further, stressing that, to conduct effective formative assessment and feedback, legal educators must provide students with accurate, explicit guidance on how to improve their performance:

[I]t's not good enough to say: 'This is just weak analysis.' That's a useless criticism. ... [Y]ou've got to tell them what's weak about it, what's strong about it. You've got to tell them how to correct it. That means that the teachers and administrators are going to have to sit down and actually think through what it is that we do, and what is it that we are asking them to do, and can I really articulate it? If I can't, I don't have any business asking them to do it.

Another participant emphasized the central role that formative feedback plays in helping students improve performance, acknowledging that the lack of formative feedback causes law students to struggle:

The more feedback students do, the more they do perform better on their final exam. They perform better on their legal writing assignments. ... The more feedback they can get, I feel that improves the learning experience. I think that's one of the things about law school that's such a struggle, is that often you don't get any feedback until the end....

A different participant echoed the need for more feedback in legal education, emphasizing that feedback must be specific and timely to be effective:

The feedback loop [in law school] is 16 credits in the fall of your first year, and then you get grades in February that you have no idea what the hell those grades are based on, nothing. There's no feedback loop at all, other than the grade. Of course, educational theory says specific, timely, accurate feedback is the key to

learning, no matter what your teaching people, whether your teaching them substance or critical thinking skills. How are you going to do that? You've got to shorten the feedback loop.

When asked what aspects of legal education may hinder the development of students' critical thinking skills, one respondent pointed out that the traditional absence of formative feedback in law school runs contrary to the generally accepted principle that learners require formative feedback to optimize performance: "This notion that one final exam at the end of the semester flies in the face of everything that we know about how humans learn. We learn by the formative type of assessment, whether it's formally graded or not..."

When asked about the most promising pedagogical approaches for the development of critical thinking in law students, one respondent summed up the need for more formative assessment and feedback in law school by analogizing legal learning to the sport of marksmanship:

Feedback earlier than the final exam, because that is one of the most significant aspects of learning is that.... [if you] have them shoot an hour at a target ... only people who you've told: 'Your too far to the left,' or: 'Your too far right,' are going to improve any. If you just let them keep shooting randomly, they don't improve.... That's what we do in law school. We just let them keep shooting randomly, and then we don't tell them what they did wrong, what they did right, or anything like that; we just let them keep shooting randomly and they don't improve. You have to have feedback.

Participants' comments regarding the need for formative assessment and feedback illustrate that, in order to accept responsibility for their learning and intellectual performance, students require ample opportunity to apply their skills, gauge their progress, and receive timely feedback. In the absence of this information, students cannot identify potential areas for improvement and make the necessary adjustments to optimize their performance going forward. The final pedagogical factor for success underscores the need for students to receive personalized individual support to reach their full potential.

Collectively, the five pedagogical factors for success: active learning; thought process training; applied practice; essay writing; and formative assessment and feedback, highlight the pedagogical variables identified by participants as pivotal in optimizing students' performance. To round out the remaining factors for success, the researcher will next discuss the aspects of legal education that remain largely under the influence of those in senior leadership positions in law schools.

Key Theme 4c: leadership-driven factors. The third and final key theme under the category of factors to optimize student performance addresses the leadership-driven variables that affect legal education. These factors involve aspects of legal education that are heavily subject to influence from the leadership of a particular law school. While such factors may influence all aspects of legal education, including faculty-driven factors and pedagogical factors, participants perceived these factors to be largely driven by institutional leadership, and participants' comments associated with this theme tended to emphasize the role that institutional leadership plays in establishing, maintaining, and/or facilitating these particular factors. Three factors arose under this theme: top-down

leadership approach; institutional outcomes assessment; and communication and integration of effective educational approaches.

Factor 10: top-down leadership approach. The need for strong top-down leadership in legal education also emerged as an important consideration. Because the types of large-scale changes necessary to produce improved learning outcomes for students are unlikely to occur under weak leadership, participants stressed the need for coordinated change efforts driven from the school's top leaders. This strong leadership approach is especially important, participants suggested, in light of complicating factors such as status, tenure, publishing requirements, and shared governance. Participants emphasized the importance of having a dean who is enthusiastic and open to new educational approaches, and willing to advocate that faculty should support new learning initiatives. As one participant explained, faculty and students are unlikely to buy into new approaches if they are not encouraged to do so by top administration:

I think we are fortunate in the last four or five or seven years we've had a very progressive dean who focuses on assessment and critical thinking and learning outcomes. ... [T]he reality is, in a faculty-driven factors institution like ours, we can come up with these processes, we can come up with the recommendation for rubrics, but if the faculty don't vote on it or buy in ... it won't go over to the students in the classroom.

Another emphasized the need for top leadership to communicate support for new learning initiatives, rather than expecting academic support professionals alone to be able to convince faculty to adopt new approaches: "I think, if the dean and associate dean are

on-board with this being important, they can communicate that to the faculty. I think that matters. That's a more successful way to get buy-in."

A different participant suggested that law school deans take affirmative measures to require faculty to actively engage more with students. The participant emphasized that, to achieve the desired result of faculty participation, leaders must be clear about their expectations:

I think we need to basically have as a requirement that our students are assigned.... I don't want to use the term faculty involvement, because that for a lot of people means just looking at a piece of paper and making sure you have all of the pre and co-requisites before you take the course, but having students and their instructors formally paired up, and you need to go and see your instructor at least twice a year....

One participant drew a distinction between academic freedom and complete autonomy, suggesting that faculty take the initiative to more actively support and engage in new initiatives for student performance. This participant also reflected the general sentiment that initiatives of any nature are unlikely to succeed without the support of top leadership:

...[A]cademic autonomy with regard to research agendas is a great idea.

Complete autonomy with respect to the teaching side of being a faculty member [is not a good idea] though, seeing there are individuals who are not providing useful skills or information or training to their students and they aren't truly engaged in conversations with others of how to create a more cohesive, [strategy

for student success]. ... It's got to be a grassroots assessment from within the faculty itself, and the support of leadership.

In general, participants noted that robust faculty participation in student learning initiatives is unlikely in the shared governance academic environment in the absence of strong direction from senior law school leadership. While some leaders may be hesitant to exercise direct authority over the faculty in this respect, participants noted that senior leaders can nonetheless exert strong influence in their institutions and that they should be willing to advocate for faculty to cooperate and actively participate in efforts to optimize student learning. The next leadership factor for success addresses the need for those in leadership positions to facilitate outcomes assessment efforts at the institutional level to identify the most promising approaches for helping students develop strong critical thinking skills.

Factor 11: institutional outcomes assessment. The necessity of conducting assessments of learning outcomes at the institutional level emerged as a distinct factor for success. This type of assessment focuses on measuring and evaluating learning outcomes on an aggregate basis and using that information to make appropriate adjustments to drive new educational initiatives and approaches at the institutional level. This type of institutional assessment is separate and distinct from the individual student assessment discussed earlier under the theme of pedagogical factors, in that institutional assessment efforts focus on the collection and systematic analysis of collective data at the institutional level to aid legal educators and law school administrators in making decisions regarding educational practices. Individual formative student assessments, by contrast, are conducted for the purpose of informing and advancing a particular student's

learning efforts. Institutional assessment, which often involves statistical analysis of data, can help institutional leaders make more informed decisions regarding learning outcomes so they may implement the most effective policies and approaches for the development of students' critical thinking skills. As one respondent explained:

One of our schemes for this school, and for this year, brought by our new dean is assessment. He loves looking at data. He likes assessing everything, coming at different angles, mining the data to see what we can find.... assessing the things that we're doing, and if they aren't working, changing them and then assessing them again and finding the best method.

In discussing how legal educators and law school administrators can monitor the development of students' critical thinking and determine what type of educational outcomes are being achieved, a participant in an administrative role described how institutional assessment efforts can improve learning outcomes. The participant also noted that the factors that prove most important for learning success in one student population may differ from the success factors in a different population. Informed decision making based on the collection and analysis of outcomes data at the institutional level, the participant explained, is perhaps the only thing that law school administrators can do to help advance the development of students' critical thinking at their particular institutions:

I think, for us, it's can we look at what courses people are taking? Their success rate on the bar, does that impact it? Does grade point average in law school? For our student population, what are the factors? Because as administrators, I feel like that's really all we can do. Maybe there are more ideas out there, and I'd love to

hear them. For right now, I feel like that's where we're turning because we don't know how else to measure these things from where we sit.

A different participant who also emphasized the importance of institutional assessment noted that the number of potential variables involved in the analysis may make it difficult to accurately measure the effect of a particular program, class, or initiative. In describing efforts to assess the learning outcomes associated with particular initiatives using traditional performance indicators such as GPA and LSAT scores, the participant acknowledged:

All of that being said, can I say that it's statistically sound? I can't really say that, just because I can't really account for all the variables. The students who are attending our programs may have a higher level of motivation which, outside of our programs, maybe they study more, they may do more extra stuff the other students are doing that maybe it's not our teaching as much as it is that student is just going to be a high motivation student anyway.

The participant further acknowledged that the inability to account for all of the variables affecting student learning and performance make it difficult for legal educators to accurately assess the development of students' critical thinking skills. These types of limitations make it difficult to attribute the development of students' critical thinking skills to discrete factors with confidence, frustrating institutional efforts to identify and implement the most effective approaches for their law schools:

It would be hard to monitor and assess critical thinking skills for the same reason it's hard to monitor and assess some of the other things that we talked about with the program. How do you exclude other variables? How do you exclude some of

the undergraduate education or experiences? How do you exclude motivations? I don't know.

While participants understood that attaining certainty in the educational environment is not possible, participants still recognized the value of institutional level assessment efforts in informing institutional policies and educational practices. These types of institutional assessment efforts can render objective information, and may provide leadership with support for promising new initiatives. The final leadership factor for success concerns the need for leaders in legal education to facilitate the communication and integration of effective educational approaches.

Factor 12: communication and integration of effective educational approaches.

The final factor that arose under the key theme of factors to optimize student performance concerned the need for better communication among legal educators regarding educational research and effective teaching practices and better ways of ensuring that effective educational approaches are integrated into the curriculum. In this respect, participants expressed that effective communication often involves instituting a more structured way of sharing information, a task that often goes overlooked in legal education. As one participant described, law school faculty often fail to focus on effective teaching and learning practices:

The only thing in eight years of teaching that I ever came across is a question to faculty members about whether or not they're utilizing best practices in teaching. That was it. Just a question. Now, where were they supposed to get their best practices? I don't think anyone ever brought that up. ...[T]here is not a big focus at all on providing ongoing training.

In discussing what type of training, support, or resources legal educators need to help optimize students' critical thinking skills, the participant suggested assigning central responsibility for assembling and communicating information on effective teaching practices to ensure that faculty engage in discussions about student learning:

Like I said, just having a point person who is getting this information together and making sure that faculty are up to date on it. We spend way more time talking about technology. I think we have entire committees that deal with technology. There's a meeting every single month, at my school anyway, about technology. I have never seen one of those exist for discussions on new discoveries in teaching or new developments in the field.

Other participants also noted the need for better communication among legal educators for the advancement of effective teaching and learning practices, generally describing a lack of structure and focus on such matters at the institutional level. As one participant suggested, law schools may utilize faculty committees to foster more effective communication of educational practices. While the participant expressed the need for professionals with educational expertise to participate in such initiatives, the participant noted that any exchange of ideas among legal educators has the potential to improve the quality of student learning outcomes. As the participant described:

...I was, for a few years, part of a [committee], and we worked together.... to develop teaching workshops for the faculty. Before, [the faculty] got together to share their scholarship, but now they do meet to talk about different things that they do in the classroom.... It's rooted in communication as well because we

don't have that true expertise on the faculty, but at least if they're sharing ideas and talking about things, I think it's important.

The communication and integration of effective educational practices arose under the theme of leadership-driven factors for success because promising new educational approaches are unlikely to be communicated among faculty and integrated into teaching in the absence of an intentional, structured effort under the guidance of a senior leader. When viewed collectively, the three leadership-driven factors for success: top-down leadership; institutional outcomes assessment; and communication and integration of effective educational approaches relate and support one-another. Because the success factors arising under any of the three key themes (faculty-driven factors, pedagogical factors, and leadership-driven factors) are intrinsically related, each factor should be considered and understood in relation to the others for optimal results.

Chapter Summary

This chapter contained a detailed discussion of the primary categories, key themes, and factors for success arising from this study. The first primary category arising from the data was “student learning needs.” This category includes the key themes of: critical reading; analytical thinking; making connections; and metacognition and self-regulation. This category represents the proficiencies associated with critical thinking where the gaps between law students’ skills and the skills required to optimize critical thinking are the widest, suggesting that the opportunity exists for significant improvement in these proficiencies. The second primary category was “student learning challenges,” and includes the key themes of: under preparation; weak learning dispositions; and complicating personal factors. This category consists of issues that impede law students from developing strong critical thinking skills.

The third primary category, “legal education system challenges,” encompassed the key themes of: evolving instructional necessities; need for educational expertise; inequality among legal educators; limited resources; and sub-optimal grading policies. This category concerns the greatest impediments, or barriers, to the successful development of critical thinking skills faced by law schools. The fourth and final primary category that emerged was “factors to optimize student performance.” These factors establish specific components necessary to optimize student performance. The primary category of “factors to optimize student performance” included the key themes of: faculty-driven factors; pedagogical factors; and leadership-driven factors.

The primary category of “factors to optimize student performance” includes specific factors to optimize the development of critical thinking in law students. The

specific factors for success that arose under the theme of faculty-driven factors were: student success focus; adequate academic standards and expectations; individual student support; and faculty participation in initiatives. The factors that emerged under the theme of pedagogical included: active learning; thought process training; applied practice; essay writing; and formative assessment and feedback. The factors associated with the theme of leadership-driven were: top-down leadership; institutional outcomes assessment; and communication and integration of effective educational approaches.

Table 4 at the beginning of this chapter depicts the primary categories, key themes, and factors for success that emerged from the data. While the student learning needs, student learning challenges, and law school challenges help identify gaps in student learning and elucidate dynamics that frustrate the development of critical thinking skills in law students, the factors to optimize student performance represent discrete components that participants identified as important for the development of strong critical thinking skills in law students. Together, these conceptual categories contribute to the development of a comprehensive theory concerning the development of critical thinking in law students.

CHAPTER V

DISCUSSION

Introduction

This qualitative grounded theory study examined the development of critical thinking skills in law students from the perspective of academic support professionals at third- and fourth-tier law schools in the U.S. This chapter includes a brief summary of the study, a discussion of the development of the common themes and relationships among data, a presentation of the theoretical model of the development of critical thinking in law students that emerged from the data, an assessment of the relationships between the research questions and the theoretical model, a discussion of the implications of the study, and recommendations for future research.

Summary of the Study

The purpose of this study was to create a comprehensive theoretical model of the development of critical thinking skills in law students based on the perceptions of academic support professionals at third- and fourth-tier law schools in the U.S. using a qualitative grounded theory method of inquiry. The primary research question for this study asked: What are the perceptions of law school academic support professionals regarding the development of critical thinking skills in law students? The 14 study participants were all experienced academic support professionals in third- and fourth-tier law schools in the U.S. Academic support professionals may serve in faculty or administrative roles, depending upon the policies and practices of each institution.

This study was undertaken partially in response to recent research suggesting that many U.S. college students graduate with underdeveloped critical thinking skills and to concerns regarding the efficacy and outcomes of legal education (American Bar

Association, 1992; Arum & Roksa, 2011; Blaich & Wise, 2011; Stuckey et. al., 2007; Sullivan, 2007). The deficits in critical thinking skills that researchers identified as prevalent in undergraduate students often carry forward into the legal learning arena, presenting barriers to academic and professional success for law students (Jewel, 2008; Sauder & Lancaster, 2006). While researchers have investigated the ways in which students acquire advanced critical thinking skills in many academic environments, very little research exists concerning the development of critical thinking skills in the context of legal education (Bonner & D'Agostino, 2012).

Data for this study were collected from July 2014 to November, 2014 via telephone interviews with each of the 14 study participants. The researcher carefully reviewed the interview transcripts and employed a process of thematic coding, constant comparison, and inductive analysis to discover the prevailing themes and categorical concepts emerging from the data. The researcher then analyzed the data using an inductive reasoning process to establish the relationships between the themes and concepts that arose from the data. After analyzing the data to the point of saturation, the researcher established four primary categories, 15 key themes, and 12 factors to optimize student performance. Based on these findings, the researcher developed a comprehensive theoretical model of the development of critical thinking skills in law students depicting the common categorical themes and the relationships among data. The educational significance of this study is to advance a theory that will contribute to the understanding of the way that critical thinking skills develop in law students to advance the existing body of knowledge on education for critical thinking and to inform legal education practice, pedagogy, and policy.

Development of the Common Themes and Relationships Among Data

To generate a holistic theory that explains the development of critical thinking in law students, the researcher employed an inductive reasoning approach to identify the primary components that affect critical thinking in law students and understand the relationship between the components. Development of the common themes followed an iterative process, beginning with the initial coding of data and proceeding through progressively broader, more conceptual data categorization and analysis.

The initial coding of data occurred commensurate with the interview process, at which time the researcher began to search for unifying themes. These unifying themes would eventually yield the 15 key themes that appear under each of the four primary categories, giving depth and dimension to the understanding of how critical thinking develops in law students. In other words, after identifying the 15 key themes, the researcher conducted successive inductive analysis to discover the four primary conceptual components involved in the development of critical thinking in law students and to identify the 12 factors associated with the optimization of students' performance. While the performance optimization factors offer specific guidance on how best to help law students develop strong critical thinking skills, the researcher could not identify and categorize the specific factors associated with performance optimization without first conducting successive layers of inductive analysis to parse out the key conceptual aspects of the underlying data and the relationships among conceptual categories of data. The researcher will next briefly address the development of each conceptual component that arose from the analysis of the research data and the nature of the relationships among categories of data.

Primary Category 1: Student Learning Needs

One may view the identification of student needs as the starting point in analyzing how learning occurs in any particular educational environment. In the absence of identifiable learning needs, educators cannot devise effective teaching approaches and researchers cannot formulate an understanding of the dynamics that affect the learning process. Perhaps unsurprisingly, participants in this study often referred to students' learning needs in discussing the development of critical thinking in law students.

Initial coding of the data that would eventually comprise the category of student learning needs included: critical reading; analysis; synthesis; making connections; metacognition; self-assessment; self-regulation; and self-efficacy. In closely reviewing the data associated with these codes for unifying themes, the researcher identified the key themes of: critical reading; analytical thinking; connecting learning and performance; and self-regulated learning. These four themes represent the types of skills and abilities that participants consistently referenced in their comments.

Upon reviewing these four key themes for broader significance, the researcher noticed that, when discussing these themes, participants often emphasized the deficiencies that law students suffered in these areas, while simultaneously stressing the important role that these skills play in performance optimization in legal education. In considering the broader implications of the participants' comments, the researcher noted that this data indicated areas where the widest gap exists between students' existing skills and those required to optimize performance. The researcher accordingly assigned the descriptive label "student learning needs" to this conceptual component.

Primary Category 2: Student Learning Challenges

Learners often experience challenges in the course of mastering new skills and knowledge. Such challenges present obstacles that students must overcome if they are to progress toward their learning objectives. Participants in this study frequently referenced the types of obstacles that hinder law students from achieving their goal of becoming accomplished legal learners and problem solvers.

Initial coding of the data that would eventually comprise the category of student learning challenges included: underprepared; undergraduate major; learning skills; effort; false confidence; maturity; open-mindedness; and personal problems. From these initial data codes, the researcher established the unifying themes of: under preparation; weak learning dispositions; and complicating personal factors. These three themes reflect the main types of obstacles that participants routinely noted as detracting from law students' progress toward their educational goals.

The researcher observed that the participants' comments in these three categories often highlighted the negative effects that these types of variables have on students' learning. Participants tended to express these variables as hindrances or barriers that prevent or deter students from developing the skills and abilities necessary to optimize their performance at law school. In light of the negative learning implications of these variable and students' challenges in overcoming them to advance toward their learning objectives, the researcher labeled this component "student learning challenges."

Primary Category 3: Legal Education Challenges

While learners may face substantial challenges in progressing toward their educational objectives, education systems may likewise encounter obstacles that impede

progress. These types of challenges are separate and distinct from the challenges that learners face in that they do not arise from the characteristics of individual learners, but rather from systemic challenges stemming from the nature of the educational system itself. The comments of participants in this study reflected a distinct line of thought and reasoning emphasizing the challenges faced by the legal education system as a whole.

Initial coding of the data that would eventually comprise the category of legal education system challenges included: downward trend; evolution; tradition; educational expertise; teaching skill; limited resources; grade inflation; and grading curve. From these initial codes, the researcher discovered the unifying themes of evolving instructional necessities; need for educational expertise; inequality among legal educators; limited resources; and sub-optimal grading policies. These five key themes comprise the challenges that the legal education system faces in helping students optimize their performance.

In conducting further inductive analysis of these themes, the researcher observed that participants frequently framed their comments in terms of the difficulties to the legal education system presented by these types of variables. Participants noted that these types of variables present obstacles to the legal education system as a whole in fulfilling its objective of helping students optimize performance. Because these variables deter the legal education system from delivering the most effective instruction possible for development of students' critical thinking skills, the researcher labeled this category "legal education system challenges."

Primary Category 4: Factors to Optimize Student Performance

As data analysis progressed through the constant comparative approach, the researcher began to discern particular factors that participants considered instrumental in optimizing student performance in light of the student learning needs, student learning challenges, and legal education system challenges reflected in the first three primary categories. These particular factors arose pursuant to three key themes that together comprise the category of factors to optimize student performance: faculty-driven factors; pedagogical factors; and leadership-driven factors. The first key theme, faculty-driven factors, encompasses aspects of legal education driven largely by the individual and collective values and philosophies of the faculty and instructional personnel at a particular institution, perhaps because they arise primarily at the classroom level and may implicate academic freedom issues. The second key theme, pedagogical factors, reflects specific strategies and techniques for teaching and learning. The third key theme, leadership-driven factors, entails aspects of legal education that are heavily subject to influence from the leadership of a particular law school. While such factors may influence all aspects of legal education, including faculty-driven factors and pedagogical factors, participants perceived these factors to be largely driven by institutional leadership, and participants' comments associated with this theme tended to emphasize the role that institutional leadership plays in establishing, maintaining, and/or facilitating these particular factors.

Initial coding of the data that would eventually comprise the faculty-driven factors included: cultural factors; student-professor relationship; student-centered; supportive; affective; and faculty participation. From these data codes, the researcher

identified the common factors: student-success focus; adequate academic standards and expectations; individual student support; and faculty participation in initiatives. The researcher identified these factors as faculty-driven based on participants' comments, which indicated that these variables fall under the primary influence and control of the instructional personnel at any particular law school.

Initial coding of the data that would eventually comprise the pedagogical factors included: active learning; applied practice; argumentation; engagement; essay writing; assessment; feedback; individual support; learning objectives; learning styles; modeling; skills training; and thought process training. From these data codes, the researcher established the common factors active learning; thought process training; applied practice; essay writing; and formative assessment and feedback. The researcher categorized these as pedagogical factors because they stem from participants' descriptions of particular types of learning strategies and approaches associated with the development of strong critical thinking in law students.

Initial coding of the data that would eventually comprise the leadership-driven factors included: integration; shared governance; tenure; top-down approach; outcomes; communication; and central responsibility. From these data codes, the researcher noted the emergence of the common factors: top-down leadership; institutional outcomes assessment; and communication and integration of effective educational approaches. The researcher identified these as leadership-driven factors based on participants' comments associating these variables primarily with the leadership of particular institutions.

Through the data analysis process, the researcher noted that participants, through their comments, identified these key themes and particular factors as critical variables in

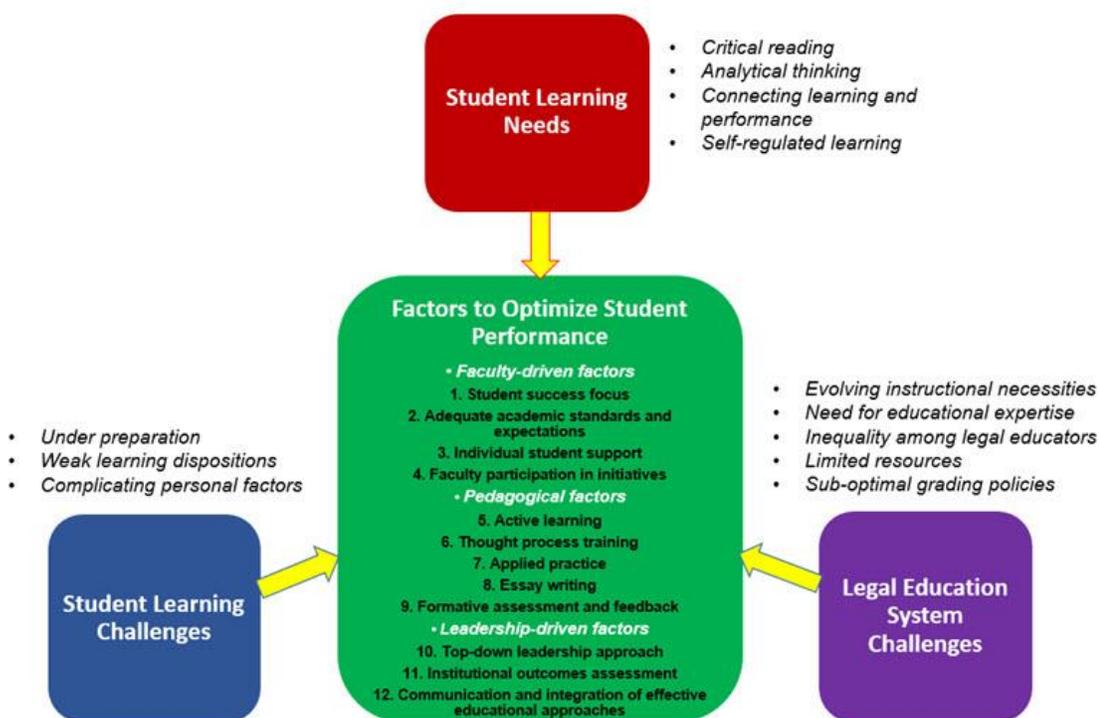
the development of law students' critical thinking. The researcher accordingly considered these discrete variables as central to any effort to optimize law students' performance. By considering these variables, one may effectively address the student learning needs, student learning challenges, and legal education system challenges reflected in the first three primary categories.

The Critical Thinking in Law Students “CTLS” Model

The purpose of this grounded theory study was to establish a comprehensive conceptual model of the development of critical thinking skills in law students from the perspective of experienced academic support professionals at third- and fourth-tier law schools in the U.S. The resulting model, depicted in Figure 1, reflects the primary categories, key concepts, and factors for success arising from the data in this study, and illustrates the relationships between these components. As the model demonstrates, the three primary categories that impede the development of critical thinking skills in law students – student learning needs, student learning challenges, and legal education system challenges, provide the basis for the central primary category, the factors necessary to optimize the development of critical thinking in law students. The factors to optimize student performance play a central role because they arise in consideration of the other three primary categorical components that reflect educational needs and challenges. The factors to optimize performance thus represents the solutions that participants offered via their comments to address these impediments. The model offers a conceptual understanding of the primary impediments to the development of critical thinking in law students, and potential ways to overcome these impediments by addressing the faculty-driven factors, pedagogical factors, and leadership-driven aspects of legal education. For

clarity, the researcher will refer to this model as the “CTLS Model,” or the “Critical Thinking in Law Students Model.”

Figure 1: *The Critical Thinking in Law Students "CTLS" Model*



Relationships Between the Research Questions and the CTLS Model

The theoretical scheme that emerged from the analysis of the interview data represents the primary categories, key themes, and factors that emerged from the data without consideration of how these concepts address the specific research questions presented in this study. To fully document which concepts address which research questions, the researcher now briefly considers the theoretical scheme in light of the research questions posed in this study. The overarching research question guiding this study was: What are the perceptions of law school academic support professionals regarding the development of critical thinking skills in law students? To more specifically

articulate aspects of the overarching question, the researcher also posed the following sub-questions:

1. What factors affect the development of strong critical thinking skills in law students?
2. What teaching and learning approaches show the greatest promise for improving critical thinking skills among law students?
3. What are the most important things that legal educators and law school administrators can do to help students optimize their critical thinking skills?
4. How can legal educators and law school administrators best monitor and assess the development of students' critical thinking skills?
5. What additional training, support, and/or resources do legal educators need to help optimize students' critical thinking skills?

To assess the CTLS Model in relation to the research questions, the researcher compared the theoretical scheme that emerged from the study to each of the research questions independently. A comprehensive breakdown indicating which key themes and factors address which research question(s) is provided in Table 5. Where a conceptual component is directly related to a particular research question, the researcher indicated that the relationship between the conceptual component and the research question was “direct.” Where a conceptual component was related to the research question in an indirect manner, meaning that the two were associated by not intrinsically intertwined, the researcher indicated that the relationship was “indirect.”

Table 5: Application of Findings to the Research Questions

Categories, Themes, and Factors	<i>Development of Critical Thinking in Law Students</i>	<i>Factors that Affect Development of Critical Thinking</i>	<i>Teaching and Learning Approaches</i>	<i>Legal Educators and Law School Administrators</i>	<i>Monitoring and Assessment of Critical Thinking</i>	<i>Training, Support, and Resources for Legal Educators</i>
	Research Question	Sub-Question 1	Sub-Question 2	Sub-Question 3	Sub-Question 4	Sub-Question 5
Category 1: Student Learning Needs						
Theme 1a: Critical Reading	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
Theme 1b: Analytical Thinking	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
Theme 1c: Connecting Learning and Performance	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
Theme 1d: Self-Regulated Learning	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
Category 2: Student Learning Challenges						
Theme 2a: Under Preparation	DIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT
Theme 2b: Weak Learning Dispositions	DIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT
Theme 2c: Complicating Life Factors	DIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT
Category 3: Legal Education System Challenges						
Theme 3a: Evolving instructional necessities	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT
Theme 3b: Need for Educational Expertise	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT
Theme 3c: Inequality Among Legal Educators	DIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT
Theme 3d: Limited Resources	DIRECT	DIRECT	INDIRECT	DIRECT	DIRECT	DIRECT
Theme 3e: Sub-Optimal Grading Policies	DIRECT	DIRECT	INDIRECT	DIRECT	DIRECT	DIRECT
Category 4: Factors to Optimize Student Performance						
Theme 4a: Faculty-driven Factors	DIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT
Factor 1: Student-Success Focus	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT
Factor 2: Adequate Academic Standards and Expectations	DIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT
Factor 3: Individual Student Support	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT
Factor 4: Faculty Participation in Initiatives	DIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT
Theme 4b: Pedagogical Factors	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT
Factor 5: Active Learning	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT
Factor 6: Thought Process Training	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT
Factor 7: Applied Practice	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT
Factor 8: Essay Writing	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT
Factor 9: Formative Assessment and Feedback	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
Theme 4c: Leadership-Driven Factors	DIRECT	DIRECT	INDIRECT	DIRECT	DIRECT	DIRECT
Factor 10: Top-Down Leadership Approach	DIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT
Factor 11: Institutional Outcomes Assessment	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
Factor 12: Communication and Integration of Effective Educational Approaches	DIRECT	DIRECT	DIRECT	DIRECT	INDIRECT	DIRECT

As Table 5 reflects, most of the conceptual components in the CTLS Model directly relate to the research questions. While a minority of the conceptual components were indirectly related to particular research questions, the researcher did not anticipate or attempt to establish a direct relationship between each conceptual component and each research question in conducting this study. All of the conceptual components directly relate to at least one of the research questions, with most conceptual components directly relating to multiple research questions. This analysis suggests that the conclusions in this study address the research questions posed, and supports the application of the CTLS Model as a comprehensive theoretical model of the development of critical thinking in law students.

Implications and Recommendations

To conclude this study, the researcher will consider the relevance of this study in light of existing research to examine how this study contributes to the body of knowledge concerning the development of critical thinking in law students. The researcher will also discuss applications for the CTLS Model, and consider the implications that this study may hold for various constituents, including: law school governing and accrediting authorities; law school administrators; legal educators; law students; and law school academic support professionals. Finally, the researcher will make recommendations for further research based on the outcomes of this study.

Implications for Existing Research

The purpose of this study was to develop a comprehensive theoretical model of the development of critical thinking in law students from the perspective of experienced law school academic support professionals at third- and fourth-tier U.S. law schools. The

researcher undertook this study partially in response to a recent line of research suggesting the widespread under development of critical thinking skills among college students (Arum & Roksa, 2011; Blaich & Wise, 2011; Boghossian, 2012). Concerns regarding the efficacy and outcomes of legal education also compelled the researcher to pursue the study (American Bar Association, 1992; Stuckey et. al., 2007; Sullivan, 2007).

The lack of development of students' critical thinking skills at the undergraduate level presents substantial barriers to success for many students entering law school, who may struggle under the academic demands of law school, and may graduate without the necessary skills to effectively practice law (Rapoport, 2012). The types of deficiencies in critical thinking skills identified as widespread among today's college students represent the primary skills required for success in the study and practice of law (Rapoport; Yakowitz, J., 2010). Deficiencies in critical thinking skills may be more prevalent at lower-tier law schools, where many students may not have had rigorous undergraduate experiences (Rapoport, 2012). To address these challenges, law school academic support professionals have implemented new types of courses and approaches focused on developing students' critical thinking skills (Burgess, 2011; Schulze, 2011; Schulze, 2012). These new courses and approaches, however, differ widely from institution to institution, and legal educators continue to search for more effective ways of improving law students' educational outcomes (Burgess, 2011; Fajans, 2011; Niedwiecki, 2012; Schulze, 2011; Schulze, 2012).

While researchers have investigated the ways that critical thinking skills develop in many academic environments, very little research exists concerning the development of critical thinking skills in the context of legal education (Bonner & D'Agostino, 2012).

Moreover, researchers have not attempted to develop a comprehensive theoretical model of the development of critical thinking in law students. This study helps broaden the scant existing research concerning the development of critical thinking skills in law students, and offers new insight by presenting a comprehensive theoretical model based on data presented in the words of professionals with direct experience helping law students develop strong critical thinking skills.

Implications for Constituents

By considering how the findings in this study may help inform efforts to understand the development of critical thinking in law students, interested parties may develop new ways of employing the study and building upon the findings to advance law students' learning outcomes. Constituents for whom this study may have implications include: law school governing and accrediting authorities, law school administrators, legal educators, law students, and law school academic support professionals. In this section, the researcher will briefly consider the implications of this study for each of these constituents.

Law school governing and accrediting authorities. To address fundamental pedagogical weaknesses in legal education, in 2014 the American Bar Association (ABA) adopted landmark changes to the standards governing law schools (Warren, 2014). The new ABA standards, which have become known as the “pedagogy mandate,” require law schools to establish and assess learning outcomes, and to comply with a variety of other measures designed to encourage innovation and the implementation of more effective learning approaches in legal education (Warren, p. 2). The ABA pedagogy mandate changes the central focus of legal education, placing learning outcomes at center stage

and moving learning science from an ancillary to a central role in legal education (Warren).

By referring to the CTLS Model, law school governing and accrediting authorities such as the ABA may identify the primary student learning needs, student learning challenges, and legal education system challenges that impede the development of strong critical thinking skills in law students and isolate the specific factors associated with the optimization of student performance. The ABA and similar governing authorities may employ this information to develop, interpret, refine, and enforce effective policies and standards for law schools to advance the development of critical thinking skills in students by reference to an empirically based model for improved consistency and learning outcomes. Governing authorities may also potentially use the CTLS Model to provide a central source of information and point of reference for helping law schools implement the most effective approaches for the development of students' critical thinking skills.

Law school administrators. Law school deans and senior administrators face unprecedented challenges in leading their institutions in the delivery of high-quality legal education to students (American Bar Association, 1992; Arum & Roksa, 2011; Blaich & Wise, 2011; Stuckey et. al., 2007; Sullivan et. al., 2007). Sharp declines in the number of well qualified law school applicants have resulted in significant challenges for law schools, and schools struggle to meet the rapidly changing educational needs of their students (Flanagan, 2014, Warren, 2014). Moreover, deficits in foundational critical thinking skills increasingly extend even to incoming law students with high LSAT scores and undergraduate GPAs (Stuart & Vance, 2013). As the current study documented,

students' levels of preparation for legal education have fallen precipitously, and their learning needs have changed dramatically.

This study may provide guidance to those charged with leading law schools by providing a comprehensive theoretical model explaining how critical thinking develops in the law school environment. By referring to the CTLS Model, law school administrators can identify the primary student learning needs, student learning challenges, and legal education system challenges that impede the development of strong critical thinking skills in law students and isolate the specific factors associated with the optimization of student performance. Law school leaders may employ this information to develop effective policies and standards for their schools to facilitate the development of critical thinking skills in students and to help their institutions comply with the ABA pedagogy mandate with guidance from an empirically based model.

Legal educators. To meet the changing needs of law students, and to comply with the ABA pedagogy mandate, legal educators require guidance in the form of sound learning theory to inform them in formulating and assessing effective learning strategies for improved educational outcomes (Warren, 2014). Developing sound theory and a cohesive strategy to strengthen critical thinking in law students has proven particularly challenging because little research exists regarding the development of critical thinking skills in law students (Bonner & D'Agostino, 2012). Legal educators and law school administrators have therefore had to rely heavily on existing learning science research in other disciplines to design their educational programs (Bonner & D'Agostino).

The current study helps address this gap in the research by offering a comprehensive theory of the development of critical thinking in law students that may

assist legal educators in designing more holistic and effective approaches to strengthen students' critical thinking skills for success in the study and practice of law. The study also provides deeper insight into the development of critical thinking skills in law students from the perspective of experienced law school academic support professionals closely familiar with the phenomenon. By referring to the CTLS Model, legal educators may identify the primary student learning needs, student learning challenges, and legal education system challenges that impede the development of strong critical thinking skills in law students and isolate the specific factors associated with the optimization of student performance. Legal educators may employ this information to devise more effective teaching and learning approaches to advance the development of critical thinking skills in students and achieve improved educational outcomes with guidance from an empirically based model.

Law students. To excel in their studies, prospective and current law students must accurately assess their own levels of academic preparation and understand the environment in which they will have to perform to succeed in the study and practice of law. With the type of student-centered, outcomes oriented educational environment that many law schools will likely adopt in response to the ABA pedagogy mandate comes a new level of responsibility for students. As the current study reinforces, from a learning theory standpoint, critical thinking skills must be actively developed by students themselves through hard work, persistence, and an accurate appraisal of their own level of preparation, personal strengths, and opportunities for improvement. Students who misperceive a student-centered, outcomes oriented graduate school environment as one where the ultimate responsibility for learning lies with their professors do so at the risk of

failing to develop the type of strong critical thinking skills associated with top success in the study and practice of law.

This study may provide valuable guidance and insight to students in understanding themselves and their learning environment so they may make more informed decisions about how to manage their own intellectual development and success during law school. By referring to the CTLS Model, law students may identify the primary student learning needs, student learning challenges, and legal education system challenges that impede the development of strong critical thinking skills in law students and isolate the specific factors associated with the optimization of student performance. This empirical information may help empower law students to better assess their own skills and levels of preparation and direct their educational efforts to facilitate the development of the type of strong critical thinking skills necessary to succeed and excel in the study and practice of law.

Law school academic support professionals. Traditional law school academic support programs are not equipped to address the widespread fundamental deficits in critical thinking among incoming students, and more holistic strategies are needed to meet students' learning needs (Flanagan, 2014). While law school academic support professionals are implementing a range of measures designed to comply with the ABA pedagogy mandate, address students' learning deficits, and produce improved learning outcomes, comprehensive empirical guidance is limited and approaches differ widely among law schools (Burgess, 2011; Flanagan, 2014; Niedwiecki, 2012; Schulze, 2011; Warren, 2014). Legal educators and scholars are accordingly calling for more cohesive, systemic, and empirically based approaches to address deficits in law students' thinking

skills so that they can effectively participate in the legal learning environment (Flanagan, 2014; Stuart & Vance, 2013).

The holistic, integrated theoretical model that emerged from this study provides a new perspective and a central point of reference from which to consider the complex dynamics affecting the development of strong critical thinking skills in law students, while the participants' comments offer a deeper level of insight into this phenomenon. By referring to the CTLS Model, law school academic support professionals can identify the primary student learning needs, student learning challenges, and legal education system challenges that impede the development of strong critical thinking skills in law students and isolate the specific factors associated with the optimization of student performance. Law school academic support professionals may employ this information to devise more effective academic support programs and initiatives to advance the development of students' critical thinking skills and achieve improved educational outcomes in compliance with the ABA pedagogy mandate with guidance from an empirically based model.

Recommendations for Further Research

The researcher undertook a qualitative grounded theory method of inquiry for this study largely because very little empirical research on the development of critical thinking skills in law students has been conducted and no holistic conceptual model of this phenomenon existed. Now that this study has produced an empirically grounded theory and model of the development of critical thinking in law students, the model should be employed and assessed for effectiveness, and additional parameters and measures should be developed to support successful application. The researcher also

suggests that future studies be conducted to assess the efficacy of the CTLS Model versus traditional law school approaches to the development of critical thinking in law students.

The participants in this study, consisting of legal educators with extensive experience helping students develop critical thinking and analytical skills, expressed the virtually unanimous observation that many law students carry forward from their prior education substantial deficits in their critical thinking skills that render them unable to participate effectively in legal education. The participants' observations align with and support existing research documenting widespread deficiencies in critical thinking among U.S. college students (Arum & Roksa, 2011; Blaich & Wise, 2011). The reluctance of legal educators to deviate from traditional methods of teaching to address the changing educational needs of students has led to increasing concerns regarding the efficacy and outcomes of legal education (American Bar Association, 1992; Stuckey et. al., 2007; Sullivan et. al., 2007). In response, the ABA has issued an unprecedented regulatory mandate requiring law schools to demonstrate educational outcomes (Warren, 2014).

While the recent educational concerns and administrative action present ample cause for concern, perhaps the most puzzling aspect of this study is that, despite the intense challenges and criticisms facing legal education and the increasing need for educational expertise, participants overwhelmingly reported a general refusal among law school faculty to accept legal educators who specialize in helping students develop strong thinking skills as full members of the legal academy. Participants also generally reported a widespread refusal of law schools to embrace new empirically based teaching, learning, and assessment approaches. The comprehensive theoretical model arising from this study may provide constituents of legal education with a common point of reference to conduct

further research and formulate more effective educational practices and policies for improved outcomes in students' critical thinking. The model may also help elucidate the seemingly incongruous dynamics that deter the legal academy from integrating the professionals and practices that may prove instrumental in overcoming the challenges presented by a rapidly changing educational environment, and may provide the basis for further research and broader discussion regarding the legal academy's persistent reluctance to embrace the learning sciences. The researcher maintains concerns regarding the relative dearth of research on the subject of critical thinking in legal education and welcomes research partners and institutions that plan to implement the CTLS Model to join the researcher in future efforts to contribute to the body of knowledge and literature on this important topic.

Chapter Summary

In this Chapter, the researcher provided a brief summary of the study, followed by a discussion of the development of the common themes and relationships among data. The researcher then presented the theoretical model of the development of critical thinking in law students that emerged from the data, and offered an assessment of the relationships between the research questions and the theoretical model. The researcher concluded with a discussion of the implications of the study and recommendations for future research.

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Appendix A

ABA Accredited Law Schools Not Included in the Top 100 Ranked Law Schools

Seattle University

St. Louis University

University of Mississippi

Florida International University

Mercer University (Georgia)

Texas Tech University

Wayne State University

DePaul University

Drake University

Stetson University

University of Missouri – Kansas City

Gonzaga University

Hofstra University (Deane)

Samford University (Cumberland)

University of Arkansas – Little Rock (Bowen)

University of Montana

University of Wyoming

Cleveland State University (Cleveland-Marshall)

Creighton University

University of Akron

University of New Hampshire School of Law

Vermont Law School

University of St. Thomas
University of Pacific (McGeorge)
Campbell University
Chapman University
Drexel University (Mack)
Hamline University
Howard University
Loyola University New Orleans
Albany Law School
CUNY
Pace University
Quinnipiac University
University of Baltimore
University of Idaho
University of Maine
William Mitchell College of Law
Southern Illinois University – Carbondale
St. Mary’s University
University of North Dakota
Washburn University
Duquesne University
South Texas College of Law
Suffolk University
University of Memphis (Humphreys)
University of San Francisco

Appalachian School of Law
Atlanta's John Marshall Law School
Ave Maria School of Law
Barry University
California Western School of Law
Capital University
Charleston School of Law
Charlotte School of Law
Elon University
Faulkner University (Jones)
Florida A&M University
Florida Coastal School of Law
Golden Gate University
John Marshall Law School
Liberty University
Mississippi College
New England Law Boston
New York Law School
North Carolina Central University
Northern Illinois University
Northern Kentucky University (Chase)
Nova Southeastern University (Broad)
Ohio Northern University (Pettit)
Oklahoma City University
Phoenix School of Law

Regent University
Roger Williams University
Southern University Law Center
Southwestern Law School
St. Thomas University
Texas Southern University (Marshall)
Texas Wesleyan University
Thomas Jefferson School of Law
Thomas M. Cooley Law School
Touro College (Fuchsberg)
University of Dayton
University of Detroit Mercy
University of South Dakota
University of the District of Columbia (Clarke)
University of Toledo
Valparaiso University
Western New England University
Western State College of Law at Argosy University
Whittier College
Widener University
Willamette University (Collins)
Catholic University
Inter-American University
University of California – Irvine
University of La Verne

University of Massachusetts – Dartmouth

University of Puerto Rico

U.S. News & World Report. (2013). Best law schools. Retrieved from U.S. News & World Report website: <http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-law-schools/law-rankings>

Appendix B

Recruitment Flyer (Sent by Gatekeeper)

Date

Dear Colleague:

I am a law school academic support professional writing you in my capacity as a doctoral student to invite you to participate in my dissertation study examining the phenomenon of critical thinking in law students from the perspective of academic support professionals at third and fourth-tier law schools. I am undertaking this research in partial fulfillment of the requirements for my doctoral degree to explore how critical thinking develops in law students and to determine how we as legal educators can best assist students in developing strong critical thinking skills. This letter is being sent to you through my Administrative Assistant, who is acting as the gatekeeper for this initial communication.

In order to participate in this study, you must be: (1) a law school academic support professional, defined as a law school employee whose position entails institutional responsibility for student academic success, educational outcomes, retention, and/or bar passage; (2) with at least three years of law school academic support experience; (3) who is currently working in a third or fourth-tier law school, defined as law schools with full accreditation from the American Bar Association not included in the top 100 law schools as listed in the 2013 U.S. News and World Report rankings. Participation in the study will entail participating in one or more telephone interviews with me, conducted at a time convenient to you, during which I will seek your input on the topic of critical thinking in law students. Because there are a limited number of people in our professional community who meet the study criteria, if you meet the criteria noted above I would greatly value and appreciate your participation in order to ensure a thorough and informative study. The identities of participants in the study will be kept strictly confidential, and I will be happy to share my findings and final study report with participants.

If you believe that you meet the above criteria and would like to participate in the study, please send a brief email indicating your interest to me at brett.brosseit@mymail.barry.edu. If you have any questions, please feel free to email me at that address or to call me at 239-877-1861.

Thank you very much for your time, consideration, and collegiality. I look forward to speaking with you about your experience with critical thinking in law students.

Sincerely,

Brett A. Brosseit

Appendix C
Barry University
Informed Consent Form

Your participation in a research project is requested. The title of the study is *Law School Academic Support Professionals' Perceptions about Development of Students' Critical Thinking*. The research is being conducted by Brett A. Brosseit, a doctoral student in the Adrian Dominican School of Education at Barry University, and he is seeking information that will be useful in the field of education. The aims of the research are to determine the most effective ways of developing strong critical thinking skills in law students. In accordance with these aims, telephone interviews will be used to gather data. We anticipate the number of participants to be 30.

If you decide to participate in this research, you will be asked to participate in a phone interview. If clarification and follow-up are required, an additional interview will be scheduled. The researcher will also employ member checking by seeking participants' input on the transcribed data to ensure accuracy. The interview process and member checking will take a maximum of 90 minutes.

Your consent to be a research participant is strictly voluntary and should you decline to participate or should you choose to drop out at any time during the study, there will be no adverse effects on your reputation or professional standing.

There are no known risks to you as a participant in this study. Although there are no direct benefits to you, your participation in the study may help advance our understanding of the development of critical thinking in law students.

As a research participant, information you provide will be held in confidence to the extent permitted by law. Any published results of the research will refer to participants' monikers only and no names will be used in the study. Data, including audio tapes of interviews, will be kept in a locked file in the researcher's office. Your signed consent form will be kept separate from the data. All data will be destroyed after 5 years.

If you have any questions or concerns regarding the study or your participation in the study, you may contact me, Brett A. Brosseit, at (239) 877-1861, my supervisor Dr. Priva Fischweicher, at (305) 899-3869, or the Institutional Review Board point of contact, Barbara Cook, at (305)899-3020. If you are satisfied with the information provided and are willing to participate in this research, please signify your consent by signing this consent form, scanning it, and emailing it to me at brett.brosseit@mymail.barry.edu.

Voluntary Consent

I acknowledge that I have been informed of the nature and purposes of this experiment by Brett A. Brosseit and that I have read and understand the information presented above, and that I have received a copy of this form for my records. I give my voluntary consent to participate in this experiment.

Signature of Participant

Date

Researcher

Date

Witness

Date

(Witness signature is required only if research involves pregnant women, children, other vulnerable populations, or if more than minimal risk is present.)

Appendix D

Interview Questions

1. What factors affect the development of strong critical thinking skills in law students?
 - a. How do students develop strong critical thinking skills?
 - b. What factors hinder the development of strong critical thinking skills in students before law school?
 - c. What factors hinder the development of strong critical thinking skills in students during law school?
 - d. What can be done to more effectively address and overcome the factors that hinder the development of strong critical thinking skills in law students?
2. What teaching and learning approaches show the greatest promise for improving critical thinking skills among law students?
 - a. What makes some methods of teaching and learning more effective than others for improving critical thinking skills among law students?
 - b. What are the key aspects or elements of effective instructional methods for improving critical thinking skills among law students?
 - c. Which teaching and learning approaches should legal educators implement to improve critical thinking skills among law students?
 - d. What may hinder legal educators in implementing the most effective instructional methods for improving critical thinking skills among law students?
 - e. How can legal educators overcome hindering factors and successfully implement the most effective instructional methods for improving critical thinking skills among law students?

3. What are the most important things that legal educators and law school administrators can do to help students optimize their critical thinking skills?
 - a. How can legal educators design and deliver more effective instruction for improving critical thinking skills among law students?
 - b. What factors may hinder legal educators in designing and delivering more effective instruction for improving critical thinking skills among law students?
 - c. How can legal educators overcome hindering factors and successfully implement the most effective instructional methods for improving critical thinking skills among law students?
 - d. How can law school administrators enhance the curriculum and reward structure to improve critical thinking skills among law students?
 - e. What factors may hinder law school administrators in enhancing the curriculum and reward structure to improve critical thinking skills among law students?
 - f. How can law school administrators overcome hindering factors and successfully implement the most effective curricula and law school reward structure to improve critical thinking skills among law students?
 - g. In addition to addressing pedagogical and curricular factors, what else can legal educators and law school administrators do to help students optimize their critical thinking skills?
4. How can legal educators and law school administrators best monitor and assess the development of students' critical thinking skills?
 - a. How do legal educators currently assess the development of students' critical thinking skills, and how effective is such assessment?

- b. What assessment methods may prove more effective in assessing the development of law students' critical thinking skills?
 - c. When and how should law students' critical thinking skills be assessed?
 - d. What factors may hinder the implementation of more effective methods of assessing law students' critical thinking skills?
 - e. How can legal educators and law school administrators overcome the hindering factors and implement more effective methods of assessing law students' critical thinking skills?
5. What additional training, support, and/or resources do legal educators need to help optimize students' critical thinking skills?
 - a. If the training, support, and/or resources you noted were available, what affect would it have on the ability of legal educators to optimize students' critical thinking skills?
 - b. How can the training, support, and/or resources you noted be made available to legal educators?
 - c. What factors may hinder law schools in providing the necessary training, support, and/or resources?
 - d. How can legal educators and law schools overcome impediments and provide the necessary training, support, and/or resources to help optimize students' critical thinking skills?
6. Is there anything else that you would like to add?