THE EFFECTS OF A HUMAN DEVELOPMENTAL COUNSELING APPLICATION

CURRICULUM ON CONTENT INTEGRATION, APPLICATION, AND

COGNITIVE COMPLEXITY FOR COUNSELOR TRAINEES

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Although professional counselors have distinguished themselves among helping professionals through a focus and foundational framework in normal human growth and development over the life-span, a majority of programs neglect to incorporate training opportunities enabling students to translate developmental theory to clinical practice. In this mixed-method study, the researcher explored the effects of a human developmental counseling application curriculum and examined cognitive complexity levels among counselor trainees. Qualitative results support gains in both the integration and application of developmental content while quantitative results offer partial support for cognitive complexity gains among trainees. This study identifies a curricular training experience in which counselor trainees' integration and application human developmental theory as well as cognitive complexity, are notably enhanced.

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INTRODUCTION

Professional counseling is defined as "the application of mental health, psychological, or *human development* principles, through cognitive, affective, behavioral or systemic intervention strategies, that address wellness, personal growth, or career development, as well as pathology" (American Counseling Association, 1997). According to the American Counseling Association Code of Ethics (2005), counselors are dedicated to the promotion of human growth and development across the lifespan, engage in practices that are developmentally appropriate in nature, and act as advocates against any barriers that limit *human development*.

What distinguishes professional counselors from other human service professionals is a focus and foundational framework grounded in human developmental theory and practice (Ivey and Gonclaves, 1987). Steenbarger (1988) distinguished counseling as unique among the myriad of helping professions in its articulation of a developmental metatheory and framework rooted in theoretical tradition and research. From the beginning, counseling scholars and advocates have emphasized lifespan development and health rather than curing, treating, and remediating so often emphasized by more traditional mental health professionals (McAuliffe & Eriksen, 1999). Through its accessibility and applicability to general populations (Whiteley, 1984), counseling professionals have sought to offer developmental and preventive services without a focus on diagnoses of dysfunctions or deficits (Jordaan, Myers, Layton, & Morgan, 1980). Rather, symptoms of human distress have been viewed as transitions and changes that reflect potentially constructive and adaptive developmental tasks and opportunities (Steenbarger, 1990); therefore,

a primary role of professional counselors is to assist clients through phases of *human development* and utilize strategies that facilitate optimum development over the life-span (Wastell, 1996).

The Council for Accreditation of Counseling and Related Educational Programs (CACREP) was developed to promote quality and consistency in accredited programs, strengthen the credibility of the counseling profession, and provide uniform information and skills training that address the needs of a pluralistic society (Bobby, 1992; CACREP, 2001; Pate, 1990; Wilcox, Cecil, & Comas, 1987; Young, 1983). Since the inception of the CACREP standards, *Human Growth and Development* has been maintained as one of eight established curricular areas. According to CACREP (2001), curricular experiences in Human Growth and Development include studies addressing the nature of *human development* for individuals and families across the lifespan. Standards require curricular objectives and experiences emphasizing not only developmental theory but also counseling application strategies for facilitating optimum development. (See Table 1)

Table 1

CACREP 2001 Human Growth and Development Standards

HUMAN GROWTH AND DEVELOPMENT - studies that provide an understanding of the nature and needs of individuals at all developmental levels, including all of the following:
a) theories of individual and family development and transitions across the life-span; b) theories of learning and personality development; c) human behavior including an understanding of developmental crises, disability, exceptional behavior, addictive behavior, psychopathology, and situational and environmental factors that affect both normal and abnormal behavior; d) strategies for facilitating optimum development over the life-span; and e) ethical and legal considerations.

Overall, CACREP standards have been viewed favorably (Bobby & Kandor, 1992; Cecil & Comas, 1986; Cook, Berman, Genco, Repka, & Shrider, 1986; Schmidt, 1999; Smaby & D'Andrea, 1995; Vacc, 1985,1992) and studies examining the standards for relevance and

content validity have yielded positive results (Vacc, 1992). McGlothlin and Davis (2004) recently conducted a survey in which they asked counselor educators, school counselors, and mental health counselors to rate the CACREP standards according to their benefit. *Helping Relationships* and *Human Growth & Development* were perceived as the most beneficial areas across all participants. As noted by the authors, both have been foundational in the counseling curriculum since the creation of CACREP.

Statement of the Problem

Historically, counseling professionals have distinguished themselves among helping professionals through a focus and foundational framework in normal human growth and development (Ivey and Gonclaves, 1987; Steenbarger, 1988). Through its professional definition, historical foundations, and curricular standards, counseling leaders have sought to retain a focus centered on the promotion of human growth and development (American Counseling Association, 1997; CACREP, 2001). In reality, counselor preparation curricula involve comprehensive reviews of major developmental theories and models; however, the majority of programs neglect to incorporate training methods enabling students to translate developmental theory to counseling practice. In order to gain experience with developmental processes and strategies that facilitate optimal growth, trainees remain in need of opportunities to apply developmental knowledge to clinical practice.

Review of Related Literature

Defining Features

Developmental theorists assert that humans possess an "innate, evolutionary propensity" to develop (D'Andrea, 1981). Theories rest upon the assumption that humans are motivated to adapt to or master their environment and move toward increased psychological maturation and

growth (Hayes & Aubrey, 1988). The drive to master one's environment is understood to propel both development and increased human effectiveness (Blocher, 1988).

Blocher (1980) defined development as major, transitional alterations that are persistent and complex and that lead to qualitative differentiation. In other words, developmental changes represent holistic transformations that reflect alterations in thinking, perceiving, feeling, and interpersonal relating sustained over time and across situations. In later stages of development, functioning becomes increasingly complex and reflects the advancement of coping structures. New structures reflect traits such as logical, critical, comprehensive thought and offer the individual improved skills to adapt to increasingly complex life issues and concerns (D'Andrea, 1984).

According to developmentalists, relationships among cognitions, emotions, and behaviors are interdependent and rooted in transactions with the environment (Blocher, 1980); therefore, while all humans possess inherent natures and abilities to mature, certain conditions must be present to facilitate the meeting of developmental needs and the mastering of developmental tasks. Tasks and concerns encountered at specific stages are understood to be hindered, blocked, or resolved depending upon the presence or absence of environmental conditions and responses (Hayes & Aubrey, 1988; Van Hesteren & Ivey, 1990).

Historical Foundations

A review of the literature in the counseling and psychology traditions reflect numerous models that examine various processes of *human development*. Developmental thought emerged after schools of psychoanalytic/psychodynamic, behavioral, and humanistic psychology. Behavioral, maturational, and structural research comprised the primary areas of developmental scholarship, each emphasizing different aspects of the individual and various degrees of

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environmental influence upon *human development*. Behavioral research focused primarily on social learning response and was heavily dependent upon environmental conditions for behavioral change. Maturational research emphasized stages and sequences of growth and differentiation at specific ages or periods. Structural research emphasized the person-environment interaction, including all factors (maturational, social and physical) and a hierarchy of stage progression reflecting qualitative advancements in functioning (Hayes, 1985).

When applied to counseling and education, major developmental theories ultimately fell into two primary categories of life-phase or lifespan and cognitive-structural development (Evans, Forney, & Guido-DiBrito, 1998; Young-Eisendrath, 1988). Lifespan theories include a focus on psychosocial roles and tasks encountered by individuals that are based in distinct biological and social-cultural periods across the lifespan. Major lifespan influences include Freud's (1909/1957) phases of psychosexual development, Jung's (1933/1969) psychology of individuation over the lifespan, Erikson's (1963) theory of psychosocial development, Bowlby's (1969) attachment theory, and Mahler's (1975) patterns of separation and individuation in infants (Evans, Forney, & Guido-DiBrito; Young-Eisendrath). On the other hand, cognitive-structural models involve the interplay between heredity, maturation, and the environment and illustrate cognitive progression in one's frame of reference and adaptation to life (Evans et al.; Young-Eisendrath). Major cognitive-structural influences include Piaget's (1932) theory of cognitive development, Kohlberg's (1969/1981) theory of moral development, Perry's (1970) theory of ethical and intellectual development, Loevinger's (1976) theory of ego development, and Kegan's (1982) theory of the evolution of the self.

Motivation, Environment, & Developmental Change

Early developmental scholars utilized a proliferation of scholarship regarding specific human processes to alter ideas of personality development to reflect a dynamic process between individuals and their environment (Hayes & Aubrey, 1988). In 1936, social psychologist Kurt Lewin addressed the nature-nurture debate by introducing a formula of behavior illustrating this interaction. Rejecting dichotomies of the mind and body, Lewin distinguished field theory, a contextualist view of reality originally described in Einstein's theory of relativity, from Newtonian and positivist philosophy. According to field theory, all relationships are related, and reality is continuously constructed between the observer and the observed. Lewin concluded that individual needs and perceptual experiences interact with environmental factors and conditions to shape one's configuration and organization of reality (Yontef & Jacobs, 2000).

Behavioral, social and cognitive psychologists soon came to integrate a concept of pacing in their understanding of environmental influences in personality development and behavioral change. A pacer can be any person, situation or event that is new, stimulating and challenging (Aubrey & D'Andrea, 1983). The term "pacer," originally coined by experimental psychologists Dember and Earl (1957), referred to ideal stimuli (i.e., stimuli just above the level of functioning and complexity of the individual). Thus, slightly more challenging and complex persons or experiences were understood to act as pacers, assisting the engaged learner to advance to a higher level of functioning (D'Andrea, 1984; Wilson, 2000). Social learning theorists heavily reinforced the concept of pacing by illustrating the impact of social modeling on imitative behavior and vicarious learning (Bandura, 1962). Similarly, Piaget (1954) utilized the concept of pacing through his definition of "optimal novelty." Optimally novel persons and experiences stimulate interest while retaining an optimal degree of familiarity to the individual, enabling

successful learning. Despite differences in terminology, the concept of pacers that stimulate development came to be understood as a factor of human learning (D'Andrea).

Blocher (1988) credited constructivist, cognitive-structural scholarship as the most influential to elaborating understandings of *human development* and change. Cognitive-structural studies affirmed the individual's information-processing tendency, reflecting intrinsic motivations to establish order, predictability and control in one's environment as well as to construct personal meaning. Cognitive dissonance was explained as part of this progression (Blocher, 1977). Cognitive dissonance (i.e., the existence of inconsistent and conflicting attitudes, beliefs, and behaviors) creates a state of tension, discomfort, and imbalance. This motivates the individual to seek resolution, consistency, or cognitive consonance in an effort to construct meaning and order reality (Blocher). To achieve goals of meaning and order, one must resolve the conflict that arises when one's expectations are not confirmed by experience. The struggle promotes a transition of assimilation or accommodation. The process of assimilation involves a quantitative change as one adds information to existing cognitive structures. The process of accommodation reflects a qualitative change as one modifies existing schemata and develops new cognitive structures in order to assimilate new information. The transition is an important one that can take time, especially when the development of new cognitive structures is involved (Piaget, 1952; Festinger, 1957; Wadsworth, 1979). When the individual moves into more complex, advanced, differentiated and integrated cognitive organization, a paradigm shift and development result (D'Andrea, 1988).

Studies conducted in educational and therapeutic settings further contributed to understandings of challenging and supportive environmental influences in developmental progression. For example, Sandford (1966) examined the influence of college environments on

transitions from adolescence to young adulthood and identified the need for an optimal balance of challenge and support to facilitate student development. Sanford noted that while too much dissonance causes one to escape, ignore, polarize, or regress, too little dissonance results in a lack of development. He concluded that optimal dissonance depends upon the characteristics of the individual and the quality and amount of support available in the environment. Sanford used his assertion that supportive environments increase one's ability to navigate through developmental challenges to propose that college environments facilitate both challenge and support in order to act as developmentally promoting communities (1962, 1966, 1967). Carl Rogers (1957/1961) also affirmed the significance of the supportive environment in fostering client change. Rogers identified the key qualities of counselor warmth, empathy, and unconditional positive regard that have been widely investigated and accepted as necessary, core conditions for therapeutic growth (Ivey, 2000).

Blocher (1977) summarized key criteria established in the literature and outlined seven necessary and sufficient individual and environmental conditions for development to occur. The conditions include: 1) Involvement, or psychological engagement on the part of the learner; 2) Challenge, or tension resulting from a mismatch between present cognitive structures, coping behaviors, and the demands of the environment; 3) Support, or empathy, caring, and honesty from significant others in the environment; 4) Structure, or examples of functioning slightly advanced than the learner's level of development; 5) Feedback, or accurate, clear, and immediate information about performance; 6) Application, or the testing of new attitudes, behaviors, and skills in real situations; and 7) Integration, or critical evaluation and assimilation of total learning in a safe environment.

Structural Development through Stage Progression

Developmental theorists suggest an advancement of functioning as a result of stage progression. Stage sequences are considered the foundational building blocks of all developmental models as they reflect the universal constants of human growth (Young-Eisendrath, 1988). Greek philosopher Plato (400 B.C.) may have been the first philosopher to suggest stage progression. In his metaphorical *Allegory of the Cave,* Plato described shifts in states of consciousness and meaning-making. His metaphor illustrated ways in which individuals change and develop in a linear and progressive fashion, with each shift representing a new stage built upon the previous stage. Through these qualitatively different shifts, individuals were thought to develop abilities to think, experience, and perceive in new ways (Ivey, 1986/2000). Neo-Platonic African philosopher Plotinus elaborated on Plato's observations in more continuous and holistic ways. Plotinus emphasized ways in which one can discover and connect to immediate, present experience, gaining deeper levels of self-understanding. In this way, Plotinus honored both immediate states and more complex evolutions of consciousness (Ivey).

Throughout the twentieth century, scholars expanded assumptions of stage progression that were initially represented in Darwin's evolutionary model and Freud's psychoanalytic, psychosexual stages of growth. Every subsequent developmental model included identification of regularities in structures and/or stage sequences reflecting psychosocial tasks, roles, or cognitive organization across development (Aubrey & Hayes, 1988; Blocher, 1988). Initially, stage sequences were viewed as hierarchical; each new stage was understood to reflect advanced, complex, and qualitative distinctions from the previous stage. One's ability to perceive,

interpret, and respond to the environment altered and advanced with each stage progression (Aubrey & Hayes).

Like Plotinus, Kegan (1982) argued against a hierarchical model of development and instead proposed a combination of linear and cyclical stage progression. Ivey (1986/2000) supported these assertions when he defined all states of consciousness (i.e., direct, sensorimotor states as well as abstract, reflective states that grant new frames of reference) as valuable, continuous, and cyclical. Both Kegan and Ivey supported the notion of a developmental spiraling by returning to earlier stages in a continuous progression of development (Kegan; Ivey, 2000/2005).

Human Development Applied to Professional Counseling

During the vocational and school guidance era of the early twentieth century, Frank Parsons (1909), the founder of the vocational guidance movement and named father of counseling, developed a model to identify, assess, and counsel individuals toward vocational placements that matched their interests and skills. Vocational guidance represented the first counseling practice to address a normal, developmental concern (Kottler, 2004). Robert Mathewson (1949) was one of the earliest scholars to articulate a need for developmental scholarship to form the foundation of counseling and guidance. Through a proliferation of research occurring within a few decades, developmental counseling and psychology gained recognition and receptivity by the 1960s (Blocher, 1988; Hayes & Aubrey, 1988). In response to increased appeals for positive, growth oriented, nonmedical, and nonpsychoanalytic perspectives involving greater emphasis on environmental and societal influences (Whitley, 1984), many scholars stressed the need for an educational-developmental perspective promoting positive

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human development to serve as a basis for professional counseling (Ivey & Gonclaves 1987; Ivey & Rigazio-DiGilio, 1991; Kohlberg, 1975; Sprinthall, 1971).

Don Blocher's publication of *Developmental Counseling* (1966) was a groundbreaking contribution toward the application of developmental theory in counseling. This publication offered credence and momentum to the movement of developmental applications for general populations in mental health and educational settings. Blocher summarized the discontent experienced in the 1960s among counselors who sought to accomplish more in the promotion of mental health than personality adjustment or conformity to society. He emphasized the lack of utility and empirical support for the predominantly used insight-oriented therapies and the lack of inspirational values and goals of the newer behavioral models. In addition, he noted the broadening appeal for growth promoting experiences beyond face-to-face counseling (Blocher, 1988).

Despite differences in existing models, Blocher extracted properties common to all developmental theories and created five philosophical assumptions upon which all developmental theories rest (Hayes & Aubrey, 1988). These included: 1) an acknowledgement of counseling as a derivative of the behavioral sciences; 2) a desire to influence the ethics and values of individuals; 3) a concern for and commitment to holistic development; 4) an emphasis on ego psychology; and 5) an effort to connect ego psychology to developmental unfolding (Hayes & Aubrey). Blocher made professional distinctions between developmental counseling and psychotherapy, clarifying differences among the developmental-educative-preventive approach versus the remediative-adjustive-therapeutic approach. Specifically (Blocher, 1966), he posited that developmental counselors ought to: 1) view clients as capable versus mentally ill, assuming responsibility for their own behavior and development; 2) focus on the present and

future more than the past; 3) view individuals as clients versus patients and counselors as teachers and partners who collaborate for mutually defined goals; 4) acknowledge that counselors are not blank slates, morally neutral, or amoral but rather individuals with values, feelings, and standards that are neither imposed nor hidden from the client; and 5) focus on changing behavior as well as creating insight. In addition, he highlighted key responsibilities for counselors to act as advocates of development and agents of change and emphasized the need for developmentally enhancing communities and institutions.

Utilizing a less clinical orientation and broadening its application to the general public, the focus of counseling shifted to merge the interests of multiple fields including education, mental health, and student development (Ivey & Gonclaves 1987; Ivey & Rigazio-DiGilio, 1991; Kohlberg, 1975; Sprinthall, 1971). In 1983, the professional association for counseling officially changed its named from the American Personnel and Guidance Association to the American Association of Counseling and Development, highlighting both a counseling and *human development* emphasis (Hayes & Aubrey, 1988). Counselors began to serve in schools, agencies, governmental, and private settings, serving the public more so than any existing mental health field, including psychiatry, psychology and social work (Ivey & Gonclaves; Ivey & Rigazio-Digilio, 1990, 1991; Van Hesteren & Ivey, 1990). As the profession became populated by increasing numbers of community-based mental health professionals in addition to school-based professionals, the name of the flagship professional organization was shortened to the American Counseling Association (Kottler, 2004).

Such an inclusive orientation, however, resulted in counselors assuming roles for which they were not adequately prepared (Ivey & Rigazio-Digilio, 1991; Weikel & Palmo, 1989). By the 1980s and 1990s, many leaders sought to re-establish the professional identity of counseling

by distinguishing it from the traditions, theories and methods of psychology. In addition, as professional counselors sought to include greater emphasis on cultural diversity, many psychologists relied on theories, models, and methods developed almost exclusively by white, upper and middle class males. During this time, many counselors advocated for a revitalized focus on *human development*, stressing the need for counselors to promote a profession concerned with therapeutic counseling, yet retaining a focus centered on the positive promotion of *human development* (Ivey & Gonclaves, 1987; Ivey & Rigazio-Digilio, 1990, 1991; Van Hesteren & Ivey, 1990). Ivey and Gonclaves proposed an overall developmental curriculum involving: 1) placement of developmental theories at the core of the curricula; 2) organizing theory so that emphasis is placed on developmental practice rather than on traditional theory; 3) orienting courses such as career development and assessment from a developmental perspective; 4) including family development and organizational development as part of the curricula; and 5) developing a new orientation to research in which primary attention is placed on development versus counselor behaviors and actions.

Summarized below are major studies and models that contributed to the human growth and development movement:

Cognitive Development

Jean Piaget was one of the earliest contributors to developmental theory and research. Piaget began his work examining the cognitive development of children, published in *The Moral Judgment of the Child* (1932/1977). Piaget formalized Plato's meaning-making states and demonstrated that childhood reasoning evolved along the following four qualitatively distinct stages: sensorimotor, preoperational, concrete, and formal. Piaget later added a stage he later termed "post-formal." Piaget (1952) coined the term, "schemata" to describe structures of the

mind that determine how people perceive, interpret, and evaluate their experience. Each stage of cognitive development is seen as successive in that the individual incorporates and builds upon the previous stage while gaining in functional complexity (see Table 2).

Piaget's team at the J.J. Rousseau Institute conducted enormous quantities of empirical testing on his theoretical concepts (Baldwin, 1967); however, Piaget's occasional alterations in his standard interview and neglect of reporting sample sizes and statistics in lieu of detailed descriptions of childrens' thinking processes resulted in methodological criticism (Flavell, 1963; Ginsburg & Opper, 1969). In the 1960s, however, Piaget's research fostered wide receptivity and recognition and formed the foundation for many contributions to cognitive developmental psychology.

Investigations of Piaget's stage sequences have been widely supported in the literature (Corman & Escalona, 1969; Dasen, 1972; Falvell, 1977; Lovell, 1968; Neimark, 1975). In particular, research investigations involving children strongly identified within a distinct stage versus a transitional state have been used to support the existence of Piaget's stages of cognitive processing (Uzgiris, 1964). Subsequent researchers, however, used results of studies of middle-class Americans and non-westerners to question Piaget's assumptions regarding adult reasoning patterns as coinciding with formal-operational thought (Dasen, 1972; Flavell, 1977; Kohlberg & Gilligan, 1971; Neimark, 1975). In light of new research, Piaget (1972) suggested that, while most adults achieve some degree of formal-operational thought, adults might utilize this mode only when necessary in their lives (Crain, 1980). Several meaning-making systems have been developed based upon Piaget's studies (Kegan, 1982; Kegan & Lahey, 2000; Kohlberg, 1981; Loevinger, 1998; Perry, 1986). Although Piaget's work continues to be elaborated upon and advanced, representations of his cognitive developmental stages have remained largely intact.

Table 2

Piaget's Stages of Cognitive Development (Piaget & Inhelder, 1969)

Sensorimotor period (Birth-2): The infant advances from performing only reflex actions to finally representing objects mentally and thereby cognitively combining and manipulating them.
Preoperational-Thought Period (2-7): This stage is divided into two levels. The first (ages 2-4) is characterized by egocentric speech and primary dependence on perception, rather than on logic, in problem solving. The second (5-7) is marked by an intuitive approach to life, a transitions phase between the child's depending on perception and depending on logical thought to solve problems.
Concrete-Operations Period (7-11): During adolescence, the typical child is no longer limited by what he or she directly see or hears, nor is he or she restricted to the problem at hand. The adolescent can now imagine various conditions that bear on the problem-past, present, and future-and devise hypotheses about what might logically occur under different combinations of such conditions. By the end of this final stage of mental development, the youth is capable of all the forms of logic that the adult commands.
Formal-Operations Period (11-15): During adolescence, the typical child is no longer limited by what he or she directly sees or hears, nor is he or she restricted to the problem at hand. The adolescent can now imagine various conditions that bear on the problem-past, present, and future-and devise hypotheses about what might logically occur under different combinations of such conditions. By the end of this final stage of mental development, the youth is capable of all the forms of logic that the adult commands. Subsequently, further experience over the years of later youth and adulthood fill in the outline with additional, more complex concepts so that the adult's thought is more mature and freer of lingering vestiges of egocentrism than is the thought of the adolescent

Moral Development

Lawrence Kohlberg (1958) utilized Piaget's assumptions and methodology to begin investigation of moral reasoning in adolescent boys. Kohlberg amended Piaget's original definitions and identified three additional stages of reasoning to occur in adolescence, reaching a level that supersedes conventional laws, rules, and morality in favor of universal ethics (Crain, 1980) (see Table 3).

Through a series of clinical interview studies examining cognitive reasoning related to hypothetical moral dilemmas, Kohlberg (1969) affirmed his theoretical conclusions and extended his research to other cultures (Kohlberg, 1979). Aspiring to promote the highest level of moral

reasoning, Kohlberg sought to apply his theory to the field of education as template for school-based moral education programs (Kohlberg, 1971).

Most of Kohlberg's research included cross-sectional rather than longitudinal data. Criticisms related to Kohlberg's studies were based on the use of a cross-sectional design in which the same subjects were not observed to move from one stage to another. Rather, different subjects were interviewed at different ages. A few longitudinal studies were later conducted and offered ambiguous results. In one study, adolescents were measured every three years and many were observed to progress to a new stage of moral reasoning, although some seemed to skip a stage or advance more than one stage at a time (Holstein, 1973; Kohlberg & Kramer, 1969). In another longitudinal study, Kuhn (1976) measured children at six month intervals and identified regular and consistent stage movement among Kohlberg's stage sequences; however, the same study was not replicated with adolescents. In addition, some subjects in the longitudinal studies were observed to move to earlier stages of moral reasoning before progressing to a later stage of moral development. Kohlberg denied a regression in moral development, and instead proposed that during this period, subjects may give arguments they no longer believe in and operate in retrogression versus regression. Today, many developmental theorists account for some degree of regression in development and see this as a more likely explanation (Crain, 1980).

Rest (1986) reported on hundreds of studies that demonstrated that moral development increases with age and education. The constructs associated with Kohlberg's theory have also received empirical support (Rest, 1979/1986; Walker, 1988; Walker & Taylor, 1991). In response to newer data and criticism of the gender limitations of his model, Kohlberg modified his theory in later years (Colby, Kohlberg, Gibbs, & Leiberman, 1983) and developed the Moral Judgment Interview (MJI) to measure moral reasoning (Colby, 1987).

Table 3

Kohlberg's Stages of Moral Reasoning (Berk, 2004)

Preconventional Level: Morality is externally controlled. Children accept the rules of authority figures and judge actions by their consequences. Behaviors that result in punishment are viewed as bad, and those that lead to rewards are seen as good.
Stage 1: The punishment and obedience orientation. Fear of authority and avoidance of punishment.
Stage 2: The instrumental purpose orientation. Satisfying personal needs.
The Conventional Level: Individuals continue to regard conformity to social rules as important, but not for reasons of self-interest. They believe that actively maintaining the current social system ensures positive relationships and societal order.
Stage 3: The Good boy-good girl orientation, or the morality of interpersonal cooperation. Maintaining the affection and approval of friends and relatives.
Stage 4: The social-order maintaining orientation. A duty to uphold laws and rules for their own sake.
The Postconventional or Principled Level. Moving beyond unquestioning support for the laws and rules of their own society. They define morality in terms of abstract principles and values that apply to all situations and societies.
Stage 5: The social contract orientation. Fair procedures for changing laws to protect individual rights and the needs of the majority.
Stage 6: The universal, ethical principle orientation. Abstract, universal principles that are valid for all humanity.

Adult Intellectual and Ethical Development

Building upon the work of Piaget, William Perry (1968) examined intellectual and ethical development during the adolescent to adult cognitive developmental period. Over the course of four years, Perry conducted longitudinal research on students from Harvard and Radcliffe universities. Through his studies, Perry concluded that intellectual and ethical development occur along a continuum, beginning in simplistic form of absolute, dualistic thinking (good / bad; right / wrong) and extending to complex cognitive processes where individuals seek personal values and commitments while acknowledging the contingent, relative nature of knowledge. Through movement into relativistic thinking and an awareness of multiple perspectives, Perry

identified a new cognitive style later defined as post-formal thought. Perry (1981) identified

nine positions of intellectual and ethical development (see Table 4).

Table 4

Perry's Nine Positions of Intellectual Development (Dawson, 2004)

Position 1. The student views knowledge as either correct or incorrect. Knowledge is construed as an accumulation of facts collected through hard work and obedience.
Position 2. The student recognizes that there are conflicting opinions, but views some as correct and others as incorrect.
Position 3. Diversity and uncertainty are accepted, but only because the answer has not yet been found.
Position 4. The student comes to the conclusion that everyone is entitled to her own opinion, though right and wrong still prevail in the realm of authority.
Position 5. The student views all knowledge as contextual.
Position 6. The student comes to understand that it is necessary for him to commit to a position within a relativistic world.
Position 7. The commitment is made.
Position 8. The implications of commitments are explored as are notions of responsibility.
Position 9. The individual situates herself within an identity that incorporates multiple responsibilities, and views commitment as an ongoing process through which the self finds expression.

Psychosocial Development

While accepting many of Freud's psychoanalytic assumptions, clinical psychologist Erik

Erikson (1959/1980, 1963, 1968) expanded Freud's psychosexual theory of individual

development into a psychosocial one, incorporating both intra-psychic and social environmental

influences upon development. Erikson outlined eight stages of psychosocial development over

the life span (Erikson, 1959/1980) with each stage involving a major, developmental crisis and

task that contributes to identity development (Erikson, 1963, 1968, 1982; Erikson, Erikson &

Kivnick, 1986). Erikson concluded that the resolution of the self was necessary at each stage in

order to develop and maintain a healthy identity across the lifespan (Erikson, 1959/1980) (see

Table 5).

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Erikson utilized case studies to illustrate his theoretical concepts. While many mental health practitioners found them useful, scholars have criticized his theoretical concepts for their vagueness and lack of verifiability through empirical investigation (Crain, 1980). Still, many models involving psychosocial variables of identity and self-definition have been developed based upon Erikson's framework.

James Marcia (1966) examined identity development in young adults and was the first to create measures for states representing the identity development and resolution of young adults (Marcia, 1966/1980). Although supporting research was conducted exclusively on white males, this represented the first empirical study on Erikson's theory. Utilizing semi-structured interviews and a sentence completion format, Marcia examined decisions related to occupation, politics, and religion for eighty-six undergraduate students enrolled in psychology, religion, and history courses at a liberal arts college. Marcia concluded that each state of identity resolution involved a developmental crisis, or questioning period, and a decision-making commitment process based upon values and goals.

Josselson (1987) later extended Erikson's model to identity formation and resolution in women. Josselson examined female seniors between the ages of twenty-two and twenty-four at various colleges and universities, and she conducted interviews three years and ten years after graduation. Through her investigations, Josselson concluded that in seeking and creating identity, women focus more wholly on who they seek to become rather than making separate, distinct decisions related to occupation, politics, religion, ideology, or sexual identification (Josselson, 1973, 1982, 1987; Josselson, Greenberger, & McConochie, 1977).

Table 5

Erikson's Psychosocial Stages of Development (Wastell, 1996)

Basic Trust vs. Mistrust (Oral) (0-1): From warm, responsive care, infants gain a sense of trust, or confidence that the world is good. Mistrust occurs when infants have to wait too long for comfort and are handled harshly.
Autonomy vs. Shame and Doubt (Anal) (1-3): Using new mental and motor skills, children want to choose and decide for themselves. Autonomy is fostered when parents permit reasonable free choice and do not force or shame the child.
Initiative vs. Guilt (Phallic) (3-6): Through make-believe play, children experiment with the kind of person they can become. Initiative-as sense of ambition and responsibility-develops when parents support their child's new sense of purpose. The danger is that parents will demand too much self-control, which leads to overcontrol, meaning too much guilt.
Industry vs. Inferiority/Diffusion (Latency) (6-11): At school, children develop the capacity to work and cooperate with others. Inferiority develops when negative experiences at home, at school, or with peers lead to feelings of incompetence.
Identity vs. Identify Confusion (Genital) (Adolescence): The adolescent tries to answer the question, Who am I, and what is my place in society? Self-chosen values and vocational goals lead to a lasting personal identity. The negative outcome is confusion about future adult roles.
Intimacy vs. Isolation (Young Aulthood): Young people work on establishing intimate ties to others. Because of earlier disappointments, some individuals cannot form close relationships and remain isolated.
Generativity vs. Stagnation (Middle Adulthood): Generativity means giving to the next generation through child rearing, caring for other people, or productive work. The person who fails in these ways feels and absence of meaningful accomplishment.
Ego Integrity vs. Despair (Older Adulthood): In this final stage, individuals reflect on the kind of person they have been. Integrity results from feeling that life was worth living as it happened. Older people who are dissatisfied with their lives fear death.

Ego Developmental Psychology

Jane Loevinger developed a theory of ego development that addresses cognitive changes over the lifespan. According to D'Andrea (1984) *ego development* could also be defined as "personal development" and "psychological growth" as it is thought to describe the "master" personality trait that organizes perception and integrates all other aspects of the personality. Loevinger's system contains seven stages that represent a qualitative progression (D'Andrea, 1984). According to Loevinger, in early stages of ego development the individual perceives and functions in simplistic, undifferentiated, and unintegrated ways while growth in later stages

reflects complex, differentiated and integrated processing and functioning (Ivey, Ivey, Myers, &

Sweeney, 2005) (see Table 6).

Table 6

Loevinger's Stages of Ego Development (Loevinger, 1976)

Stage	Impulse Control, Character Development	Interpersonal Style	Conscious Preoccupations	Cognitive Style
Pre-social				
Impulsive	Impulsive, fear of retaliation	Receiving, dependent, exploitive	Bodily feelings, especially sexual and aggressive	Stereotyping, conceptual confusion
Self-protective	Fear of being caught, externalizing blame, opportunistic	Wary, manipulative, exploitive	Self-protection, trouble, wishes, things, advantage, control	
Conformist	Conformity to external rules, shame, guilt for breaking rules	Belonging, superficial niceness	Appearance, social acceptability, banal feelings, behavior	Conceptual simplicity, stereotypes, clichés
Conscientious	Self-evaluated standards, self-criticism, guilt for consequences, long term goals and ideas	Intensive, responsible, mutual, concern for communication	Differentiated feelings, motives for behaviors, self-respect, achievements, trait, expression	Conceptual complexity, idea of patterning
Individualistic	Respect for individuality in addition to the previous	Dependence as an emotional problem in addition to the previous	Development, social problems, differentiation of inner life from outer in addition to the previous	Distinction of process and outcome in addition to the previous
Autonomous	Coping with conflicting inner needs and toleration in addition to the previous	Respect for autonomy and interdependence in addition to the previous	Vividly conveyed feelings, integration of physiological and psychological, psychological causation of behavior, role conception, self-fulfillment, self in social context	Increased conceptual complexity, complex patterns, toleration for ambiguity, broad scope, objectivity
Integrated	Reconciling inner conflicts, renunciation of unattainable	Cherishing of individuality	Identity	

Feminist Theory

For decades, the emergence of developmental research consisted of models of

development that reflected a male oriented standard of development. These models equated

hierarchical power relationships, individuation, separation, self-sufficiency, autonomy, and a

focus on the self with normal growth and development. In addition, many researchers

generalized findings based upon male-generated research to both men and women, contributing

to biases against a gender that did not fit the norms of existing models. As a result, feminist

theorists have challenged scholars who generalized research findings conducted primarily on men to women or who assume a male oriented standard of development for both genders (Evans, Forney, & Guido-DiBrito, 1998).

Many cognitive theories were based upon studies of white, educated males. Similarly, much of the research on identity development between 1950 and 1970, based on Erikson's framework, was conducted on white men in prestigious universities and generalized to both men and women (Evans et al., 1998). Kohlberg (1969) later expanded his work to include studies involving women; however, for years he conducted research exclusively on males and generalized his findings to men and women (Gilligan, 1982/1993). Because Kohlberg compared women to the same developmental norms as his male subjects, he concluded that women did not reach the same levels of moral development as men (Gelwick, 1985).

Jean Baker Miller (1976) was an early feminist scholar to articulate the need for a gender-based developmental perspective and one of the first to frame the relational characteristics of women in a positive light. Inspired by her work, Carol Gilligan (1982), a former research assistant to Lawrence Kohlberg, disputed Freud, Kohlberg, Erikson, Perry, and other theorists who neglected models of development accounting for the female experience. Gilligan discovered differences among the male and female experience in existing scholarship, including Freud's observation of the role of emotions in female ethical decision making (Freud, 1905/1965) and Piaget's (1952) observation that girls are less-oriented toward structure and rule setting in play. Nancy Chodorow (1978) noted ways in which boys and girls identify differently with their mothers. She observed boys to psychologically separate from their mothers at earlier ages, seeking identity through autonomy, while feeling threatened by intimacy. In contrast, she

observed girls to identify with their mothers for longer periods, seeking identity through connections to others while feeling threatened by separation.

Based upon her collective body of research, Gilligan observed different moral reasoning patterns among female subjects than had been previously described by Kohlberg. Gilligan observed a "care" orientation as a priority for women based on attachment, connection, and responsibility to self and others rather than a "justice" orientation, based on equality, fairness, and reciprocity (Gilligan, 1982/1993). Gilligan presented her findings and conclusions in her seminal work, *In a Different Voice (1982)*, in which she distinguished between the care and justice voice. Here, Gilligan presented three qualitative studies, two involving men and women, in which she contrasted observed differences in ethical and moral decision making. One longitudinal study involved included twenty-six Harvard university undergraduate students during their senior year and five years post graduation. Students' moral developmental levels were assessed and each was asked to discuss issues of moral conflict, choice, commitment, and identity (Gilligan, 1981). Another study included twenty-nine women of diverse socioeconomic, educational, racial/ethnic backgrounds, and marital status between the ages of fifteen and thirty-three. Subjects were asked to discuss their decision-making process as to whether or not to have an abortion (Gilligan & Belensky, 1980). The final longitudinal study included 144 males and females at nine different points across the lifespan from childhood (age 6) through adulthood (age 60). Gilligan conducted interviews to explore sense of self, morality, conflict, choice, and decision making processes in proposed ethical scenarios (Gilligan & Murphy, 1979; Murphy & Gilligan, 1980; Gilligan, 1982/1993).

As a result of her findings, Gilligan devised alternative theories of female development that demonstrated a valuing of connection and interdependence more characteristic and intrinsic

to women (Gilligan, 1982). She also emphasized the importance for counselors to support

female clients in reclaiming disowned female attributes as a result of patriarchal standards

(Gilligan, 1982, 1991). Gilligan outlined the following model of female moral development (see

Table 7).

Table 7

Gilligan's Theory of Women's Moral Development (Evans, Forney, Guido-DiBrito, 1998)

Level 1: Orientation to Individual Survival. The individual is self-centered and preoccupied with survival, unable to distinguish from what should occur (necessity) and what would occur (wish). For many, relationships do not meet their expectations. In some instances, they intentionally isolate themselves as protection against pain associated with unfulfilled intimacy.
First Transition: From Selfishness to Responsibility: The most poignant issue is one of attachment and connection to others. The criterion used for judging shifts is from independence and selfishness to connection and responsibility. The concept between would and should is distinguishable, giving the individual more choices for moral judgment. Questioning their self-concept, individuals moving through this transition consider the opportunity for doing the right thing. The individual integrates responsibility and care and into her repertoire of moral decision-making patterns.
Level 2: Goodness as Self-Sacrifice: Survival becomes social acceptance. Seeking the paradox of self-definition and care for others, individuals at this level reflect conventional feminine values. An individual may give up her own judgment in order to achieve consensus and remain in connection with others. Disequilibrium arises over the issue of hurting others. Although conflict exists, it is typically voiced in private.
Second Transition: From Goodness to Truth: The individual questions why she continues to put others first at her own expense. The individual examines her own needs to determine if they can be included within the realm of responsibility. The struggle to reconcile the disparity between hurt and care continues. At this time, the individual makes a moral judgment from shift from deciding in accordance with those around her to deciding by inclusion of her own needs on a par with those of others. For the first time, the individual views examination of her needs as truth, not selfishness. The second transition is linked to self-concept. Taking responsibility for decisions one makes comes as a result of being honest with oneself. A potentially vulnerable time, one can be torn between survival and morality.
Level 3: The Morality of Nonviolence: The individual raises nonviolence, a moral mandate to avoid hurt, to the overriding principle that governs moral judgment and action. The individual is elevated to the principle of care by a transformed understanding of the self and a corresponding redefinition of morality. Through this second transformation, which now includes respect for the self, the dichotomization of selfishness and responsibility disappear. This reconciliation opens the door for the individual to recognize her power to select among competing choices and to keep her needs within the mix of moral alternatives. In opening this door, the individual recognizes the moral equality between self and others.

Translating Theory to Practice: Implications for Counselor Education

As discussed previously, the orientation of the counseling profession toward the promotion of *human development* has long been articulated, understood, and accepted. Still, there is a general lack of clarity regarding how development is to be integrated into counseling practice (Ivey & Goncalves, 1987). Despite an identity based in developmental foundations and standards that call for developmentally-oriented counseling applications, few programs provide opportunities by which students can translate developmental knowledge into counseling practice. Overall, training activities addressing developmental counseling remain neglected, vague, and theoretical (Granello & Hazler, 1998; Sprinthall, Reiman & Thies-Sprinthall, 1993; Sprinthall & Thies-Sprinthall, 1983). Scholars have expressed concerns regarding the myriad of models addressing *human development* and the relatively small influence of theoretical knowledge on daily, clinical practice (Ivey, 2000; Paisley & Benshoff, 1996/1998). Although assessment differs from standard testing and measurement in its continuous, holistic, and qualitative view of human progression (Hayes & Aubrey, 1988), methods for developmental assessment have been equally scarce, vague, and theoretical (Darden, Ginter, & Gazda, 1996).

Ivey and Ivey (1988) argued that strategies for helping young people develop are not well known. An Association for Counselor Education and Supervision (1990) report concluded that the typical school counseling curriculum lacks instruction in developmentally based interventions, and a recent review of school counseling literature revealed that only one in four programs focused on such interventions (Myers, Shoffner, Briggs, & Kielty, 2002). Currently, crisis intervention and risk and remediation remain the focus in school counselor training (Akos & Galassi, 2004; Paisley & Benhoff, 1996).

Many scholars have addressed the need to translate theories and models into systematic counseling frameworks (Blocher, 1966; Howard, Nance & Myers, 1987; Ivey, 1986, 1990; Ivey & Gonclaves, 1988; Ivey & Rigazio-Digilio, 1991; Larson, 1984; Morrill, Oetting & Hurst, 1974; Mosher & Sprinthall, 1971; Van Hesteren, 1986). Ivey and Rigazio-DiGilio (1991) proposed translating major models that have formed the foundation of education and counseling, including Piaget (1963), Kohlberg (1981), Gilligan (1982), Kegan (1982), and Erikson (1963). Van Hesteren (1986) argued for the developmental training imperative to be taken seriously in counselor education and proposed a constructive-developmental framework for counseling. At a minimum, it is clear that changes in developmental training need to occur (Paisley, 2001), and this responsibility begins with counselor preparation programs (Paisley & Benshoff, 1996).

Need for Teaching Guidelines for Counselor Educators

One possible explanation for the lack of developmental training within *human development* curricular experiences may be the lack of research-based recommendations and guidelines for counselor educators. Currently, *human development* courses are typically didactic and placed in early phases of the counseling curriculum (CACREP, 2001). The purpose of this placement is to provide trainees opportunities to build upon a developmental framework (Skovholt & Ronnestad, 1992). Although CACREP requires criteria and evaluation of demonstrated knowledge in all common core areas, clearly defined and measurable outcomes addressing both knowledge and skills are required only for clinical instruction areas, such as practicum and internship. Overall, less attention is paid to specific teaching methods, criteria, and evaluation outside of supervised, clinical instruction areas. Granello & Hazler, 1998). In addition, *human development* courses may also be offered outside of the counseling program.

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For most didactic areas, teaching methods remain a function of history and tradition rather than empirically based pedagogy (Fong, Borders, Ethington, & Pitts, 1997; Sexton, 1998). Despite new knowledge related to student learning, much of which has been integrated into other academic disciplines, most of counselor education remains a product of tradition (Fong, 1998). The concern over the lack of an articulated pedagogy for counseling content has been a recent focus in the professional and literature (Granello & Hazler, 1998; Nelson & Neufeldt, 1998; Sexton, 1998; Smaby, 1998). In addition to the need for effective teaching strategies, programs may soon be required to account for measurable outcomes of student performance in core areas (Ewell, 1997).

Need for Scientifically-Based, Comprehensive Developmental Models

D'Andrea (1984) emphasized the need for a scientifically based framework outlining the processes of development from which to conceptualize and chart the nature, tasks, and processes of *human development* across the life span. Although theoretical knowledge, anecdotal knowledge, and intuitive experience can inform practitioners of strategies that work well in certain stages of development, practitioners are need of formalized, scientifically-based, comprehensive frameworks to guide them through all stages of the counseling process.

As a science and an art (ACA Code of Ethics Preamble, 2005), counselors are called to utilize counseling frameworks that meet established theoretical criteria rather than engage in personal bias (Boy & Pine, 1983). Legitimate frameworks address assumptions regarding the nature of humans, behavioral change, the role of the counselor, and counseling goals and possess characteristics of clarity, simplicity, comprehensiveness, utility, significance, and empirical support (Hansen, 1977; Peterson, 1973; Stefflre & Grant, 1972). Because intentionality is a key component to effective practice in each counseling phase (Ivey, 1994), the lack of a

comprehensive framework for conceptualization, intervention, and treatment planning (Schmidt 1994) can leave counselors confused and ill-prepared regarding what constitutes effective counseling. In addition, it is very difficult to train students or measure the effectiveness of therapy when no specific framework is used. Managed care has required approaches that are supported by research since the 1980s (Fall, Holden, & Marquis, 2004). Thus, the ability to cite a modality validated by current professional literature is the best rationale to guide professional work and defend against malpractice.

Eclectic and Integrative Counseling

Considering a lack of developmental training and trends toward eclecticism, counseling strategies are likely to become haphazard (Wastell, 1996). Eclecticism refers to the practice of selecting ideas and techniques from a range of theories or models in an effort to meet the needs of the client (McLeod, 1993). Many have voiced a concern regarding a growing trend among counselors to engage in eclectic counseling (Abernathy, 1992; Corey, 2001; Gerber, 1999, 2001; Lazarus & Beutler, 1993). The concerns expressed are primarily based upon the inherent dangers of unsystematic, haphazard practice that lacks empirical support and evidence for lasting therapeutic impact (Corey, Gerber, Lazarus & Beutler, Seligman, 1998).

Integration differs from eclecticism in that it involves the coordinating of existing theories and models to create a new theory and/or model (McLeod, 1993). Rather than promote a haphazard approach, integrative models seek to provide new, comprehensive, and systematic frameworks that offer a promising resolution for holistic conceptualization and treatment. While most existing integrative models require further examination and empirical investigation, evidence has suggested that the flexibility of strategies within integrative models increase

competencies with diverse clients (Arredondo et al., 1996; Constantine, 2001, Sue & Arredondo, 1992).

Many scholars have devised integrative models that address various aspects of developmental processes, stages, and tasks. In 1980, Clifford Swenson developed an integrative model of counseling and psychotherapy based on Jane Loevinger's system of ego development (Loevinger, 1966, 1976; Loevinger, Wessler, & Redmore, 1970). Swenson proposed matching ego states with recommended therapeutic modalities (D'Andrea, 1984) (see Table 9).

Table 8

Jane Loevinger's Ego System Stages (Swenson, 1980)

Jane Loevinger's Ego System Stages (in Swenson, 1980):	Swenson's Matching Ego Stages with Different Therapeutic/Counseling Approaches	
	Ego Stages	Therapeutic Approaches
Impulsive Stage: Client behavior is largely a function of reward and punishment. Counseling would involve parents, family, or professional personnel. Integrative behavior therapy into the milieu would be the method of choice.	Impulsive	Behavioral therapy
Self-protective stage: Though clients behave in accordance with environmental rewards and punishments, they have greater impulse control. Client behavior is calculated to gain rewards without punishment. Counseling that helps produce a sense of reciprocal trust and responsibility between clients and important systems (e.g., classroom, family, workplace) in their environment would be applicable.	Self-Protective	Cognitive Behavioral Therapy, Reality Therapy
Conformist stage: The individual has transcended external reward and punishment and now sees his/her fate as being entwined with the fate of the group. Behavior is determined by the opinion of other people and is governed by the rules of the group, also focuses on resolving conflicts between the rules and roles with which the troubled person must grapple.	Conformist	Rational-Emotive Therapy Reality Therapy
Conscientious Stage: Individuals at this stage have shifted their concern with what other people think to choosing their own rules. They are also motivated to develop a deeper understanding of other people and greater authenticity/honesty in their personal relationships. The concern for deep and authentic relationships as well as a growing concern for personal development are the focus of client-centered and humanistic therapies.	Conscientious	Insight Therapy Client-Centered Counseling Humanistic/Existential Therapies
Autonomous/Integrated: At the higher levels of ego development, persons become concerned with questions of a more philosophical nature. The existential and humanistic forms of therapy appear to be more applicable to these clients.	Autonomous	Existential/Humanistic Therapies Gestalt Therapy

Aligning with cognitive-structural theory, Robert Kegan (1982) defined meaning-making as the organization of one's thinking, feeling and acting over a wide range of functioning and outlined patterns for the development of the self. Kegan (1980) integrated theories of *human*

development into five stages of meaning making and reality construction, and linked stages appropriate, theoretically-based interventions (see Table 9).

Table 9

Kegan's Stages of Evolving Self

Stage 0, Incorporative – In this sensorimotor developmental stage, the self senses and moves through reflexes. The child and his or her environment seem to be extensions of each other rather than development.
Stage 1, Impulsive – In the impulsive stage, which ends by the age of 7, the self is defined in terms of impulses and perceptions; these coordinate one's reflexes. Consistent with preoperational thought, objects are understood as presently perceived.
Stage 2, Imperial – The imperial stage lasts throughout adolescence and is characterized by an emerging awareness that one is unique and that others do not know what one is thinking. There is a private life that is not shared with others. Empathy is absent, as the individual is unable to imagine the internal response of others
Stage 3, Interpersonal – In this stage, the self is viewed as interpersonal, and existing in mutual relations with others. These relations are not necessarily intimate in nature.
Stage 4, Institutional – In the institutional stage, individuals are self-reflective and aware of the self as a regulator of relationships. Consistent with fully formal-operational thought, the self is viewed as the author of one's identity.
Stage 5, Interindividual – In Kegan's final stage, there is an awareness of the roles one plays in relation to others and systems, and of the genesis of these roles. Dialectic thought is the hallmark of this stage.

Frameworks such as these allow practitioners to conceptualize client issues and potential intervention strategies for specific developmental stages and tasks; however, most integrative models lack empirical investigation and do not provide guidelines for systematic assessment, diagnosis, intervention, and treatment planning (Hohensil & Gertz, 2001). Of the existing integrative models, Allen Ivey's Developmental Counseling and Therapy (Ivey, 1986/2000; Ivey et al., 2005) is the only approach that: 1) is based on established models of human growth development; 2) includes a comprehensive framework for conceptualization, assessment, intervention selection, and treatment planning; 3) addresses the needs of general and diverse populations and settings; and 4) has been increasingly subjected to empirical investigation (Barrio, 2005).

Ivey (1986) proposed a theoretical, integrative, contextual, multiperspective, and holisitic model for developmental counseling in his landmark *Developmental Therapy*. Text. Aligning with other constructivists, Ivey (1986/2000, 1991/1993) stated that the primary goal of counseling is to facilitate development and asserted that the major theories of *human development* could be constructed into counseling therapies. Ivey articulated the need to balance counseling's psychoeducational position with psychology's therapeutic position. Ultimately, he developed Developmental Counseling and Therapy (DCT), a model based upon the assertion that cognitive/emotional developmental style is the key component to understanding and facilitating change. DCT is designed to integrate the theoretical foundations of *human development* that underlie the counseling profession with developmentally promoting strategies and interventions.

The DCT framework is based primarily on Platonic and neo-Platonic philosophy and the cognitive studies of Jean Piaget (1923/1955; 1952/1963; 1965). The model includes an expanded interpretation of Piaget's stages of child cognitive development, applying them also to adolescents and adults. Ivey related Piaget's four stages of meaning-making, or how one constructs and makes sense of experience, to Plato's *Allegory of the Cave,* describing developmental changes that occur as one increasingly moves into sophisticated ways of processing experience (Ivey et al., 2005). In addition, Ivey emphasized Piaget's assertion that every cognition encompasses an emotional experience and every emotional experience encompasses cognition, even though little attention has been paid to this definition (Ivey, 2000).

DCT is rooted in the notion that individuals develop in relation with the environment as a result of genetic make-up, social history, and contextual factors; developmental history and social-cultural history and context are seen as central to development. DCT integrates the foundations of Erikson's (1963) life-span development; Bowlby's (1969) attachment theory;

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Kohlberg's (1981) moral development; Loevinger's (1976) ego development; Carol Gilligan's (1982) female development and cultural identity development theories including Cross's (1971) racial identity theory; Helms (1984) white racial identity theory; and Sue & Sue's (2003) multicultural counseling and therapy. Drawing heavily upon contributions made by feminist and multicultural scholars, DCT scholars emphasize the significance of connection in development in addition to traditional ideas of individuality and autonomy (Ivey, 1986/2000; Ivey, 1991/1993; Ivey & Goncalves, 1988; Ivey et al., 2005).

According to the model, developmental blocks result from environmental deficits throughout the lifespan that create difficulties in coping effectively with challenges. More specifically, developmental blocks result in one's lack of ability to process experience effectively through four distinct meaning-making modalities, referred to as cognitive-emotional styles. The cognitive-emotional styles include: 1) sensorimotor/elemental – immediate, direct experiencing; 2) concrete/situational – descriptive and causal reasoning about situational reality; 3) formal/reflective – reflecting on the self or situation, and 4) dialectic/systemic – integration and or seeing the self-in-system (Ivey, et. al, 2005).

Ivey asserts that "style" or "orientation" more accurately substitute for linear concepts of "stage" and "level" development (Ivey, 2000/2005) as modalities represent styles through which all humans fluctuate in differing degrees (Myers et al., 2002). In DCT, there is no lower or higher form of being; all styles are vital for holistic development (Ivey et al., 2005).

Through precision empathy, the counselor first seeks to meet the client where he or she is cognitively and emotionally by matching counseling style with client's preferred cognitive/emotional style. For example, a client with a concrete style will initially feel understood and experience more satisfaction from a concrete expression of empathy. It is

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essential, however, to ultimately help the client explore issues at other levels. Style-shifting involves initially joining the client's frame of reference to communicate empathy and promote deeper, horizontal growth within one's preferred style, Mismatching or style shift is used to stimulate vertical growth or new development in another cognitive-emotional style. Ultimately, the DCT framework suggests the need to work through issues at multiple levels and promote development in each style, including immediate and direct experiencing as well as reflective and abstract states of reflection and systemic integration (Ivey et al., 2005).

In accordance with basic, developmental principles, Ivey and colleagues (2005) posited that clients change and grow in predictable and unpredictable ways and develop in a positive direction when counselors understand their needs from a holistic perspective. Therefore DCT counselors utilize a comprehensive approach to intervention and treatment, referred to as, "multilevel treatment." Understanding of client strengths, lifespan stages, transitions, multicultural needs, and contextual factors is integrated into treatment plans founded upon include precision empathy, style-shifting, and basic intervention strategies from major theoretical forces in counseling and therapy (e.g., psychodynamic, existential-humanistic, cognitive-behavioral, and multicultural counseling and therapy) (Ivey et al., 2005).

Several researchers have supported the construct validity of DCT concepts (Boyer, 1996; Heesacker, Prichard, Rigazio-DiGilio & Ivey, 1995; Rigazio-DiGilio & Ivey, 1990) and the basic cognitive, emotional styles have received empirical support (Heesacker et al., 1998; Kunkler-Peck, 1999; Rigazio-DiGilio, 1989; Rigazio-DiGilio & Ivey, 1990). In addition, DCT framework and methods have received wide recognition, attention, and implementation in a variety of counseling settings (e.g., Cashwell, Myers, & Shurts, 2004; Crespi & Generali, 1995; Ivey & Ivey, 1990, 1998, 1999, 2001; Ivey et al., 2005; Kenney & Law, 1991; Marszalek, 1998;

Marszalek & Cashwell, 1998; Myers, 1998; Myers, Barrio, & Paredes, 2004; Myers, Shoffner, & Briggs, 2002; Rigazio-DiGilio, 1994; Rigazio-DiGilio, Daniels, & Ivey, 1997; Strehorn, 1999; Weinstein, 1995). Initial evidence has also supported the categorization of counselor intervention and treatment planning strategies into the four, established DCT styles (Barrio, 2005). Of all existing models bridging developmental foundations to counseling practice, DCT remains the most widely investigated.

Cognitive Complexity: A Measure of Theoretical Integration & Application

Currently, there are no empirical measures for assessing trainees' understanding and application of human developmental content; however, one proposed way to measure conceptual abilities related to the *integration and application* of theoretical content is to examine trainee levels of *cognitive complexity*. *Cognitive Complexity* is defined by Burleson & Waltman (1988) as the degree of differentiation, abstractness, articulation, and integration within a cognitive system. *Cognitive complexity* represents a qualitative cognitive developmental process affecting counseling performance (Stoltenberg, 1981). As many graduate students begin their studies using dualistic cognitive processes (Ivey & Gonclaves, 1987), increased *cognitive complexity* has been demonstrated to facilitate the integration of content from a variety of perspectives (Simpson et al., 1986) and enable access, organization, and conceptualization of counseling variables (Jennings & Skovholt, 1999).

As personal qualities of effective therapists have become a focus in recent counseling scholarship (Brendel, Kolbert & Foster, 2002; Jennings & Skovholt, 1999), complex cognitive skills have been identified among traits of effective counselors (Borders, 1989; Driver, & Streufert; 1967; Duys & Hedstrom, 2000; Goldberg,1974; Handley, 1982; Hiebet, Hallberg, & Cummings, 1989; Holloway & Wampold, 1986; Kimberlin & Friesen, 1980; Martin, Little,

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Packman, Smaby & Maddux, 2005; Meyer, 1996; O'Keefe & Sypher, 1981; Peace, 1995; Rest & Narvaez, 1994; Schroder, Driver, & Streufert,1967; Schroder, Jennings, & Skovholt, 1999; Slemon, Sprinthall & Thies-Sprinthall, 1983; Stoppard & Miller, 1985).

Hillerbrand (1989) defined expert therapists in the following way:

able to conceptualize clients, integrate factual information into performance, and recognize interpersonal processes. Expertise consists of the cognitive skills of comprehension and problem solving. That is, the ability to identify and understand incoming information and then cognitively process this information for the purpose of reaching a conclusion or solution. (p. 292)

A good deal of research has sought to examine the effects of cognitive development among *counselor trainees* (Fong et al., 1997). Many researchers have cited *cognitive complexity* as a factor correlated with increased abilities for case conceptualization, application of theory (Stoltenberg, McNeill, & Delworth, 1998; Borders, Fong, and Neimeyer; 1986), assessment (Fong et al., 1997; Meyer, 1996), clinical interpretive judgment (Schroder, Driver, & Streufert, 1967) and accuracy in clinical hypothesis (Holloway & Wolleat 1980). As a result, measuring *cognitive complexity* has been cited as one method for tracking trainee development (Duys & Hedstrom, 2000).

Experience alone does not seem to account for the facilitation of *cognitive complexity*. Donahoe (1997) investigated the differentiation of experienced and inexperienced therapists in terms of their cognitive structuring. Donahoe utilized Crockett's Role Category Questionnaire to compare the *cognitive complexity* of graduate students and practicing psychologists with six or more years of experience. The author sought to substantiate novice to expert developmental research; however, significant correlations between experience and *cognitive complexity* were not identified thus suggesting that experience alone does not promote cognitive development. Similarly, Skovholt et al. (1997) corroborated a lack of correlation between experience and

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expertise. As a result, researchers have recommended active training curricular experiences that facilitate the development of *cognitive complexity* (Duys & Hedstrom, 2000; Donahoe).

Noting a focus on theoretical knowledge and skill acquisition, Stoltenberg (1981) proposed a counselor complexity model of supervision to promote trainee cognitive development (Bordin, 1968; Brammer, 1973; Hackney & Nye, 1973; Ivey, Normington, Miller, Morril, & Haase, 1968; Lister, 1967). Although directing his efforts to supervision, Stoltenberg (1981) encouraged programs to promote *cognitive complexity* development throughout counselor training. In a separate study, Duys & Hedstrom (2000) concluded that active skills training conducted early in the counseling curriculum increased *cognitive complexity*, the integration of content, and conceptualization ability for trainees before practicum. Active skills training conducted early in the curriculum provided trainees opportunities to gain familiarity and initial integration of counseling concepts (Ivey & Gonclaves, 1987). Such methods have also been shown to reduce dropout rates and increase success in advanced clinical coursework (Schonwetter, Perry & Struthers, 1993).

A human developmental counseling application curriculum infused in early phases of the counseling curriculum could similarly capitalize on demonstrated benefits of early skills training for *counselor trainees*. As developmental counseling involves the understanding and application of multiple theories, models and concepts, advancing trainee *cognitive complexity* increases the likelihood that trainees will understand, integrate, and utilize developmental knowledge successfully. Measuring *cognitive complexity*, therefore, is one proposed method for assessing trainee abilities for developmental counseling.

Summary of Literature

The counseling profession is rooted in the philosophical underpinnings and foundations of positive, holistic, developmental literature. Given appropriate preparation, counseling professionals may draw upon a number of continually evolving, substantiated models of human growth and development across the lifespan. Today, the counseling profession continues to be distinguished among the mental health professions in its preventive, developmental focus versus embracing of a psychopathological model. Counselors continue to address issues and concerns of general populations in community and educational settings (Kottler, 2004).

While counselors are called to understand, integrate, and apply developmental knowledge, the lack of curricular opportunities for trainees to apply theories to practice is likely to result in the dismissal of critical information or unexamined, haphazard eclectic practice. Although integrative models address theory integration, intervention, and treatment strategies, the lack of investigation into such models leaves educators with incomplete methods for instruction and trainees with incomplete understandings of developmental counseling application. Developmental Counseling and Therapy (Ivey et al., 2005) represents one model that has moved beyond theoretical, anecdotal propositions into formalized treatment supported by research.

In addition, human developmental application training could foster the development of *cognitive complexity* among *counselor trainees*. *Cognitive complexity* has been established as a variable affecting the conceptual *integration and application* of counseling content, therefore, active training methods demonstrated to improve complex cognitive skills could enhance trainee abilities to conceptualize, integrate, and apply developmental theory in counseling.

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Purpose of the Study

The purpose of this study is to examine the effects of a human developmental counseling application curriculum, an addendum to the regular *human development* curriculum, on *cognitive complexity* for *counselor trainees* and to identify patterns and themes related to the *integration and application* of human developmental theories, models, and concepts for study participants. Both an empirically validated quantitative measure of *cognitive complexity* and patterns and themes extracted from qualitative interviews will be explored.

Specific goals of this study include: (a) to assess and compare the *cognitive complexity* levels of *counselor trainees* who participate in a human developmental counseling application curriculum with those who do not; and (b) to identify and compare patterns and themes related to the *integration and application* of human developmental theories, models, and concepts among *counselor trainees* who participate in a human developmental counseling application curriculum with those who do not.

CHAPTER 2

METHODS AND PROCEDURES

Research Questions and Assumptions

This chapter outlines the methods and procedures utilized in this study. Included are the research questions, definition of terms, participant selection, instrumentation, procedures, and data analysis.

A human developmental counseling application curriculum, an addendum to the regular *human development* curriculum, was proposed to explore trainee *integration and application* of human developmental theories, models, and concepts and to examine the effects of the curriculum on *counselor trainees' cognitive complexity*. I elected to explore qualitative reports of conceptual *integration and application* of developmental knowledge. In addition, as no current instrument exists to measure the conceptual *integration and application* of developmental theory, I elected to measure trainee *cognitive complexity* levels, an indirect measure of conceptual ability that has correlated with 1) increased conceptual integration and 2) application of content. As both relate to an understanding and use of theory, I explored the effects of a human developmental counseling application curriculum on content integration, application, and *cognitive complexity* for *counselor trainees.*

This study was a mixed method research design. It involved both an experimental-control group design and qualitative semi - structured interviews with all study participants, including those assigned to both experimental and control groups. Mixed-method research combines quantitative and qualitative research techniques, methods, approaches, concepts or language in a single study. Mixed model designs involve mixing approaches within or across a stage of research. Mixed-method research is particularly powerful in that it may allow for

triangulation or corroboration among different methods. Benefits that have been cited for mixed-method research include: 1) research today is complex and dynamic and many researchers need to complement one method with another; 2) more effective research; 3) research that closely resembles what is used in practice; 4) inclusion of induction (qualitative), deduction (quantitative), and abduction (relying on the best set of explanations for understanding one's results) (Burke Johnson & Onwuegbuzie, 2004).

This study utilized a repeated measures ANOVA design to analyze the effects of a human developmental counseling application curriculum on *cognitive complexity* for *counselor trainees* as well as a semi-structured qualitative interview to explore themes and patterns related to the *integration and application* of human developmental theories, models, and concepts among all participants.

The following research question was addressed in this study:

Quantitative:

Did *counselor trainees'* who participated in a human developmental counseling application curriculum differ in their levels of *cognitive complexity* from those who did not?

Qualitative:

1) How will the *integration and application* of human developmental theories, models, and concepts differ for *counselor trainees* who participate in a counseling application curriculum from those who do not?

Definition of Terms

Cognitive complexity is defined as the degree of differentiation, abstractness, articulation, and integration within a cognitive system and is measured by the Role Category Questionnaire (Burleson & Waltman, 1988).

Counselor trainee: For the purposes of this study, *counselor trainee* is defined as a graduate student currently enrolled in a Masters level Counseling program.

Human development is defined as major transitional alterations that are persistent, complex, and lead to qualitative differentiation (Blocher, 1980). They involve transformative/qualitative changes in cognitions and emotions, and are frequently accompanied by modifications in one's overt behaviors that are sustained over time and across situations.

Integration and application: For the purposes of this study, *integration and application* of developmental content will be revealed through qualitative interviews developed to identify any newly gained theoretical, conceptual or practical knowledge related to *human development* and professional counseling.

Participant Selection

The population for this study included all students enrolled in a *Human Development Across the Lifespan* course during the Spring 2006 semester. The study was intended for students in the first year of a Masters of Education Counseling program, however, any student enrolled in the course possessed criteria for inclusion in the study. Only those admitted to the Counseling program, however, consented to participate. No gender, racial/ethnic, age, or health status variables affected inclusion criteria.

I recruited participants by presenting the study on the first day of class. Then, participants consented to participate and were randomly assigned to experimental or control conditions. Eight participants were assigned to the experimental human developmental counseling application curriculum lab, and seven participants were assigned to the control condition (i.e., normal *human development* course requirements). Although fifteen participants consented to participate in the study, twelve participants in total completed the study. All participants assigned to the experimental group completed participation in the study and attrition occurred only with the control group. One participant from the control group dropped the class and therefore, was no longer eligible to complete participation and two participants from the control group elected not to complete the final assessment instrument.

For participant demographics see Table 10:

Table 10

Demographic Variables for Experimental and Control Groups

Assigned Group	Demographic Variables			
	Gender	Ethnicity	Age	Credit hours completed toward current degree plan
Experimental Group	8 females	White (6) Asian/Pacific Islander (1) Other (1)	20-25 (3) 26-30 (4) 31-35 (1)	0 (1) 7-12 (5) 13 + (2)
Control Group	4 females	White (1) Hispanic/Latino (1) Asian/Pacific Islander (2)	20-25 (1) 26-30 (2) 41 + (1)	4-6 (3) 7-12 (1)

I provided participants with an overview of the study and administered and collected informed consent from each participant. The participants were not compensated but earned part of a participation credit required for the course. Full credit was conditional upon full participation in treatment group activities and completion of the pre, mid, and post instrument administrations and a semi-structured interview. If a student assigned to the experimental

condition was unable to attend a particular lab session, he or she contacted me to discuss arrangements for making up the missed session.

There were no significant foreseeable risks to participants. Participants selected to participate in the control group were allowed to request participation in an alternately scheduled lab at the conclusion of the study. Participants selected to participate in the lab who found it difficult to manage the time requirement or decided to opt out of assessment procedures could refuse participation and elect to complete the normal *human development* course requirements for equivalent participation credit.

<div align="center">Instrumentation</div>

Each participant completed a demographics questionnaire and three administrations of the Role Category Questionnaire (pre 10-week lab, mid-point, and post-10 week lab). Participants also participated in a semi-structured interview at the conclusion of the study.

Role Category Questionnaire

The Role Category Questionnaire (RCQ) was standardized by Burleson and Waltman (1988). This instrument was chosen because it has been widely used, has evidence of reliability, and has established validity for trait differentiation, conceptual knowledge, social perspective taking, and social abstractness. According to the authors, the RCQ is among the most valid and reliable measures of *cognitive complexity*.

Cognitive complexity relates to the number of constructs one can hold about another person at one time. This instrument was designed to indicate the number of constructs an individual uses in conceptualizing the personality and behaviors of others who are known to him or her (Burleson & Waltman, 1988). The RCQ consists of two open-ended questions that ask the subject to describe two peers. The first peer is identified as someone the subject likes, and the

second is identified as someone the subject does not like. The writing component is limited to five minutes per question. Responses should reflect a sample of the participant's level of *cognitive complexity*.

The RCQ rating system is reflected in a fifteen-point ordinal scale comprised of five general categories of cognitive organization that vary from the unintegrated to the fully integrated (Burleson & Waltman, 1988). Categories include: 1) Aggregation, 2) Implicit Recognition of Inconsistency, 3) Explicit Recognition of Inconsistency, 4) Resolution, and 5) Advanced Resolution. Each category is comprised of three levels reflecting minimal, average, or advanced cognitive organization. Impressions assigned to levels 1, 2, or 3 represent some degree of cognitive organization for Aggregation. Impressions assigned to levels 4, 5, or 6 represent some degree of cognitive organization for Implicit Recognition of Inconsistency. Impressions assigned to levels 7, 8, or 9 represent some degree of cognitive organization for Explicit Recognition of Inconsistency. Impressions assigned to levels 10, 11, or 12 represent some degree of cognitive organization for Resolution. Impressions assigned to levels 13, 14, or 15 represent some degree of cognitive organization for Extended Resolution of Inconsistency (see Table 11).

Table 11

Levels of Organization of Impression (in Crockett, Press & Delia, 1974)

Level 1: Minimal Aggregation. If (a) both positive and negative parts of the personality information are included with no recognition of inconsistency, and (b) there are no inferences which go beyond the information given.
Level 2: Average Aggregation. Aggregate impressions which contain inferences which go beyond the original information but do not serve to either recognize or resolve the inconsistency.
Level 3: Advanced Aggregation. Aggregate impression and includes inferences which give some indication that an implicit resolution of the inconsistency may have been made.
Level 4: Minimal Implicit Recognition. Include only a small part of the information presented of any one valence. It may also include a general global quality of the other.
Level 5: Average Implicit Recognition. Differ from the preceding only in that they include a larger part of the personality information available, and may in addition include several inferred qualities which go beyond the information given.
Level 6: Advanced Implicit Recognition. Univalent impressions which contain either attributions of motivation or relevant conditions which, if completed and presented with material from the other valence, might have been used to account for the inconsistency.
Level 7: Minimal Explicit Recognition. The recognition of inconsistency is demonstrated by the use of such connectives as "but", "however", "nevertheless", which connect information of one valence to opposite-valenced information, but (b) there is no direct verbal statement about the inconsistency.
Level 8: Average Explicit Recognition.
Level 9: Advanced Explicit Recognition. Differ from the preceding in the fact that they not only explicitly recognize the inconsistency but seem to attempt some resolution of it by either (a) by invoking some pseudo-personality traits or (b) employing some vague and imprecise relevant condition.
Level 10: Minimal Resolution. If either (a) incompatibility is resolved through linguistic reinterpretation, or (b) an unclear or minimal example of any one of the other links are used.
Level 11: Average Resolution. If a clear example of one of the modes of resolution (in addition to linguistic reinterpretation) is used.
Level 12: Advanced Resolution. If more than one clear example of internal or external links in given. These modes are either all internal or all external.
Level 13: Minimal Extended Resolution. If (a) a clear example of an internal and an external link is given or (b) a clear example of an internal link is given with an external relevant condition such that external context is shown to vary as a function of the internal link.
Level 14: Average Extended Resolution. When (a) the criteria for Level 13 are met and (b) there are clear examples of inter-relationships between internal and external factors.
Level 15: Advanced Extended Resolution. When (a) all the criteria for Level 14 are met but (b) they are met to such an extent that substantial parts of the impression are inter-related in such a way that a highly complex picture of the other is presented.

Test-retest reliability values of .84 and .86 for the RCQ over a one-month period were reported by O'Keefe, Sheperd, and Streeter (1982). In another study, Crockett and colleagues (1974) reported a test-retest reliability value of .95 over a 4-month period. Regarding validity, Meyer (1996) demonstrated that higher RCQ scores were positively associated with higher levels of trait differentiation, and persons who scored higher on the RCQ were able to activate more conceptual knowledge of another individual. Higher RCQ scores were also found to be associated with higher social cognition skills, such as social perspective taking and social abstractness (O'Keefe & Sypher, 1981). Although positive correlations were found between chronological age and elevated scores on the RCQ (Scarlett, Press, & Crockett, 1971), RCQ scores have been shown to be unrelated to intelligence (Allen, Mabry, & Preiss, 1997). RCQ scores have also been shown to be unconfounded by writing skill levels (Burleson & Rowan, 1985).

Demographic Questionnaire

Questionnaires including demographic variables and program history were administered to all participants in order to demonstrate evidence of external validity. Variables collected included gender (male, female), age (20-25, 26-30, 31-35, 36-40, 41+) ethnicity (White, Hispanic, African American, American Indian or Alaskan Native, Asian or Pacific Islander, Other), name of Master's program, credit hours completed toward current degree plan (0, 1-3, 4-6, 7-12, 13+) and credit hours completed at the graduate school level (0, 1-3, 4-6, 7-12, 13+). The following variables were considered personal in nature and therefore optional to participants: current relational status (single, never married, single, divorced, married, long-term (at least 2 years) monogamous relationship, widowed), children (yes, no), religious affiliation (Catholic, Protestant, Orthodox Christian, Christian not included elsewhere, Islam/Muslim,

Jewish, Buddhist, Hindu, Eastern Religions, other, no religious affiliation), and categorization of religious affiliation (liberal, moderate, conservative, fundamentalist, none).

Semi-structured Interviews

I incorporated a semi-structured qualitative interview to explore themes and patterns related to the *integration and application* of human developmental theories, models, and concepts among all participants. As a doctoral candidate in the Counselor Education Program at the University of North Texas, having completing nine hours of coursework related to human developmental counseling and applications, I developed the semi-structured interview in consultation with a faculty advisor formally trained in human developmental counseling and applications. Open-ended questions were used, allowing participants to provide spontaneous, unrestricted reports of their experience, thus controlling for expectations and allowing for unexpected findings. Participants were asked to identify and describe any connections made between *human development* and counseling, specific developmental counseling applications, and any changes occurring in their general view or understanding of potential clients and people as a result of the class and/or lab experience (see appendix F). Through the use of qualitative interviews, I sought to identify any newly gained theoretical, conceptual or practical knowledge related to *human development* and professional counseling.

Procedures

Prior to the first day of class, students enrolled in the class received a letter describing the research study. The letter explained that participation in the study was not a mandatory requirement of the class. Students who did not wish to participate in the study fulfilled the regular class requirement to respond to discussion questions in order to complete the participation credit for the course. Those who agreed to participate were presented full informed

consent on the first day of class. Upon signature of consent, participants were randomly assigned to experimental or control conditions.

I administered the Role Category Questionnaire (RCQ) instrument and conducted the semi-structured interviews. Students placed in the control group continued to respond to discussion questions and completed the RCQ at the beginning of the course, at midterm, and at the conclusion of the course; they participated in a semi-structured interview upon the conclusion of the course. Students who were placed in the experimental group participated in a human developmental counseling application lab for ten weeks, and completed the RCQ at the beginning of the course, at midterm, and at the conclusion of the course; experimental group members participated in a semi-structured interview upon the conclusion of the course. Discussion questions for the control group approximated the same time requirement as the curriculum lab for the experimental group. Both sets of activities fulfilled a participation credit for the course.

Students assigned to the treatment group reported to the curriculum lab the following week. Lab activities lasted 45 minutes each week, totaling 7.5 hours of lab participation throughout the study. Each RCQ administration lasted approximately 15 minutes, totaling 45 minutes for instrumentation administration throughout the study. Semi-structured interviews lasted approximately 15 minutes. For lab participants, full credit was conditional upon full participation in lab activities and completion of instruments. If a student was unable to attend a particular lab session, he or she contacted me to arrange a make up a session.

In consultation with a faculty advisor formally trained in human developmental applications in counseling, I developed a human developmental counseling application lab curriculum to coincide with the regular *Human Development* Across the Lifespan curriculum

(see appendix I). In designing the curriculum, I drew upon the framework proposed by McIntyre, Grout and Jennings (2001) which addressed the teaching of *human development* to non-psychology students. This framework promotes integrating developmental content to respective professional fields, such as counseling, through strategies such as observation, discussion, personal reflection, and priming, or linking a topic to one's profession. Proposed learning strategies were used as a basis for the design of the developmental counseling application curriculum.

Lab curriculum content included the major theories and models of *human development* covered in class that have also been associated with professional counseling, based upon collective and historical literature. These included: attachment theory, cognitive development, social development, development of the self (gender, racial/cultural), moral development, and adult development (ego/ethical/intellectual). In addition, a general overview of developmental theory as it applies to professional counseling was covered in the initial lab session, and an overview and integration of all developmental theories as they apply to professional counseling was covered in the final lab session.

Each lab session was divided into three components including: a 15-minute theory review, 15-minute observation exercise, and 15-minute application exercise. Theory reviews consisted of a brief overview of the major *human development* theory covered in class that week. Observation exercises consisted of observations of actual client video footage or case illustrations read and role-played by students demonstrating characteristics of a particular *human development* theory. Application exercises consisted of exercises or case illustrations developed by scholars to assist students in conceptualization, assessment, and/or identification of

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intervention strategies addressing related developmental concerns. A full explanation of the lab curriculum can be found appendix H.

Informed consent forms and all instruments were kept in a locked file cabinet accessible only by the me. Upon completion of instruments, I coded the instruments and transcripts with the participant's matched code. Names were deleted from any instrumentation. Names and codes were kept in one file accessible only by me. Any data entered into SPSS included only participants' confidential codes.

<div align="center">Data Analysis</div>

Quantitative Analysis

I examined the experimental and control groups to determine if there was a change in *cognitive complexity* levels for those who participated in the human developmental counseling application curriculum compared with those who did not. RCQ data was analyzed through a repeated measures ANOVA design. Repeated measures of data collection were used to increase the likelihood to achieve statistical significance and identify changes over the duration of treatment. A repeated measures design involves at least two instances of measurement, therefore, increasing the chance to achieve statistical significance, particularly with small sample sizes (Girden, 1992). Repeated measures designs also provide additional benefits to a simple, pretest-posttest or ANOVA design when dealing with "soft data" related to psychotherapeutic factors. Soft data tends to exhibit both intra and inter subject variability and poor test-rest reliability (Kraemer & Thiemann, 1989); however, repeated measures can help to distinguish within-individual and between-individual differences therefore decreasing error and increasing the likelihood of achieving statistical significance (Willet, 1994).

This study met the assumptions for a repeated measures ANOVA design as the treatment group created between-subject factors and measurement of subjects on three occasions, (a) pretest prior to beginning treatment, (b) midpoint after the 5th lab session, and (c) posttest after completion of the 10-week lab, created within-subject factors. Each research question was analyzed using the Statistical Package for the Social Sciences (SPSS) for Windows (2001) to evaluate the effects of treatment as determined by *cognitive complexity* levels assessed through the RCQ.

Two raters, one full-time and one adjunct faculty member in CACREP accredited Counseling programs, both of whom hold a license in Professional Counseling and doctorate of philosophy in Counselor Education were trained by me in interpreting and scoring the RCQs using standardized procedures outlined by Crockett et al. (1974). Techniques for the assessment of interrater reliability that have been used with content analysis were conducted for the RCQs (Lombard et al., 2002). I reviewed rules and scoring procedures for the RCQ, demonstrated proper scoring, and worked through several sample RCQ impressions with both raters, providing feedback regarding the accuracy of their scoring. Without knowledge of who experimental or control group participants were or whether impressions were from the pre, mid or posttest category, raters were asked to individually score 10% of the RCQ sample. Upon completion, an interrater correlation of agreement was calculated at 91% agreement. The raters proceeded to score half of the RCQ sample individually. Upon completion, an intrarater correlation of agreement was calculated for each rater resulting in a correlation above 90% for each rater. Another interrater correlation of agreement was calculated at 93% agreement prior to each rater independently scoring the remaining half of the RCQ sample.

Qualitative Analysis

For a qualitative analysis of the semi-structured interviews, trained coders followed grounded theory methods (Strauss & Corbin, 1998), a widely established qualitative method for generating theory through inductive content analysis of narrative data. Semi-structured interviews were coded and scored by trained, objective raters. Three raters, two full-time and one adjunct faculty member in CACREP accredited Counseling programs, all of whom hold a license in Professional Counseling and doctorate of philosophy in Counselor Education were trained by me in grounded theory methods (Strauss & Corbin).

Upon completion of semi-structured interviews, all interviews were transcribed verbatim. Analysis of all transcriptions was carried out in three stages in keeping with the open, axial, and selective coding principles of grounded theory (Strauss & Corbin, 1998). Three coders independently conducted a content analysis of narrative data, reading and re-reading all responses and identifying and labeling significant themes for one-half of the sample from the experimental (lab participants) and control group (non-lab participants). Each coder then marked statements that seemed significant, also noting when similar statements were made between participants. Coders then discussed and reached agreement on significant themes based on factors of saliency and frequency. In revising this list, coders narrowed the list to avoid redundancy or address lack of support in the narrative data.

When the list of themes was complete, coders further clarified theme titles and definitions by consensus. Coders then reviewed the remaining transcripts incorporating the same process. This resulted in the development of new themes or refining and combining existing themes until no new themes emerged. Finally, each coder independently re-read each transcript and classified narrative responses according to the pre-determined themes. The content analysis was then given to me to continue the selective coding process.

To establish reliability, all members of the team coded the same interviews, which were then reviewed in detail. The next step involved a number of discussions by the research team regarding emergent themes. Themes were considered reliable when agreed upon by all three coders; those that did not reach consensus were discarded. The validity of their findings was supported by participants' verbatim quotes (Strauss & Corbin, 1998).

CHAPTER III

RESULTS AND DISCUSSION

This chapter presents the results of the statistical analyses and qualitative analysis for each research question investigated in this study. The quantitative research question specifically investigated the *cognitive complexity* levels of *counselor trainees* who participated in a human developmental counseling application curriculum ($n = 8$), compared with *cognitive complexity* levels of *counselor trainees* who do did not participate in a human developmental counseling application curriculum ($n = 4$), as measured by results on the Role Category Questionnaire. The qualitative research question investigated patterns and themes related to the *integration and application* of human developmental theories, models, and concepts among all study participants. Tables and statistical information for the repeated measures ANOVA, qualitative content analysis, results, discussion, limitations of the study, implications for future research, and a conclusion are included in the chapter.

Results

Quantitative Data

RCQ data were analyzed through a repeated measures ANOVA design. The treatment group created the between or comparison factors while the assessment occasion, the pretest, midpoint test, and posttest, created the within factor. The treatment group consisted of a sample

size of 8 while the control group consisted of a sample size of 4. The alpha .05 level was used as a criterion for determining statistical significance. Both quantitative research questions were analyzed using the Statistical Package for the Social Sciences for Windows (2001) to evaluate the effects of a human developmental counseling application curriculum on *cognitive complexity* for *counselor trainees* as determined by the RCQ. A repeated measures ANOVA estimate of effect size was generated through SPSS in order to calculate the strength of treatment on outcome effects. Cohen's (1988) guidelines were used to interpret partial eta *squared* calculations of effect size values: .01 = small, .06 = medium, .14 = large effect. The calculation of effect size can assist researchers in determining the strength of change resulting from treatment (Trusty, Thompson, and Petrocelli, 2004). Tables 12 and 13 address the research question.

Table 12

Mean Scores for the Lab Treatment and Non Lab Control Group on the Role Category Questionnaire (RCQ)

Occasion	Group	*X*	*SD*	*n*
Pretest	Lab	4.250	1.195	8
	Non Lab	4.375	1.887	4
	Total	4.291	1.372	12
Midpoint	Lab	6.312	1.602	8
	Non Lab	5.000	1.000	4
	Total	5.875	1.524	12
Posttest	Lab	6.000	1.414	8
	Non Lab	5.250	.957	4
	Total	5.750	1.288	12

Note. An increase in the mean score indicates an increase in *cognitive complexity*

Table 13

Repeated Measures ANOVA Summary Table According to Group Assignment on the Role Category Questionnaire (RCQ)

Between Subjects

Source of Variation	Sum of Square	*df*	*MS*	*F*	**p*	η²
Intercept	864.587	1	864.587	235	.998	.000
Group	3.337	1	3.337	.911	.362	.683
Error	36.635	10	3.664			

Research Question

      This study examined whether or not *counselor trainees* who participated in a human developmental counseling application curriculum differed in their levels of *cognitive complexity* from those who did not. A two/between (non-lab control group and lab treatment group), one/within (measurement occasions measuring change across time) repeated measures analysis of variance was computed to determine whether a statistically significant difference existed among *counselor trainees* assigned to the treatment group versus the control group as measured by change in means scores on the RCQ.

      Assumptions for normality, sphericity, kurtosis, and skewness were met for the analysis. The pretest RCQ mean scores were 4.250 (*SD* = 1.195) for the treatment group and 4.375 (*SD*= 1.887) for the control group. The midpoint RCQ mean scores were 6.312 (*SD*=1.602) for the treatment group and 5.000 (*SD* = 1.000) for the control group. The posttest RCQ mean scores were 6.000 (*SD*= 1.414) for the treatment group and 5.250 (*SD* = .957) for the control group. This resulted in a sample mean difference of 1.312 between midpoint scores for the two groups and a sample mean difference of .750 between posttest scores for the two groups.

Results revealed that there was not a statistically significant difference between groups over time [$F(1,10) = .911$, $p = .362$]. Therefore, there was no significant difference in *cognitive complexity* levels across the three time periods between the two groups. However, there was an effect size of partial $\eta^2 = .683$ which is interpreted as a large effect size. Figure 1 presents a graphic representation of the differences across time between groups.
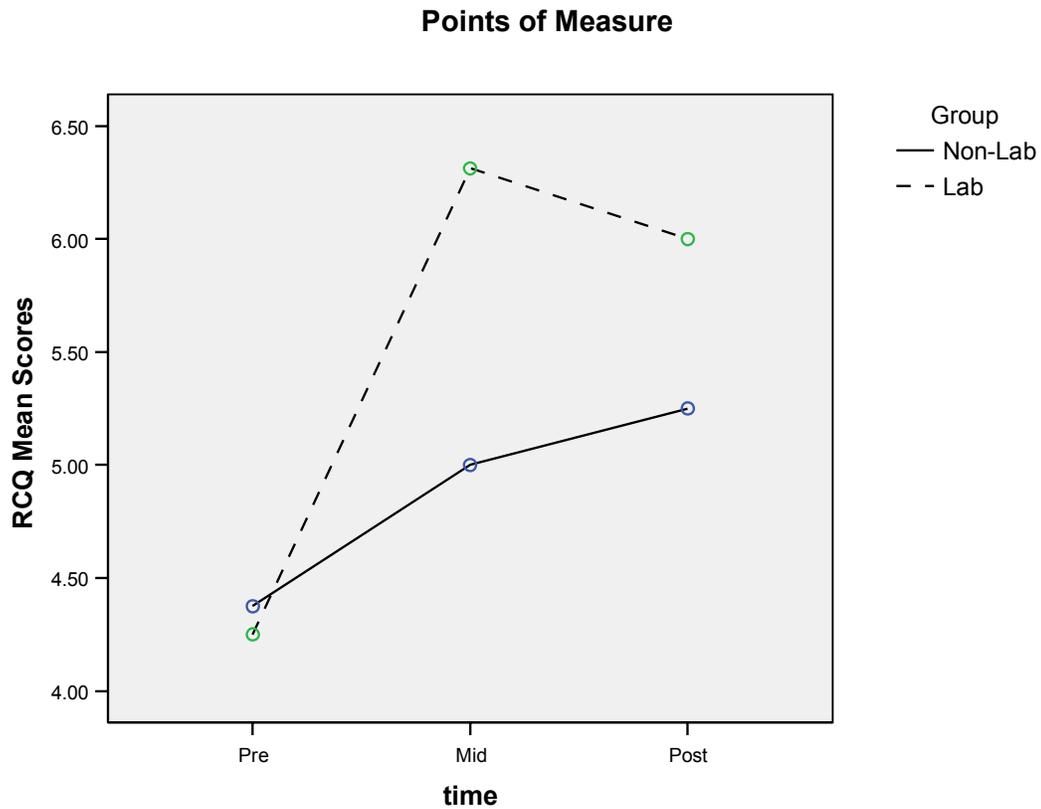
Points of Measure

Figure 1. RCQ mean scores across points of measure for nonlab control group and lab treatment group participants.

Note: RCQ scores range from 1-15 on an ordinal scale.

Due to finding statistical significance across time for both groups [$F(2,9) = 6.104$, $p = .021$], post hoc analyses were conducted to determine more information about each group.

Because of risk of Type I error in post hoc analysis, a more conservative .025 was set as the alpha level.

A one-way repeated measures ANOVA was computed to determine whether *counselor trainees* experienced a statistically significant change in mean scores across 10 lab sessions as measured by the RCQ. Following 10 lab sessions, participants assigned to the treatment group experienced a statistically significant change in mean scores across time from the pretest (prior to treatment), to the midpoint (after 5 lab sessions) to the posttest (6-10 sessions) on the RCQ. Assumptions for normality, sphericity, kurtosis, and skewness were met. There was a statistically significant effect across time for lab treatment group participants [$F(2, 6) = 10.120$, $p = .012$] and a partial $\eta^2 = .771$ which is interpreted as a large effect size (Cohen, 1988). This reveals an increase in *cognitive complexity* across the three time periods for the lab treatment group.

A post hoc repeated measures ANOVA was conducted for the non-lab control group (Pallant, 2005). There was not a statistically significant change in mean scores across time for non-lab control group participants [$F(2,2) = .375, p=.727$] but a large effect size was determined by a reported partial $\eta^2 = .273$. Quantitative results of the RCQ should be interpreted with caution due to the low number of participants.

Qualitative Data

Through qualitative content analysis, 9 themes emerged among lab participant transcriptions with regular frequency and saliency while 3 themes emerged for non-lab participants. Each theme included in the content analysis was referenced by a majority of respondents for that group and often cited multiple times. In order of significance, the following themes were identified for lab participants: (a) Application of Developmental Knowledge, (b)

Increased Understanding of Individuality, (c) Conceptualization, (d) Knowledge of

Developmental Differences, (e) Acceptance, (f) Development as a Framework for Counseling,

(g) Perceived Preparation of *Counselor Trainees,* (h) Self-Awareness, and (i) Connection

Between Counseling Practice and Developmental or Traditional Counseling Theories. In order

of significance, the following themes were identified for non-lab participants: (a) Development

Viewed as Chronologically-Based, (b) Understanding of Group Differences, and (c) No Change

of View on People/ Clients. The last 2 categories were equally represented. For a list of

definitions for each identified theme see Tables 14 and 15.

Table 14

*Qualitative Themes and Definitions Derived from Content Analysis of Semi-Structured
Interviews for Lab Participants (Treatment Group)*

# of Statements	Theme	Definition

34	**Knowledge of Developmental Differences:** People's realities are different based on their experiences, stages and styles.	
20	**Increased Understanding of Others:** Based on the knowledge that people are developmentally different, participants acknowledged an increased understanding of others.	
18	**Conceptualization:** Demonstrated ability to describe the developmental stages or styles of others through concrete examples.	
15	**Application of Developmental Knowledge:** Acknowledgement of the importance of developmental assessment and the need for the counselor to respond accordingly.	
12	**Acceptance:** Movement toward appreciation of diversity and increased empathy for individuals.	
12	**Development as Framework for Counseling:** Developmental theories provided an objective structure for assessing and counseling clients.	
9	**Perceived Preparation of *Counselor Trainees*:** *Counselor trainees* indicate confidence based on their knowledge of developmental concepts.	
8	**Self-Awareness:** Insight into personal perceptions, experiences or development and how that relates to others.	
7	**Connection Between Counseling Practice and Developmental or Traditional Counseling Theories:** *Counselor trainees* seem to integrate knowledge of developmental or traditional counseling theories into counseling practice.	

Table 15

Qualitative Themes and Definitions Derived from Content Analysis of Semi-Structured Interview for Non-Lab Participants (Control Group)

# of Statements	Theme	Definition
11	**Understanding of Group Differences:** Acknowledgement that there are differences between groups based on development	
8	**No Change of View on People/ Clients:** Consensus from *counselor trainees* on the lack of impact of development class on their views of people, clients and client issues.	
8	**Development Viewed as Chronologically-Based:** Development limited to differences between age groups, specifically, children, adolescents, and adults.	

Differences Among Lab and Non-Lab Participants

All non-lab participants referenced an understanding of developmental differences among groups. This theme was identified as, Understanding of Group Differences and defined as: an acknowledgement that there are differences between groups based on development.

> …if you don't understand all the stages you go through in life…because the whole psychology…the whole mindset has different aspects.

> …in the group play therapy the kids are on different developmental levels… those two kids might be developmentally different even though they are the same age.

However, the most common theme to emerge among non-lab participants reflected a view of such differences as chronologically-based. All non-lab participants made reference to developmental differences based upon age groups, specifically, children, adolescents and adults:

> If you have the background information then you can understand...like if it is an adult...you know the general stage.

> …people will have different changes or different ability at different age.

> I think as I work with children I will try to find out the ages. For example, if I work with child I will try to use toys or play to work with them because I know their language development is not that good.

Well…for example, you can understand physical development for children and adolescents and adults.

…so the theory try to remind me what I can do for children…what I need to pay attention.

In contrast, lab participants reported more expansive views of development, often including but not limited to age or chronological development:

I don't think you can counsel humans effectively if you don't understand how they develop and their behavior manifests…biological, moral development, social development…all of it.

So, I think *human development* is an organic understanding…and spiritual and intellectual understanding of who and how we evolve as creatures socially, morally and physically.

I think that it really helped to know where the person's at. As far as like, biologically, cognitively, socially.

But now I have more multiple view to see this client…to try to understand their issue.

You just can't truly help or accommodate or help heal or help guide something if you don't have a holistic understanding of the person.

And so at the different stages of life, humans process information differently and are socialized differently and view the world differently.

Another distinction between the lab and non-lab participant themes pertained to Interview Questions 3 & 4:

3) Has your gained knowledge and understanding changed or impacted your view of potential clients and client issues? How so?
4) Has your gained knowledge and understanding changed or impacted your view of people, in general? How so?

The majority (3 out of 4) non-lab participants reported no change from previous views of people or potential clients as a result of their *human development* experience:

I think – no. Just make me feel more clear. Based on the foundation of what I know.

Not really. I took the class as an undergraduate so it was more of a refresher and review of what I already knew.

No. I have a degree in child and family studies. I already had the background for *human development*.

Because I had a class before it add to what I had. It wasn't a big impact because I already was exposed to that.

One, I'm an educator right now so I've had a lot of developmental classes. For me it kind of refreshed my memory on a lot of the things.

In contrast, the majority (7 out of 8) lab participants reported changes from previous views of

people or potential clients as a result of their *human development* experience.

Yes. I think I probably had a different view of why people had certain issues or why people got to certain points. And I think…when we break it down in the lab and started to see why people reacted certain ways…it gave me a better understanding.

Definitely. The kind of person I am I assume everyone is like me. It helped me to realize that there is no one correct way of …processing information. Not everyone processes information and emotions the same way.

Definitely because I think before I went into the *Human Development* class and before I connected it with our lab I might have been inclined to approach every client…like, if they were a 25 year old client, I would expect them to be functioning at a 25 year old level. I don't think previously I'd given it a lot of thought… that there's a lot of people out there that aren't really functioning at their age level…and your not going to be able to sit down and counsel them as you may want.

I think yes. And I think the main one is with adolescent females…that they do not strictly develop like adolescent males. So right there I've learned something and not just group them all together … and so when I work with clients who are caught in a moral dilemma or any situation they are trying to resolve, I will conceptualize my female clients differently than my male clients…

Yes. I didn't realize that even someone who may be completely articulate and mature…the *way* they think might be different. They might be totally mature but just not think on an analyzing level…not their intelligence but just the *way* they think.

Yes it has. Actually one of people that I wrote about in every single one of the things that I disliked (referring to quantitative instrument)…I've actually started to understand her a little more and she doesn't aggravate me as much because I kind of see where she's at and why she does the things she does. That's just where she is. So, I'm able to maybe see things from her point a little bit better and not take them so personal. And just in my

personal life…right now I don't have any clients but I do see differences in people. Maybe understanding…like, "Oh…they think in this way and maybe they don't go deeper they just focus more on details." So it has changed the way I see people.

In addition to a reduced number of emergent themes (3 vs. 9), non-lab participant

responses were shorter and more simplistic, overall, when compared with the lab participants.

For example, in response to Interview Question 1:

1. Please describe how you connect *human development* with counseling.

Lab participants tended to elaborate in detail:

The first thing that comes to mind is Piaget. And, you learn about the developmental stages from birth to death. And so at the different stages of life, humans process information differently and are socialized differently and view the world differently. So, I think in that case there is a relationship with *human development* and counseling if the counselor understands where the client is. If the counselor is working with a child or adult…they are at a certain developmental stage but also sometimes they will be stuck at an earlier developmental stage. If, for example, you have a client who didn't have a good relationship with her parents in her childhood and all she craves is attention and being loved and is so much in tune with her feelings….as a counselor then it will be good to be able to connect with her in that way. Because that is when it will be more powerful because she will understand…like the sensorimotor feeling. And to be aware of where she is developmentally. Counselors need to meet the clients where they are. I think there is a connection just because humans are complex and it's a continuum according to their stage.

Whereas non-lab participants gave shorter answers:

Mainly you can use it to understand in counseling. If you have the background information then you can understand...like if it is an adult...you know the general stage. You know it even if they don't know it. It increases your understanding and insight and about the person and helps you to understand what they are going through.

In another example, in response to Interview Question 2:

2) Identify and describe any specific ways that you can use your knowledge and understanding of *human development* with potential clients.

Lab participants tended to elaborate in detail:

Knowing the tasks… like, if you have a client that is 20 years old and they don't have close relationships...they give you signs that the task is trust... and you can tell by what they say and look at people they're around, their relationships, can they develop relationships or do they have a fear of being alone or let down? Then you know that in

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counseling you have to go back down to that stage and start there with them. Because the rest of the tasks are going to be shaky...so in counseling they have to work to building trust first with the counselor. And you want to help them start examining the relationships that they are in to see if people or those relationships are empowering them or making them upset/angry/constantly letting them down. And they need to look at whether those are relationships that are helping them to build trust. So, you might help them to make better choices as far as the kind of people that they are getting involved with.

Whereas non-lab participants gave shorter answers:

> I think as I work with children I will try to find out the ages…if they have any special characteristics, for example, if I work with child I will try to use toys or play to work with them because I know their language development is not that good so I will try to use different materials to have them express their feeling or emotion.

In another example, in response to Interview Question 3:

> 3) Has your gained knowledge and understanding changed or impacted your view of potential clients and client issues? How so?

Lab participants tended to elaborate in detail:

> I would say it has. Simply because everything I learned seems to make me realize more and more about clients and what I'll be doing with them. I never would have thought to look at development theories like Piaget as far as, "How am I gonna counsel this person?" Your kind of in that mode of, "Well, I have to figure out…Cognitive, Adlerian, Person-Centered." You don't think, "Oh well…Erikson's stages could help me here. Moral reasoning could help me here." I just didn't realize the scope of things out there that would help me to conceptualize my clients and it was good. I feel like now I have more practical things I can get my hands on than just this big "Adlerian theory" that was really vague and abstract. But this helped me realize that some things, even seemingly non-counseling related as *human development*, really would make those theories more concrete.

Whereas non-lab participants gave shorter answers:

> One I'm an educator right now so I've had a lot of developmental classes. For me it kind of refreshed my memory on a lot of the things and applied it more to a counseling perspective as opposed to the teaching. It refreshed my memory on the basics and then applied it to counseling.

In a final example, in response to Interview Question 4:

> 4. Has your gained knowledge and understanding changed or impacted your view of people, in general? How so?

Lab participants tended to elaborate in detail:

> Yeah…I remember thinking… wow there's a lot of people not functioning at a very high level (laughs). 'Cause I remember the numbers that we were reading about…I think 70% that never reached a certain stage…and it opened my eyes to be aware and to listen more to people and hear their comments and see their actions. It helped me to understand maybe what is behind their actions and words. You would see someone in the videos…the woman who couldn't keep a job or another one who was going through a relationship with her Dad who was angry. You could hear the responses. And studying common responses or common behaviors associated with them… you were like, "Oh…no wonder they're behaving this way." It gives you such a good place to start working with them so you know how to appropriately approach them. I think it tells you a lot about your client if you can sense where they're at.

Whereas non-lab participants gave shorter answers:

> Well it's like I said I understand their variance. So if I don't change my view of people, how in the world can I be a counselor?

Factors related to the integration and application of developmental theories, models and

concepts for lab participants

The most significant theme to emerge for lab participants related to the Application of

Developmental Knowledge, defined as: acknowledgement of the importance of developmental

assessment and the need for the counselor to respond accordingly. The majority (7 out of 8) lab

participants referenced the theme multiple times throughout the interview:

> Counselors need to meet the clients where they are.

> I see that as really important…to continue to understand how the stages work…where is this person in their development and how can I relay information or relate to them on an appropriate level.

> The *human development* helps you to be able to think of a client and where they are developmentally and cognitively and gives you...sort of a road map of what you would do next as a counselor.

> Well, knowing where your client is development wise would allow you to take different approaches in the counseling environment.

It gives you such a good place to start working with them so you know how to appropriately approach them. I think it tells you a lot about your client if you can sense where they're at.

But knowing where they're at and techniques or strategies when I get to that point that would be appropriate for them.

Well, we talked about it a lot…how depending on where they are… it's important to know where they are developmentally to know how to approach them.

…there's a lot of people out there that aren't really functioning at their age level…and you're not going to be able to sit down and counsel them as you may want. And, going through the stages and some specific counseling methods that can be helpful or approaches that can be used was really interesting to me.

I guess I really learned to ask more appropriate questions instead of just, "How does that make you feel?"

Two themes ranking closely and seeming related were: 1) Knowledge of Developmental Differences, defined as: people's realities are different based on their experiences, stages and styles and 2) Increased Understanding of Others, defined as: based on the knowledge that people are developmentally different; participants acknowledged an increased understanding of others. All lab participants offered responses referencing both categories. In addition, many referenced both themes multiple times or together. For example, Knowledge of Developmental Differences was referenced multiple times by half (4) of the lab participants:

So right there I've learned something and not just group them all together.

I didn't think about that before. I didn't realize that even someone who maybe completely articulate and mature…the *way* they think might be different. They might be totally mature but just not think on an analyzing level…not their intelligence but just the *way* they think.

It filled in the gaps to explain how people work differently.

And so at the different stages of life, humans process information differently and are socialized differently and view the world differently.

…humans are complex and it's a continuum according to their stage.

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It helped me to realize that there is no one correct way of …processing information. Not everyone processes information and emotions the same way.

…each individual is unique and different and is going to have their own problems or strengths, weaknesses.

Increased understanding of others was also referenced multiple times by slightly over half (5) of the lab participants:

And to understand your population you have to understand where they are in the development stages.

And I think…when we break it down in the lab and started to see why people reacted certain ways…it gave me a better understanding.

Like, if my client is children or a teenager or a young adult it help me to understand their situation and their development more.

Maybe understanding…like, "Oh…they think in this way and maybe they don't go deeper they just focus more on details." So it has changed the way I see people.

…it opened my eyes to be aware and to listen more to people and hear their comments and see their actions. It helped me to understand maybe what is behind their actions and words.

I've actually started to understand her a little more and she doesn't aggravate me as much because I kind of see where she's at and why she does the things she does.

I think the group that really impacted me was the adolescent females because I've always had a hard time understanding adolescents…I had so many misconceptions but now I think my perception of them is better and more positive and I understand where they are.

Not everyone thinks like me or experiences emotions like me. I was already pretty accepting but I guess it gave me more understanding of people. I realized a lot through the lab videos and discussions. It filled in the gaps to explain how people work differently. It helped me to understand other people's points of view.

The following participants referenced both themes together:

I did learn, like, the development level from like children to adult.
So the *human development* piece help me to understand more about how my client process the situation.

Maybe this person is acting this way because of what they still need…they are at a different stage. Now I know I need to understand more of their background to know how

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to deal with them.

Another dominant theme to emerge among lab participants was that of Conceptualization, defined as: demonstrated ability to describe the developmental stages or styles of others through concrete examples. The majority (8 out of 9) lab participants offered responses reflecting this theme:

> And, for example, a client in a sensorimotor or concrete stage may not be able to grasp more formal operations.

> Knowing the tasks… like, if you have a client that is 20 years old and they don't have close relationships...they give you signs that the task is trust... and you can tell by what they say and look at people they're around, their relationships, can they develop relationships or do they have a fear of being alone or let down?

> So if I'm working with female adolescents…understanding how intimacy is a major part of their identity development at that stage. As a counselor I will have to be aware and help them become aware of what is going on in their life as far as intimacy…how they are able to connect, are they feeling any connections, what might have altered their perceptions? If they feel that they are not able to connect with friends, peers, parents…that pulls into developing identity and self-esteem. Women grow and feel empowered through relationships and connections…helping them understand where they are, what they want, how they do the relationships they are in and are they satisfied.

> …you start to say, "Okay, if I am going to work with an elementary school child than they are going to be a more concrete learner so I have to present material in a way that they can understand instead of presenting them conceptual things."

> …let's say I have an adult whose operating on what technically would be considered a more teenage level in the way they think about things. Eventually I would know that my steps that I have to take in guiding them are going to be different steps to be able to get through to them and to help them grow.

> If, for example, you have a client who didn't have a good relationship with her parents in her childhood and all she craves is attention and being loved…as a counselor then it will be good to be able to connect with her in that way.

> Like, you wouldn't necessarily approach someone who is working at a really low development level with a real deep thought kind of counseling.

> Like, if my client is a child then I definitely will use the communication…or the words will be more simple and concrete.

…like my Dad whose 69 and he's had a few strokes and he's rewriting his scripts and my sister's get so angry with him saying, "He's telling stories that aren't true about how he treated us as a child." I was like, "You know what…he's just at that stage where he needs to make peace with his life and himself."

Another dominant theme reported by 7 out of 8 lab participants was, Development as Framework for Counseling, defined as: developmental theories provide an objective structure for assessing and counseling clients:

…to take a client's behavior and pull it towards a stage or a task…I think is important.

The *human development* helps you to be able to think of a client and where they are developmentally and cognitively and gives you...sort of a road map of what you would do next as a counselor.

At first I would do that…I would make a lot of assumptions…but by having practical knowledge of where this person was…that was my basis instead of my own preconceived notions.

For me it's going to help me with my clients...because now I have real objective ways to understand what I normally think.

I need the structure to give me relevancy in my assessment of people. That's something that I was completely lacking before. It's given me…like a basic outline, structure, models for people…and eventually my clients.

Two themes emerged reflecting personal development among lab participants. Acceptance, defined as: movement toward appreciation of diversity and increased empathy for individuals and Self-Awareness, defined as: insight into personal perceptions, experiences, or development, and how that relates to others. 7 out of 8 lab participants referenced an increase in acceptance:

I think I'm allowing people to change a little bit more.

But understanding…I don't know…I think I'm more forgiving now.

I think really and truly it just allows me to be more forgiving of people and where they are.

So, I'm able to maybe see things from her point a little bit better and not take them so personal.

5 out of 8 lab participants referenced self-awareness:

I've applied it to myself as well. Just a lot of self-awareness. Like, maybe I do these things because I didn't get this or that in my development.

I know it helped me understand a lot of my own behaviors growing up. Because…I was like, "Oh…that's why I was having this problem with this issue." Because at this time of my life my parents were getting divorced…so I do have trouble trusting people and not trusting because one element of my parental unit was gone.

'Cause sometimes I can make snap judgments. I think that was my weakness coming into the program.

The kind of person I am I assume everyone is like me. It helped me to realize that there is no one correct way of …processing information.

Originally, I was very based on assumptions, like, "Oh, this person just needs to do this…and this is the solution." And not really understanding that this person is doing this because possibly there's something that occurred in their development…

Five out 8 lab participants also referenced increased feelings of professional preparedness or

Perceived Preparation of *Counselor Trainees*, defined as: *counselor trainees* indicated

confidence based on their knowledge of developmental concepts:

I just didn't realize the scope of things out there that would help me to conceptualize my clients and it was good. I feel like now I have more practical things I can get my hands on.

I felt more confident. I didn't feel like I was walking in there asking arbitrary questions. I felt like I was really getting somewhere.

We've done two sessions so far and I guess it really helped me…to say…well…where is she and how can I approach her.

A final theme to emerge among 5 out of 8 of the lab participants referenced a Connection

Between Counseling Practice and Developmental or Traditional Counseling Theories, defined

as: *counselor trainees* seem to integrate knowledge of developmental or traditional counseling

theories into counseling practice:

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I feel like now I have more practical things I can get my hands on than just this big "Adlerian theory" that was really vague and abstract. But this helped me realize that some things, even seemingly non-counseling related as *human development*, really would make those theories more concrete.

And the different theories help us to, you know, how to help them best.

Your kind of in that mode of, "Well, I have to figure out…Cognitive, Adlerian, Person-Centered." You don't think, "Oh well…Erikson's stages could help me here. Moral reasoning could help me here." I just didn't realize the scope of things out there that would help me to conceptualize my clients and it was good.

Simply because everything I learned seems to make me realize more and more about clients and what I'll be doing with them. I never would have thought to look at development theories like Piaget as far as, "How am I gonna counsel this person?"

And I guess I kind of missed that in a lot of the theories that we have….I took it as…it didn't really get into where they are now. After the class and the lab I started to reflect on, "Oh there's a lot with the developmental side that makes sense to me." It's really tying what's going on with the client and where they are.

DISCUSSION

Introduction

This study responds to the lack of opportunities for *counselor trainees* to incorporate developmental knowledge into counseling practice within their counselor preparation curriculum. As counseling professionals have distinguished themselves as mental health practitioners girded in a focus and foundational framework in normal human growth and development (Ivey and Gonclaves, 1987), the lack of training opportunities enabling students to translate developmental theory to practice remains a critical issue (Granello & Hazler, 1998; Sprinthall, Reiman & Thies-Sprinthall, 1993; Sprinthall & Thies-Sprinthall, 1983). Trainees remain in need of curricular experiences that facilitate the learning of developmental processes, their application to professional counseling, and specific counseling strategies that facilitate optimal growth and development across the lifespan (Blocher, 1966; Howard, Nance & Myers,

1987; Ivey, 1986, 1990; Ivey & Gonclaves, 1988; Ivey & Rigazio-Digilio, 1991; Larson, 1984; Morrill, Oetting & Hurst, 1974; Mosher & Sprinthall, 1971; Van Hesteren, 1986).

My primary objective was to incorporate quantitative research with qualitative insights to examine differences among trainees who participated in a human developmental counseling application curriculum with those who did not. Quantitative results provide information on *cognitive complexity* levels, geared to indirectly measure conceptual ability for those who participated in a counseling application curriculum (*n*=8) compared with those who did not (*n*=4). Qualitative results provide information on differences related to the *integration and application* of human developmental theories, models, and concepts, as self-reported in qualitative interviews, among trainees who participated in a counseling application curriculum (*n*=8) compared with those who did not (*n*=4).

Quantitative Data

Quantitative results of this study highlight the effects of a *human development* counseling application curriculum on *cognitive complexity* for *counselor trainees* as measured by the Role Category Questionnaire. Some results of this study indicate an increase in *cognitive complexity* resulting from participation in a human developmental counseling application curriculum. For example, in exploring within-subjects effects for the lab treatment group, we can conclude a statistically significant difference. This finding indicates an increase in *cognitive complexity* for the lab treatment group not likely having occurred by chance or error. A large effect size also suggests practical significance; or a strong association between participation in the human developmental counseling application lab and changes in *cognitive complexity* levels. For the purposes of this study, an examination and comparison of descriptive statistics reporting mean scores for the treatment and control group could also be interpreted as clinically significant.

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Clinical significance denotes an important practical or applied impact related to treatment intervention (Kazdin, 2003). Noticeable differences can be observed for the lab treatment group as gains in *cognitive complexity* consistently exceeded gains for the non lab control group at both the midpoint and posttest instrument administration; even though group means were slightly lower at the pretest administration for the experimental group. Mean scores for the treatment group revealed a total increase of 2.062 points between the pre and midpoint test and 1.75 points between the pre and post test. Means scores for the control group revealed a total increase of .625 points between the pre and midpoint test and .875 points between the pre and post test. While these scores may appear to reflect relatively small differences; it should be noted that any changes in *cognitive complexity* over short periods of time, ten weeks in this case, have not been well established in the literature (Duys & Hedstrom 2000).

In exploring between-within subjects effects; we conclude that there were no statistically significant differences in *cognitive complexity* levels between the lab treatment and non lab control groups over time, however, as post hoc analysis indicates no statistically significant change in *cognitive complexity* levels for the non-lab control group, this contradiction should be considered among these findings. Just as small differences between groups can report as statistically significant in very large samples (Pallant, 2005), the possibility for real differences to go undetected is likelier to occur with small samples such as this.

Critics of the RCQ have argued that motivation to complete the RCQ or differences in writing enjoyment might account for variation in RCQ scores (Betty & Payne, 1985). A possible explanation for lower RCQ scores among control group participants is a lack of motivation to thoroughly and accurately complete RCQ instruments resulting from lack of participation in treatment. In addition, final RCQ instrumentation was conducted the same day as the final exam.

This could account for the slight decreases in scores for the lab treatment group as it also resulted in attrition for the control group (2 members choosing not to complete the instrument and study participation).

Qualitative Data

Results of the qualitative content analysis support differences between both groups with respect to the *integration and application* of developmental knowledge. Generally speaking, differences can be observed in the number of themes that directly relate to integration or application of developmental knowledge for lab participants (9) versus for non-lab participants (2). Specifically, through a content analysis of emergent themes, there is more data supporting the integration of developmental knowledge theoretically, conceptually, practically, and personally among lab participants.

Integration of Developmental Theories, Models and Concepts Among Study Participants

Utilizing a cyclical conception of counselor development, Loganbill, Hardy, and Delworth (1982) identified three stages of counselor development involving continually advancing levels of stagnation, confusion and integration. In this model, integration is characterized by New Cognitive Understanding, Increased Flexibility, Personal Awareness, Personal Security, and Continuous Self-Monitoring (Bernard & Goodyear, 2004). Adapting the integration of developmental knowledge to Loganbill and colleagues (1982) definition, emergent themes among lab participants reflected 4 out of 5 characteristics outlined in Loganbill's et. al (1982) model.

New Cognitive Understanding of Development was observed in 5 themes identified among lab participants, including: 1) Knowledge of Developmental Differences, 2) Increased Understanding of Others, 3) Conceptualization, 4) Application of Developmental Knowledge,

and 5) Development as a Framework for Counseling. In contrast, 2 themes for non-lab

participants referenced New Cognitive Understanding: 1) Understanding of Group Differences

and 2) Development Viewed as Chronologically-Based. Increased Flexibility was observed

through 2 themes identified among lab participants: 1) Acceptance and 2) Understanding of

Others, whereas no significant themes indicated an increase in flexibility for non-lab participants.

Personal Awareness, a similar if not same construct as Self-awareness observed among the lab

participants, also did not emerge as a significant theme among non-lab participants. Personal

Security was observed among lab participants through the identified theme, Perceived

Preparation of *Counselor Trainees*, whereas no theme related to Personal Security was observed

among non-lab participants. Finally, Continuous Monitoring was not observed among either

group as neither group participated or was observed in ongoing, clinical activities.

The most widely known and utilized model of counselor development, the Integrated

Development Model (IDM), established by Stoltenberg (1981) and refined in collaboration with

McNeil and Delworth (1998), identifies four stages of counselor development across eight

domains of functioning in which a trainee develops. In this model, the final, integrated stage is

characterized by integration across the following domains: Intervention Skills Competence,

Assessment Techniques, Interpersonal Assessment, Client Conceptualization, Individual

Differences, Theoretical Orientation, Treatment Plans and Goals, and Professional Ethics. While

the IDM integrated stage reflects advanced levels of motivation, autonomy, and awareness across

each domain, when adapted to the IDM definition, support for preliminary integration of

developmental knowledge can be observed among 6 out of 8 lab participant themes reflecting

domains outlined in the IDM model. See Tables 16-21.

Table 16

Qualitative Themes Reflected in IDM Domains

IDM Domain	Definition	Lab Group Theme
Intervention Skills Competence	Confidence or ability to carry out therapeutic interventions	Perceived Preparation of *Counselor Trainees*

Having minimal clinical opportunities at this stage of the counselor preparation program, trainees indicated a perception of increased preparedness to carry out developmental counseling interventions. At the time of the interview, a few trainees, having experienced initial client contact, made reference to such instances:

Like…she was talking about her parents and I was like, "Oh…there's something really there." And the next session I felt more prepared in asking more appropriate questions…and it really got me back to…okay there was an ongoing issue with acceptance and trust. I guess I really learned to ask more appropriate questions instead of just, "How does that make you feel?" And then once I asked those questions I could see the relief…you know, she started to cry and said, "I feel like my parents never accepted me." And like, all of a sudden we worked through the surface level and all of a sudden we got really deep. I felt more confident. I didn't feel like I was walking in there asking arbitrary questions. I felt like I was really getting somewhere.

Table 17

Qualitative Themes Reflected in IDM Domains

IDM Domain	Definition	Lab Group Themes
Assessment Techniques	Confidence and ability to conduct assessments	Application of Developmental Knowledge Development as a Framework for Clients

Although not yet provided opportunities to assess clients in counseling practice, trainees indicated an ability to conduct informal, developmental assessments:

And it's not just a psychological concept…but that in real life you see it by how the client acts and what they say.

I know we have that one thing that we went over to show the client and whether or not they're concrete thinkers or formal thinkers and being able to work with them and what kinds of questions I can ask them.

…I would really be aware of that when assessing a client and their behavior 'cause I saw a lot of behavior that can be drawn to things that weren't worked out in those (intimacy and identity) stages.

…to take a client's behavior and pull it towards a stage or a task…I think is important.

That's something that I was completely lacking before. It's given me…like a basic outline, structure, models for people…and eventually my clients.

Table 18

Qualitative Themes Reflected in IDM Domains

IDM Domain	Definition	Lab Group Theme
Client Conceptualization	Diagnosis and understanding of how the client's circumstances, history, and characteristics affect functioning	Conceptualization; Knowledge of Developmental Differences

Adapted to developmental knowledge, trainees indicated a holistic, developmental understanding of client functioning:

My perception of…you really have to evaluate the whole history of this person. Its not that simple…like, "Oh well, you have an eating disorder so we just need to fix it." I really think that became clear to me. There is a connection. Maybe this person is acting this way because of what they still need…Now I know I need to understand more of their background to know how to deal with them.

You just can't truly help or accommodate or help heal or help guide something if you don't have a holistic understanding of the person.

I don't think you can counsel humans effectively if you don't understand how they develop and their behavior manifests…biological, moral development, social development…all of it.

I think that it really helped to know where the person's at. As far as like, biologically, cognitively, socially.

But now I have more multiple view to see this client…to try to understand their issue.

…at the different stages of life, humans process information differently and are socialized differently and view the world differently.

Table 19

Qualitative Themes Reflected in IDM Domains

IDM Domain	Definition	Lab Group Theme
Interpersonal Assessment	Includes the use of self in conceptualizing client problems	Self-awareness; Increased Understanding of Others

Adapted to developmental knowledge, trainees indicated an increased understanding of

others through self-awareness:

> Originally, I was very based on assumptions, like, "Oh, this person just needs to do this…and this is the solution." And not really understanding   that this person is doing this because possibly there's something that   occurred in their development…

> The kind of person I am I assume everyone is like me. It helped me to realize that there is no one correct way of …processing information.

Table 20

Qualitative Themes Reflected in IDM Domains

IDM Domain	Definition	Lab Group Theme
Individual Differences	An understanding of ethnic, racial, and of cultural influences on individuals	Knowledge of Developmental Differences; Increased Understanding Others

Adapted to developmental knowledge, trainees indicated an increased understanding of

developmental influences on individual differences:

> It filled in the gaps to explain how people work differently.

> So right there I've learned something and not just group them all together.

> I didn't think about that before. I didn't realize that even someone who maybe completely articulate and mature…the *way* they think might be different. They might be totally mature but just not think on an analyzing level…not their intelligence but just the *way* they think.

It helped me to realize that there is no one correct way of …processing information. Not everyone processes information and emotions the same way.

…at the different stages of life, humans process information differently and are socialized differently and view the world differently.

…each individual is unique and different and is going to have their own problems or strengths, weaknesses.

Table 21

Qualitative Themes Reflected in IDM Domains

IDM Domain	Definition	Lab Group Theme
Theoretical Orientation	Therapist's understanding of theory	Conceptualization; Connection between Counseling Practice and Developmental or Traditional Counseling Theories

Adapted to developmental knowledge, trainees indicated understanding of developmental theories:

The lab kind of connected it…how you take the development and use it with clients. If it weren't for the lab I don't know if I would have connected it.

Simply because everything I learned seems to make me realize more and more about clients and what I'll be doing with them. I never would have thought to look at development theories like Piaget as far as, "How am I gonna counsel this person?"

You don't think, "Oh well…Erikson's stages could help me here. Moral reasoning could help me here." I just didn't realize the scope of things out there that would help me to conceptualize my clients and it was good.

The final 2 characteristics of the IDM integration stage, 1) treatment plans and goals, or how the therapist plans to organize his or her efforts in working with clients, and 2) professional ethics, or how professional ethics intertwine with personal ethics were unobserved in the content analysis of lab participant transcriptions as neither area was actively incorporated into the lab curriculum.

Application of Developmental Theories, Models, and Concepts Among Study Participants

As lab participants did not engage in client contact or supervised, clinical activities, direct application of developmental knowledge was not observed, however, opportunities to apply developmental theories, models, and concepts to professional practice were provided through assessment and application exercises conducted throughout the lab curriculum. Through exercises, participants observed client footage or case-illustrations and practiced conceptualizing, assessing, and/or identifying appropriate intervention strategies addressing clients' developmental concerns. As a result, theoretical, conceptual, practical, and personal application of developmental knowledge was observed and supported in several themes identified among lab participants. Theoretical or conceptual application was observed and supported among the following identified themes: 1) Conceptualization; 2) Application of Developmental Knowledge; 3) Development as a Framework for Counseling; and 4) Connection Between Counseling Practice and Developmental or Traditional Counseling Theories. Practical Application was observed and supported among the following themes: 1) Conceptualization and 2) Application of Developmental Knowledge. Personal application was observed and supported among the following themes: 1) Acceptance; 2) Self-awareness; and 3) Increased Understanding of Others.

In contrast, no significant themes emerged for non-lab participants referencing application of developmental theories, models, and concepts, despite an interview question specifically soliciting application-related information:

2) Identify and describe any specific ways that you can use your knowledge and understanding of *human development* with potential clients.

Examples of non-lab respondents:

Well, I think I'm not that advanced to know specifics.

Yeah. I don't know that I can really answer at this point any specifics.

Study Limitations

The following limitations are addressed for the reader's consideration when interpreting the data:

1. Participants were obtained from a university sample of convenience; therefore, results may not generalize to other programs.

2. The *Human Development* course was taught by a non-counselor and non-counselor educator. In programs where the course is taught by counselors and/or counselor educators, counseling application may be incorporated into the curriculum.

3. Certain demographic factors may be over or underrepresented among *counselor trainees* from the academic program, department and public university where treatment and control groups were recruited, affecting generalizablity of results.

4. The population sample was drawn from one class, limiting the sample size and decreasing statistical power.

5. The proposed curriculum was held prior to the designated class time, limiting the numbers of participants who were able to manage the additional time requirement, also limiting the sample size and statistical power.

6. Due to attrition of control group participants, the control group was one half the size of the experimental group.

7. The duration of treatment was limited to 10 weeks versus 16 weeks for the full academic term, potentially limiting the strength of treatment. This was done in order to accommodate dates for students' mid-term and final exams and midpoint and posttest administration.

8.   The lab was scheduled to be conducted one full hour prior to the *Human Development* class. In order to allow the majority of participants with work schedules to attend, the lab was adjusted to 45 minutes per session, potentially limiting the strength of treatment.

9.   There are few existing measures of *cognitive complexity*, understanding, and conceptualization. This resulted in indirect assessment of conceptual ability and heavy reliance on just one instrument.

10.   Results for the quantitative portion of this study are highly dependent upon the accuracy of the RCQ, however, developers have cited limitations to the instrument's ability to measure *cognitive complexity* over short periods of time (Duys & Hedstrom, 2000).

11.   Posttest administration of the RCQ at the end of the semester on the day of final exams may have led to a decrease in motivation to complete the instrument and a decrease in scores.

12.   I was unable to control for the number of hours completed toward the counseling degree plan among study participants.

13.   Time and attention (7.5 hours in total) was given only to lab treatment group participants. Equal amount of extra instructional time was not offered to the lab participants.

<p align="center">Implications for Future Research</p>

Based on the results of this study, I propose several recommendations for future research. First, a replication study involving a larger sample is strongly recommended in order to more accurately observe statistically significant differences between the treatment and control group.

In addition, a replication of the study extending the length of sessions to the full, long-semester academic term (16 weeks) and increasing the duration of treatment to a minimum of one hour could increase the strength of treatment and allow for the incorporation of a clinical component, supervision, and feedback. As reported by Duys and Hedstrom (2000), when experiential components and supervision were incorporated, simulated sessions of counselor skills training resulted in increased *cognitive complexity* levels, improved conceptualization skills, and enhanced counselor performance. In their study, sessions lasted from 5-15 minutes and were followed by debriefing, feedback, and evaluation sessions facilitated by doctoral supervisors or counseling instructors. Various studies in skills-based training have supported results associated with such activities (Crews, et al., 2005, Duys & Hedstrom, 2000; Smaby, Maddux, Torres-Rivera, & Zimmick, 1999; Urbani et. al., 2002; Zimmick, Smaby, & Maddux, 2000). Incorporating supervised, simulated counseling sessions into a human developmental counseling application curriculum could similarly increase trainee abilities to practice, understand, and learn developmental counseling applications. In addition, future researchers could assess trainee performance utilizing the IDM Supervisee Levels Questionnaire, Revised (McNeil, Stoltenberg, & Romans, 1992) modified to human developmental knowledge and applications.

A future replication study could also be strengthened by incorporating additional instrumentation to assess *cognitive complexity* levels or conceptual ability, such as the Conceptual Level Paragraph Completion Method (Hunt, Butler, Noy, & Rosser, 1977), thereby reducing heavy reliance on one standardized measure. The RCQ or other measures could also be adapted to apply more relevance to *counselor trainees*. For example, rather than asking trainees to describe a person whom they like and dislike, trainees could be asked to describe a client they

perceive themselves to potentially like or dislike. In addition, future researchers should consider incorporating a qualitative interview at each RCQ administration. This would allow for the identification of emergent themes as they occur through the lab experience. RCQ levels for individual subjects could also be examined and compared with narrative, qualitative data to further examine individual effects.

A follow-up study conducted during the practicum and internship phases of the counselor preparation curriculum could provide highly useful information to counselor educators. Such a study could examine whether or not additional time allowed treatment effects to surface, whether or not treatment effects were maintained, and explore the   ways in which the remaining phases of the counselor preparation program influenced treatment effects.

Aside from the aforementioned exceptions, a replication study should include as many treatment protocols as possible to ensure consistency in the application of a human developmental counseling application curriculum.

Conclusion

The call for professional counselors to promote human growth and developmental principles and practices and utilize strategies that facilitate optimal development over the life-span have been articulated and delineated in professional and scholarly literature both currently and historically (American Counseling Association, 1997; American Counseling Association, 2005; CACREP, 2001; Ivey and Gonclaves, 1987; Jordaan, Myers, Layton, & Morgan, 1980; McAuliffe & Eriksen, 1999; Steenbarger, 1988; Steenbarger, 1990; Wastell, 1996; Whiteley, 1984). Still, a majority of counselor preparation programs neglect to incorporate training opportunities enabling trainees to integrate developmental theory with developmentally appropriate and enhancing counseling intervention and treatment strategies.

This study examined the impact of a human developmental counseling application curriculum, an addendum to the regular *human development* curriculum, designed to provide trainee opportunities to learn, observe, and apply developmental knowledge to professional counseling practice. Patterns and themes related to the *integration and application* of developmental theories, models, and concepts were examined among study participants to identify any newly gained theoretical, conceptual or practical knowledge related to *human development* and professional counseling. In addition, this study examined *cognitive complexity* levels among study participants to indirectly assess changes in conceptual abilities related to theory *integration and application* (Borders, Fong, and Neimeyer; 1986; Jennings & Skovholt, 1999; McNeill, & Delworth, 1998; Simpson et al., 1986; Stoltenberg, McNeill, & Delworth, 1998).

Qualitative results of the study supported differences in both the *integration and application* of developmental knowledge between the treatment group (those participating in the counseling application curriculum) and the control group (those not participating in the counseling application curriculum). Differences were observed in the increased number of themes identified among treatment group participants that directly related to the integration or application of developmental knowledge. Differences in thematic content also strongly supported early *integration and application* of developmental knowledge theoretically, conceptually, practically, and personally among treatment group participants. As theory *integration and application* have also been associated with *cognitive complexity* development, qualitative results seem to also suggest *cognitive complexity* gains for the treatment group (Borders, Fong, & Neimeyer, 1986; Stoltenberg, McNeil, & Delworth, 1998).

Quantitative results offered partial support for the impact of a human developmental counseling application curriculum on *cognitive complexity* gains for *counselor trainees*, however, both practical and clinical gains were identified and supported among treatment group participants.

This study seems to identify a curricular training experience in which *counselor trainees' integration and application* of human developmental theories, models, and concepts and *cognitive complexity* are notably enhanced. Such findings support Blocher (1983) and Stoltenberg, McNeil, and Delworth's (1988) models of counselor development that identify gains in conceptual complexity as trainees engage and make meaning of counseling processes through experiential-rehearsal activities. These findings have implications for counselor educators and training programs as they not only support trainee abilities to demonstrate preliminary *integration and application* of human developmental knowledge but also indicate early signs of counselor development, thus increasing chances for more sophisticated learning and skill implementation in advanced coursework.

APPENDIX A

INFORMED CONSENT

University of North Texas Institutional Review Board

Informed Consent Form

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose and benefits of the study and how it will be conducted.

Title of Study: The Effects of a Counseling Application Lab in Conjunction with the *Human Development* Requisite on *Cognitive Complexity* for *Counselor Trainees*

Principal Investigator: Lamar Trevino, a graduate student in the University of North Texas (UNT) Department of Counseling, Development, and Higher Education.

Purpose of the Study:

You are being asked to participate in a research study which involves completion of testing instruments and possible participation in a Counseling Application lab, in conjunction with your DFEC5123.001/COUN5670.001 *Human Development* class. The purpose of this research is to examine whether or not a Counseling Application lab, in conjunction with the *Human Development* requisite, facilitates cognitive development for *counselor trainees*. Counselor education programs are responsible for training professional counselors that must utilize complex cognitive skills to effectively conceptualize client concerns. Active training methods have been demonstrated to foster these skills in students. Because *cognitive complexity* has been correlated with advanced conceptualization ability, this research will measure the effect of a counseling application component on the *cognitive complexity* levels of students.

Study Procedures:

All students in this course are required to respond to discussion questions as part of participation credit for the course. If you agree to participation, you will be randomly assigned to one of two groups within the class.

You may be assigned to Group 1, an instructional counseling application lab, in lieu of responding to discussion questions, in which you will meet 1 time per week and 10 times over the course of the semester. Lab activities will last 45 minutes each week, totaling 7.5 hours of lab participation throughout the study. Lab activities will include observing videotaped counseling sessions, discussion, and role playing. Each week, lab activities will begin promptly at 4:45 pm and last until 5:30 pm.

Or you may be assigned to Group 2, in which you will continue to respond to discussion questions as part of your regular class requirement, but in addition, complete a pre and post testing instrument. These questions will be assigned 1 time per week for 10 times over the course and can be completed on your own at home.

Your participation in this study also requires that you complete the Role Category Questionnaire (RCQ), which asks you to answer questions regarding counseling situations. You will be asked

to complete this instrument at 2 different points over the semester; the first at the beginning of the semester and the second at the end of the semester. The instrument will take approximately 15 minutes to complete at each administration. Your outcome on this questionnaire is completely confidential and will not be shared with your instructor nor will it have any effect on your grade.

If you don't wish to participate in the research study, please notify me and you will simply fulfill the regular class requirement to respond to discussion questions.

Foreseeable Risks:

There are no significant foreseeable risks in this study but there could be some discomfort which includes:

1. If you are a Counseling student who is not selected to participate in the counseling application lab, you might believe that an inequity exists as a result of not having the opportunity to participate. Students who are not selected to participate in the lab can choose to participate in an alternately scheduled lab that will be offered during summer, 2006.
2. Students who are selected to participate in the lab might find it difficult to attend the lab, as it is outside of the designated class time. Students who are unable to manage the time requirement will be permitted to refuse participation in the lab at any time and elect to participate in discussion activities in lieu of the lab.

Benefits to the Subjects or Others:

We expect the project to benefit you by providing you the opportunity to apply developmental concepts to the counseling profession. Through active training methods, we also expect you to increase conceptualization of client concerns through skills such as: advanced comprehension, information integration, problem-solving, clinical hypotheses, accuracy in empathic response, flexibility in method, and valuing of diversity. We expect the study to benefit Counselor Education programs across the country by examining a new method for teaching *Human Development* to *counselor trainees* and by providing information that will help them to determine whether or not this methodology can facilitate the cognitive and professional development of *counselor trainees*.

Compensation for Participants:

You will not receive compensation for your participation in this study but you will earn part of a participation credit required for your course. Full credit is conditional upon full participation in the treatment group activities and completion of the pre and post tests. If you are unable to attend a particular lab session, you may contact me to discuss arrangements for making up the missed session.

Procedures for Maintaining Confidentiality of Research Records:

Any personally identifiable data will be disclosed to no one outside myself.

Your signed informed consent will be kept separate from all completed testing instruments. Your name will be deleted from all testing instruments and your instrument will be assigned a code. Informed consent forms and all instruments will be kept in a locked file cabinet accessible only by me. Any data entered into a computer software program will be done through matched code and with no names. Also, the confidentiality of your individual information will be maintained in any publications or presentations regarding this study.

Questions about the Study

If you have any questions about the study, you may contact Lamar Trevino at (940) 565-2729 or Dr. Dee Ra*y,* UNT Department of Counseling, Development, and Higher Education, at (940) 565-2066.

Review for the Protection of Participants:

This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

Research Participants' Rights:

Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- Lamar Trevino has explained the study to you and answered all of your questions. You have been told the possible benefits and the potential risks and/or discomforts of the study.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to participate in this study.
- You have been told you will receive a copy of this form.

_____   _____

Signature of Participant   Date

For the Principal Investigator or Designee:

I certify that I have reviewed the contents of this form with the participant signing above. I have explained the possible benefits and the potential risks and/or

discomforts of the study. It is my opinion that the participant understood the explanation.

_____
Signature of Principal Investigator or Designee   Date

APPENDIX B

LETTER TO STUDENTS

Dear student:

Hello! My name is Lamar Trevino and I am a graduate student in the University of North Texas Counseling program. I am also the Principal Investigator of a research study that I am writing to you about.

As a currently enrolled student in the DFEC5123/COUN5670 *Human Development* class, I am writing to request your voluntary participation in a study that will be conducted during the Spring 2006 term. I would like to offer some general information regarding the study in order to assist you in your decision to participate or not to participate. On the first day of class you will also have the opportunity to have any questions answered regarding the study.

The purpose of this study is to examine whether or not a Counseling Application lab, in conjunction with the *Human Development* class, facilitates cognitive development for Counseling students. This study involves completion of testing instruments and possible participation in a lab. The study will be set up as follows:

All students in this class are required to complete 10 written responses to discussion questions as part of a participation credit. Participants in the study will be randomly assigned to one of two groups. Both groups will complete a pre and post testing instrument on the first and final day of class. Your outcome on this instrument will be completely confidential, will not be shared with your instructor, or have any effect on your grade. Students assigned to Group 1 will participate in a Counseling Application lab and will **NOT** be required to respond to discussion questions. Students assigned to Group 2 will complete the discussion questions as part of the regular course requirement.

Students selected to participate in the lab will meet on Mondays, from 4:45 pm - 5:30 pm, a total of 10 times over the course of the semester. These students will report to class at the conclusion of each lab. Lab activities will include observing videotaped counseling sessions, discussion, and role playing.

If you do not wish to participate in the study, simply notify me on the first day of class and you will fulfill the regular class requirement to complete the discussion questions.

We expect this project to benefit students that participate in the lab by providing them the opportunity to apply development theory to the Counseling profession.

If you have any immediate questions regarding the study you may contact me at (940) 565-2729. Thank you for your time and consideration. I look forward to meeting you in Spring 2006.

_____   _____
Signature of Principal Investigator   Date

APPENDIX C

DEMOGRAPHICS QUESTIONNAIRE

Code _____

Demographics questionnaire

Please respond to the following questionnaire by checking the appropriate blank to the right of each response.

1. Gender: Male_____   Female _____

2. Age: 20-25 _____   26-30 _____   31-35_____   36-40 _____   41 +_____

3. Ethnicity: White _____   Hispanic _____   African American _____   American Indian or Alaskan Native _____   Asian or Pacific Islander _____   Other _____

4. What is the name of the Master's program in which you are currently admitted?

   _____

5. How many credit hours have you completed toward your current degree plan?

   0 _____   1-3 _____   4-6 _____   7-12 _____   13 + _____

6. How many credit hours have you completed at the graduate school level? (include all graduate coursework ever completed)

   0 _____   1-3 _____   4-6 _____   7-12 _____   13 + _____

The following questions are personal in nature. You may choose to respond to any question or you may choose to leave any question blank.

7. What is your current relational status?

   Single, never married _____   Single, divorced _____   Married _____

   Long - term (at least 2 years) monogamous relationship _____   Widowed _____

8. Do you have children?

   No _____   Yes _____

9. What is your religious affiliation?

   Catholic _____   Protestant _____   Orthodox Christian _____

   Christian, not included elsewhere _____   Islam/Muslim _____   Jewish _____

   Buddhist _____   Hindu _____   Eastern religions _____   Other _____

No religious affiliation _____

10. How do you identify your religious affiliation ?

Liberal _____   Moderate _____   Conservative _____   Fundamentalist _____   None _____

APPENDIX D

ROLE CATEGORY QUESTIONNAIRE

The Two-Role Version of the Role Category Questionnaire (RCQ)

Our interest in this questionnaire is to learn how people describe others whom they know. Our concern here is with the habits, mannerisms-in general, with the personal characteristics, rather than the physical traits-which characterize a number of different people.

In order to make sure that you are describing real people, we have set down a list of two different categories of people. In the blank space beside each category below, please write the initials, nicknames, or some other identifying symbol for the person of your acquaintance who fits into that category. Be sure to use a different person for each category.

1. A person your own age whom you like. _____

2. A person your own age who you dislike. _____

Spend a few moments looking over this list, mentally comparing and contrasting the people you have in mind for each category. Think of their habits, their beliefs, their mannerisms, their relations to others, any characteristics they have which you might use to describe them to other people.

If you have any questions about the kinds of characteristics we are interested in, please ask them.

Please look back to the first sheet and place the symbol you have used to designate the person in category 1 here.

_____

Now describe this person as fully as you can. Write down as many defining characteristics as you can. Do not simply put down those characteristics that distinguish him/her from others on your list, but include any characteristics that he/she shares with others as well as characteristics that are unique to him/her. Pay particular attention to his/her habits, beliefs, ways of treating others, mannerisms, and similar attributes. Remember, describe him/her as completely as you can, so that a stranger might be able to determine the kind of person he/she is from your description. Use the back of this page if necessary. *Please spend only about five (5) minutes describing him/her.*

This person is:

Please look back to the first sheet and place the symbol you have used to designate the person in category 2 here.

_____

Now describe this person as fully as you can. Write down as many defining characteristics as you can. Do not simply put down those characteristics that distinguish him/her from others on your list, but include any characteristics that he/she shares with others as well as characteristics that are unique to him/her. Pay particular attention to his/her habits, beliefs, ways of treating others, mannerisms, and similar attributes. Remember, describe him/her as completely as you can, so that a stranger might be able to determine the kind of person he/she is from your description. Use the back of this page if necessary. *Please spend only about five (5) minutes describing him/her.*

This person is:

APPENDIX E

SEMI-STRUCTURED INTERVIEW

Semi-Structured Interview

1. Please describe how you connect *human development* with counseling.

2. Identify and describe any specific ways that you can use your knowledge and understanding of *human development* with clients.

3. Has your gained knowledge and understanding changed or impacted your view of clients and client issues? How so?

4. Has your gained knowledge and understanding changed or impacted your view of people, in general? How so?

APPENDIX F

HUMAN DEVELOPMENTAL COUNSELING APPLICATION CURRICULUM

SCHEDULE

Human Development Counseling Application Lab Schedule

Each lab session will consist of a 15 minute theory review, 15 minutes of observation, and a 15 minute experiential exercise.

Mon. Jan. 16th	MLK Holiday
Mon. Jan. 23rd	1st Day of Class; Informed Consent; Pre- Test Administration
Mon. Jan. 30th	Lab 1 Developmental Applications to Counseling & Attachment
Mon. Feb. 6th	Lab 2 Cognitive Development
Mon. Feb. 13th	Lab 3 Cognitive Development con't
Mon. Feb. 20th	Lab 4 Social Development
Mon. Feb. 27th	Lab 5 Social Development con't
Mon. Mar. 6th	No Lab (Mid Term)
Mon. Mar. 13th	Spring Break
Mon. Mar. 20th	Mid-point Test Administration
Mon. Mar. 27th	Lab 6 Development of the Self (Racial/Cultural)
Mon. Apr. 3rd	Lab 7 Development of the Self (Gender)
Mon. Apr. 10th	Lab 8 Moral Development
Mon. Apr. 17th	Lab 9 Adult Development
Mon. Apr. 24th	Lab 10 Integration and Review; Post –Test Administration

APPENDIX G

HUMAN DEVELOPMENTAL COUNSELING APPLICATION CURRICULUM

Topic: Developmental Theory as it applies to Counseling and Attachment

15 min. <u>Theory Review</u>. Introduce basic tenets of developmental theory as applied to professional counseling incl. constructs & principles, spectrum of mental health, goals of counseling, role of counselor. Examined first task of attachment (Bowlby/Ainsworth). Illustrated examples of secure vs. insecure attachment and implications in children, adolescents, and adult clients.

15 min. <u>Observation.</u> Video of child client in play therapy. Students were given a copy of the play therapy session summary to identify observed child client behaviors. Discussed behaviors that demonstrated secure attachment (connection to and inclusion of therapist, risk taking behaviors, confidence, appropriate requests for help, etc.)

15 min. <u>Application</u>. Guided imagery exercise (Ivey, 2005, p. 70-71). Students recalled a significant experience that forced them to transition into a new connection or separation. Discussed how their response connected to former attachment experiences, patterns, reflected cultural or personal values, and might affect their work with clients.

Topic: Cognitive Development

15 min. <u>Theory Review</u>. Overview of Piaget's theory of cognitive development. Address strengths and limits of theory. Overview of Ivey's adaptation to Piaget. Reviewed definitions of DCT cognitive / emotional style styles and compared to Piaget's stages.

15 min. <u>Observation.</u> Role play child, adolescent, and adult clients at each stage: sensorimotor, concrete, formal, dialectic / systemic (Ivey, 2005, p. 112) and identify cognitive / emotional style for each client.

15 min. <u>Application</u>. Assessment exercise. In pairs of 2 students take turns as the Client and the Listener. Role plays (Ivey, 2005, p. 124-125) and assess cognitive / emotional style and stage.

Topic: Cognitive Development

15 min. <u>Theory Review</u>. Overview intervention and treatment strategies. Review Developmental Sphere (Ivey, 2005, p. 152 - Lois Grady) and benefits of matching and mismatching client style and stage. Review appropriate intervention strategies corresponding to each style/stage (Ivey,2005, p. 206-207). Identify skills, strategies, and theories that can be applied to all: sensorimotor, concrete, formal, dialectic / systemic (Ivey, 2005, 153-154).

15 min. <u>Observation.</u> Role play with client and student interviewer responding with all CES styles (Ivey, 2005, p. 146-147).

15 min. <u>Application.</u> Matching responses to client style/stage exercise (Ivey, 2005, p. 140 – 141; p. 226-227). Students take turn as the client and counselor. Counselor responds in all 4 styles. Discuss those interventions that students favor, have mastered, need work on (Ivey, 2005, p. 160)

Topic: Social Development

15 min. <u>Theory Review</u>   Introduce Erikson's theory of Psycho Social Development and define tasks and stages. Discuss strengths and limit to research.

15 min. <u>Observation.</u> Role plays of clients at different stages using see vignettes.

15 min. <u>Application.</u>   Take turns as the Client and Listener. Client will role play and the Listener will assess the stage or unresolved task of the client using vignettes.

Topic: Social Development

15 min. <u>Theory Review</u>: Overview Erikson's theory using chart: Psychosocial Stages in Life (Erikson, 1986). Discuss Eriksonian view: symptoms as reflections of stage-related tasks that are cumulative. Cite examples of tasks for each stage and how unresolved tasks affect development.

15 min. <u>Observation</u>: Present Erikson's case illustration, Peter, age 4. (Theories & Development: Concepts & Application, 1980)

15 min. <u>Application</u>: Students identify possible intervention strategies for cases illustrations representing different life stages.

Topic: Development of the Self (Racial/Cultural Identity)

15 min. <u>Theory Review</u>: Overview cultural identity theory: Cross's (1971) model of racial identity, Sue & Sue's Racial/Cultural Identity Development Model (1990), and MC Counseling and Therapy (Ivey, 2005). Discuss importance of MC competencies with culturally different clients and general strategies for MC competence.

15 min. <u>Observation</u>: Present case illustrations of clients at different stages of cultural identity development.

15 min. <u>Application</u>: Assessment Exercises (Ivey, 2005, p. 266). Assess clients in various stages of cultural identity development.

15 min. Application: In pairs, work with 2 cases (borderline personality and 15 min. Application:

Topic: Development of the Self (Gender)

15 min. Theory Review: Discuss Gilligan's theory of female development and the focus and contributions of her research. Include article: Feminist Developmental Theory: Implications for Counseling (Wastell, 1996).

15 min. Observation: Role play Kohlberg's interview with 11 year-old subjects, Amy & Jake, presented in Gilligan (1982) to illustrate gender differences in responding to moral dilemmas.

In pairs, students work with 2 female cases (borderline personality and eating disorder) and discuss development of client issues through a feminist vs. pathology-based perspective.

Topic: Moral Development

15 min. Theory Review: Review Kohlberg's theory and stages of moral development. Discuss movement from external to internal motivation related to decision making and development of values. Present related research.

15 min. Observation: Observe video clips for clients in three stages of moral development: child / Pre Conventional; adult/ Conventional; adult / Post Conventional.

15 min. Application: Identify tasks and counseling interventions for clients presented.

Topic: Adult (Ego, Ethical & Intellectual) Development:

15 min. Theory Review: Overview Perry's Model of Intellectual/Ethical Development (1978). Present research. Overview Loevinger's Milestones of Ego Development Discuss strengths: correlation with other stage theories, valid and reliable instrument, research conducted on women, cross-cultural application. Discuss limits: no prescriptive techniques.

15 min. Observation Observe video clips for clients: child client in play therapy, adult female client in group counseling, and adult female client in individual counseling.

15 min. Application: Using comparison chart for developmental theories (Ivey, 2005, p.75, including DCT, Piaget, Loevinger, Erikson, Kohlberg, & Perry) students will identify tasks and stages for each client.

Topic: Review & Integration; Post Test Administration

15 min. Review: Review basic tenets of developmental theory as applied to professional counseling.

15 min. Application: Class will assess client case holistically, using all of the developmental models covered in the lab. Students will discuss appropriate therapeutic interventions for the client based on major counseling therapies and Ivey's DCT.

15 min. Administer Post Test

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