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A Critical Realist Exploration of the Relationship Between Personal and Professional Value Systems in Social Workers and the Impact on Motivations for Participation in a Social Work Community of Practice

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Personal and Professional Value Systems in Social Workers and the
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ABSTRACT

This study addresses questions about the nature of relationships between personal and

professional value systems and between personal and professional identities, about

motivations for engaging in a social work community of practice, and about alternative

statistical methods for evaluating the psychometric properties of an original measure of

motivation for participation in a social work community of practice. By merging

communities of practice theory, derived from social learning theory, and critical social

realist theory, this study bridges an ideological gap between the origins and evolution of

personal and social identities. The study utilizes a mixed-method approach to (1) develop

a measure of motivations for participating in a community of practice and compare

confirmatory factor analysis and multidimensional item response theory in the evaluation

of the measure, (2) assess a theoretically derived structural equation model relating

attitudes toward diversity, endorsement of professional social work values, and

motivations for entering a MSW program, and (3) develop a grounded theory of how

students experience and make sense of the interaction, negotiation, and resolution of

personal values about diversity, attitudes towards professional social work values, and

motivations for pursuing a MSW degree. Implications are identified and discussed for (1)

the field of psychometrics, (2) social work education, and (3) social work practice.

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Chapter One

Introduction

This study is an ambitious project on the part of the researcher to address questions about the nature of relationships between personal and professional value systems and between personal and professional identities, about motivations for engaging in a social work community of practice, and about alternative statistical methods for evaluating the psychometric properties of an original measure of motivation for participation in a social work community of practice. Developed to partially fulfill the requirements for the Ph.D. in social work and the Ph.D. in quantitative research methods, this study addresses several distinct but related topics. Each component of the research is a self-contained study addressing one or more of the identified issues, and while each component individually contributes to the body of knowledge concerning these issues, it is the integration of the three components that justifies the research, supports the credibility and validity of the results, and establishes new paths for future research into these topics. For the purpose of clarification and organization, the study can be broken down into a measurement component, a quantitative or structural equation model (SEM) component, and a qualitative component.

Introduction and Background of the Problem

The field of social work is based on a distinct set of value premises which set it apart from other professional disciplines (Abbott, 2003; Compton & Galloway, 1999; D'Aprix, Dunlap, Abel & Edwards, 2004; Reamer, 1995). This difference between social work and other helping professions is evident in the educational emphasis on multiculturalism, specifically in regards to issues of privilege and oppression, the application of person-in-environment and constructionist theories of the human experiences, and the importance of social justice as a defining value of the profession. As stated in the National Association of Social Workers' (NASW, 1999) *Code of Ethics*,

> The mission of the social work profession is rooted in a set of core values. These core values, embraced by social workers throughout the profession's history, are the foundation of social work's unique purpose and perspective:
> - service
> - social justice
> - dignity and worth of the person
> - importance of human relationships
> - integrity
> - competence.
>
> This constellation of core values reflects what is unique to the social work profession. Core values, and the principles that flow from them, must be balanced within the context and complexity of the human experience. (p. 1)

The discourse on the role of value systems in the field of social work is becoming more intense and contentious. In an editorial in the *Washington Post*, George Will, a Pulitzer Prize winning journalist, accused schools of social work education of "indoctrination" because, "such programs mandate an ideological orthodoxy to which students must subscribe concerning 'social justice' and 'oppression' (10/14/07, p. B07); Will goes on to criticize social work programs for their "vocabulary of 'progressive'

cant" and question the legality of requiring students to adhere to the NASW *Code of Ethics*.

Conversely, there are calls to reform the educational selection process in order to admit suitable students with "desired characteristics" (Gibbons, Bore, Monroe, & Powis, 2007, p. 211). Based on a review of the literature, Gibbons et al. found that although most admission processes focused on academic suitability, educators also felt that personal qualities and values played a role in students' eventual success as a social work practitioner. Among those qualities deemed "undesirable" were intolerance and judgmental and opinionated attitudes (Miller & Koerin, 1998). Given the resources involved "both in class and in the field to deal appropriately with the few students who are academically able but exhibit unsuitable personal qualities or inappropriate behavior" (Gibbons, et al., p. 210), and the potential for negative impacts on other students, faculty, field instructors, agencies, and clients (Gibbons, et al.; Gray & Gibbons, 2002), the recommendation was made to focus more on the "screening in" process of selecting appropriate students instead of the "screening out" process for inappropriate students.

Beyond conceptual differences in these professional value systems are differences in the relative social status assigned to the helping professions, in the academic status assigned to the applied social sciences, and in the economic compensation for services rendered. And yet, there are many similarities among the applied fields of human services, both in terms of the services offered and the theoretical underpinnings. Why then would one choose to enter the field of social work instead of other fields such as psychology, education, or law and criminal justice?

While there are specific jobs associated with each of these fields, there is more overlap in potential career options than differences. Aside from these discipline-specific jobs, arguably, the only one thing that sets social workers apart from professionals in these other fields; it is the right to call one's self a "social worker." This title can simultaneously represent many meanings, and one focus of this study is to explore the contribution of this constructed social role to personal and professional identities.

The term "social work" has been used alternatively to describe a "profession" (D'Aprix et al., 2004), a "value perspective" (Bisman, 2004), and a "practice" (Abell, & McDonell, 1990). However, despite the various conceptualizations of social work, there is substantial agreement that it is, first and most importantly, based on a distinct set of values which are meant to support and direct the application of skills and knowledge (Bisman). Derived from the value-base of social work is a "professional identity" associated with being a social worker. Kelly, Alexander, and Cullinae (1986) posit that in order for an occupation to be a profession, "the members must identify with it and its mission" (p. 6). The development of a professional social work identity arises out of growing "self-awareness" and a growing identification with the roles, values, and ethics of the profession (Platt, 1992, as cited in Carpenter, & Platt, 1997).

It has been argued that the current emphasis on the knowledge base of the profession has supplanted an emphasis on the values and mission of the profession (Bisman, 2004). One example is the current debate in the field over the degree of congruency between MSW students' personal values and those of the profession, with evidence supporting claims that the personal value-bases of MSW students over the past

15 years are both divergent and convergent in relationship to the values of the profession (Abell, & McDonell, 1990; Allen-Meares, 2000; D'Aprix et al., 2004). Some research findings suggest that MSW students are more interested in pursuing careers in private clinical practice than in careers focusing on oppressed and impoverished populations, and that there is disparity between the values of contemporary students and those of the profession (D'Aprix et al.). These findings are in contrast to those of Abell and McDonell who reported that less than 25% of MSW students surveyed intended to go into private practice, and that these students remain "highly committed to the concept of involvement with the disadvantaged" (p. 5), and express ongoing commitments to serving traditional social work client groups (Butler, 1990).

Since the adoption of a set of values and their incorporation in practice are definitive of the professional social worker (Clark, 2006), these findings – more particularly those that indicate substantial and continuing value divergences – are of fundamental importance to the future of the social work profession. In addition, this incongruence raises questions about whether or not values that might be held as a part of a personal identity interfere with or even prevent the adoption and practice of values that are at the core of a social identity, such as that of "social worker." Levy (1973, as cited in Haynes, 1999) argues that the social work profession should be "tolerant" of diverse opinions and beliefs regarding "some things, but not about its ideology" (p. 2). Related, but with a different emphasis, LaFrance, Gray, and Herbert (2000, as cited in Gibbons et al., 2007, p. 212; original paper unavailable) noted that a profession based on the belief

that all people are capable of growth and change should be cautious in excluding students who may be ''unready'' rather than "unsuitable" to enter the profession.

Social work educators are recognized as "gatekeepers" of the profession (Bogo, Regeher, Power, & Regeher, 2007; Black, Oles, & Moore, 1998). Inherent in this role is the expectation that educators will assess students' attitudes as related to the profession and develop and present curriculum that "socializes" students to the profession's value system; exposure to the professions' value system is believed to "influence" students' values to be more in line with those detailed in the NASW *Code of Ethics* (Black et al., p. 166). Bogo et al. (2007) assert that it is the critical responsibility of professional programs to "reliably and validly differentiate between those students who possess the knowledge, skills, and judgment" from those who do not (p. 100). Bogo et al. (2007) refer to students with attitudes and behaviors that are inconsistent with social work as "unsuitable" and even "problematic" (p. 101), and suggest that it is important for educators to identify these students early on, even during the admission process if possible.

In a retrospective study of "problematic" students, Pelech, Stalker, Regeher, and Jacobs found that these students were more likely to be male, to be older than the average student, to have lower GPAs, and to have had more social service experience (1999); however, the application of these findings in screening potential social work students is questionable. In a follow-up study, Regeher, Stalker, Jacobs, and Pelech (2001) found that students who were later found to be "problematic" had personal statements in their application materials that focused on personal histories of abuse, injustice, or neglect, and

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plans to work with others with similar experiences. The interpretation of these results is difficult when taken in the context of other research findings (i.e., Biggerstaff, 2000) which show a strong link between students' childhood and family experiences and commitment to working with clients from traditional social work populations. Furthermore, how should educators interpret the word "problematic"? Is saying that a student is "problematic" because he or she has behaved in a way that is inconsistent with the values of social work, for example having a dual relationship with a client, equivalent to saying that a student is "problematic" because he or she holds attitudes and beliefs that are inconsistent with the values of social work, for example believing that the disproportionate number of African American men in prison is a result of African Americans being less lawful and more criminally oriented than a result of institutional racism in the criminal justice system?

How then, are educators meant to identify potentially problematic students? And, on what criteria should these identifications be made? If, on one hand, a purpose of social work education is to bring students' values in line with the profession's values, then is it necessarily "problematic" if an entering student doesn't fully endorse the professional values? Or, on the other hand, as research has begun to identify personal characteristics that are potentially predictive of future problematic behavior, should potential students be "screened out" before ever entering the educational program? Beyond this discussion in the current research literature, any substantial research or theoretical discussion regarding the relationship between personal and professional identity and how they develop in tandem is lacking.

Commitment to social identities rests in part on congruency between the values systems of personal identity and social identity. As a value-defined discipline, social work contributes to a social identity based on specific professional values. Allowing that the value position underlying one's personal identity is an integral part of the commitment to a value-constituted social identity supports the position of the centrality of values in identity formation. Erikson (1964, as cited in Aquino, 2002), positioned identity as the "very core of one's being" (p. 1424) and involving being true to one's self in action. Hart, Atkins, and Ford (1998) defined "moral identity" as "a commitment to one's sense of self to lines of action that promote or protect the welfare of others" (p.1424). Although it may be argued that morals and values are distinct from one another in many ways, it is this author's position that morals, the sense of what is right and wrong, are based on one's value perspective of the world.

Identity theory (Stryker, 1980/2000) is an attempt to explain role-related choices by relating "commitment" to "identity salience" to "role choice." Its premise can be interpreted as an explanation of how behavior is affected by value systems at the level of social identity. Gecas (2000) expands on this conceptualization to link the development of personal identity to value systems as well. "Value identities," as conceptualized by Gecas, are formed when "individuals conceive of themselves in terms of the values they hold" (p. 96). Internal values systems are the bases on which commitments are made to social action; thus, acting in accordance with one's value identity results in affirmation and strengthening of that value-identity. The "professional identity" of social work implies coherence to an agreed upon "domain of practice, values and ethics, and

established modes of professional activity" (Ramsey, 1994, p.339). Constituted by both personal and professional value systems (Carpenter & Platt), professional identity is a marker of congruency between these value systems. The proposition that the values one holds as important lead to choices related to social action and social identity is consistent with Archer's social realist model.

Depending on one's theoretical position on "identity", there are a multitude of "explanations" as to why someone might pursue the goal of being a social worker (D'Aprix et al., 2004). However, few of these theoretical paradigms are presented with a satisfactory level of empirical support (Archer, 1998). Postmodern theories fail to recognize the emergent social properties of being a social worker and, if followed to their theoretical endpoints, undermine the importance of addressing social structures within the context of overcoming oppression and inequality. As Sayer (2000) argued, the postmodern rejection of foundationalism and subsequent claim that knowledge is purely subjective represent a shift towards idealism and relativism where the possibility of empirical knowledge is denied. Furthermore, by discounting the possibility of objective knowledge, postmodernist theories lead to the conclusion that identity cannot be known (Moya, 2000).

Although closely aligned with the postmodern perspective, Levine (2005) raised an interesting question about the notion of a "core self" that organizes the self's relationship with the social world. Rattansi and Phoenix (1997/2005) suggested that "selves are decentered" because they are always relational (2005, p. 103). While agreeing that this statement is "semantically true", Levine argues that without a core self which

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exists across space and time, there can be no "self" to "decenter", and thus the role of ego identity, as differentiated from personal identity by its position in the unconscious, serves to "recenter" the self. While linguistically incompatible with social realism, there is a defensible overlap. Namely, there is an agentic property to identity which allows for a "self" that is different from and located outside of the social self. Unfortunately, Levine relegates this self-identity solely to the realm of the unconscious, while critical realists would argue that the creation and evolution of self-identity can occur through embodied experience and conscious reflexivity.

In contrast, structure-based theories fail to recognize the powers and capacities of human agency and rely instead on deterministic applications of social structure over personhood. While there is general acknowledgement that the physical world exists as object reality, there is little contemporary support for the notion that the same can be said of the social world. The core critique of essentialist theories is that they purport social characterizations as fixed and uniform (Sayer, 2000). An essentialist conception of identity dismisses the importance of contextualization and instead assumes identity is a stable and homogenous experience (Moya, 2000).

These arguments are not intended to discount the valuable contributions of these different paradigms but instead to demonstrate that neither end of the continuum between agency and structure is sufficient for explaining the complex interplay of the two as evident in the actions of social agents. Critical realist social theory provides a unique perspective that simultaneously acknowledges that social phenomena are concept-dependent and intrinsically meaningful while also allowing for causal explanations

(Sayer, 2000). As Sayer pointed out, both postmodern and realist theories recognize the subjective nature of reality and reject foundationalist accounts of the world; however, realism refrains from submerging the world into a relativistic subjectivity where truth cannot be known. Conversely, while realists reject the notion of a static world where identity in particular is comprised of reductionist labels, they also recognize that there are many socially constructed phenomena which possess "essences" (Sayer). To say that two things are similar does not make them the same, nor does saying that they are different preclude the existence of commonalities.

In critiquing postmodern conceptions of identity, Berzonsky (2005) argued that identity is not solely a product of social construction and social action because it depends on the individual's interpretation of his or her action and the meaning ascribed to it. Similarly, identity does not operate in a "transcultural or tans historical fashion" (p. 131) or through passive adoption on the part of individuals. Berzonsky argued that "self-concept" (i.e., personal identity), while inseparable from the world in which exists, is locally developed and maintains continuity over time and space. When applied to the notions of personal and social identities, Berzonsky's position was that these are not separate entities but separate aspects of a unified self. Berzonsky argued that there is a "first-person" perspective of self that resides within the individual and a "third-person" perspective of self that resides in social interaction; it appears that this conceptualization is consistent with, or at least not incompatible, with Archer's (2000) understanding of the "I", as a person, and the "me" as a social agent.

The quantitative and qualitative components of this research explore the nature and context of motivations for participating in a social work community of practice (CoP) and the relationships between these different forms of motivations, personal value systems about diversity, and attitudes towards professional social work values. Situated within a critical realist framework, the focus of the research is the relationship between personal identity-based value positions about diversity and social identity-based value positions as exhibited in the practice of social work at the individual and collective levels. Extending the current debate over the relationship between personal values and professional values in social work, this research merges potentially complementary elements from inherently conflicting theories by exploring a critical realist framework of personal and social identity development and social learning theory within Wenger's (1998) communities of practice theory and Wenger, Iuzzini, Coutant, and Ivaldi's (2000) motivations for participation. Furthermore, the research explores the intersection of Wenger et al.'s model of motivation with prior research on the relationship between personal experiences and motivation to pursue a MSW degree (i.e., Biggerstaff, 2000).

The measurement component of this study compares the use of multidimensional item response theory (MIRT) analysis to confirmatory factor analysis (CFA) in the evaluation of an original measure developed to assess students' motivations for entering a social work community of practice. The development of the Participation in a Social Work Community of Practice Scale (PSWCoP) is traced from theoretical conception to pilot and full sample administrations to evaluation of psychometric properties and latent

construct structure. The study compares the conceptual frameworks of MIRT analysis

and CFA within the context of the result obtained from each method.

Rationale and Significance of the Study

The proposed research has several implications for the community of social work

practice, including practitioners, students, educators, and the profession as a whole. First,

conceptualizing social work through a critical realist framework emphasizes the

importance of personal identity as expressed through values and beliefs and the

relationship between personal identity and social identity. Second, the use of a critical

realist framework acknowledges that socially constructed, context-specific meanings

exhibit real and emergent properties. Restated, the internal recognition and incorporation

of constructed ideas about diversity have real consequences in the lives of social workers

and their clients and for the profession Third, using Wenger et al.'s (2000) concept of

CoP framework provides a structure for exploring and analyzing aspects of motivation

for participation in social work as the confluence of personal and professional value

identities. In addition, as pointed out by Cox (2005), there has been little research into

Wenger's conceptualization of CoPs, and therefore the current study provides further data

for evaluating Wenger's work.

The research also has implications for the field of psychometrics and measure

development and evaluation. Given the conceptual and statistical differences between

MIRT and CFA, the interpretation of results from each method must be evaluated in the

context of either agreeing or disagreeing with each other. Whether the results between the

two analyses are congruent or incongruent, the implications of the results for

measurement theory should be considered. Also, the measurement component of the research may yield an instrument with acceptable psychometric properties to be used in evaluating students' motivations for entering a MSW program.

Research Questions

Four primary research questions/topics are addressed by this research:

- Based on the results of IRT/MIRT analysis, does the measure of Participation in a Social Work Community of Practice (PSWCoP) exhibit a dimensional structure consistent with Wenger et al.'s (2000) proposed model of motivations for participating in a CoP? Additionally, does the analysis lead to a measure demonstrating desirable psychometric properties of reliability, validity, unbiased items, and acceptable model fit?

- Does analysis of the PSWCoP data using CFA produce results consistent with those produced with IRT/MIRT analysis? Specifically, does IRT/MIRT analyses lead to the same conclusions regarding dimensional structure and psychometric properties of reliability, validity, and model fit as those based on CFA?

- What are the underlying structural relationships among the latent constructs "attitudes toward diversity," "social work values," and Wenger et al.'s (2002) "motivations for participation in a social work CoP"?

- How do students experience and make sense of the interaction, negotiation, and resolution of personal values about diversity, attitudes towards professional social work values, and motivations for pursuing a

MSW degree? How do the results of the qualitative component of the

study impact the interpretation of results from the SEM analysis?

Chapter Two

Review of Literature

The following review of literature addresses multiple components of the current research and its place within the state of knowledge of the associated fields. The review commences with a discussion and comparison of the social realist perspective on personal and professional identity to the community of practice perspective on personal and professional identity. Following this segment is a discussion of motivation for participation in a community of practice as conceptualized and outlined by Wenger et al. (2002). The review of literature concludes with a discussion of the PSWCoP, the development of the measure, and the evaluation of the measure using MIRT and CFA.

A Critical Realist Account of Personal and Social Identity

Critical realist social theory provides an integrated framework for understanding the iterative and interdependent developmental relationship between personal and social identity. Drawing primarily on the work of Margaret Archer, it is possible to reconceptualize the origin and importance of personal identity and its primacy in the development of social identity. Personal identity is defined by each individual's constellation of concerns, that is, it is what a person cares about and what s/he hopes to realize in society (Archer, 2003). Based on this paradigm, personal identity must originate before social identity. As Archer (2000) states, "[P]ersonal identity is always

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broader than social identity because it is the former which both animates the latter and defines its standing relative to other concerns, which social concerns do not necessarily outweigh" (p. 257).

While acknowledging that social actors must perform within the constraints of social structures, the choice to participate resides in the individual. In contrast to both structural and deterministic theories of identity development and post-modernist theories of constructed identities, critical realism can be situated in a central position. In Archer's work there is recognition of the impact of social identity on personal identity, but personal identity is positioned as an antecedent to the development of social identity (2000). It is only after personal identity is in formation that alternative social identities can be evaluated and commitments can be made among the available choices. Choice of social identities in return affects the ongoing development of personal identity as it is constantly negotiating between the "I," who I am as a person, and the "Me," my role as a social agent (Archer, 2001).

Archer explicitly challenges Vygotskyan notions of social determinism of the self. According to Vygotsky (1978),

> Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals. (p57).

In strict contrast, Archer (2000) alters both the trajectory and direction of the constitution of the self found in Vygotsky's work. As illustrated in Archer's "social realists' square" (2001, p. 115; Figure 2.1), the development of the self begins in "privacy," that is,

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through encounters between the self and the natural world and not through social relations between the self and others. The development of the self incorporates distinct experiences of personal and social identity and proceeds sequentially from becoming a "self" to being a social actor.

Personification

Commitment

Socialisation

Display Private

Display Public

Individual Realisation

Collective Realisation

Differentiation
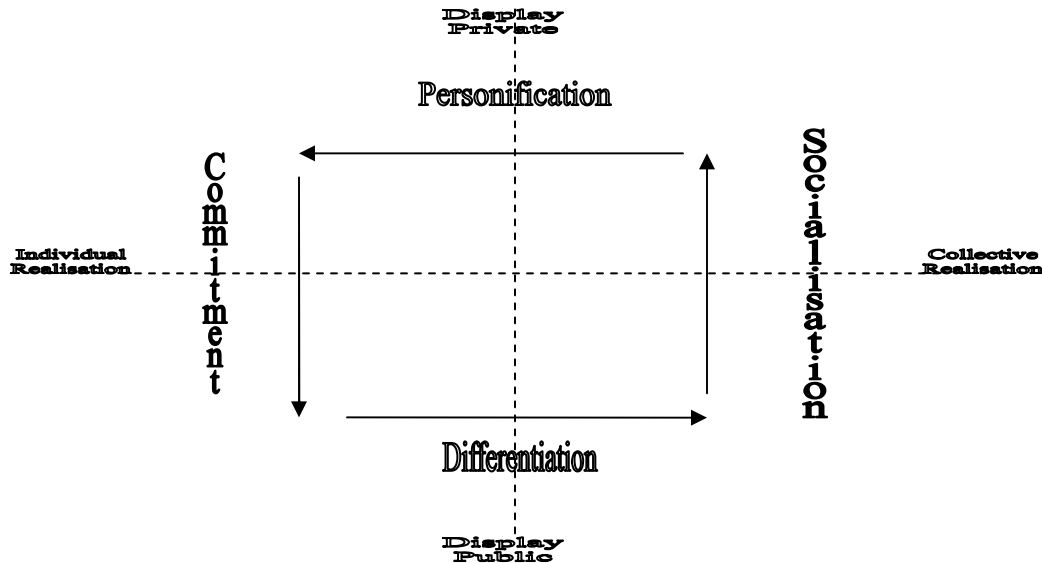
Figure 2.1 The Social Realists' Square

Note. From *Being human* (p. 115), by M. S. Archer, 2000, New York: Cambridge University Press. Copyright 2000 by Cambridge University Press. Reprinted with permission.

Archer's work suggests that commitment to a social identity cannot exist without the support of overlapping values and beliefs at the level of personal identity (2001). Commitments must be evaluated on the bases of consequences, both positive and negative, and the degree to which one cares about a commitment. Thus, commitments, either potential or ongoing, are constantly "tested" against the emotional commentary of the internal conversation of the personal identity (Archer, 2001, p. 228). Archer might

propose that anyone with personal values inconsistent with social work would not pursue adoption of this professional identity. However, reality is not constrained to this perspective and indicates the need for exploration of the interactions between social and personal identities.

In delineating between the "private" and the "public", Archer (2003) notes that reflexive deliberation, that is, "what do I think about…", must originate within the individual. What we believe it not determined by society, although it most certainly is influenced by society. The self always stands in relation to the social, but the nature of this relationship rests on one's sense of self as manifested in his or her personal identity. Progressing forward acknowledges the reality of discursive identity development but counters the claim that all identity development is discursive; more important, the social realist frameworks positions that identity first develops in a non-discursive way. Action proceeds from values and beliefs that are formed non-discursively, and through the evaluation of those actions and their consequences, the intersection of self and society produces space and time in which discursive and non-discursive processes overlap.

Without labeling himself as such, work by Berzonsky (1993/2005) suggests a burgeoning endorsement of realist concepts of identity. He offers support for the nature of a constructed world in which knowledge, in part, exists of subjectively created meanings, but he also acknowledged that we cannot "whimsically construct or make-up anything we desires: we live in within physical, social, and cultural contexts that constrain…the constructions we manufacture" (2005, p. 128). Furthermore, he continued to straddle the essentialist-postmodernist divide by arguing "ego identity" as a sense of

self as a reflexive individual over time and space. Berzonsky falls short of crediting the individual with a capacity for deliberate or intentional manifestation of self in or out of reference to society; as he concluded, identity is not a sense of "who [one] is or what [one] wants", but instead a sense of "who [one] thinks they are and what [one] thinks they are" (p. 134).

There is also the consideration of the social identity of being a social worker. According to Wenger (2003), social identity is partially derived from engaging in the practice of the community to which one belongs or seeks to belong. Social identities are simultaneously developed, maintained, and constrained through participation in a community of practice. It is in the execution of practice, the learning, the mastery, and the application, that social identity is formed. It is these *communities of practice* (CoPs) that allow one to learn, adopt, and express a social identity through participation (Wenger, 1998).

<center>*Social Learning Theory and Communities of Practice*</center>

In relation to the idea of *communities of practice*, critical realism proposes that it is only after the development of the personal identity that an individual can conceive of adopting a social identity, and it is only through further negotiation and commitment that the individual can ascribe to a "community" of such identity and practice (Archer, 2001). Vygotsky's (1978) theory is a key component of situated learning and complementary to social learning theory, both of which are core components of CoP theory. The inherent conflict between Vygotsky's theory and Archer's theory calls into question the possibility of integrating a critical realist approach with a CoP theory.

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Social learning theory situates learning as participation in social processes (Elkjaer, 2003). In contrast to individual learning theory, where learning constitutes coming to know about practices, social learning theory positions learning as becoming a practitioner. According to Elkjaer, learning should be viewed as an ongoing activity in which individual and context are mutually constituted and constantly changing. As conceptualized by Wenger (1998), social learning theory positions learning as a social phenomenon comprised of active participation in the practices of social communities and the construction of identities in relation to these communities.

In the CoP framework, learning is a function of identity (O'Donnell & Tobell, 2007), and "identities are defined with respect to the interaction of multiple convergent and divergent trajectories" (Wenger, 1998, p. 154). Shifts in identity trajectories occur as learners encounter new practices and experience the interaction of past, present, and future aspirations (O'Donnell & Tobell). Wenger (1998) identifies five processes through which social identity develops as a process of participation in a CoP (p.149).

- Identity as negotiated experience: We define who we are by the ways we experience ourselves through participation;

- Identity as community membership: we define who we are by the familiar and the unfamiliar;

- Identity as learning trajectory: we define who we are by where we have been and where we are going;

- Identity as nexus of multimembership: we define who we are by the ways we reconcile our various forms of membership into one identity; and,

- Identity as a relation between the local and the global: we define who we are by negotiating local ways of belonging to broader constellations and of manifesting broader styles and discourses.

Archer's (2001) critical realist social theory identifies the importance and primacy of personal identity in the development of social identity; social learning theory provides a framework for understanding how social identity develops through situated learning and practice. From a critical realist social theory perspective, it is who we *are* that shapes and influences what we *do*, while from a social learning perspective it is what we *do* that shapes and influences who we *are*. Wenger's CoP theory represents a possible bridge between the potentially complimentary elements embedded in conflicting theories. Two implicit critical points of Wenger's (2000) discussion of identity should be explicitly stated. First, the development of a social identity is a process by which individuals define themselves; it is not a process in which individuals are defined by their communities. Second, the development of identity in practice is not equivalent to a "self-image" (p. 151), interpreted here as an individual's conceptualization of his- or herself separate from and in addition to a social identity.

Social psychologists have been successful in gathering support for theories of intergroup and intragroup behavior. Social group theory posits that membership at both the individual and group levels is motivated by, among other things, issues of power, influence, security, and acceptance (Deaux, 2000; Worchel, Iuzzini, Coutant, & Ivaldi, 2000). A critical realist perspective provides an opportunity to think of communities of practice as something different from social groups, a distinction supported by Wenger,

McDermott, and Snyder (2002). In terms of classical community theory, communities operate differently from social groups along several dimensions including responsibility for each other (versus personal/group gain), distributive power and authority (versus individualized/centralized power), and more flexible boundaries allowing members to pass into and out of the community (Wenger, 1998).

What is the nature of "participation", and why do individuals choose to participate in communities in the way that they do? Although seemingly separate questions, there is a logical link between them. "Participation" connotes "action" which is realized in practice. From practice comes meaning, and meaning is a critical component of identity (Carpenter, & Platt, 1997; Wenger, 1998). The nature of participation is made at the social level while the choice to participate is made at the personal level. Social identity grows out of commitments made on the basis of personal identity (Archer, 2001). To participate is to express commitment. Individuals may be constrained in the "ways" in which they can participate and in the "levels" of participation available to them; however, the choice to participate is an act of primary agency.

Wenger (1998) categorizes participation as either "full participation" or "non-participation." Members of communities of practice enter learning trajectories resulting in some form of participation. Full participation is achieved when newcomers are accepted as full members, meaning that they share in the rights and responsibilities of the CoP (Wenger, 1998). Full members are able to actively and fully participate in the negotiation of meanings and to have their views accepted as legitimate alternatives for consideration. Non-participation may take the form of marginalization or peripherality

(Wenger, 1998). Marginalization occurs when members are excluded from full participation; full participation is not available to the individual. Peripherality occurs when members participate in the CoP at less than 100%. Wenger (1998) also posits that non-participation is a form of practice determined by the CoP.

Social work education represents a formal learning trajectory established by the larger CoP of social work. Newcomers are brought into the community and begin a path to full membership and participation. A substantial piece of the learning trajectory, and a necessary outcome for the social work profession, is the understanding and incorporation of the values and ethics of the profession in conjunction with adequate demonstration of these same values and ethics in practice (Council on Social Work Education (CSWE), 2001). According to CSWE,

> Social work education programs integrate content about values and principles of ethical decision making as presented in the National Association of Social Workers Code of Ethics. The educational experience provides students with the opportunity to be aware of personal values; develop, demonstrate, and promote the values of the profession; and analyze ethical dilemmas and the ways in which these affect practice, services, and clients. (p. 8)

Within the framework for membership and participation in the CoP of social work, there exist established guidelines for the exploration of personal and professional value systems, but there lacks a formalized mechanism for evaluation of the relationship between these two value systems.

For Wenger (1998), communities of practice are characterized by joint enterprise, mutual engagement, and shared repertoires. These communities develop around a shared practice where membership and identity are based on participation, and participation involves the negotiation of the meanings of the practice and the mastery of the practice.

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Within a practice-based approach, social identity is more a matter of "doing" than of "being" (Nicolini, Gherardi, & Yanow, 2003). Social work education programs utilize this framework by assessing and evaluating the ability of students to "do" ethical practice. However, Wenger's omission of the role and effect of personal identity ("being"), results in a failure to understand why individuals participate in a social identity ("doing"). Lave and Wenger (1991) describe *participation* as "a way of learning – of both absorbing and being absorbed in – the 'culture of practice'" (p. 95). Social work students are involved in legitimate peripheral participation as they progress through the curriculum and situated learning of their academic programs, and through this process they absorb the practices associated with professional social work while simultaneously being absorbed into the structures associated with professional social work (i.e., professional organizations, job "titles", professional licenses). The successful progression along this learning trajectory leads to full participation (Lave & Wenger).

Domain, Community, and Practice

Wenger et al. (2002) assert that all communities of practice are comprised of three fundamental elements (p. 27):

- a *domain* of knowledge which defines a set of issues;
- a *community* of people who care about this domain; and,
- the shared *practice* they are developing to be effective in their domain.

The domain of a CoP legitimizes the community and establishes it purpose and value to members and stakeholders. The domain of a CoP guides learning, gives meaning to the actions of participants, and establishes the boundaries of the CoP. The community of a

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CoP establishes the space in which learning occurs and supports interactions and relationships based on mutual respect and trust (p. 28). The practice of a CoP is the shared body of knowledge and resources needed to operate effectively within the given domain. It is these three components which differentiate CoPs from other social structures.

Motivation for participation and *modes of belonging* are key concepts in Wenger's (1998) and Wenger et al.'s (2002) theory of CoPs. Each of these constructs helps describe the relationship between an individual and his or her CoPs and provide paths of inquiry into the nature of these relationships. Wenger et al. (2002) identify motivations for participation based on the fundamental elements of a CoP as defined above: *domain, community,* and *practice.* Some individuals are motivated to participate because they care about the domain and are interested in its development. Some individuals are motivated to participate because they value having a community and interacting and sharing with others. The *community* aspect also incorporates participation motivated by an individual's desire to make a contribution in a setting where it will be appreciated. Finally, some individuals are motivated by a desire to learn about the practice as a means of improving their own techniques and approaches. Unfortunately, Wenger et al. fail to fully develop these forms of participation. The constitution of these concepts and their relatedness are not explored in depth. However, as conceptual guide posts, these aspects of participation may be helpful in organizing thinking about the relationship between personal and professional social work value systems.

In addition to motivations for participation in a CoP, Wenger (1998) also provides a conceptual framework for *modes of belonging*, ways of being in a CoP beyond engaging in practice (p. 173). This idea of *belonging* represents an alternative path of inquiry into the relationship between personal and professional value systems. Similarly, research on how social work students engage in participation in the CoP is a promising area for development. The decision was made to focus on motivations for participation in the current study because they are deemed by the researcher to be a necessary foundation for *modes of belonging* and *modes of participation*. Additionally, the current research provides a starting point to a clear and progressive research agenda for understanding the interconnectedness among these aspects of participation and their relationships with personal and professional value systems.

Measuring Motivation for Participation

The review of literature revealed very limited results for measures of *participation* as conceptualized by Wenger (1998) and Wenger et al. (2002). Due to the lack of acceptable and appropriate measures, the first component of this research is focused on the development and evaluation of a measure of motivations for participation in the social work CoP. Focusing on Wenger et al.'s aspects of participation among MSW students and the relationships with personal and professional value systems emphasizes underlying motivations for participation in the social work CoP. Referring back to Archer's (2001) position on the primacy of personal identity to social identity, Wenger et al.'s aspects of participation present a testable framework for Archer's proposition.

Scale Development

Steps in the scale development process are taken from Benson and Clark (1982) and DeVellis (2003).

Step 1: Theoretical Development of Scale

The theoretical development of the scale involves two steps. First, the researcher must identify and define the domain of the test. Second, the researcher must determine what is to be measured. The domain of the test is motivation for participation in a social work CoP. Wenger et al. (2002) identify three separate but related motivational factors: domain, community, and practice. The proposed scale will measure the degree to which each of these motivational factors contributed to a respondent's decision to enter a MSW program and become part of the social work CoP.

Step 2: Develop Potential Content

Developing potential content for the scale also involves two steps. First, a review of the literature serves three purposes. The review of literature allows the researcher to critically assess pre-existing instruments and determine if there is support for the development of the proposed measure. The review of literature also assists in the operationalization of the construct to be measured. Finally, the review of literature can help the researcher identify the types of items most likely to successfully assess and measure the construct. The second step in developing potential content is to solicit input from members of the target group in order to identify aspects of the construct not revealed in the professional literature.

Step 3: Create Scale (1)

Creating the scale consists of developing an item pool, conducting expert interviews for content, and conducting post-administration cognitive interview. After developing the item pool, expert interviews were conducted to sort items according to the factor they are designed to measure, to establish evidence supporting content validity, and to obtain feedback on the quality of the items. Experts were chosen on the basis of their knowledge of MSW program application procedures and applicant characteristics.

Step 4: Pilot (1)

A pilot study of the draft scale is conducted with members of the target population in order to assess item characteristics. Specifically, the data collected during the pilot study is used to assess reliability of the scale and evaluate item fit. In this study, analysis of the pilot data is conducted using both IRT and CFA procedures.

Step 5: Create Scale (2)

Based on the results of the item analysis and reliability assessment, the draft scale may be modified. Modifications are made in accordance with the underlying theory. Items may be added or removed to increase reliability if necessary. Items may also be added to the scale if the item analysis reveals that the content is too easy or too difficult to endorse.

Step 6: Pilot (2)

Depending on the degree of changes made in the scale during Step 5, a second pilot study may be conducted.

Step 7: Administer Scale to Research Sample

The finalized scale is administered to the entire research sample. Subsequent item

analysis, reliability assessment and validation studies is conducted using the data from

the entire research sample and using both MIRT and CFA procedures.

Scale Evaluation Using Item Response Theory

Item response theory (IRT) is based on the concept that only two factors are

responsible for a person's success or failure on any given test item: the person's ability

and the difficulty of the item (Bond & Fox, 2007). The IRT model produces estimates

for both of these factors by calculating item difficulty parameters, on the basis of the total

number of persons who correctly answer an item, and person ability parameters, on the

basis of the total number of items successfully answered (Bond & Fox). The assumptions

underlying these estimates are a) that a more able person will always have a greater

likelihood of success than a less able person, and b) that any person will have a greater

likelihood of success on easier items than on more difficult items (Müller, Sokol, &

Overton, 1999). The likelihood of a given person's success on a given item can be

estimated as a probability according to the formula:

$$P_{ni}(x = 1 / B_i, D_i) = \frac{e^{(B_i - D_i)}}{1 + e^{(B_i - D_i)}}$$

where (P_{ni}) is the probability of a correct response ($x_{ni}=1$), assuming dichotomous items,

of person n on item i, given the ability for person n (B_n) and the difficulty of item i (D_i).

Similarly, the formula for dichotomously scored items can be extended to items

with polytomous response formats (i.e., Likert scales) (Andrich, 1978). In this instance,

the likelihood of a given person's endorsement of a category (level of response) on a given item can be estimated as a probability according to the formula:

$$P_{nik} = \frac{e^{(B_i - D_i - F_k)}}{1 + e^{(B_i - D_i - F_k)}}$$

where the new term, F_k, is the difficulty of crossing threshold k from one category to the next. Additional discussion of items using polytomous response formats is provided below.

The primary benefit in using IRT instead of classical test theory (CTT) in scale evaluation is that IRT fixes the problem of item-person confounding in CTT. In CTT, the ability of the person is defined by the characteristics of the test items; that is, the harder the items, the lower the person's ability, and the easier the items, the higher the person's ability. Conversely, the difficulty of an item is determined by the abilities of the respondents being measured; that is, the more respondents who answer an item correctly, the easier the item. Test and item characteristics vary as a function of the pool of respondents, and person characteristics vary as a function of test and item context (Hambleton, Swaminathan, & Rogers, 1991).

A second benefit derived from using IRT instead of CTT is derivation of interval level data from non-interval level raw scores. The use of ordered response formats (i.e., Likert scales) is frequently accompanied by the false assumption that the data are measured at the interval level; that is, the progress across response categories is treated as if it were ordered *and* consistent instead of simply ordered. For example, treating data measured on a Likert scale as interval level data assumes that the difference in the level of agreement between the categories "Strongly Disagree" and "Disagree" is equal to the

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difference in agreement between the categories "Disagree" and "Neither Disagree or Agree". Ordinal level data can only be equated across respondents in regards to direction and not magnitude. IRT addresses the issue of fundamental measurement through a linear transformation of the ordinal raw data to its natural logarithm (Bond & Fox, 2007).

The basic unit of IRT is the item response function (IRF) or item characteristic curve (ICC). The relationship between a respondent's performance and the traits underlying item performance can be described by a monotonically increasing function called the "item characteristic curve" (Henard, 2000). The ICC is a sigmoid curve estimating the probability of a correct response given a person's ability; the steeper the slope of the ICC, the more discriminating the item. Item difficulty is an indication of the level of the underlying trait that is needed to endorse or respond in a certain way to the item. For dichotomously scored items, the ICC is an estimation of the probability of a "correct" (i.e., yes/no, correct/incorrect) response to the item given the amount of the underlying trait or ability. For items on a rating scale, an IRF is a mathematical function describing the relation between where an individual falls on the continuum of a given construct such as motivation and the probability that he or she will give a particular response to a scale item designed to measure that construct (Reise, Ainsworth, & Haviland, 2005). [I'd say the basic goal is to create a sample-free measure]The basic goal of IRT modeling is to create a sample-free measure.

For item with polytomous response formats (i.e., Likert scales), the IRT analysis output provides step calibrations between each of the response categories. For a rating scale format, these step calibrations, or thresholds, represent the difficulties in choosing

one response category over another (Bond & Fox, 2007). Threshold distances should indicate that each response category or step represents a distinct position on the variable. In addition to step calibration statistics, IRT analysis provides category probability curves. Category probability curves are essentially ICCs for each category of the response format. These curves depict the probability of endorsing each category of the response format based on the underlying level of the trait being measured.

The fundamental assumption of Rasch modeling is unidimensionality. Unidimensionality means that only one trait is measured by a set of items on a measure (Bond & Fox, 2007; Hambleton, et al., 1991). Given the complex and multidimensional nature of human traits, it is illogical to assume true unidimensionality, but the assumption is generally accepted if a single, given trait is presumed sufficient to account for respondents' performance (Hambleton, et al.). Related to unidimensionality is the assumption if local independence. Local independence means that there are no relationships between a respondent's answers other than that due to the trait being measured (Hambleton, et al.).

MIRT is an extension of IRT and is used to explore the underlying dimensionality of an IRT model. Advances in computer software (e.g., Conquest) now allow for testing and evaluation of more complex multidimensional item response models and enable researchers to statistically compare competing dimensional models. One program, Acer Conquest 2.0, can be used to produce marginal maximum likelihood estimates for the parameters of the models. The estimation algorithms it uses are adaptations of the quadrature method described by Bock and Aiken (1981) and the Monte Carlo method of

Volodin and Adams (1995, as cited in Wu, Adams, Wilson, & Haldane, 2007). The fit of the models is ascertained by generalizations of the Wright and Masters (1982) residual-based methods.

Given Wenger et al.'s (2002) conceptualization of motivations for participating in a CoP, unidimensionality in the PSWCoP cannot be assumed. Wenger et al. define motivation for participation as three separate and distinct traits. Wenger et al. do not suggest the presence of a dominant trait among the three, and the PSWCoP attempted to measure all three traits. In addition to evaluating the proposed three dimensional model, a two dimensional model and a unidimensional model will also be evaluated, and model fit between the three dimensional structures will be evaluated using a likelihood ratio chi-squared statistic (χ^2_{LR}) (Barnes, Chard, Wolfe, Stassen, & Williams, 2007). A more detailed discussed of IRT/MIRT analysis is provided below.

Analysis of MIRT Models

Data obtained on the PSWCoP in the pilot phase(s) and research phase will be analyzed using the Acer Conquest 2.0 software program. Developed by Wu, Adams, and Wilson (2008), Acer Conquest 2.0 is a computer program for fitting item response and latent regression models. It provides a comprehensive and flexible range of item response models to analysts, allowing them to examine the properties of performance assessments, traditional assessments and rating scales (p. 2). IRT analysis provides a variety of information, including graphical and statistical data, for use in evaluating a measurement and assessing fit between the observed data and IRT model.

Graphical Analysis

Two graphical representations of use when assessing a rating scale model are the item-person map and category probability curves. The item-person map is a powerful and informative summary of the IRT analysis. It is a visual depiction of the relationship between items and persons showing the distribution of items by difficulty, the distribution of persons by ability, the location of items and persons in relationship to each other, relative measurement error of person and item estimates, and person and item fit. Category probability curves depict the probability of endorsing each category of the response format based on the underlying level of the trait being measured.

Statistical Analysis

Core statistical output of IRT analysis of a rating scale model includes estimates of person ability, item difficulty, model fit, person-fit, item-fit, person reliability, item reliability, and step calibration. Person ability is an estimate of the underlying trait present for each respondent. Persons with high person ability scores possess more of the underlying trait than persons with low person ability scores. Similarly, item difficulty is an estimate of the amount of underlying trait needed to endorse or correctly respond to the item. Items with higher item difficulty scores require a respondent to have more of the underlying trait in order to endorse or correctly respond to the item than items with lower item difficulty scores.

Fit statistics in IRT analysis commonly include infit and outfit mean square statistics. Infit and Outfit are statistical representations of how well the data match the prescriptions of the IRT model (Bond & Fox, 2007). Outfit statistics are based on

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conventional sum of squared standardized residuals, while infit statistics are based on information-weighted sum (Bond & Fox). Infit and outfit have expected MNSQ values of 1.00 with $1.00 \pm X(100\%)$ representing the degree of variation from the expected score. According to Bond and Fox, the mean square error (MNSQ) is the mean of the squared residuals for that item, where a residual is calculated by taking "…the differences between the Rasch model's theoretical expectation of item performance and the performance actually encountered for that item in the data matrix" (p. 43). The weighted and unweighted MNSQs differ in that the weighted MNSQs weigh persons performing closer to the item value more heavily; therefore, persons whose ability is more closely matched to the items' difficulty level will be weighted more heavily than those who are not (Bond & Fox). The weighted *t*-statistic and the unweighted *t*-statistic are just standardized forms of the weighted and unweighted MNSQs, where the MNSQs are transformed to take into account the size of the sample (Bond & Fox). Since the unweighted MNSQs are more easily influenced by outliers, Bond and Fox recommend that Rasch modelers pay more attention to the weighted MNSQs.

Infit and outfit statistics are available for both items and persons. Mean infit and outfit values represent a degree of *overall* fit of the data to the model, but infit and outfit statistics are also available for assessing fit at the individual item level (item-fit) and the individual person level (person-fit). Item-fit refers to how well the IRT model explains the responses to a particular item (Embretson & Reise, 2000). Person-fit generally refers to the consistency of an individual's pattern of responses across items (Embretson & Reise). Items and persons demonstrating poor fit should be evaluated and considered for

inclusion/removal from the data set. Smith, Schumacker, and Bush (1998), provide the following sample size dependent cutoffs for determining poor fit: misfit is evident when MNSQ infit or outfit values are larger than 1.3 for samples less than 500, 1.2 for samples between 500-1000, and 1.1 for samples larger than 1000. According to Adams and Khoo (1996), items with adequate fit will have weighted MNSQs between .75 and 1.33. Bond and Fox (2007) state items that are routinely accepted as having adequate fit will have *t* values between -2 and +2. According to Wilson (2005), when working with large sample sizes, one can expect the *t*-statistic to show significant values for several items regardless of fit; therefore, Wilson suggested that one consider items problematic only if items are identified as misfitting based on both the weighted MNSQ and *t*-statistic.

In addition to using fit statistics, item appropriateness can be assessed using reliability estimates, or item-total statistics (i.e., the item-total correlation and the Cronbach's α if item deleted) and inter-item correlations, derived from classical test theory. In CTT, scale reliability is the proportion of variance attributable to the true score of the latent variable (DeVellis, 2003, p. 37). Items with low item-total and inter-item correlations have response patterns inconsistent with other items and should be evaluated for possible deletion from the measure. Deleting items with low item-total correlations will generally result in greater internal consistency as measured by Cronbach's α. Items with extremely high item-total and inter-item correlations should also be evaluated for possible deletion from the measure as they are redundant. Nunnally (1978) suggests a value of .70 as a lower acceptable value for Cronbach's α, while DeVellis considers a

value as low as .60 for Cronbach's α acceptable, if undesirable. Neither author advocates the deletion of items based solely on item-total statistics.

IRT analysis also provides reliability indices. Reliability indices represent the likelihood of getting the same ordering of persons in regards to ability level if the same sample were given another set of items measuring the same construct (Person Reliability Index) and the same ordering of items in regards to difficulty if the set of items were given to another sample (Item Reliability Index) (Bond & Fox, 2007; Wright & Masters, 1982). Reliability indices can range from 0 to 1, with higher values indicating greater reliability. Associated with reliability indices are separation indices for both persons and items. Separation indices are useful for comparing person and item reliabilities across analyses (Bond & Fox).

For rating scale models, category thresholds are provided in the IRT analysis. A category threshold is the point at which the probability of endorsing one category is equal to the probability of endorsing a corresponding category one step away. While thresholds are ideally equidistant, this isn't necessarily the reality. Guidelines indicate that thresholds should be at least 1.4 logits but no more than 5 logits (Linacre, 1999b). While each item has an associated difficulty estimate, the step structure, the pattern of threshold responses, is the same for every item. Infit and outfit statistics are also available for step calibrations. Outfit MNSQ values greater than 2.0 indicate that a particular response category is introducing "noise" into the measurement process and should be evaluated as a candidate for collapsing with an adjacent category (Bond & Fox, 2007; Linacre, 1999b).

In conjunction with the standard output of IRT analysis, MIRT analysis provides additional information for use in the assessment of a multidimensional model. Acer Conquest 2.0 (Wu et al., 2008) software provides estimations of population parameters for the multidimensional model, which include factor means, factor variances, and factor covariances/correlations. Acer Conquest 2.0 also produces maps of latent variable distributions and response model parameter estimates. Akin to the item-person map produced in a unidimensional IRT analysis, these maps visually represent relationships between item difficulties and latent factor distributions.

Analysis of Nested Models

Two models are considered to be nested if one is a subset of the second. Overall model fit of an IRT model is based on the deviance statistic, which follows chi-square distribution. The deviance statistic will change as parameters are added or deleted from a model, and changes in fit between nested models can be statistically tested. The chi-square difference statistic (χ^2_D) can be used to test the statistical significance of the change in model fit (Kline, 2005). The χ^2_D is calculated as the difference between the model chi-square (χ^2_M) values of the two nested models using the same data; the *df* for the χ^2_D statistic is the difference in *dfs* for the two nested models. The χ^2_D statistic tests the null hypothesis of identical fit of the two models to the population. Failure to reject the null hypothesis means that the two models fit the population equally. When two nested models fit the population equally well, the more parsimonious model is generally considered the more favorable.

Analysis of Measurement Invariance

According to Wu et al. (2008), Conquest 2.0 can be used to assess DIF in models with dichotomous and polytomous grouping variables and with polytomous response formats. Two pieces of output can be used to explore DIF. First, Wu et al., suggest that parameter estimates greater than twice the standard error indicate statistically significant differences between the groups. A χ^2 test of parameter equality is also provided. Invariance in step calibrations for polytomous response category formats can be assessed by comparing the deviance statistic between models where the step calibrations are constrained to be invariant across groups and models where step calibrations are estimated freely for each group. The chi-square difference statistic (χ^2_D) can be used to test the statistical significance of the change in model fit (Kline, 2005). The presence of DIF is not automatically problematic; issues of magnitude (Wu et. al) and theoretical considerations (Wilson, 2005) should be taken into account.

Power Analysis

The primary interpretation of power in IRT analysis is the accuracy of parameter estimates, and power analysis in this context focuses on sample size. There is no set formula for assessing the required sample size needed to maximize parameter estimates. A general recommendation from Embretson and Reise (2000) is to have enough subjects to make the standard errors of parameter estimates "reasonably small" (p. 123); unfortunately, no recommendations are provided as to what constitutes "reasonably small". Depending on a number of factors including the number of parameters to be estimated, the number of test items, the discriminating ability of items, and the

heterogeneity of the sample, recommended sample sizes based on simulation studies range from 50 respondents (Hulin, Drasgow, & Parsons, 1983) to 1000 respondents (Lord, 1980; Swaminathan & Gifford, 1979). Intermediary recommendations for sample size are in the range of 250-500 respondents (Reise & Yu, 1990), and this is in line with the estimated sample size of the research sample.

Scale Evaluation Using Confirmatory Factor Analysis

A more traditional method for analyzing the underlying dimensionality of a set of observed variables is factor analysis. Derived from classical test theory (CTT), factor analysis includes a variety of statistical procedures for exploring the relationships among a set of observed variables with the intent of identifying a smaller number of factors, unobserved latent variables, thought to be responsible for these relationships among the observed variables (Tabachnik & Fidell, 2001). Factor analysis can be characterized as either exploratory of confirmatory. Exploratory factor analysis (EFA) describes and summarizes data by grouping together variables that are correlated; it is primarily used as a means of consolidating variables and generating hypotheses about the underlying latent processes. Confirmatory factor analysis (CFA) is used primarily as a means of testing hypotheses about the latent processes underlying a set of observed data.

A common and preferred method for conducting CFA is structural equation modeling (SEM). The term SEM refers to a family of statistical procedures for assessing the degree of fit between observed data and an *a priori* hypothetical model in which the researcher specifies the relevant variables, which variables affect other variables, and the direction of these effects. The two main goals of SEM analysis are to explore patterns of

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correlations among a set of variables, both observed and unobserved, and to explain as much variance as possible using the model specified by the researcher (Klem, 2000; Kline, 2005).

Kline (2005) identifies six basic steps in SEM, and the first two, which need to occur prior to data collection, are discussed here.

Step 1: Specify the model

Specifying the model means expressing the research hypothesis in the form of a structural equation model. A CFA, or measurement, model specifies the latent variables included in the model and the observed variables use to measure the latent constructs. The measurement model for the PSWCoP is specified in Figure 2.2.

Step 2: Determine whether the model is identified

"Identification" refers to whether or not it is theoretically possible to derive a unique estimate for each parameter in the model (Kline, 2005, p. 105). In order for a measurement model to be identified, it must meet two necessary conditions and one sufficient condition. The first necessary condition is that the number of observations is equal to or greater than the number of parameters to be estimated. The number of observations can be calculated $\frac{v(v+1)}{2}$, where v is the number of observed variables. The parameters in a measurement model are counted as follows: the total number of (a) variances and covariances of exogenous variables, and (b) direct effects on endogenous variables. The conceptual model for the PSWCoP is presented in Figure 2.2.

PSWCoP Conceptual Model
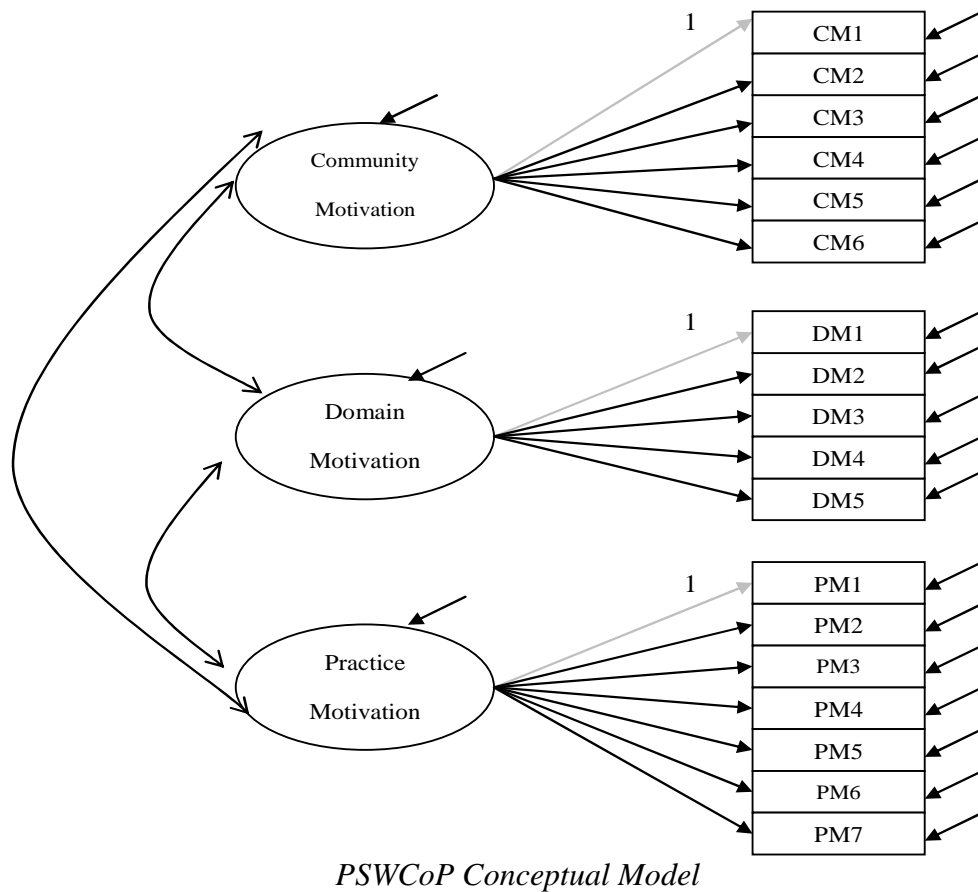
Figure 2.2

Based on this model, there are 39 free parameters (Table 2.1) and 171 observations; this condition is met.

The second necessary condition is that every latent variable must have a scale; measurement errors and factors in the PSWCoP measurement model have been assigned a scale through a unit loading identification constraint. For measurement error, fixing the unstandardized residual path coefficient for the direct effect of the measurement error on the corresponding indicator to a constant (in this case, 1) assigns a scale to the measurement error related to that of the unique variance of its indicator. A similar

process can be used with factors by fixing the unstandardized coefficient for the direct effect on one of its indicators to a constant (in this case, 1); this assigns the factor a scale related to that of the common variance of the reference variable (the indicator with the fixed coefficient). As shown in Figure 2.1, this condition has been met.

The final, and sufficient, condition for the measurement model to be identified concerns the minimum number of indicators present in the model. For a model with two or more factors, the model is identified if there are at least two indicators per factor. As shown in Figure 2.2, there are three factors with at least two indicators per factor; this condition is met.

Table 2.1

PSWCoP Free Parameters

Variances	Covariances	Direct Effects
$E_{DM1} \rightarrow E_{DM5}$, $E_{CM1}, \rightarrow E_{CM6}$ $E_{PM1}, \rightarrow E_{PM7}$ DM, CM, PM,	$DM \leftrightarrow CM$ $DM \leftrightarrow PM$ $CM \leftrightarrow PM$	$DM \rightarrow DM_2$ thru DM_5 $CM \rightarrow CM_2$ thru CM_6 $PM \rightarrow PM_2$ thru PM_7
(21)	(3)	(15)

Analysis of SEM Models

Measurement models in SEM consist of observed (measured) and unobserved (latent) variables and the hypothesized relationships among them. Because the latent variables in CFA are presumed to cause the observed data, these latent variables are said to have a direct effect on the observed variables (Kline, 2005). SEM can be used to estimate these direct effect parameters, called factor loadings, and statistically test the fit of the observed data to the model hypothesized by the researcher.

The basic statistic in all SEM models is covariance, and the most common method of parameter estimation is maximum likelihood (ML) estimation. Parameters are characteristics of the population of interest; without making observations of the entire population, parameters cannot be known and must be estimated from sample statistics. ML estimation produces parameter estimates that minimize the discrepancies between the observed covariances in the data and those predicted by the specified SEM model (Kline, 2005). The statistical assumptions of ML estimation are independence of observations, multivariate normality of the endogenous variables, independence of the exogenous variables and disturbances, and correct specification of the model (Kline). Independence of observations means a respondent's scores are not related to any other respondent's scores. Multivariate normality of endogenous variables means the endogenous variables, those variables for which the presumed causes are explicitly identified in the model, have normal univariate distributions, normal bivariate distributions between any pair, and demonstrate linearity and homoscedasticity. Independence of exogenous variables, those variables for which the presumed cause is unknown and thus not represented in the model, and disturbances, the unknown and omitted causes of the endogenous variables, means are not influenced by other variables in the model. Correct specification of the model entails including the appropriate variables and parameters to be estimated. If the assumptions of ML estimation are violated, other estimation procedures are recommended . For example, in analysis of data measured at the ordinal level, the more appropriate approach is Weighted Least Squares (WLS) estimation (Jöreskog & Sörbom, 2007).

Analysis of Model Fit

Kline (2005) identifies three components to model estimation. First, model fit should be evaluated, which means assessing how well the model as a whole explains the data. Because the proposed model is over-identified, it is expected that model fit will not be perfect; it is therefore necessary to determine the actual degree of model fit and whether or not it is statistically acceptable. There are many different fit indices, and there is little consensus in the literature about which ones should be used and reported, other than an agreement to not rely on any single fit index. Tanaka (1993) identified six areas in which model fit can be assessed:

- Population-based versus sample-based,
- Simplicity versus complexity,
- Normed versus non-normed,
- Absolute versus relative,
- Estimation method,
- Sample size independent versus sample size dependent.

Sun (2005) recommends considering fit indices in four categories: sample-based absolute fit indices, sample-based relative fit indices, population-based absolute indices, and population-based relative fit indices. Sample-based fit indices are indicators of observed discrepancies between the reproduced covariance matrix and the sample covariance matrix. Population-based fit indices are estimations of difference between the reproduced covariance matrix and the unknown population covariance matrix. At a minimum, Kline recommends interpreting and reporting four indices: the model chi-

square, the Steiger-Land root mean square error of approximation (RMSEA), the Bentler comparative fit index (CFI), and the standardized root mean square residual (SRMR); in addition to these fit indices, the Akaike information criteria (AIC) and the goodness-of-fit index (GFI) were examined. According to Jackson, Gallaspy, and Purc-Stephenson's (2009), review of published CFA journal articles over the past decade, these six fit indices are the most commonly reported.

Sample-based fit indices include model chi-square, SRMR, AIC, and GFI. The model χ^2 statistic tests the null hypothesis that the model has perfect fit in the population. Degrees-of-freedom for the χ^2 statistic equal the number of observations minus the number of parameters to be estimated. Two problems with the χ^2 statistic are that over-identified models will almost never perfectly fit the data, and that the χ^2 statistic is sensitive to sample size; therefore, the χ^2 statistic alone is not an adequate indication of model fit. The SRMR is a measure of the differences between observed and predicted correlations; in a model with good fit, these residuals should be close to zero. The AIC is an indicator of comparative fit across nested models with an adjustment for model complexity. The AIC is not an indicator of fit for a specific model, but instead the model with the lowest AIC from among the set of nested models is considered to have the best fit. The GFI is an assessment of incremental change in fit; values greater than 0.90 indicate good fit.

Population-based fit indices include the RMSEA and the CFI. The RMSEA fit index is a measure of the lack of fit of the researcher's model to the population covariance matrix and tests the null hypothesis that the researcher's model has close

approximate fit in the population. Values less than 0.05 for the RMSEA indicate good fit, while values greater than 0.10 indicate poor fit. One population-based relative fit index is the CFI. The CFI assesses the improvement in fit of the researcher's model over a baseline model which assumed zero covariances among observed variables. One problem with the CFI is that assuming zero covariances in the baseline model is unrealistic.

Analysis of Parameter Estimates

The second component of model estimation is interpreting the parameter estimates (Kline, 2005). Based on measurement model presented in Figure 2.1, there are three types of parameters to be estimated: variances, covariances, and direct effects. SEM software is used to derive parameter estimates, and a statistical test of each parameter is conducted by taking the ratio of the sample statistic to its standard error. Assuming a normal distribution, this value is interpreted as a *z*-statistic in a normal curve with a mean of zero and a standard deviation that equals the standard error. Estimated direct effects between a latent variable and indicators are called factor loadings. In a unidimensional model, the standardized factor loading is the estimated correlation between an indicator and a factor; in a multidimensional model, standardized factor loadings can be interpreted as partial correlations.

The PSWCoP measurement model is specified as a unidimensional model, meaning that indicators are hypothesized to load on one factor only. Unidimensionality in a CFA model is not analogous to the concept of unidimensionality in an IRT model. A unidimensional model can be tested by constraining the direct effects between indicators and other factors to zero. According to Kline (2005), "indicators are expected to be

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correlated with *all* factors in CFA models, but they should have higher estimated correlations with the factors they are believed to measure" (emphasis in original, p. 177). A unidimensional measurement model is desirable but elusive in practice with real data. Statistical comparison of unidimensional measurement models with nested multidimensional models allow the researcher to make stronger assertions about the underlying latent variable structure of a measure.

Analysis of Nested Models

As noted in the discussion of MIRT analysis, two models are considered to be nested if one is a subset of the second. Overall model fit based on the chi-square distribution will change as paths are added to or deleted from a model. Kline's (2005) chi-square difference statistic (χ^2_D) can be used to test the statistical significance of the change in model fit.

Analysis of Measurement Invariance

Measurement invariance in CFA can be assessed for factor loadings, factor variances, and factor covariances. Different degrees of measurement invariance exist, and Horn and McArdle (1992) provide a systematic approach for assessing invariance from the strictest definition (metric invariance) to less constrained definitions (i.e., unity-weights invariance and configural invariance). For full metric invariance, all parameters are equal across groups; while theoretically appealing, full metric invariance is considered a goal and not a practical outcome. In contrast, Horn and McArdle recommend comparing model fit between a baseline model in which all parameters are allowed to vary freely across samples to a series of nested models with decreasingly strict

constraints. A measure can be described as having partial metric invariance if factor variances and covariances vary across samples, but factor loadings must be consistent.

The least strict form of measurement invariance is configural invariance. Based on Thurstone's (1947, as cited in Horn & McArdle) concept of "simple structure," configural invariance requires only that the patterns and valences (i.e., positive or negative) of salient and non-salient (i.e., zero) factor loadings are consistent across samples. Configural invariance is primarily an issue of non-significant factor loadings; that is, constraining the same factor loadings to be zero across samples does not result in a statistically significant degradation in model fit from the baseline model.

Unity-weights invariance is between metric and configural invariance. Unity-weights invariance requires configural invariance with the additional constraint of similar, but not identical, weights (or magnitudes) in factor loadings (Horn & McArdle, 1992). Unity-weights invariance can be assessed by constraining factor loadings to be +1 or -1 across samples and comparing model fit to the baseline model. Horn and McArdle suggest that unity-weights invariance is appropriate for psychological measurement and represents a more realistic goal than metric invariance and a more demanding alternative to configural invariance. Horn and McArdle's systematic approach to assessing measurement invariance will be applied to the PSWCoP measurement model (Figure 2.4) pending adequate within-group sample size.

Power Analysis

Power analysis in SEM can be applied at the level of individual path coefficients and for the whole model. The power of a test for an unstandardized path coefficient can

be calculated using Cohen's (1988) method. Assuming a small effect size (r=.20), α=.05

(two-tailed), and a desired power of .80, a sample size of 193 respondents is needed

(Cohen, Cohen, West, & Aiken, 2003, p. 654). The required sample size should be met

according to the estimated sample size of the research sample. (See Figure 2.3 for x-y

plot of estimated power by sample size and effect size.)
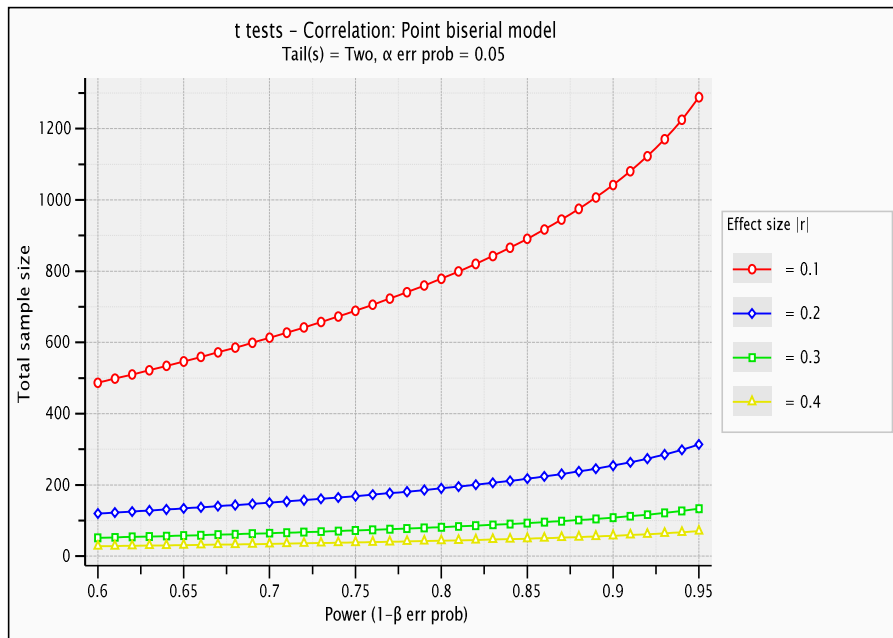
Figure 2.3

Estimated Power for Testing Unstandardized Coefficients

MacCallum, Browne, and Sugawara (1996) argue for power assessment at the

model level using the RMSEA distribution for three hypotheses. The three hypotheses

presented by MacCallum et al. are: (1) *H_0: ε_0=0* (exact model fit), (2) *H_0: ε_0≤.05*(close

model fit), and (3) *H_0: ε_0≥.05* (there is not close model fit). Because SEM is a large

sample procedure and interest is given to over-identified models, the null hypothesis of

exact model fit (*H_0: ε_0=0*), based on a chi-square distribution, is untenable and

impractical. Unfortunately, in models with small numbers of degrees-of-freedom, even large sample sizes may fail to reach a desirable level of power (Kline, 2005). The minimum sample size for testing the null hypothesis of close model fit (H_0: $\varepsilon_0 \leq .05$), given df=6 and assuming α=.05 (two-tailed) and a desired power of .80, is 1,238 respondents; the minimum sample size drops to 1,069 respondents for testing the null hypothesis that there is not close model fit (H_0: $\varepsilon_0 \geq ..05$) (MacCallum et al., p. 144). While these minimum sample sizes are potentially attainable in the full research sample, power for testing the fit of the CFA model is likely to fall in the 0.5-.0.7 range. Given that the emphasis of the CFA is on estimation of individual factor loadings and on comparison of model fit *between* competing models, this reduction in estimated power is acceptable.

MIRT vs. CFA

MIRT and CFA analyses can both be used to assess the dimensionality or underlying latent variable structure of a measurement. This choice in statistical procedures raises the questions of how are the analyses different and whether or not the results of the two analyses are consistent. As noted above, IRT addresses two problems inherent in CTT. First, IRT overcomes the problem of item-person confounding found in CTT. IRT analysis results in estimates of item difficulties and person abilities that are independent of each other, unlike in CTT where item difficulty is assessed as a function of the abilities of the sample respondents and the abilities of the sample respondents are assessed as a function of the item difficulty (Bond & Fox, 2007).

Second, the use of ordinal level data (i.e., rating scales), which is routinely treated in statistical analyses as continuous, interval level data, may violate the scale and

distributional assumptions of CFA (Wirth & Edwards, 2007). Violating these

assumptions may result in model parameters that are biased and "impossible" to interpret

(Wirth & Edwards, p. 58; DiStefano, 2002). The logarithmic transformation of ordinal

level raw data into interval level data in IRT analysis overcomes this problem.

A third difference between IRT and CTT is the treatment of the standard error of

measurement. The standard error of measurement is an indication of variability in scores

due to error. Under CTT the standard error of measurement is considered to be constant

across scores in the same population and to be population-specific. Under IRT the

standard error of measurement is considered to vary across scores in the same population

and to be population-general (Embretson & Reise, 2000). The benefits of the IRT

approach to the standard error of measurement are that the precision of measurement can

be evaluated at any level of ability, instead of averaged over ability levels as in CTT, and

that the contribution of each item to the overall precision of the measure can be assessed

and used in item selection (Hambleton & Swaminathan, 1985).

MIRT and CFA analyses allow the researcher to assess the underlying latent

structure of a measure using observed data. Inherent in both approaches is the ability to

compare different dimensional models and statistically test differences in model fit

between competing models. The conceptual model for the PSWCoP is presented in

Figure 2.2. Analysis of the dimensionality of the PSWCoP using MIRT and CFA is

discussed in more detail below; however, two important characteristics of the model are

elaborated on here.

First, based on the work of Wenger et al. (2002), the PSWCoP is intended to be multidimensional, and specifically, measure the latent constructs *Domain Motivation, Community Motivation,* and *Practice Motivation*. Designed with this dimensional structure in mind, data collected with the PSWCoP will be assessed for fit to the proposed model. Although theoretically hypothesized as a tridimensional model, competing models include a unidimensional model (i.e., a single latent construct of motivation) and a bidimensional model. Construct validity for a given model is supported when acceptable model fit is obtained with the observed data. Because the models are nested, they can be directly compared and tested using a likelihood ratio chi-squared statistic (χ^2_{LR}) (Barnes, Chard, Wolfe, Stassen, & Williams, 2007; Kline, 2005). The difference in model fit between two nested models follows a chi-square distribution with degrees-of-freedom (dfs) equal to the difference in dfs between the two models. The procedure for assessing dimensionality in MIRT and CFA analyses is the same; therefore, statistical support for the number of latent factors for the PSWCoP should be consistent across methods.

The second important characteristic of the measurement model of the PSWCoP to consider is the relationships between indicator, or observed, variables and latent variables. Note in the hypothetical measurement model for the PSWCoP (Figure 2.2), each latent variable has a set of indicator variables representing the observed data for each item on the measure. Each indicator or observed variable is presumed to be influenced by a single factor (i.e., the direct effect on any given indicator variable is limited to a single factor). In MIRT analyses, this type of model, where each item is related to a single factor, is referred to as a multidimensional between-item model. This

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model assumes that each subscale on a measure is unidimensional. An MIRT model in which items are influenced by more than one factor is referred to as a multidimensional within-item model (Wu et al., 1998).

The same distinction for specifying relationships between indicator and latent variables exists in CFA. Models in which an indicator depends on a single factor and error terms are uncorrelated are referred to as unidimensional measurement models (Anderson & Gering, 1988). Models in which an indicator is influenced by two or more factors, or in which its error term is assumed to be correlated with the error terms of other indicators, are called multidimensional measurement models. Because these are nested models, both MIRT and CFA analyses allow the researcher to statistically test model fit between unidimensional measurement models and multidimensional measurement models.

One difference in the assessment of latent variable measurement models using MIRT and CFA is in the estimation of item-fit. Where item fit is assessed through error variances in CFA, item fit is assessed through unweighted (outfit) and weighted (infit) mean square errors in MIRT (Bond & Fox, 2007). A second difference is in the treatment of the relationship between indicator and latent variable, which is constrained to a linear relationship in CFA but not in IRT (Greguras, 2005). A third difference is that CFA uses one number, the factor loading, to represent the relationship between the indicator and the latent variable across all levels of the latent variable, whereas in IRT, the relationship between indicator and latent variable is given across the range of possible values for the latent variable (Greguras). Potential implications of these differences include

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inconsistencies in parameter estimates, indicator and factor structure, and model fit across

MIRT and CFA analyses.

Both MIRT and CFA can also be used to assess measurement invariance. Horn

and McArdle define measurement invariance as "whether or not, under different

conditions of observing and studying phenomena, measurement operations yield

measures of the same attribute" (1992, p. 112). A measurement is said to have

measurement invariance if it "means and functions" the same across groups (Greguras,

2005), and this is evidenced when the relationships among indicators and factors is

consistent across different groups (Kline, 2005; Embretson & Reise, 2000). Measurement

invariance is essential if observed mean differences among groups are to be interpreted as

mean differences on the latent construct (Horn & McArdle).

Although MIRT and CFA techniques can both be used to assess forms of

measurement invariance, the respective methods are different. IRT analysis allows for the

assessment of measurement invariance at both the item (DIF) and scale (DTF) level in the

form of differential functioning. An item or scale is said to have differential functioning

there are differences in expected scores between individuals with the same level of the

latent construct due to group membership (Greguras, 2005; Raju, van der Linden, &

Fleer, 1995). DIF can be assessed by comparing ICC curves across groups; in the absence

of DIF, ICCs will be the same (Reise, Widaman, & Pugh, 1993). ICCs will be the same if

the parameters on which they are based are the same. Similarly, step calibrations and

category response curves for polytomously scored items can be assessed for invariance

across groups. Measurement invariance in CFA can be assessed for factor loadings, factor

patterns, factor variances, and factor covariances (Horn & McArdle, 1992). Invariance in

a measure can be categorized depending on which of these parameter estimates are

consistent across groups.

<div align="center">

The Attitudes, Values, and Motivation Structural Equation Model

</div>

The second stage of this research is a mixed method approach to explore and

explain the relationships between motivations, personal values about diversity, and

attitudes toward professional social work values. The quantitative component of the

design focuses on the evaluation and interpretation of a structural equation model of the

theoretically proposed relationships among the latent variables "personal values about

diversity," "attitudes toward professional social work values," and "motivation for

participating in a social work CoP". The qualitative component of the design consists of a

grounded theory approach to understanding the complex relationships between

motivations and values.

Utilizing a mixed-method approach

Mixed-method research can be defined as,

> the collection or analysis of both quantitative and qualitative data in a single
> study in which the data are collected concurrently or sequentially, are given a
> priority, and involve the integration of the data at one or more stages in the
> process of research (Creswell, Plano Clark, Gutmann, & Hanson, 2003, p. 212).

The fundamental goal of mixed-method research is to draw on the complementary

strengths of both qualitative and quantitative research while minimizing their respective

weaknesses (Johnson & Onwuegbuzie, 2004). While this goal is intuitively appealing to

this writer and many other researchers, the use of mixed-method in research elicits

controversy and debate in some research circles (Hanson, Creswell, Plano Clark, Petska, & Creswell, 2005).

An important question in the mixed-method debate is whether or not philosophical paradigms and research methods "have" to fit together (Hanson et al., 2005, p.225). One argument is that positivist/post-positivist paradigms are only compatible with quantitative methods, while post-modernist/constructionist paradigms are only compatible with qualitative methods. Reichardt and Cook (1979) suggest that philosophical paradigms and research methods are not *inherently* linked, and Greene and Caracellie (2003) argue that mixed-method designs allow the research to take advantage of the representativeness and generalizability of quantitative findings and the in-depth, contextual nature of qualitative findings. Even if one accepts the proposition that philosophical paradigms and research methods are inherently linked, the critical realist approach of the proposed research explicitly incorporates elements of both positivistic and constructionist philosophies.

Aggregating arguments from multiple researchers, Hanson et al. (2005) identify four reasons for developing a mixed method design (p. 226)

- better understand a research problem by converging numeric trends from quantitative data and specific details from qualitative data;

- identify variables/constructs that may be measured subsequently through the use of existing instruments or the development of new ones;

- obtain statistical, quantitative data and results from a sample of a population and use them to identify individuals who may expand on the results through qualitative data and results; and,

- convey the needs of individuals or groups of individuals who are marginalized or underrepresented.

SEM is a flexible tool for evaluating a variety of hypothetical models. The three most common types of models are path models, measurement models, and hybrid models. Path models are structural models for observed variables and are used to estimate the presumed effects of one or more observed variables on other observed variables. Measurement models are structural models with both observed and latent variables and are used for exploratory and confirmatory factor analysis. A hybrid model combines both a path model and a measurement model. Unlike a path model alone, the hybrid model incorporates latent variables. Unlike the measurement model alone, the hybrid model allows for hypothesis testing of presumed effects of one or more latent variables on other latent variables.

Based on the work of Glaser and Strauss (1967), grounded theory is a qualitative research method aimed at the discovery of theory from data. The use of a grounded theory approach to qualitative research is supported when the researcher is primarily interested in discovering theory embedded in data. As an inductive process, a grounded theory approach allows theory to emerge from the systematic and rigorous analysis of qualitative data. As a deductive process, a grounded theory approach can facilitate the evaluation and interpretation of quantitative data.

The quantitative portion of the study is designed to test the theoretically determined relationships among the constructs of interest using structural equation modeling. The results of the quantitative analysis will provide statistical tests of parameter estimates based on covariance matrices in the observed data. However, statistically significant results do not mean that underlying latent constructs are in fact what the researcher is measuring ("naming fallacy") or that these latent constructs actually exist ("reification") (Kline, 2005). The qualitative portion of the study is designed to provide unique and incomparable opportunities for the exploration, interpretation, and meaning-making of the quantitative data using a grounded-theory analysis strategy (Glaser & Strauss, 1967). The specific design to be used is the triangulation design convergent model (Creswell & Plano Clark, 2007).

The purpose of this design is "to obtain different but complimentary data on the same topic" (Morse, 1991, p. 122). The triangulation design convergent model is appropriate when the researcher intends to compare and contrast quantitative and qualitative results (Creswell & Plano Clark, 2007). A single-phase approach is used to collect quantitative and qualitative data simultaneously but separately. The convergent model is the most traditional variant of the mixed-method triangulation design (Creswell, 2002) and is used to converge qualitative and quantitative results during interpretation.

There are several strengths to using the mixed-method triangulation design (Creswell & Clark, 2007). First, the design is intuitive in nature and forms the basic framework for thinking about mixed-method research. Second, this is an efficient design requiring only a single phase of data collection. Third, each type of data can be collected

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and analyzed separately using the appropriate traditional techniques associated with that type of data.

There are also notable challenges in using the mixed-method triangulation approach (Creswell & Plano Clark, 2007). First, concurrent data collection requires significant effort and expertise; this challenge is met in this study by the training of the researcher in both quantitative and qualitative research methods. Second, there is a possibility that the quantitative and qualitative results do not agree; should this occur in this study, the consequences of this result will be discussed. Third, and specific to the convergence model, is the need to address the consequences of having different sample sizes when converging the two data sets; this challenge will be met in the current study by weighting the results of the qualitative analysis before integrating them with the quantitative results. Fourth, and specific to the convergence model, is the difficulty in integrating two sets of very different data and their results; this challenge is met through the use of mixed-method analytic techniques of comparison matrices and discussion.

Developing the Structural Equation Model

The first two steps in SEM (Kline, 2005) outlined for the CFA analysis above are expanded and applied now to the full motivations and values model.

Step 1: Specify the model

Specifying the model means expressing the research hypothesis in the form of a structural equation model. A hybrid structural model consists of a measurement model and a path model. The measurement model specifies the latent variables included in the model and the observed variables use to measure the latent constructs. The conceptual

measurement model for the "Attitudes, Values, and Motivations" (AVM) SEM is specified in Figure 2.4.
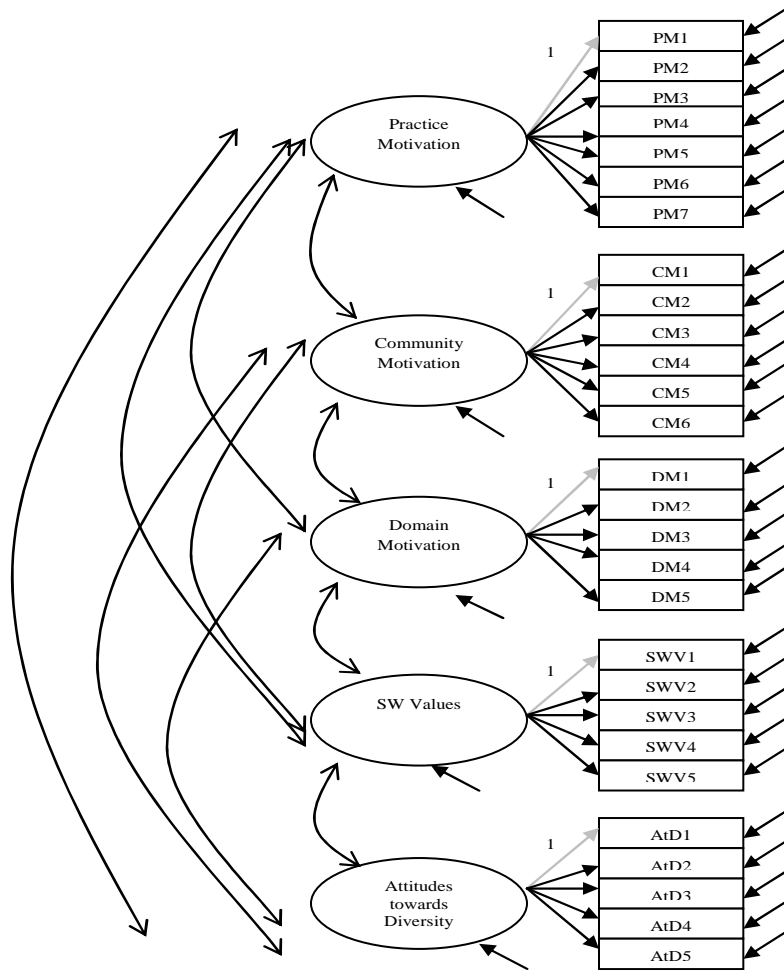
Figure 2.4

Attitudes, Values, and Motivations Measurement Model

The structural path model specifies the presumed relationships among latent variables. The conceptual structural path model is specified in Figure 2.5.
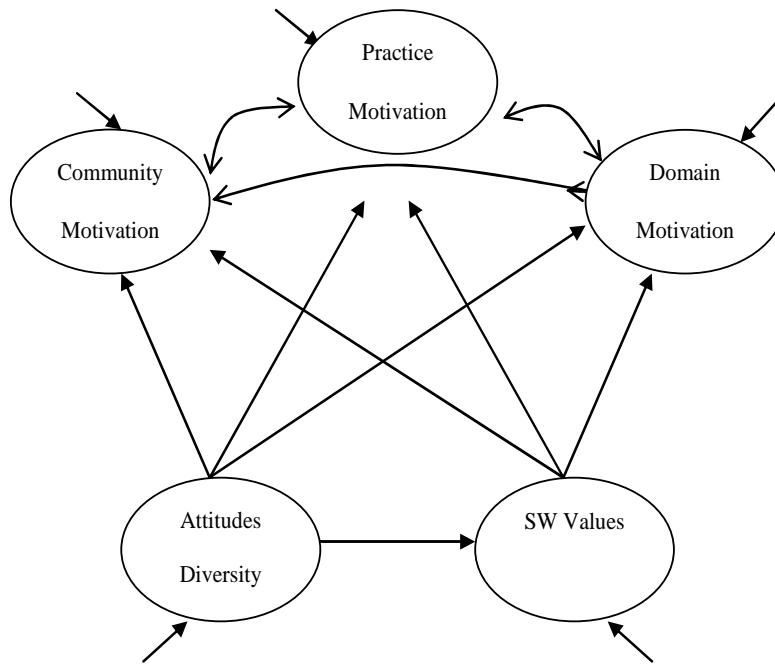
Figure 2.5

Attitudes, Values, and Motivations Structural Model

The hybrid model, combing both the measurement model and structural path model is

specified in Figure 2.6
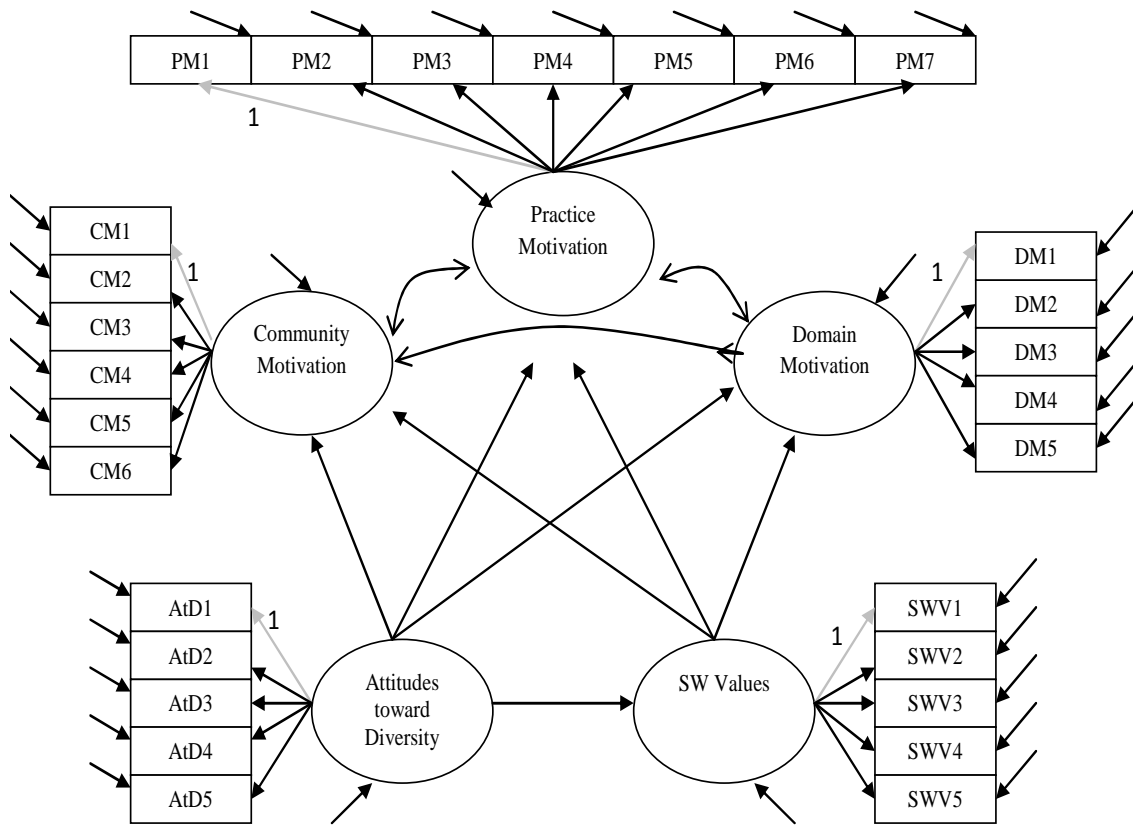
.Figure 2.6

Attitudes, Values, and Motivations Hybrid Model

Step 2: Determine whether the model is identified

"Identification" refers to whether or not it is theoretically possible to derive a

unique estimate for each parameter in the model (Kline, 2005, p. 105). The basic

requirements for a model to be identified are (a) there are at least as many observations as

free model parameters, and (b) every latent variable is assigned a scale. The parameters in

a hybrid model are counted as follows: the total number of (a) variances and covariances

of exogenous variables, and (b) direct effects on endogenous variables. A hybrid model is identified if both the measurement model and the path model are identified.

The first step in determining if a hybrid model is identified is to respecify it as a measurement (CFA) model with all possible unanalyzed associations among the factors. In order for a measurement model to be identified, it must meet two necessary conditions and one sufficient condition. The first necessary condition is that the number of observations is equal to or greater than the number of parameters to be estimated. Based on the measurement model specified in Figure 2.2 there are 68 free parameters (Table 2.2) and 406 observations; this condition is met.

The second necessary condition is that every latent variable must have a scale; measurement errors and factors in the AVM measurement model have been assigned a scale through a unit loading identification constraint. For measurement error, fixing the unstandardized residual path coefficient for the direct effect of the measurement error on the corresponding indicator to a constant (in this case, 1) assigns a scale to the measurement error related to that of the unique variance of its indicator. A similar process can be used with factors by fixing the unstandardized coefficient for the direct effect on one of its indicators to a constant (in this case, 1); this assigns the factor a scale related to that of the common variance of the reference variable (the indicator with the fixed coefficient). As shown in Figure 2.6, this condition has been met.

Table 2.2

Free Parameters for the Attitudes, Values, and Motivation Measurement Model

Variances	Covariances	Direct Effects
$E_{DM,}:E_{DM5,}$, $E_{CM}:E_{CM,6}$ $E_{PM,}:E_{PM7,}$ $DM, CM, PM,$ $E_{AtD1}:E_{AtD5}$ $E_{AtSWV1}:E_{AtSWV5,}$ AtD, SWV	$DM \leftrightarrow PM$ $DM \leftrightarrow CM$ $PM \leftrightarrow CM$ $PM \leftrightarrow AtD$ $PMt \leftrightarrow SWV$ $DM \leftrightarrow AtD$ $DM \leftrightarrow SWV$ $CM \leftrightarrow AtD$ $CM \leftrightarrow SWV$ $SWV \leftrightarrow AtD$	$DM \rightarrow DM_2: DM_5$ $CM \rightarrow CM_2: CM_6$ $PM \rightarrow PM_2: PM_7$ $AtD \rightarrow AtD_2: AtD_5$ $AtD \rightarrow DM$ $AtD \rightarrow CM$ $AtD \rightarrow PM$ $SWV \rightarrow SWV_2: SWV_5$ $SWV \rightarrow DM$ $SWV \rightarrow CM$ $SWV \rightarrow PM$
(33)	(10)	(25)

The final, and sufficient, condition for the measurement model to be identified concerns the minimum number of indicators present in the model. For a model with two or more factors, the model is identified if there are at least two indicators per factor. As shown in Figure 2.2, there are at least two indicators per factor, and this condition is met.

The second step in determining if a hybrid model is identified is to view the structural portion of the hybrid model as a path model. If the path model is recursive, then the structural model is identified. A model is considered recursive if the disturbance terms are uncorrelated and all causal effects are unidirectional. As shown in the AVM structural path model in Figure 2.3, the model is recursive and the path model is identified. Because the measurement model and path model are both identified, the hybrid model as a whole is identified. The hybrid model is, in fact, over-identified. This means that the number of free parameters is less than the number of observations.

Step 3: Select Measures and Collect, Prepare, and Screen Data

The measures to be used in the Motivations-Values structural equation model are discussed above. Methods for collection of data are discussed below.

Step 4: Estimate the Structural Equation Model

Estimation of the structural equation model is discussed below in the *Analysis* section.

Analysis of the Motivations and Values Structural Equation Model

Quantitative Analysis of Model Fit

Following the discussion of model fit and fit indices provided above, and using Kline's (2005) recommendations, a minimum of four indices will be interpreted and reported: the model chi-square, the Steiger-Land root mean square error of approximation (RMSEA), the Bentler comparative fit index (CFI), and the standardized root mean square residual (SRMR). Models with unacceptable fit may need to be respecified and reevaluated. Additional consideration and discussion of model fit and fit indices will be provided in the *Results* section of the dissertation.

Analysis of Parameter Estimates

The second component of model estimation is interpreting the parameter estimates (Kline, 2005). Based on the hybrid model presented in Figure 2.6, there are three types of parameters to be estimated: variances, covariances, and direct effects. The direct effects of attitudes towards diversity on social work values ($AtD \rightarrow SWV$) is drawn from Archer's (2003) theory on the relationship between personal identity and professional identity. That is, what a person holds as true and important about themselves results in their commitment to other value systems. The direct effects between social

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work values and motivations (*SWV→DM, CM, PM*), and between attitudes toward

diversity and motivations (*AtD→DM, CM, PM*), are drawn from both Archer's (2003)

theory and Wenger et al.'s (2002) conceptualization of motivations for participating in a

CoP. The unanalyzed associations (covariances) between the three types of motivation

(*DM↔CM, DM↔PM, CM↔PM*) are of particular interest because Wenger et al. do not

offer any hypotheses about nature of the relationships between them; this research

represents an initial attempt to explore those relationships. Table 2.4 provides a summary

of the parameters of primary interest. SEM software is used to derive parameter

estimates, and a statistical test of each parameter is conducted by taking the ratio of the

sample statistic to its standard error. Assuming a normal distribution, this value is

interpreted as a *z*-statistic in a normal curve with a mean of zero and a standard deviation

that equals the standard error.

Table 2.3

AVM Free Parameters of Primary Interest

Covariances	Direct Effects
DM↔CM	*AtD→SWV*
DM↔PM	*SWV→DM*
CM↔PM	*SWV→CM*
	SWV→PM
	AtD →DM
	AtD →CM
	AtD →PM

The third component of model estimation is considering equivalent models

(Kline, 2005). Equivalent models are those that explain the data equally as well as the

preferred model, but which have different arrangements of hypothesized relationships.

For example, replacing the covariance between *DM* and *CM* (*DM*↔*CM*) with a direct

effect from *DM* to *CM* (*DM*→*CM*) will result in a model with the same model fit but

with a substantially different interpretation. The issue of equivalent models can be

particularly troublesome in cross-sectional research where only theory or common sense

can support the type and direction of parameters. Lacking substantial empirical support

for the model specified in Figure 2.2, the inclusion of qualitative data in a mixed-

methodology framework is critical in understanding, interpreting, and supporting the

proposed model. The issue of equivalent models will be discussed in more depth in the

results section of the dissertation.

Analysis of Nested Models

As discussed previously, two models are considered to be nested if one is a subset

of the second. Overall model fit based on the chi-square distribution will change as paths

are added or deleted from a model. Kline's (2005) chi-square difference statistic (χ^2_D)

can be used to test the statistical significance of the change in model fit.

Analysis of Measurement Invariance

Measurement invariance for the measurement model specified in Appendix B will

be assessed using Horn and McArdle's (1992) systematic approach to testing

measurement invariance as discussed above.

Power Analysis

Power for testing the significance of unstandardized path coefficients in the full

hybrid model remains unchanged from that estimated for the PSWCoP CFA

measurement model discussed previously. The power of a test for an unstandardized path

coefficient can be calculated using Cohen's (1988) method. Assuming a small effect size (r=.20), α=.05 (two-tailed), and a desired power of .80, a sample size of 193 respondents is needed (Cohen, Cohen, West, & Aiken, 2003, p. 654). The required sample size should be met according to the estimated sample size of the research sample. (See Figure 2.7 for x-y plot of estimated power by sample size and effect size.)
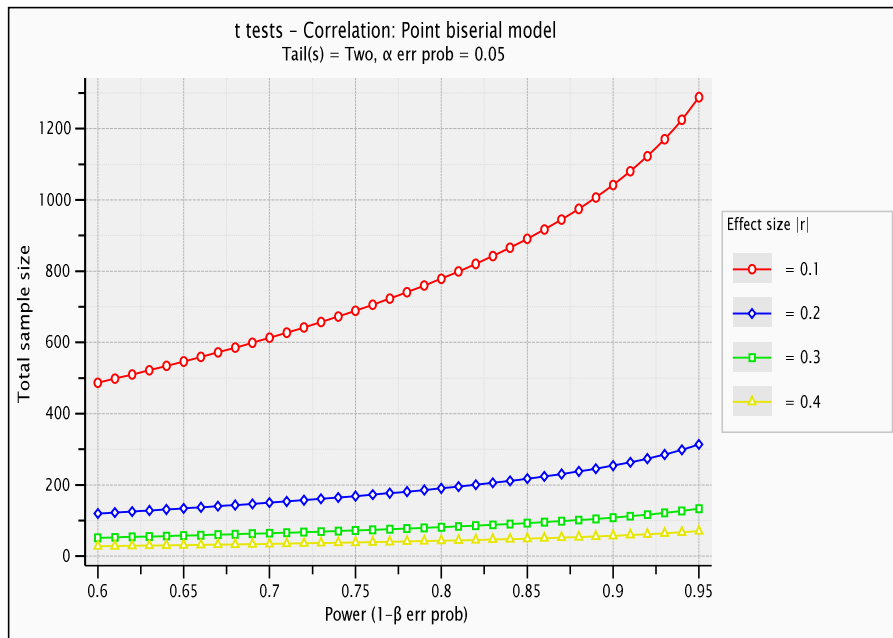
Figure 2.7

Estimated Power for Testing Unstandardized Coefficients

Power for assessing the whole SEM hybrid can be estimated using MacCallum et al.'s (1996) method based on the RMSEA distribution. The minimum sample size for testing the null hypothesis of close model fit (H_0: $\varepsilon_0 \leq .05$), given $df \approx 90$ and assuming α=.05 (two-tailed) and a desired power of .80, is 142 respondents; the minimum sample size is 189 respondents for testing the null hypothesis that there is not close model fit (H_0:

$\varepsilon_0 \geq .05$) (MacCallum et al., p. 144). These minimum sample sizes should be met according to the estimated sample size of the research sample.

Analyzing Variable and Factor Means

Variable means can be estimated in SEM by adding a mean structure to the model's covariance structure. Unlike ANOVA, which is primarily concerned with the means of univariate observed variables, the analysis of means in SEM allows for hypothesis testing about the means of latent variables across multiple samples (Kline, 2005). Classical analysis of multivariate group differences have centered on the use of MANOVA, in which mean group differences on canonical variates comprised of linear combinations of variables are tested. In comparison, SEM analysis estimates mean group differences on unobserved latent variables which are estimated from factor loadings instead of being linear composites of scores; a benefit to the SEM approach is that factor scores are, theoretically, free of unique variance and are therefore more accurate estimates than their manifest variable counterparts (McArdle, Johnson, Hishinuma, Miyamoto, & Andrade, 2001).

Sörbom (1974, as cited in Kline, 2005) provides a two-step strategy for identifying mean structures. The first step in the strategy is to fix the means of all factors for one group to zero; this group becomes the reference group. The factor means are then estimated in the other groups, and their values are the relative differences between that group and the reference group. The null hypothesis is that the relative mean differences are zero. The second part of the strategy assumes measurement invariance (i.e., factors are defined the same for all groups), as discussed above. In order to make reasonable

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estimates of mean differences on latent variables, it must be assumed that factor meanings and interpretations are consistent across samples.

In a mean structure, the direct effects of the constant on the observed variables are intercepts; the direct effects on the latent variables are means. Unstandardized estimates of the direct effects of the constant on the factors calculated for the non-reference groups are interpreted as estimated factor mean differences between the reference group and the respective non-reference group. Assuming normality and homogeneity of variance, the ratio of the unstandardized estimate over its standard error can be interpreted as a *z*-test for the hull hypothesis the mean difference is zero (Kline, 2005).

Power Analysis

Statistical power for estimating group mean differences in the SEM analysis is based on the independent samples *t*-test. Assuming equal group numbers, α=0.05, and a desired power of 0.80, the required sample size ranges from 394 respondents *per group* for a small effect (*d*=0.20) size to 64 respondents *per group* for a medium effect size (*d*=0.50). There should be adequate statistical power for detecting even small effect sizes for some analyses, particularly when there are few group strata and equal sample sizes are likely (i.e., age groups, school characteristics, and practice preferences). Analyses using variables with multiple group strata (i.e., religious affiliation), or substantially unequal sample sizes (i.e., gender, sexual orientation, race/ethnicity) may not detect small effect sizes. (See Figure 2.8 for x-y plot of estimated power by sample size and effect size.)

t tests – Means: Difference between two independent means (two groups)
Tail(s) = Two, Allocation ratio N2/N1 = 1, α err prob = 0.05
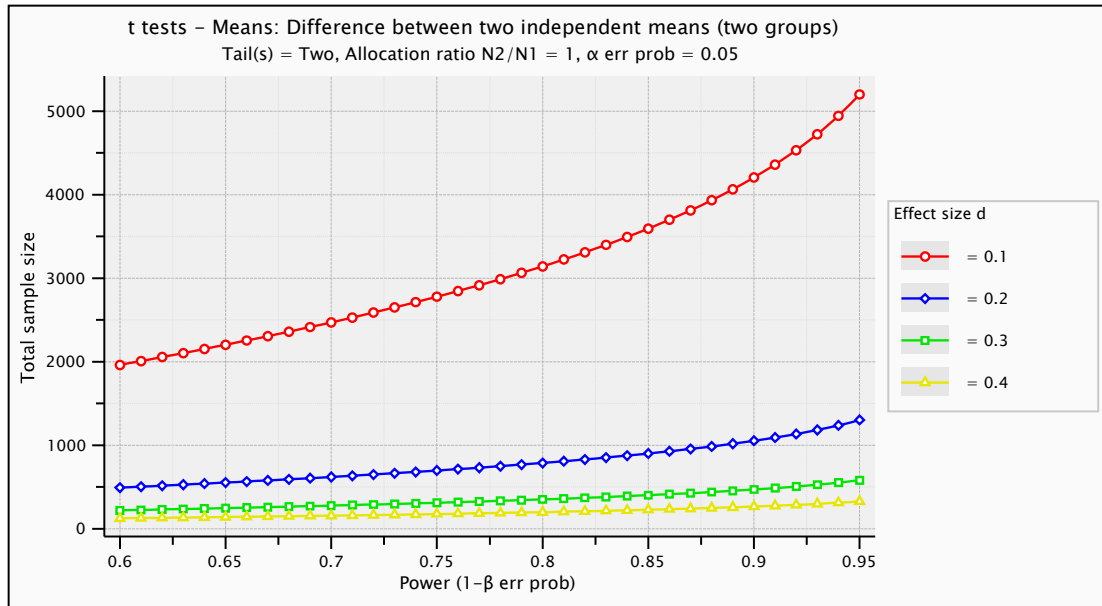
Figure 2.8

Estimated Power for Independent Samples t-Test

Qualitative Analysis

A grounded theory analytic strategy will be used for the qualitative analysis of the

Motivations and Values Structural Equation Model. Grounded theory is the discovery of

theory from data (Glaser & Strauss, 1967). While an explicit critical realist framework of

personal and social identity development underlies the quantitative portion of this study,

no such constrained *a priori* theory presented for verification in the qualitative portion of

the study. Glaser and Strauss acknowledge that while grounded theory is for the

generation of theory, it is flexible enough to subsume the process of verification if the

researcher is capable of not becoming too rigid or constrained during data analysis and

interpretation. Therefore, it is the goal and responsibility of this researcher to remain

unfettered by the specifics of Archer's (2003) and Wenger et al.'s (2002) models. As

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appropriate, these frameworks will be used as lenses through which to view the emergent

theory, but they will not be used to codify or structure the analysis and interpretation.

Analysis will consist of both inductive processes, in which the emergent theory

from the qualitative data will be evaluated in its own right, as well as deductive processes

for comparison to the critical realist framework (Patton, 2002). In addition, the emergent

grounded theory will provide unique and incomparable opportunities for the exploration,

interpretation, and meaning-making of the quantitative data. The discovery of grounded

theory uses the constant-comparative method of data analysis. Developed by Glaser and

Strauss (1967), the constant-comparative method has four stages: (1) comparing incidents

applicable to each category, (2) integrating categories and their properties, (3) delimiting

the theory, and (4) writing the theory (p. 105). The constant-comparative method

simultaneously integrates coding and analysis and supports generating theory that is

"integrated, consistent, plausible, close to the data, and….operationalized for testing in

quantitative research" (p.103).

Data analysis will consist of open and axial coding as steps in discovering the

emergent themes in the data. Open coding is the first stage of data analysis and involves

examining the data and identifying and categorizing discreet elements such as key words

and phrases (Johnson & Christensen, 2004). The second stage of data analysis, axial

coding, involves the development of abstract categories and concepts based on the

discreet data identified during open coding (Johnson & Christensen). The final stage of

data analysis in a grounded theory approach is identifying and interpreting the emergent

themes. During this phase of analysis the researcher develops the "story line of the

theory" by reflecting on the data and results of the open and axial coding phases (Johnson & Christensen, p. 384).

Miles and Huberman (1994) propose that displaying qualitative data is an essential tool for drawing credible and trustworthy conclusions and identifying areas for further exploration. Miles and Huberman identify unreduced text (i.e., transcripts) as the primary mode of qualitative data display and subsequently deem it "weak and cumbersome…because it is dispersed,…sequential rather than simultaneous, …poorly ordered, and…very bulky [and] monotonously overloading" (p. 91). The use of data matrices and networks is offered as supplemental forms of data display. While the use of matrices and networks can be useful tools for focusing data collection, Miles and Huberman caution that the use of strict and/or inflexible data displays may be detrimental. The authors suggest generating "rough" data displays early in the data analysis process and allowing the displays to evolve along with the analysis. A conceptual network based on the Motivations and Values structural model will be used as a deductive tool for evaluating the quantitative model based on the qualitative data.

Chapter Three

Method

The overall method utilized in this study consists of a mixed-method design incorporating both qualitative and quantitative components of data collection and analysis. The overall method can be subdivided into three distinct but interrelated components. The measurement component combines both qualitative and quantitative methods for the development and evaluation of the Participation in a Social Work Community of Practice (PSWCoP) survey. The quantitative component utilizes a statistical framework for the evaluation of a theoretically derived SEM model relating motivations for entering a social work community of practice, defined here as a MSW degree program, personal values and attitudes about diversity and marginalized populations, and attitudes about the professional values of social work as established in the NASW *Code of Ethics* (1999). The qualitative component employs grounded theory approach (Glaser and Strauss, 1967) to interpret and give meaning to the statistical model.

Component One: Development and Evaluation of the PSWCoP

The PSWCoP survey is an assessment of MSW students' motivations for entering a MSW program as conceptualized in Wenger et al.'s (2002) three dimensional model of motivation for participation in a CoP. Following the steps for scale development and

evaluation outlined by Benson and Clark (1982) and DeVellis (2003), Component 1 of the study consisted of a pilot study of the survey and a full sample evaluation of the survey.

<p align="center">*Pilot Study of the PSWCoP Survey*</p>

The pilot study consisted of four steps: focus groups to elicit ideas about content, expert interviews to evaluate potential items, cognitive interviews to evaluate readability and interpretability, and administration of pilot survey.

Focus Groups

Participants

Participants in the focus groups were recruited through an email announcement sent to all GSSW MSW students. The only eligibility requirements were that participants were currently enrolled in the GSSW MSW program and were available to attend one of the two focus groups. Participants were self-selected and were not screened or selected on the basis of any demographic information. The first focus group, conducted April 4, 2008, had 6 participants, and the second focus group, conducted April 7, 2008, had 5 participants.

Procedure

Both focus groups lasted approximately 60 minutes each. The sessions were audio-taped but not transcribed. The groups followed a semi-structured format with the researcher introducing specific concepts for discussion, while giving participants the flexibility to be self-guided within the sessions. Specific concepts introduced were,

- personal motivations for entering a MSW program,

- perceived motivations of peers for entering a MSW program based on firsthand information,

- perceived motivations of peers for entering a MSW program based on speculation,

- interpretation of Wenger et al.'s (2000) three domains of motivation,

- recommendations for content to measure Wenger et al.'s three domains of motivation, and

- recommendations for content related to students' motivations for entering a MSW program but perceived to be outside of Wenger et al.'s three domains.

Based on information obtained from the review of literature and the two focus groups, 30 potential items, 10 for each domain, were developed for the PSWCoP survey. Items were marked according to the domain they were developed to address.

Expert Interviews

Participants

Two experts were recruited by the researcher to provide consultation on the content of the draft PSWCoP survey. Both experts have multiple years experience working in the DU GSSW admissions office with duties ranging from review of application materials and personal essays to conducting campus visits and face-to-face interviews. Both experts were specifically selected based on familiarity with and depth of knowledge about the GSSW MSW program application process and content from student applications.

Procedure

Experts were given an explanation of the study, including a description of Wenger et al.'s (2002) three domains for participation in a CoP. Experts were first asked to divide the sample items into three groups based on their perception of which domain each item was addressing. Each item was marked according to the domain it was assigned to by the experts. Experts were then asked to take the items within each domain and divide them according to their opinion about the quality of the items. Items were classified as "good", "bad", or "mediocre" and then marked according to the rating given by each reviewer. Finally, each item was reviewed with the expert to elicit feedback about content and wording.

Items were reviewed according to their classification into each of the three domains of motivation. Any item receiving three different classifications, one from each expert and one from the researcher, was dropped from consideration. Of the remaining 25 items, those rated as "bad" by both experts or rated "bad" by one expert and "mediocre" by the other expert were reevaluated based on feedback to determine if they could be improved; of the nine items in this category, five were dropped from the study, and four were included in the draft survey; two of the included items were reworded for clarity, and the two remaining items were left unchanged. The two items, left unchanged but included, were rated poorly based on the experts perceptions of the content; these items specifically address content from Wenger et al.'s (2000) model of motivations and were thus retained for the survey.

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Items ranked as "mediocre" by both experts or with mixed rankings (i.e., ranked by one expert as "good" and by the other as "bad") were discussed in more detail with each expert. Of the four items receiving mixed rankings, three of the items addressed the same construct, and the highest rated of the three was included. Additionally, the fourth item, rated "mediocre" by both experts, was included based on its direct relationship to Wenger et al.'s (2000) model of motivations.

Items ranked "good" by both experts, or rated "good" by one expert and "mediocre" by the other expert were automatically included in the draft survey; 12 items fell into this category. No new items were written, and the final draft survey contained 18 items. See Table 3.1 for a list of items on the draft survey by domain by expert rating (1= Highest Rating; 5= Lowest Rating).

Cognitive Interviews

Participants

Participants in the original focus groups were recruited to take the draft survey and complete a cognitive interview. Three students, two from the first focus group and one from the second focus group, agreed to the cognitive interviews. All three students were female, Caucasian, and between the ages of 25-30. One student was a first year, foundation student. One student was an advanced standing student. One student was a second year, concentration student.

Table 3.1

Draft Survey Items by Domain by Rating

Question	Domain	Rating 1	Rating 2
My main interest for entering the MSW program was to be a part of a community of social workers.	Community	2	1
I wanted to attend a MSW program so that I could be around people with similar values to me.	Community	2	1
Without a MSW degree, I am not qualified to be a social worker.	Practice	1	4
I chose a MSW program because I thought social work values were more similar to my values than those of other professions.	Community	1	1
I find social work appealing because it is different than the type of work I have done in the past.	Domain	3	2
I decided to enroll in a MSW program to see if social work is a good fit for me.	Domain	4	4
There is more diversity of values among students than I expected.	Community	1	1
I wanted to attend a MSW program so that I could learn about the social work profession.	Domain	3	4
Learning about the social work profession is less important to me that being part of a community of social workers.	Community	2	4
Learning how to be a social worker is more important to me than learning about the social work profession.	Practice	2	1
Before entering the program I was worried about whether or not I would fit in with my peers.	Community	2	2
A MSW degree is necessary to be a good social worker.	Practice	2	2
Entering the MSW program allowed me to explore a new area of professional interest.	Domain	3	3
Being around students with similar goals is less important to me than developing my skills as a social worker.	Practice	1	2
A MSW degree will give me more professional opportunities than other professional degrees.	Practice	1	3
My main reason for entering the MSW program was to decide if social work is the right profession for me.	Domain	4	4
Learning new social work skills was not a motivating factor in my decision to enter the MSW program.	Practice	3	4
My main reason for entering the MSW program was to acquire knowledge and/or skills.	Practice	1	2

Procedure

The purpose of the cognitive interviews was to elicit feedback from students

about the content, wording, and format of the survey. None of the three students

identified potential problems or recommended changes in the draft survey.

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Pilot Administration

Participants

Participants for the pilot administration of the draft survey were recruited from the DU GSSW MSW program. A recruitment flyer explaining the study was emailed to all students currently enrolled in the GSSW MSW program. The only criterion for participation was that the participant be currently enrolled in the GSSW MSW program. A total of 42 participants completed the draft survey.

Procedures

The draft survey was made available as an anonymous, online survey. A recruitment email was sent to all currently enrolled GSSW MSW students and provided an overview of the study and a link to the online survey. Before beginning the survey, participants were presented with a project information sheet and were required to indicate their consent to participate by clicking on the appropriate response before being allowed to access the actual survey. The survey was administered through www.surveymonkey.com, a frequently used online survey provider. The online draft survey was made available April 18, 2008 through April 28, 2008.

Analysis

Data obtained on the PSWCoP during the pilot phase were analyzed using Winsteps (Linacre, 2006) IRT computer software and SPSS for Windows Release 16.0.0 (2007) exploratory factor analysis (EFA) computer software. Factor structure and interitem correlations were assessed in EFA for guidance in item and factor elimination.

Simple item analysis was conducted in IRT to assess item fit and reliability. No factors or items were dropped from the draft PSWCoP survey.

<p align="center">*Full Sample Evaluation of the PSWCoP Survey*</p>

Participants

Participants for the full sample evaluation of the PSWCoP survey were enrolled during two separate recruitment periods. Initially, only one period of recruitment was planned; however, insufficient enrollment during the first recruitment period required a second period of recruitment and enrollment. The first round of recruitment yielded a non-random sample of 268 students drawn from nine academic institutions. The second round of recruitment yielded a non-random sample of 260 students drawn from eight institutions. Inclusion criteria for this portion of the study was current enrollment in a selected CSWE-accredited MSW program in the U.S. (See *Values and Motivations Structural Equation Model Assessment – Participants* below for a more detailed discussion of institutional sampling method and descriptive characteristics of participating institutions and students.)

Instruments

As indicated above, the final version of the PSWCoP was identical to the draft version of the PSWCoP. See Table 3.1 for a list of items by domain.

Procedure

Participants completed the PSWCoP survey as part of a larger collection of measurements used to assess the Values and Motivations structural equation model. Depending on the participating institution, recruitment consisted of an email providing an

overview of the study and a link to the online survey sent to currently enrolled MSW

students (i.e., the University of Denver) or an announcement providing an overview of

the study and a link to the online survey posted to student-oriented informational website

(i.e., the University of Maryland School of Social Work *Daily Bulletin*). Interested

participants were able to access the anonymous, online survey through

www.surveymonkey.com, a frequently used online survey provider. Before beginning the

survey, participants were presented with a project information sheet and were required to

indicate their consent to participate by clicking on the appropriate response before being

allowed to access the actual survey. During the first round of data collection the online

survey was made available May 6, 2008 through June 6, 2008. During the second round

of data collection the online survey was made available September 26, 2008 through

October 10, 2008.

Analysis

Reliability

Reliability of the PSWCoP was assessed using both CTT and IRT methods. SPSS

was used to calculate internal consistency reliability (Cronbach's α; inter-item

correlations). Acer *Conquest* 2.0 (Wu, Adams, Wilson, & Haldane, 2008 was used to

assess item reliability, that is, the likelihood of getting consistent item difficulty rankings

if administered to another sample.

Validity

Both content and construct validity were assessed for the PSWCoP. Focus groups

and expert interviews were conducted to support content validity. Correlations and CFA

were used to assess the relationships between the three motivational domains (Domain, Community, & Practice) as a indicators of construct validity.

Dimensionality and Factor Structure

The dimensionality and factor structure of the PSWCoP were evaluated using both a MIRT and a CFA approach. Acer *Conquest* 2.0 (Wu et al., 2008) was used to conduct the MIRT analysis and Lisrel 8.8 (Jöreskog & Sörbom, 2007) was used to conduct the CFA analysis. Acer *Conquest* 2.0 was used to evaluate the PSWCoP with respect to estimates of person ability, item difficulty, model fit, person-fit, item-fit, person reliability, item reliability, step calibration, and population parameters for the multidimensional model, which include factor means, factor variances, and factor covariances/correlations. Acer *Conquest* 2.0 was also used to produce maps of latent variable distributions and response model parameter estimates. Akin to the item-person map produced in a unidimensional IRT analysis, these maps visually represent relationships between item difficulties and latent factor distributions.

The measurement model of the PSWCoP (Figure 2.2) was also evaluated based on CFA using Lisrel 8.0 (Jöreskog & Sörbom, 2007) software. Jöreskog and Sörbom (1993) advocate the use of PRELIS to calculate asymptotic and polychloric correlations/covariances of all items modeled and weighted least squares estimation to test the structure of the data. Weighted least square estimation in Lisrel 8.80 (Jöreskog & Sörbom, 2007) was used to derive parameter estimates, and a statistical test of each parameter was conducted by taking the ratio of the sample statistic over its standard error. Analysis of the model was based on fit indices and the χ^2 goodness-of-fit statistic. Based

on proposed measurement model, three types of parameters were estimated: variances, covariances, and direct effects.

Factor structure was assessed in both MIRT and CFA analyses using nested models. Two models are nested if one is a subset of the second. The chi-square difference statistic (χ^2_D) was used to test the statistical significance of the change in model fit between two nested models (Kline, 2005). The χ^2_D was calculated as the difference between the model chi-square (χ^2_M) values of the two nested models using the same data; the *df* for the χ^2_D statistic is the difference in *dfs* for the two nested models. The χ^2_D statistic tested the null hypothesis of identical fit of the two models to the population.

Component Two: Quantitative Assessment of the Attitudes, Values and Motivations

Structural Equation Model

Component Two of the study consisted of the development and assessment of a structural equation model relating participants' attitudes toward diversity, their endorsement of professional social work values, and their motivations for entering a social work community of practice (CoP) (Figure 2.6). As discussed in Chapter Two, personal values toward diversity were conceptualized as a manifestation of one's internal (i.e. personal) value structure; these attitudes develop, in part, out of reflexive deliberation on "what do I believe about what I believe?" The measures chosen as indicators of these attitudes towards diversity were done so with three considerations. First, did the measure present itself, either explicitly or implicitly, as an indicator of "I believe…"? Second, did the measure address attitudes toward specific groups of people? For example, did the measure address personal attitudes toward African-Americans or

lesbians and gay men? Third, did the measure address the relationship between the self and others?

Endorsement of social work values were conceptualized as the relationship between the individual and society and manifested by the endorsement of professional values indicative of the social work profession. In part, this endorsement develops out of the reflexive deliberation on "what do I believe about what social work believes?". Measures chosen as indicators of individuals' endorsement of social work values needed to incorporate the core values of social work as outlined in the NASW *Code of Ethics* (1999).

Motivations for entering a social work community of practice, defined here as motivations for entering a MSW program, were based on the work of Wenger et al. (2002) and their categorization of motivations into "domain", "practice", and community motivation. As developed through Component One of the study, the PSWCoP and its subscales addressed each type of motivation. Merging a critical realist account of the primacy of personal identity and the reflexive relationship between self and society with a CoP-based model of motivations, yielded the initial SEM model in which personal attitudes toward diversity were hypothesized to influence both the endorsement of social work values and each type of motivation directly and indirectly, and the endorsement of social work values was hypothesized to influence each type of motivation directly.

Participants

Participants in Component Two of the study were enrolled during two separate recruitment periods. Initially, only one period of recruitment was planned; however,

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insufficient enrollment during the first recruitment period required a second period of recruitment and enrollment. The first round of recruitment yielded a non-random sample of 268 students drawn from nine institutions. The second round of recruitment yielded a non-random sample of 260 students drawn from eight institutions. Inclusion criteria for this portion of the study was current enrollment in a selected CSWE-accredited MSW program in the U.S. One consideration was the potential relationship between school characteristics and differences in students' responses to measures. In order to assess the potential impact of school characteristics on results and to maximize diversity in the research sample, school characteristics were taken into consideration through a purposive sampling strategy. Five characteristics were used in selecting institutions for participation: geographic location (North West, South West, Mid-West, North Central, South Central, North East, and South East), private versus public status, secular versus religious affiliation, enrollment size of MSW program [*small* (less than 100 enrolled students), *medium* (100-300 enrolled students), and *large* (more than 300 enrolled students], and racial/ethnic composition of MSW student body (i.e., a Historically Black College or University(HBCU)).

The original institutional sampling frame consisted of 24 schools. Of these selected schools, nine agreed to allow recruitment of MSW students, one declined to allow recruitment of MSW students, and 14 either did not respond at all or responded in a noncommittal way (i.e., forwarding request to another person who ultimately did not respond. Due to the limited number of institutions agreeing to participate during the initial period of data collection in May 2008, a second invitation to participate was sent to

the same selection of institutions in September 2008. From the second pool of institutions, eight agreed to allow recruitment of MSW students, one declined participation, and seven did not respond at all or responded in a noncommittal way (i.e., forwarding request to another person who ultimately did not respond.

Eleven institutions participated in this study. For religious versus secular orientation, ten of the schools are secular (90.9%), and one is religious (9.1%). In terms of annual student enrollment, two schools (18.2%) have annual enrollments less than 100 students; three schools (27.3%) have annual enrollments between 100-300 students; six schools (54.5%) have annual enrollments greater than 300 students. For private versus public affiliation, three of the schools are private (27.3%), and eight are public (72.7%). Geographically, two schools (18.2%) are in the northeast, three schools (27.3%) are in the southeast, two schools (18.2%) are in the southwest, and four schools (36.3%) are in the mid-west.

Data were collected on multiple student characteristics including age, gender, race/ethnicity, sexual orientation, religious affiliation, participation in religious activities, family SES, and enrollment status. The mean age of participants was 30.2 years with a standard deviation of 8.7 years. Frequency tables for the categorical variables are provided below. Table 3.2 shows the gender breakdown among participants; 92% of the respondents were female, 7.6% of the respondents were male, and one participant identified as transgender. As shown in Table 3.3, the majority of the participants were Caucasian (82.6%). The majority of participants were also heterosexual (88.3%; Table 3.4). In terms of family socio-economic status (Table 3.5), the majority of students were

either working class (32.3%) or middle class (50.3%), with a smaller proportion being

upper class (11.0%) or poor (6.4%).

Table 3.2

Gender

		Frequency	Percent
Valid	Male	33	7.6
	Female	402	92.0
	Transgender	1	.2
	Total	436	99.8
Missing	System	1	.2
Total		437	100.0

Table 3.3

Race/Ethnicity

		Frequency	Percent
Valid	White, Non-Hispanic	361	82.6
	White, Hispanic	18	4.1
	AA/Black	32	7.3
	Asian/Pacific Islander	8	1.8
	Other	18	4.1
	Total	437	100.0

Table 3.4

Sexual Orientation

		Frequency	Percent
Valid	Straight/Heterosexual	386	88.3
	Bisexual	11	2.5
	Gay/Lesbian	26	5.9
	Queer	11	2.5
	Other	2	.5
	Total	436	99.8
Missing	System	1	.2
Total		437	100.0

Table 3.5

Family SES

		Frequency	Percent
Valid	Poor	28	6.4
	Working Class	141	32.3
	Middle Class	220	50.3
	Upper Class	48	11.0
	Total	437	100.0

Information about students' religious affiliations and participation in religious activities was also collected. Table 3.6 shows the breakdown of students' religious affiliations. The majority of students identified as Christian (38.0% Protestant, 13.7% Catholic), with a sizeable number of students identifying as atheist/agnostic (13.3%) or no affiliation (10.5%). An unexpectedly large number of students identified as "other" (20.6%), and a more detailed examination of the data revealed that the majority of

students in this category were actually Protestant but listed specific denominations as their affiliation, perhaps not understanding that this diverse denominations fall under then larger category of Protestant religions. The remaining students in the "other" category generally endorsed Buddhism or paganism as their affiliation.

Table 3.6

Religious Affiliation

		Frequency	Percent
Valid	Protestant	166	38.0
	Catholic	60	13.7
	Islamic	1	.2
	Mormon	3	.7
	Jewish	13	3.0
	Atheist/Agnostic	58	13.3
	Other	90	20.6
	None	46	10.5
	Total	437	100.0

Participants' levels of participation in religious activities are summarized in Table 3.7, The lowest level of participation, "limited participation", was the most frequently endorsed response (38.9%), followed by occasional participation (21.7%). The highest level of participation, "frequent participation", was endorsed by 20.4% of students, and "often participation" was endorsed by 16.5% of the sample.

Table 3.7

Participation in Religious Activities

		Frequency	Percent
Valid	Limited	170	38.9
	Occasional	95	21.7
	Often	72	16.5
	Frequent	89	20.4
	Total	426	97.5
Missing	System	11	2.5
Total		437	100.0

Instruments

Participants were asked to complete a number of online surveys addressing each of the three identified constructs: personal values towards diversity, attitudes towards professional social work values, and motivations for entering a MSW program. In addition, information was collected on demographics, school characteristics, and educational variables. A final copy of the complete survey containing all measures is provided in Appendix A.

Measures of Personal Values Toward Diversity

The Personal Beliefs about Diversity Scale (PBDS; Pohan & Aguilar, 2001) is a 15-item self-report scale measuring personal beliefs about (a) race/ethnicity, (b) gender, (c) social class, (d) sexual orientation, (e) disabilities, (f) language, and (g) immigration. Responses are measured along a true Likert scale. Items were designed to be summed for a continuous level total score. Content validity has been adequately addressed. Support

for convergent and divergent construct validity has been demonstrated. Adequate reliability has been reported (Cronbach's α = .78; item-total correlations range .120-.783).

The GSSW Multicultural Survey (Seelman & Walls, 2006) is an internally developed measure of GSSW students' personal values and beliefs about diversity, social equality, and tolerance of value diversity at GSSW. Subscale one (MCSS1) includes nine items measured on a six-point rating scale ("Strongly disagree" to "Strongly Agree") addressing students' perceptions of tolerance for value diversity in their MSW programs. (The original survey was reworded to remove specific references to the University of Denver and make the scale generic across programs; i.e., "There is a lot of support for differences in opinions and beliefs at DU" became "There is a lot of support for differences in opinions and beliefs at my MSW program".) Items were summed for a continuous level total score. No reliability or validity data were available. Internal consistency reliability was evaluated with the research sample, and construct validity was assessed through correlations between the GSSW Multicultural Survey and measures of other convergent constructs.

The Attitudes towards Lesbians and Gay Men Scale-short form (ATLG-S; Herek, 1988) consists of 10 items measured on a six point scale (("Strongly disagree" to "Strongly Agree") addressing students' beliefs about gays and lesbians. The ATLG-S demonstrates acceptable internal consistency (Cronbach's α = .85) and test-retest reliability (r=.83). Substantial evidence for convergent and discriminant validity were provided by the author. Items were designed to be summed for a continuous level total score.

The Symbolic Racism Scale (SRS) 2000 (Henry, & Sears, 2002) is an eight item scale designed to measure symbolic racism of White/Caucasian respondents towards Blacks/African Americans in general. Items on the SRS do not have a single, consistent response format. One item has a three point rating scale format and the other items have four point rating scales. Of the seven items with four point rating scales, five are worded "Strongly Agree" to "Strongly Disagree; one item is worded "A lot" to "None at all"; the final item is worded "All of it" to "Not much at all". Items were designed to be summed for a continuous level total score. The SRS demonstrates acceptable reliability (Cronbach's α = .79). Substantial evidence is given by the authors to support construct validity, predictive validity, and discriminate validity.

The AntiBlack Scale (Katz, & Hass, 1988) is a ten item instrument designed to measure negative attitudes towards Blacks or African Americans. The scale has a six-point response format ("Strongly Disagree" to "Strongly Agree"). Items were designed to be summed for a continuous level total score. The authors indicate acceptable internal consistency reliability (Cronbach's α = .79) and provide extensive evidence supporting content and construct validity.

The Miville-Guzman Universality-Diversity Scale- short form is a 15 item instrument designed to measure a respondent's "awareness and potential acceptance of similarities and differences in others" (Fuertes, Miville, Mohr, Sedlacek, & Gretchen, 2000, p. 158). The measure utilizes a six point rating scale response format ("Strongly Disagree" to "Strongly Agree"). Items were designed to be summed for a continuous level total score. High internal consistency reliability has been reported (Cronbach's α =

.93; test-retest reliability = .94). Substantial evidence supporting content and construct validity has also been provided.

Measures of Attitudes towards Professional Social Work Values

The Professional Opinion Scale (POS; Abbott, 1988) is a 40-item instrument designed to measure professional social work value orientation. Items on the POS were designed to reflect content of the NASW Public Social Policy Statements (NASW, 1999). Based on principal components analyses, the POS is theorized to cover four values: respect for basic rights, sense of social responsibility, commitment to individual freedom (social justice), and support for self-determination. The measure utilizes a six point rating scale response format ("Strongly Disagree" to "Strongly Agree"). Items were designed to be summed for a continuous level total score. Acceptable evidence of content validity is provided. Internal consistency reliability coefficients range from .66 to .82 across factors and samples.

The Humanitarianism-Egalitarianism Scale (Katz, & Hass, 1988) is a ten item instrument designed to measure "adherence to the democratic ideals of equality, social justice, and concern for the others' wellbeing" (p. 894). The scale has a six-point response format ("Strongly Disagree" to "Strongly Agree"). Items were designed to be summed for a continuous level total score. The authors indicate acceptable internal consistency reliability (Cronbach's α = .76) and provide extensive evidence supporting content and construct validity.

The Social Work Career Influence Questionnaire (SWCIQ; Biggerstaff, 2000) contains one subscale appropriate for assessing respondents' endorsements of

professional social work values. The Social Change Mission is an eight item subscale

measuring congruency between respondents' personal values and the values of

professional social work. The measure is scored on a Likert scale. Items were designed to

be summed for a continuous level total score. Internal consistency reliability is acceptable

for this subscale (α=.79). Evidence is provided to support content validity but not for

criterion or construct validity.

Subscale two (MCSS2) of the GSSW Multicultural Survey (Seelman & Walls,

2006) consists of 15 items measured on a six point rating scale ("Strongly disagree" to

"Strongly Agree") addressing students' attitudes towards social equality. Items were

summed for a continuous level total score. No reliability or validity data were available.

Internal consistency reliability was evaluated with the research sample, and construct

validity was assessed through correlations between the GSSW Multicultural Survey and

measures of other convergent constructs.

Measures of Motivation for Participation in a Social Work CoP

As discussed above, four measures of motivation for participating in a social work

CoP were included. Based on Wenger et al.'s (2000) work, the PSWCoP consists of three

subscales, each covering one aspect of Wenger et al.'s motivations. The Domain

Motivation (*DM*) subscale focused on motivation related to an interest in the domain and

its ongoing development. The Community Motivation (*CM*) subscale focused on

motivation to belong to and interact with a community of likeminded individuals. The

Practice Motivation (*PM*) subscale focused on motivation related to improving one's own

skills in the practice area. As indicated, information on the psychometric properties of the

PSWCoP are provided and discussed in the *Results* chapter of the dissertation. All items were measured on a six point rating scale ("Strongly disagree" to "Strongly Agree").

Other Measures

In addition to the above identified measures, respondents were also asked a series of questions regarding demographic characteristics. Specifically, respondents were asked to supply the following information: gender, race/ethnicity, sexual orientation, age, academic degrees, religious affiliation and level of participation in religious events, school type, and SES.

Procedure

Depending on the participating institution, recruitment consisted of an email providing an overview of the study and a link to the online survey sent to currently enrolled MSW students or an announcement providing an overview of the study and a link to the online survey posted to student-oriented informational website. Interested participants were able to access the anonymous, online survey through www.surveymonkey.com, a frequently used online survey provider. Before beginning the survey, participants were presented with a project information sheet and were required to indicate their consent to participate by clicking on the appropriate response before being allowed to access the actual survey. At the end of the survey, respondents were provided with the researcher's name and email address and invited to send their name, phone number, and/or email address to the researcher to be entered into a random drawing for $50.00 per participating academic institution. During the first round of data collection the online survey was made available May 6, 2008 through June 6, 2008. During the second

round of data collection the online survey was made available September 26, 2008

through October 10, 2008.

Analysis

Analysis of the Values and Motivations structural equation model (Figure 2.6)

was conducted using Lisrel 8.80 (Jöreskog & Sörbom, 2007). Primary analyses included

parameter estimation and assessment of model fit. Table 2.2 is a summary of the free

parameters that were estimated in the analysis. Consistent with Kline's (2005) guidelines

for model assessment, Klem (2000) specifies three criteria for evaluating the results of a

SEM analysis: theoretical, statistical, and model fit. The theoretical criteria are that the

model is based, at least in part, on a body of supporting literature, and that the parameter

estimates are interpreted within the theoretical framework. The statistical criteria are that

the model is identified and that the parameter estimates are statistically reasonable. The

third criterion for evaluating the results of the analysis is model fit.

The theoretical criteria are met based on the review of literature and the

incorporation of Archer's (2003) social realist theory and Wenger et al.'s (2000)

motivations for participation in a CoP. Statistical criterion of identification is discussed in

the results chapter. When data are a mixture of ordinal and continuous data, Jöreskog and

Sörbom (1993) advocate the use of PRELIS to calculate asymptotic and polychloric

correlations/covariances of all items modeled and weighted least squares estimation to

test the structure of the data. Weighted least square estimation in Lisrel 8.80 (Jöreskog &

Sörbom, 2007) was used to derive parameter estimates, and a statistical test of each

parameter was conducted by taking the ratio of the sample statistic over its standard error.

Assessment of model fit was carried out using the model chi-square, the Steiger-Land root mean square error of approximation (RMSEA), the Bentler comparative fit index (CFI), the standardized root mean square residual (SRMR), the Akaike information criteria (AIC), and the global fit index (GFI).

Component 3: A Grounded Theory Approach to Understanding the Relationships Between Values and Motivations

Participants

Participants for the qualitative portion of this study consisted of students currently enrolled in the MSW program at the DU GSSW. An email describing the study was sent to all MSW students, and interested students were asked to contact the researcher directly. A non-random, purposive, maximum variation sampling frame was used. Maximum variation sampling involves selecting participants who vary widely along dimensions of interest (Patton, 2001); dimensions of interest were religious affiliation, age, gender, sexual orientation, race, and family SES.

An emergent design was used in this study to enhance maximum variation and to utilize a purposive sampling strategy as additional personal characteristics of interest were discovered. Students who expressed an interest in participating were asked to provide information regarding the variables listed above along with contact information. The initial recruitment email yielded 27 interested students, of which 13 were eventually enrolled. As expected, given the demographic profile of the DU GSSW MSW student body, the initial pool of potential participants was largely Caucasian, female , heterosexual , and from middle- or upper- SES backgrounds. Interested students who did

not identify with these majority-group characteristics were automatically selected for participation. Interested students who did identify with these majority-group demographics were further evaluated according to age and religious affiliation and enrolled based on the overall contribution to the maximum variation of the sample.

Because of the limited number of potential candidates meeting the desired diversity spectrum, individual contacts were made by the researcher with students the researcher knew to self-identify differently than the majority-group demographics. Purposive recruitment attempts were made to students known to self-identify as male, non-Caucasian, and/or non-heterosexual. Additionally, in line with Glaser and Strauss' (1967) idea of theoretical sampling, active recruitment of Advanced Students was initiated when a pattern encompassing differences across class standing began to emerge. Based on additional recruitment efforts, seven more participants were enrolled, yielding a total sample of 20 interviewees. A summary of participants by dimension of interested is provided below

- Race/Ethnicity
  - Caucasian (15), African-American (2), Latino/Hispanic (1), Native American (1), Indian/Asian (1)
- Gender
  - Female (16), Male (4)
- Sexual Orientation
  - Heterosexual/Straight (16), Gay (1), Lesbian (1), Bisexual (1), Queer (1)

- Religious Affiliation

    o Catholic (1), Mormon (1), Nazarene (1), None (5),

    Atheist/Agnostic (3), Buddhist (3), Jewish (2), Baptist (1),

    Lutheran (1), Spiritual (1), Christian (1)

- Age

    o Under 30 (13), 30-50 (4), Over 50 (3)

- Academic Standing

    o Foundation (7), Concentration (8), Advanced Standing (5)

- SES

    o Upper/Upper Middle class (5), Middle class (10), Lower

    Middle/Working class (5)

Instruments

Participants were interviewed using a semi-structured interview protocol

developed by the researcher. A semi-structured interview format helps insure that key

content is covered with all participants while also allowing flexibility in pursuing

emergent ideas and thoughts (Patton, 2001). (See Appendix B for a copy of the semi-

structured interview guide)

Procedure

Participants who indicated an interest in participating in the study were asked to

complete a demographic pre-screening questionnaire. This demographic information was

used as the primary sampling frame. Participants who were selected, consented, and

enrolled, were then interviewed onsite at the DU GSSW. All interviews were conducted

face-to-face and were audio-taped for transcription using a standard analog audio-tape recorder. Interviews ranged in length from 28 minutes to 75 minutes. Interviews were transcribed by the researcher. Two audio-tapes were found to be blank at time of transcription. Due to a lack of necessary equipment and no longer living in the same locale, taping another interview with these two individuals was not feasible. One participant agreed to provide written input via email and was sent a copy of the interview guide to answer as much as possible. No response was received to outreach attempts to the second participant with missing data, and this individual was dropped from the study.

Analysis

A grounded theory analytic strategy was used in this study. Developed by Glaser and Strauss (1967), the constant-comparative method has four stages: (1) comparing incidents applicable to each category, (2) integrating categories and their properties, (3) delimiting the theory, and (4) writing the theory (p. 105). Data analysis was conducted concurrently with data collection by first coding each individual interview and then coding for patterns across interviews. The study employed an emergent design in which initial results of data analysis were used to inform subsequent rounds of data collection. Analysis began by examining the data and identifying and categorizing discreet elements such as key words and phrases (Johnson & Christensen, 2004). Patterns of codes across interviews were developed based on the discreet data identified during open coding (Johnson & Christensen). Finally, patterns of codes were assessed for emergent themes which were explored and interpreted. As each theme emerged, it was integrated into a

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conceptual model of relationships among the themes. NVIVO 8 (QSR, 2008) computer

software was used to facilitate coding and organization of interview data

Chapter Four

Results

This chapter includes the reporting and interpretation of results of the study. This chapter is divided into four sections, with the first three sections corresponding to the three components of the study. Section one includes the results of the evaluation of the PSWCoP scale from the pilot phase and full sample administration phase. Section two includes the results of the evaluation of the Motivations, Attitudes towards diversity, and Endorsement of professional social work values structural equation model. Section two also corresponds to the first step in the mixed-methods triangulation design in which the quantitative results are interpreted independent of the qualitative results. Section three includes the results from the qualitative portion of the study. Section three also corresponds to the second step in the mixed-methods triangulation design in which the qualitative results are interpreted independent of the quantitative results. The final section corresponds to the third step in the mixed-methods triangulation design in which the quantitative and qualitative results are compared and contrasted and are interpreted within the context of the other set of results.

Section One: Evaluation of the PSWCoP Scale

Component one of the study was the development and evaluation of the PSWCoP. In this section of the results, the following research questions are addressed:

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- Do the items generated for the PSWCoP factor as expected across the three intended constructs (Domain, Community, and Practice)?

- Is there evidence to support the reliability and validity of the PSWCoP?

- Are there differences in the results of the measure evaluation using MIRT versus CTT?

To answer these questions, item loadings, item fit, and item reliability were assessed using a series of analyses from the pilot administration through the full sample administration. Analyses were carried out in the following order with information obtained in earlier steps informing analyses conducted in later steps:

- Pilot data were assessed for variability across items and subscales.

- Pilot data total survey and subscale reliability was assessed using Cronbach's α as an estimate of internal consistency.

- Pilot data item fit and item difficulty were assessed using IRT.

- Full sample full survey subscale reliability was assessed using Cronbach's α as an estimate of internal consistency.

- Full sample factor structure was assessed using CFA.

- Full sample item fit and item difficulty were assessed using IRT/MIRT.

- Full sample factor structure was assessed using MIRT;

- Differential Item Functioning (DIF) was assessed using MIRT analyses;

- Results of CFA and MIRT analyses were compared.

Analysis of Pilot Sample Survey Data

A total of 39 participants completed the online pilot version of the PSWCoP. More than 50% of the data were missing for one respondent, and this case was dropped from the analysis.

Pilot Measure Variability

One concern was a lack of variability in the data due to the small sample size, the self-selection of respondents, and the use of only one MSW program in the pilot phase. Lack of variability in the data would indicated that the variables of interest were in fact constant and/or the inability of items to reflect differences in the variables of interest. In order to assess the variability in the pilot data, measures of central tendency, variance, and distribution were calculated for each item, each subscale, and the total survey. Table 4.1 is a summary of the descriptive statistics for each of the 18 items on the draft PSWCoP. Only items D_v_C_9 ("Learning about the social work profession is less important to me that being a part of a community of social workers") and P_5_18 ("My main reason for entering the MSW program was to acquire knowledge and/or skills") had fewer than 5 of the 6 response categories endorsed. These results provided evidence to support the belief that there is variation in the variables of interest and that the items are able to capture that variation.

Table 4.1

Descriptive Statistics for PSWCoP Pilot

Statistics

	N		Mean	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis	Minimum	Maximum
	Valid	Missing							
C_1_1	38	0	3.53	-.327	.383	-.712	.750	1	6
C_2_2	38	0	4.18	-.850	.383	.399	.750	1	6
P_1_3	37	1	3.84	.032	.388	-.924	.759	2	6
C_3_4	37	1	5.00	-.979	.388	.350	.759	2	6
D_1_5	38	0	3.32	-.046	.383	-1.026	.750	1	6
D_2_6	38	0	2.71	.659	.383	-.723	.750	1	6
C_4_7	38	0	3.24	.111	.383	-.668	.750	1	6
D_3_8	38	0	4.21	-.993	.383	.460	.750	1	6
D_v_C_9	38	0	2.39	.337	.383	-.485	.750	1	4
D_v_P_10	38	0	4.26	-.291	.383	-.635	.750	2	6
C_5_11	38	0	3.55	.079	.383	-1.393	.750	1	6
P_2_12	38	0	3.95	-.547	.383	-.180	.750	1	6
D_4_13	38	0	4.45	-.833	.383	.146	.750	1	6
C_v_P_14	37	1	4.24	-.199	.388	-.890	.759	2	6
P_3_15	37	1	4.62	-1.237	.388	1.004	.759	1	6
D_5_16	38	0	2.50	.886	.383	-.091	.750	1	5
P_4_17_R	38	0	4.84	-1.524	.383	2.678	.750	2	6
P_5_18	38	0	5.45	-.574	.383	-.536	.750	4	6

Scores for each subscale were computed by adding responses to each item in the designated subscale. With the exception of three items, D_v_C_9, D_v_P_10, and C_v_P_14, all items corresponded to a unique subscale. Items D_v_C_9, D_v_P_10, and C_v_P_14 were treated as "flexible" indicators because they simultaneously addressed two factors, and their inclusion on a particular subscale was not predetermined. Items D_v_P_10 and C_v_P_14 compared practice motivation to domain motivation and community motivation respectively. Higher scores on each item indicated an endorsement of practice motivation over the other two types of motivation. Item

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D_v_C_9 compared domain motivation to community motivation, and higher scores on this item indicated an endorsement of community motivation. As shown in Table 4.1 the mean for item D_v_C_9 is 2.39, which falls between the response categories of "disagree" and "disagree more than agree," indicating that the domain motivation received more endorsement than community motivation; therefore, this item was included in the Domain subscale. The mean for item D_v_P_10 was 4.26, which fell between the response categories of "agree more than disagree" and "agree," indicated greater endorsement of practice motivation over domain motivation; therefore, this item was included in the Practice subscale. The mean for item C_v_P_14 was 4.24, which fell between the response categories of "agree more than disagree" and "agree," indicated greater endorsement of practice motivation over community motivation; therefore, this item was included in the Practice subscale.

Table 4.2 is a summary of the descriptive statistics for each of the domain subscales and for the total scale. The Domain subscale had a range of 21 points out of a possible 30 points. The Practice subscale had a range of 19 points out of a possible 35 points. The Community subscale had a range of 17 points out of a possible 25 points. The scale total had a range of 39 points out of a possible 90 points.

Table 4.2

Descriptive Statistics for Pilot PSWCoP Subscales

Statistics

	N		Mean	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis	Minimum	Maximum
	Valid	Missing							
Domain_Total	38	0	19.5789	-.786	.383	1.547	.750	7.00	29.00
Community_Total	38	0	19.3684	-.327	.383	-.085	.750	10.00	27.00
Practice_Total	38	0	30.8684	-.647	.383	.230	.750	20.00	39.00
Scale_Total	38	0	69.8158	-.256	.383	.012	.750	51.00	90.00

Pilot Measure Reliability

Internal Consistency

Internal consistency is an assessment of how well items on a measure go together as indicated by inter-item correlations .The internal consistency of the PSWCoP and each of the three subscales was assessed using Cronbach's α. Cronbach's α for the total survey was .60 with 18 items. Cronbach's α for the Domain subscale was .62 with six items. Table 4.3 shows the Cronbach's α if item deleted for each of the five items on the Domain subscale; the deletion of item D_v_C_9 ("Learning about the social work profession is less important to me than being part of a community of social workers") would result in a minimal increase the internal consistency of the subscale.

Table 4.3

Internal Consistency of the Domain Subscale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
D_1_5	16.26	14.794	.295	.606
D_2_6	16.87	12.820	.530	.495
D_3_8	15.37	15.969	.265	.611
D_4_13	15.13	14.550	.405	.556
D_5_16	17.08	14.561	.468	.534
D_v_C_9	17.18	18.317	.158	.635

Cronbach's α for the Practice subscale was .57 with seven items. Table 4.4 shows the

Cronbach's α if item deleted for each of the seven items on the subscale. Deleting items

would not impact the internal consistency of the subscale.

Table 4.4

Internal Consistency of the Practice Subscale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P_1_3	27.77	12.358	.319	.514
D_v_P_10	27.20	12.576	.460	.468
P_2_12	27.54	13.138	.198	.568
C_v_P_14	27.31	13.398	.224	.552
P_3_15	26.89	12.516	.286	.529
P_4_17_R	26.77	13.887	.238	.544
P_5_18	26.11	14.339	.432	.510

Cronbach's α for the Community subscale was .52 with five items. Table 4.5 shows the

Cronbach's α if item deleted for each of the five items on the subscale. Deleting item

C_5_11 ("Before entering the program I was worried about whether or not I would fit in

with my peers.") would result in a substantial increase in the internal consistency of the subscale.

Table 4.5

Internal Consistency of the Community Subscale

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
C_1_1	16.05	9.886	.359	.414
C_2_2	15.38	10.631	.380	.415
C_3_4	14.62	11.297	.283	.467
C_4_7	16.35	9.234	.386	.390
C_5_11	16.08	11.021	.098	.603

Although the internal consistency for the full scale and each of the subscales is lower than the generally used guideline of 0.70 for affective measures (Gable & Wolf, 1993), they are all higher than 0.50, which Nunnally (1967) suggested is sufficient during preliminary stages of development of a new measure.

IRT Analysis of Pilot PSWCoP Data

An IRT analysis of the pilot data was conducted to obtain an initial assessment of item difficulty, item fit, and reliability. Note that these estimates are interpreted based on the IRT assumption of unidimensionality. Although the PSWCoP was developed to be a multidimensional measure, dimensionality was not explored in the analysis of the pilot data.

Item Difficulty

In evaluation of a measure with a rating scale response format, item difficulty is an indication of how hard it is to endorse the item; in the case of the PSWCoP, it is an indication of how difficult it is to agree with the item. Items that are more difficult to

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endorse will have higher item difficulty estimates, and items that are easier to endorse will have lower item difficulty estimates. An item-person map provides a visual representation of item difficulty versus person ability. Person ability refers to the ability of a respondent to endorse items on the measure. The item-person map for the PSWCoP (Figure 4.1) indicated that the difficulty of the items was a relatively good match for the ability of the respondents. The left hand column represents the ability of respondents, and the greater the ability of the respondent, the higher they are in the column. The right hand column represents the difficulty of the items, and the more difficult the item, the higher it is in the column. In general, the range of person abilities and item difficulties are the same, and the distribution of persons and items about the mean are fairly symmetrical. Only item P_5_18 ("My main reason for entering a MSW program was to acquire knowledge and/or skills.") appears to be too easy for the pilot sample. Exact numerical values for item difficulty are provided in Table 4.6 and ranged from -1.11 to +0.55.

```
    PERSONS - MAP - ITEMS
        <more>|<rare>
  1          +
             |
        X    |
           T|T
        X    |
        X    |   D_2_6
        X  S|S P_1_3
     XXXXXX  |   C_1_1      C_4_7      C_V_P_14  D_1_5
      XXXX   |   D_5_16
     XXXXX  M|   C_3_4      D_V_C_9    P_3_15
  0 XXXXXXX  +M
       XXX   |   C_2_2      C_5_11     D_3_8      D_V_P_10  P_2_12
      XXXX  S|
       XX    |   P_4_17_R
             |S D_4_13
        X  T|
        XX   |
             |T
             |
             |
             |
 -1          +
             |   P_5_18
             |
             |
             |
             |
             |
             |
 -2          +
        <less>|<frequ>
```
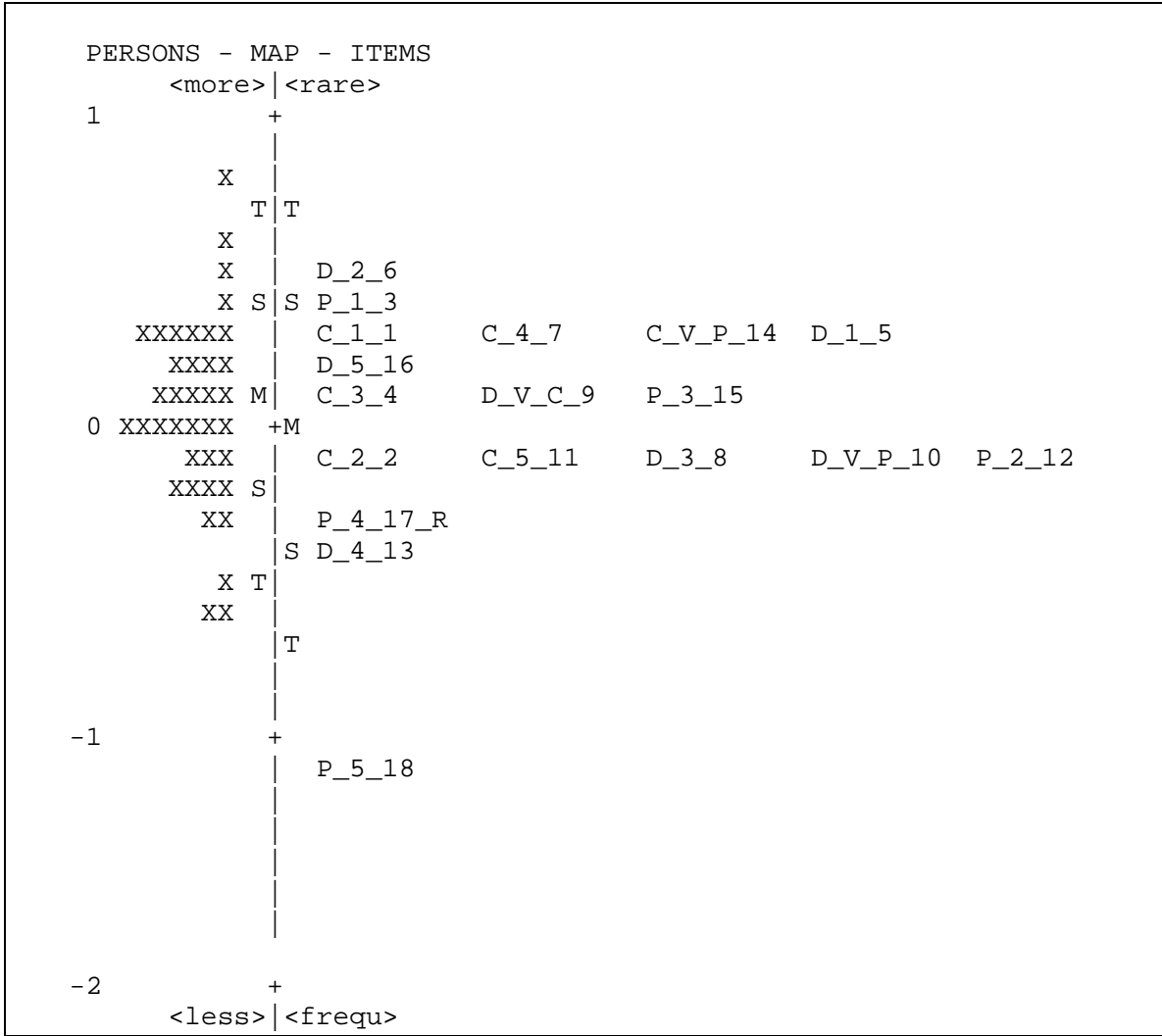
Figure 4.1

Item-Person Map of Pilot PSWCoP

Item Fit

Item fit is an indication of how well an item performs according to the underlying

IRT model being tested, and it is based on the comparison of observed responses to

expected responses for each item. Item fit is assessed through both weighted (infit) and

unweighted (outfit) mean square errors based on the difference between observed and

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expected response values for each item. Weighted and unweighted *t* scores are standardized infit and outfit scores. Adams and Khoo (1996) suggest that items with good fit will have infit scores between 0.75 and 1.33; Bond and Fox (2001) suggest that items with good fit will have *t* values between -2 and +2. Table 4.6 provides the fit statistics for the items of the PSWCoP survey; according to this output, all of the items demonstrate adequate fit.

Table 4.6

Infit and Outfit Statistics for Pilot PSWCoP

Item	Model		Infit		Outfit	
	Diff	S.E.	MNSQ	ZSTD	MNSQ	ZSTD
P_1_3	.43	.12	1.29	1.0	1.50	1.6
C_V_P_14	.30	.12	1.30	1.1	1.37	1.3
P_4_17_R	-.33	.18	1.20	.7	1.11	.4
C_2_2	-.14	.15	1.10	.5	1.07	.4
C_3_4	.09	.14	1.08	.4	1.08	.4
P_3_15	.08	.12	1.07	.3	.98	.0
D_V_C_9	.06	.19	1.04	.3	1.05	.3
P_2_12	-.12	.13	1.04	.3	.99	.0
C_1_1	.27	.13	1.01	.1	1.02	.2
P_5_18	-1.11	.28	1.00	.1	.98	.0
C_4_7	.26	.13	.97	-.1	.98	.0
D_V_P_10	-.14	.16	.95	-.2	.93	-.3
D_3_8	-.08	.14	.95	-.6	.89	-.3
D_1_5	.25	.12	.89	-.6	.87	-.7
D_15_16	.20	.14	.83	-.7	.86	-.5
C_5_11	-.09	.11	.82	-1.1	.82	-1.0
D_4_13	-.44	.13	.80	-.9	.75	-1.1
D_2_6	.51	.12	.80	-1.1	.78	-1.0

Reliability

IRT analysis produces an item reliability index indicating the degree to which item estimates would be consistent across different samples of respondents with similar abilities (Bond & Fox, 2001). High item reliability indicates that some items are more difficult to endorse and some items are easier to endorse, and that this placement of items would be somewhat consistent. The reliability index of items for the PSWCoP pilot

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survey was 0.87, indicating consistency in ordering of items by difficulty. IRT analysis also produces a person reliability index indicating the degree of consistency with which respondents would be ordered according to ability if given an equivalent set of items (Bond & Fox).The reliability index of persons for the PSWCoP was 0.61, indicating low consistency in ordering of persons by level of ability, which may be due to a constricted range of ability in the sample and/or a constricted range of item difficulty.

<center>*Analysis of Full Sample PSWCoP Data*</center>

A total of 506 participants completed the online final version of the PSWCoP. Nineteen cases (3.8%) had more than 50% missing data and were deleted from the sample, leaving 487 cases. For these remaining cases, there were 18 missing observations (0.21%) across 15 items, and these cases were removed from the analyses using list-wise deletion.

Reliability

Internal Consistency

The internal consistency of the PSWCoP and each of the subscales was assessed using Cronbach's α.

Domain Subscale

The internal consistency of the Domain subscale was first evaluated using the same six items used in the analysis of the pilot data. These items were the five questions developed specifically for the Domain subscale and the flexible indicator comparing domain motivation and community motivation. Cronbach's α equaled 0.573 with six item. Table 4.7 shows Cronbach's α if item deleted.

Table 4.7

Internal Consistency of the Domain Subscale - 1

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
D_1_5	16.50	13.944	.349	.509
D_2_6	17.01	12.134	.543	.403
D_3_8	15.54	15.926	.203	.574
D_v_C_9	17.25	19.391	-.057	.643
D_4_13	15.37	14.729	.335	.517
D_5_16	17.40	13.715	.482	.450

In contrast to the results from the pilot data, inclusion of the flexible indicator D_v_C_9 ("Learning about the social work profession is less important to me than being part of a community of social workers") reduces the internal consistency of the subscale. As this item was not developed as a specific part of the Domain subscale, it was deleted and Cronbach's α recalculated. For the remaining five items, Cronbach's α equaled 0.643. Table 4.8 shows the Cronbach's α if item deleted for the five items. Deletion of item D_3_8 ("I wanted to attend a MSW program so that I could learn more about the social work profession") would result in a small increase in internal consistency, but there was no conceptual justification for its deletion.

Table 4.8

Internal Consistency of the Domain Subscale - 2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
D_1_5	13.92	13.551	.346	.615
D_2_6	14.44	11.624	.560	.499
D_3_8	12.97	15.081	.243	.658
D_4_13	12.80	14.088	.360	.605
D_5_16	14.83	13.283	.487	.548

Community Subscale

The internal consistency of the Community subscale was first evaluated using the same five items used in the analysis of the pilot data. These items were the five questions developed specifically for the Community subscale. Cronbach's α equaled 0.447 with five items. Table 4.9 shows Cronbach's α if item deleted. The internal consistency of the Community subscale was substantially lower in the full sample than in the pilot sample.

Table 4.9

Internal Consistency of the Community Subscale - 1

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
C_1_1	14.82	8.673	.418	.259
C_2_2	14.56	8.533	.465	.228
C_3_4	13.62	9.962	.253	.381
C_4_7	14.66	10.011	.156	.451
C_5_11	15.46	11.243	-.013	.579

Deletion of item C_5_11 ("Before entering the program I was worried about whether or not I would fit in with my peers") would result in a large increase in Cronbach's α (0.579), and Table 4.10 shows Cronbach's α if item deleted for the remaining four items.

Table 4.10

Internal Consistency of the Community Subscale - 2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
C_1_1	12.02	6.465	.501	.385
C_2_2	11.75	6.566	.509	.382
C_3_4	10.81	7.592	.332	.524
C_4_7	11.85	8.136	.146	.680

Note that the internal consistency of the Community subscale could again be increased substantially with the deletion of item C_4_7 ("There is more diversity of values among students than I expected"). Deletion of this item resulted in a Cronbach's α of 0.680.

There appears to be a conceptual difference between the two items deleted and the remaining three items. The two items marked for deletion appear to address the perceived similarity between the respondent and other students in the program, while the remaining three items appear to address the broader concept of value congruency with the social work profession. There is an arguable distinction between these concepts with one explanation for the low correlation between the two sets of items being that students' desire to be a part of a community of people with similar values is specific to the profession they have chosen and not to the MSW program they have chosen. As shown in Table 4.11, EFA also supports the conclusion that there are two distinct factors indicated by the data. The intent of the Community subscale was to measure motivation driven by students' desire to be a part of a community of like-minded individuals with similar values within a professional context; therefore, only the three items addressing value congruency with the social work *profession* (C_1_1, C_2_2, & C_3_4) were retained.

Table 4.11

EFA of Community Subscale

Pattern Matrix[a]

	Component	
	1	2
C_1_1	.791	.128
C_2_2	.821	.104
C_3_4	.696	-.205
C_4_7	.216	.568
C_5_11	-.192	.820

Practice Subscale

The internal consistency of the Practice subscale was first evaluated using the same seven items used in the analysis of the pilot data. These items were the five questions developed specifically for the Practice subscale and the two flexible indicators comparing practice motivation to the other two types of motivation. Cronbach's α equaled 0.434 with seven items. Table 4.12 shows Cronbach's α if item deleted. The internal consistency of the Practice subscale was substantially lower in the full sample than in the pilot sample.

Table 4.12

Internal Consistency of the Practice Subscale - 1

| | **Item-Total Statistics** | | | |
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P_1_3	26.33	12.427	.237	.376
P_2_12	26.64	12.176	.312	.329
C_v_P_14	25.96	14.561	.148	.421
P_3_15	25.48	14.970	.097	.446
D_v_P_10	25.96	14.375	.197	.398
P_4_17_R	25.36	14.913	.123	.432
P_5_18	24.88	14.501	.316	.361

Based on Cronbach's α if item deleted, deletion of any given item would not result in a large increase in internal consistency. The first step in reevaluating the subscale was to remove the two flexible indicators (D_v_P_10 & C_v_P_14) as they were not intended to be specific indicators of practice motivation. Deletion of these items resulted in a Cronbach's α of 0.437. Table 4.13 shows the Cronbach's α if item deleted for the remaining five items.

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Table 4.13

Internal Consistency of the Practice Subscale – 2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P_1_3	18.02	7.767	.281	.339
P_2_12	18.35	7.513	.374	.254
P_3_15	17.18	10.238	.103	.467
P_4_17_R	17.07	10.270	.121	.452
P_5_18	16.59	10.110	.298	.359

Deletion of item P_3_15 ("A MSW degree will give me more professional opportunities than other professional degrees") would result in a small increase in Cronbach's α, and the item as worded may have been too vague or misinterpreted. Table 4.14 shows the Cronbach's α if item deleted for the remaining four items.

Table 4.14

Internal Consistency of the Practice Subscale - 3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P_1_3	13.40	5.436	.335	.323
P_2_12	13.73	5.576	.376	.274
P_4_17_R	12.44	7.998	.128	.512
P_5_18	11.96	8.117	.265	.416

The internal consistency of the Practice subscale remained low, and there was neither a mathematical nor conceptual argument for the continued deletion of items. Deletion of item P_4_17_R (reverse score of "Learning new social work skills was not a motivating factor in my decision to enter the MSW program") would increase internal consistency, but it was considered a specific indicator of the construct in question. An EFA was run

using all five items developed for the Practice subscale, and those results are presented in

Table 4.15

Table 4.15

EFA of Practice Subscale

Pattern Matrix[a]

	Component	
	1	2
P_1_3	.861	-.045
P_2_12	.863	.039
P_3_15	.124	.300
P_4_17_R	-.179	.820
P_5_18	.000	.846

The results of the EFA indicated the presence of two factors with two items each.

Consistent with the results of the reliability analysis, item P_3_15 did not load on either

factor above 0.400. Factor one consisted of items P_1_3 ("Without a MSW degree I am

not qualified to be a social worker") and P_2_12 ("A MSW degree is necessary to be a

good social worker"), and seemed related to the idea of professional competency. Factor

two consisted of items P_4_17_R and P_5_18 ("My main reason for entering the MSW

program was to acquire knowledge and/or skills"). These two items seemed related to the

idea of skill/knowledge acquisition. These factors were labeled "Competency" and

"Skills" respectively, acknowledging that these labels may not accurately reflect the

underlying factors.

The decision to retain all four of the remaining factors was based on two

considerations. First, there was strong evidence to support the presence of two factors,

and the relationship between these two factors could be explored more fully in the CFA and MIRT analyses. Second, practice-based motivation could be interpreted as the acquisition of knowledge and skills, but it may also have been interpreted as the qualifications needed to perform in the profession. Potentially, respondents were motivated by the belief that acquiring the MSW degree would make them professionally competent while not being specifically motivated by the desire to acquire skills/knowledge. Similarly, respondents were potentially motivated by the desire to develop skills/knowledge without believing the MSW degree was necessary for professional performance.

PSWCoP Total

Cronbach's α for the total survey was .645 with 12 items, which is higher than the value obtained using the pilot data (0.597 with 18 items). Table 4.16 shows the Cronbach's α if item deleted for all items. Only deletion of item P_4_17_R would increase internal consistency, and then only marginally.

Table 4.16

Internal Consistency of the PSWCoP Survey

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
C_1_1	42.78	44.588	.232	.634
C_2_2	42.52	42.814	.358	.613
P_1_3	42.48	41.994	.283	.626
C_3_4	41.59	44.379	.262	.629
D_1_5	42.93	41.754	.323	.618
D_2_6	43.46	41.283	.350	.612
D_3_8	41.97	41.354	.400	.603
P_2_12	42.80	42.194	.304	.622
D_4_13	41.81	43.953	.246	.632
D_5_16	43.86	43.452	.304	.622
P_4_17_R	41.50	46.977	.105	.653
P_5_18	41.04	45.744	.288	.627

Descriptive Statistics

Descriptive statistics for measures of central tendency, variability, and distribution were computed for each item, the full survey, and each subscale, and are provided in Table 4.17. Items P_3_17_R and P_4_18 demonstrate significant negative skew (-1.153 and -1.414 respectively). All variables were examined for outliers based on standardized scores of ± 3. For a data set of this size, it was expected there would be 3-4 cases with standardized scores greater than ± 3. Item C_3_4 exceeded this expectation with seven standardized scores less than -3. Item P_4_17_R also exceeded this expectation with nine standardized scores less than -3. Given the small number of outliers, these cases were retained in the analyses.

Table 4.17

Descriptive Statistics for the PSWCoP

Statistics

	N		Mean	Std. Dev.	Skew	Std. Error of Skew	Kurt.	Std. Error of Kurt	Min.	Max.
	Valid	Missing								
C_1_1	485	2	3.47	1.252	-.073	.111	-.787	.221	1	6
C_2_2	486	1	3.73	1.213	-.218	.111	-.605	.221	1	6
P_1_3	486	1	3.78	1.546	-.203	.111	-1.090	.221	1	6
C_3_4	484	3	4.67	1.190	-.990	.111	.627	.222	1	6
D_1_5	483	4	3.32	1.454	.153	.111	-1.091	.222	1	6
D_2_6	487	0	2.79	1.466	.477	.111	-.927	.221	1	6
D_3_8	487	0	4.27	1.332	-.884	.111	.113	.221	1	6
P_2_12	486	1	3.45	1.446	.027	.111	-.921	.221	1	6
D_4_13	484	3	4.45	1.320	-.884	.111	.049	.222	1	6
D_5_16	486	1	2.41	1.266	.866	.111	.046	.221	1	6
P_4_17_R	485	2	4.74	1.176	-1.153	.111	1.123	.221	1	6
P_5_18	487	0	5.22	.884	-1.414	.111	2.923	.221	1	6
Community_Total	487	0	11.82	2.85190	-.311	.111	-.360	.221	3.00	18.00
Domain_Total	487	0	17.17	4.40697	-.067	.111	-.285	.221	5.00	30.00
Competency_Tot	487	0	7.211	2.59836	-.125	.111	-.751	.221	2.00	12.00
Skills_Total	487	0	9.940	1.76458	-1.035	.111	1.364	.221	2.00	12.00
PSWCoP_Total	487	0	46.15	7.05341	-.303	.111	.418	.221	21.00	65.00

Factor Structure

Confirmatory Factor Analysis

The factor structure of the PSWCoP was assessed using CFA based on the full sample survey data. The sample contained 487 cases. There were 18 missing observations (0.21%) across 15 items, and these observations were replaced using mode imputation. The data collected using the PSWCoP were considered ordinal based on the six-point rating scale. When data are considered ordinal, Jöreskog and Sörbom (1993) advocate the use of PRELIS to calculate asymptotic covariances and polychloric correlations of all items modeled, and LISREL or SIMPLIS with weighted least squares estimation to test

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the structure of the data. Failure to use these guidelines may result in underestimated parameters, biased standard errors, and an inflated chi-square (χ^2) model fit statistic (Flora & Curran, 2004). Two nested models were evaluated and compared: a four-factor model without cross-loadings and a three-factor model without cross-loadings.

Sun (2005) recommends considering fit indices in four categories: sample-based absolute fit indices, sample-based relative fit indices, population-based absolute indices, and population-based relative fit indices. Sample-based fit indices are indicators of observed discrepancies between the reproduced covariance matrix and the sample covariance matrix. Population-based fit indices are estimations of difference between the reproduced covariance matrix and the unknown population covariance matrix. At a minimum, Kline recommends interpreting and reporting four indices: the model chi-square, the Steiger-Land root mean square error of approximation (RMSEA), the Bentler comparative fit index (CFI), and the standardized root mean square residual (SRMR); in addition to these fit indices, the Akaike information criteria (AIC) and the goodness-of-fit index (GFI) were examined. According to Jackson et al.'s (2009), review of published CFA journal articles over the past decade, these six fit indices are the most commonly reported.

Sample-based fit indices include model chi-square, SRMR, AIC, and GFI. The model χ^2 statistic tests the null hypothesis that the model has perfect fit in the population. Degrees-of-freedom for the χ^2 statistic equal the number of observations minus the number of parameters to be estimated. The SRMR is a measure of the differences between observed and predicted correlations; in a model with good fit, these residuals

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should be close to zero. Hu and Bentler (1999) suggested that a SRMR < 0.08 represents

good model fit. The AIC is an indicator of comparative fit across nested models with an

adjustment for model complexity. The AIC is not an indicator of fit for a specific model,

but instead the model with the lowest AIC from among the set of nested models is

considered to have the best fit. The GFI is an assessment of incremental change in fit

with an adjustment for model complexity; values greater than 0.90 indicate good fit.

Population-based fit indices include the RMSEA and the CFI. The RMSEA fit

index is a measure of the lack of fit of the researcher's model to the population

covariance matrix and tests the null hypothesis that the researcher's model has close

approximate fit in the population. According to Kline, good models have an RMSEA <

0.05 and models with RMSEA > 0.10 have poor fit, while Browne and Cudeck (1993)

suggested that a RMSEA < 0.08 represents acceptable fit. One population-based relative

fit index is the CFI. The CFI assesses the improvement in fit of the researcher's model

over a baseline model which assumed zero covariances among observed variables. CFI

values > 0.90 represent acceptable model fit, and values > 0.95 represent good model fit.

Four Factor Model without Cross-Loadings

The baseline model consisted of the original factors of *domain motivation* and

community motivation, along with the incorporation of two new factors, *skills motivation*

and *competency motivation.* The five items on the Domain subscale were constrained to

load on the latent variable "Domain". The three items on the Community subscale were

constrained to load on the latent variable "Community". The two items on the

Competency subscale were constrained to load on the latent variable "Competency". The

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two items on the Skills subscale were constrained to load on the latent variable "Skills".

The four-factor model without cross loadings is shown in Figure 4.2. Based on the six fit

indices described above, the overall fit of the model is acceptable: $\chi^2 = 185.82$, df = 48,

$p<0.001$; RMSEA = 0.077; CFI = 0.91; SRMR = 0.094; AIC =245.82 ; GFI =0.91 . The

fit indices as a whole do not indicate poor fit, there is theoretical and conceptual support

for the model, and the model is not far off from the sample-based EFA results..
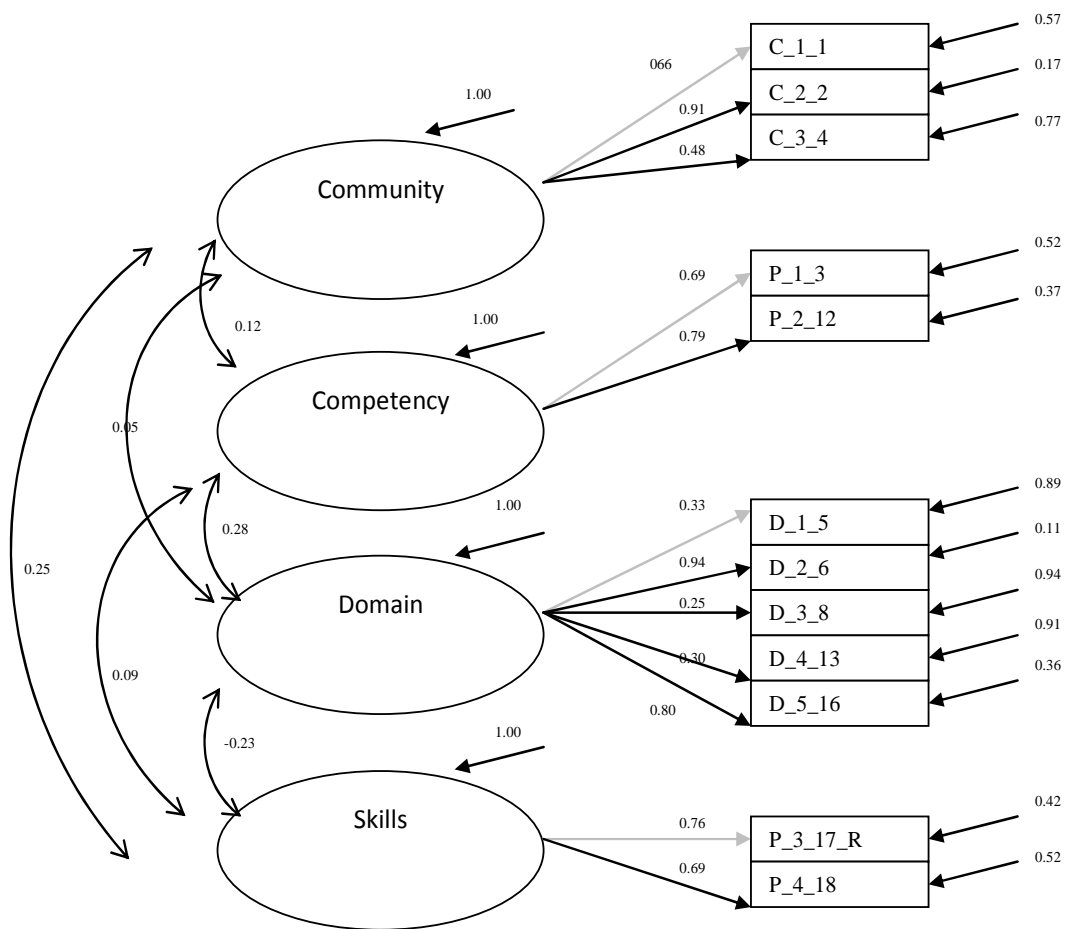
Figure 4.2

CFA of Four-Factor Model without Cross-Loadings– Standardized Solution

Three Factor Model without Cross-Loadings

The next model tested was a three-factor model corresponding to the original hypothesized factor structure of the PSWCoP. Three latent variables were included in this model, "Domain", "Community", and "Practice". Items were constrained to load on the factor for which they were originally designed. The five items on the Domain subscale were constrained to load on the latent variable "Domain". The three items on the Community subscale were constrained to load on the latent variable "Community". The four items originally developed for the Practice subscale were constrained to load on the latent variable "Practice", which represents a perfect correlation between the previously used latent variables "Competency" and "Skills". The three-factor model without cross-loadings is shown in Figure 4.3.

Based on the six fit indices described above, the overall fit of the model is poor: $\chi^2 = 359.90$, df = 51, p<0.001; RMSEA = 0.112; CFI = 0.8; SRMR = 0.12; AIC = 413.90; GFI =0.85 . When compared to the four-factor model without cross-loadings, this model demonstrates a significant increase in model misfit $[(\chi_1^2 - \chi_2^2)_{(df1-df2)} = 174.38_{(3)}, p<.001]$. All of the fit statistics indicate that the data did not fit the model.
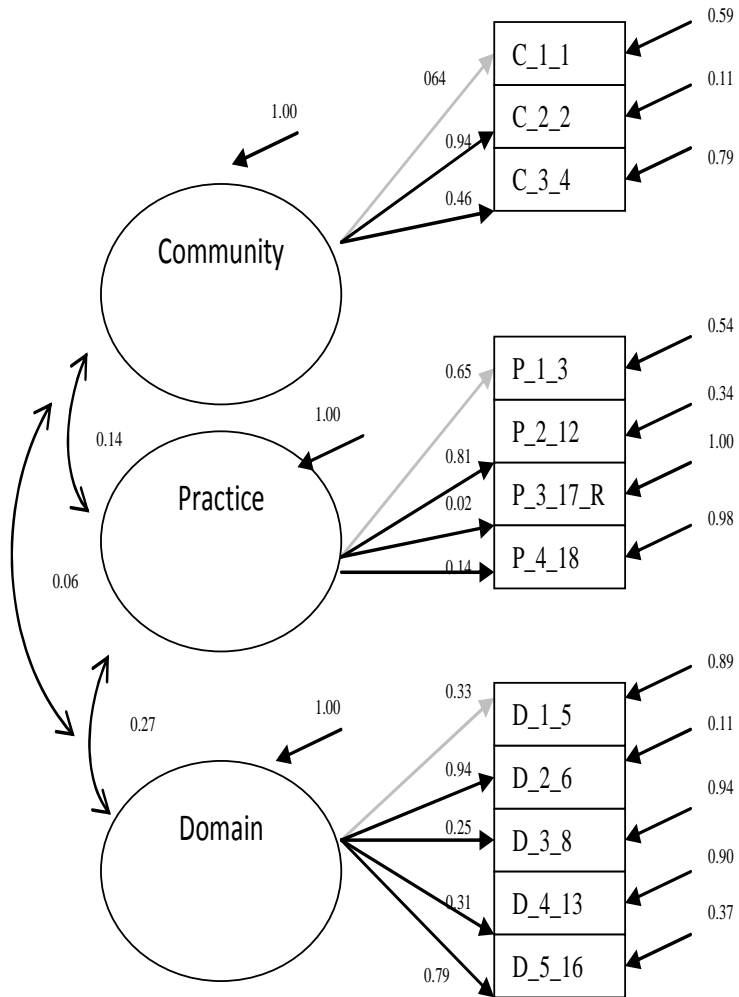
Figure 4.3

CFA of Three-Factor Model without Cross-Loadings – Standardized Solution

Table 4.18

Comparison of Fit Indices Across Nested Models

	Model 1: *4 Factors w/o Cross-Loadings*	*Model 2:* *3 Factors* *w/o Cross-Loadings*
$\chi^2_{(df)}$	$185.52_{(48)}$	$359.90_{(51)}$
p-value (model)	<.001	<.001
$\chi^2_1 - \chi^2_2{}_{(df1-df2)}$	$121.04_{(13)}$	$174.38_{(3)}$
p-value (model diff)	<.001	<.001
RMSEA	.077	0.112
CFI	.91	0.8
SRMR	.094	0.12
AIC	245.82	413.90
GFI	0.91	0.85

The model with the best overall fit is the four-factor model; it is theoretically supported based on Wenger et al.'s (2000) model of motivations for participation in a CoP, while also incorporating the unanticipated performance of the original *practice motivation* subscale items. The results of the CFA on the four-factor model without cross-loadings support the hypothesis of a multidimensional measure, and items developed for the Domain subscale and the Community subscale, and retained after the assessment of internal consistency, load as intended on their respective latent factors. As indicated by the analyses of internal consistency and EFA, the four retained items on the Practice subscale do not load together on the same latent factor. As indicated above, the two items referring to the relationship between a MSW degree and being a "good" social worker perform well together, while the two items referring to motivation based on skill and/or knowledge acquisition perform well together.

The four-factor model without cross-loadings was compared to a three-factor model based on the originally proposed measurement model for the PSWCoP. The conceptual difference between the two models is the placement of the items developed for the Practice subscale. Constraining these four items to load on a single latent variable resulted in a large increase in model misfit. All of the reported fit statistics indicate a model with poor fit.

Correlations between latent variables were computed, and the results are provided in Table 4.19. As indicated by the results, there were no significant correlations between any pair of latent variables (α=.01). These results support the multidimensionality of the PSWCoP and establish rudimentary evidence in support of construct validity, particularly between the Domain and Community constructs, and with an undefined third and/or fourth construct.

Table 4.19

Correlation Matrix of Latent Variables

Correlation Matrix of Latent Variables				
	Domain	*Competency*	*Skills*	*Community*
Domain	1.00			
Competency Corr. *p*-value	0.06 (0.02)	1.00		
Skills Corr. *p*-value	-.06 (0.02)	0.05 (0.04)	1.00	
Community Corr. *p*-value.	0.01 (0.01)	0.06 (0.03)	0.12 (0.04)	1.00

Summary of CFA Results

The CFA analysis of the PSWCoP full sample data supports the multidimensionality of the measure. Based on the results of the analysis of internal

consistency and EFA, four subscales were identified. Overall the "Domain" subscale was the only one to remain unchanged from its original form. The reliability analysis identified two items on the "Community" subscale for further evaluation, and they were removed based on both empirical evidence and conceptual justification. The original "Practice" subscale demonstrated significant problems. Low internal consistency and inter-item correlations indicated poor content and construct validity and required reevaluation of the subscale. EFA of the "Practice" subscale items identified two underlying factors, which were then included in the CFA analysis instead of the original one factor subscale.

A four factor model with unique indicators on each factor yielded acceptable fit. This model was tested against the conceptual three factor, nested model, and results identified the four factor model as the best when considering both empirical evidence and conceptual framework. Correlations between factors were not statistically significant and are supportive evidence for the overall construct validity of the PSWCoP.

Multidimensional Item Response Theory Analysis

The PSWCoP was next assessed based on a series of IRT analyses using Winsteps 3.66.0 (Linacre, 2006) Rasch measurement software and MIRT analyses using ACER Conquest 2.0, generalized item response modeling software (Wu et al., 2008). The first set of analyses evaluated item difficult, item fit, and reliability for a unidimensional model. The second set of analyses explored the dimensionality of the PSWCoP by comparing the same four models tested in the CFA. The third set of analyses evaluated

item difficulty, item fit, and reliability for the multidimensional models. The fourth set of analyses assessed differential item functioning (DIF) across subsamples.

Rasch Measurement Results

Winsteps 3.68.0 (Linacre, 2006) Rasch measurement software was used to assess item difficulty, fit, step calibration, and reliability for a unidimensional model. The item-person map for the PSWCoP (Figure 4.4) indicated that the difficulty of the items was a relatively good match for the ability of the respondents, although only over a small range of the construct. The left hand column represents the ability of respondents, and the greater the ability of the respondent, the higher they are in the column. The right hand column represents the difficulty of the items, and the more difficult the item, the higher it is in the column. In general, the range of person abilities and item difficulties are the same, and the distribution of persons and items about the mean are fairly symmetrical. Only item P_5_18 ("My main reason for entering a MSW program was to acquire knowledge and/or skills.") appears to be too easy for the sample. Two items, D_2_6 ("I decided to enroll in a MSW program to see if social work is a good fit for me."), and D_5_16 ("My main reason for entering the MSW program was to see if social work is the right profession for me.") appear to be too difficult for the sample. Exact numerical values for item difficulty are provided in Table 4.22 and ranged from -1.05 to +0.94.

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               .####  ||S P_4_17_R
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        .###########  M||
       .###########  ||   D_3_8_1
   0         .#####  ++M C_2_2_1    P_1_3_1
          .########  ||
             .##### S||   P_2_12_1
              .###  ||   C_1_1_1    D_1_5_1
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 EACH '#' IS 5.
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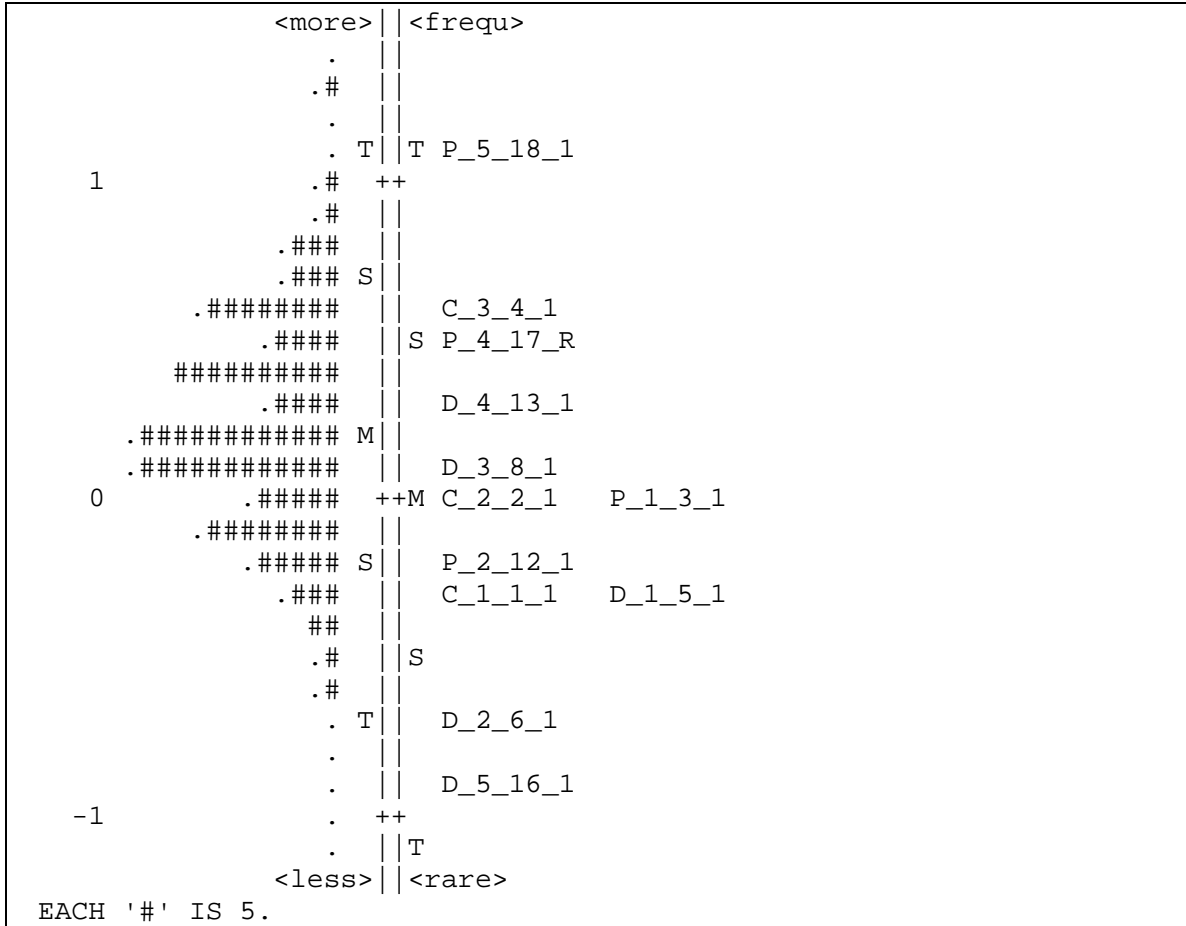
Figure 4.4

Item-Person Map of Final PSWCoP

Item fit is an indication of how well an item performs according to the underlying

IRT model being tested, and it is based on the comparison of observed responses to

expected responses for each item. Item fit is assessed through both weighted (infit) and

unweighted (outfit) mean square errors based on the difference between observed and

expected response values for each item. Weighted and unweighted *t* scores are

standardized infit and outfit scores. Adams and Khoo (1996) suggest that items with good

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fit will have infit scores between 0.75 and 1.33; Bond and Fox (2001) suggest that items

with good fit will have *t* values between -2 and +2. Table 4.20 provides the fit statistics

for the items of the PSWCoP survey; according to this output, only item P_3_17_R

("Learning new social work skills was a motivating factor in my decision to enter the

MSW program.") exceeds Bond and Fox's guideline, and no items exceed Adams and

Khoo's guideline.

Table 4.20

Rasch Analysis of Full Survey Item Difficulty and Fit

Item	Label	Model		Infit		Outfit	
		Est.	S.E.	MNSQ	ZSTD	MNSQ	ZSTD
1	C_1_1	0.30	.04	1.05	0.9	1.06	1.2
2	C_2_2	0.04	.04	0.93	-1.1	0.94	-1.0
3	C_3_4	0.05	.03	1.02	0.5	1.06	1.1
4	P_1_3	-0.56	.04	1.01	0.1	1.06	0.8
5	P_2_12	0.30	.04	0.98	-0.4	1.00	0.1
6	D_1_5	0.68	.04	0.94	-1.1	0.93	-1.1
7	D_2_6	-0.11	.04	0.91	-1.4	0.89	-1.6
8	D_3_8	0.24	.04	1.01	0.1	1.05	0.9
9	D_4_13	-0.33	.04	1,07	1.1	1.08	1.1
10	D_5_16	0.94	.04	0.97	-0.4	0.95	-0.7
11	P_3_17_R	-0.51	.04	1.17	2.1	1.35	4.0
12	P_4_18	-1.05	.06	0.93	-0.7	0.92	-0.9

Step structure refers to the probability of endorsing successfully higher response

categories. The expectation is that as person ability increases, the probability of endorsing

a higher response category increases. Linacre (1999a) identified eight guidelines for

assessing the step structure for an item. He classifies each guideline as "essential" or

"helpful" depending on the characteristic of the item being assessed. Table 4.21 provides

a summary of the guidelines, the importance of each guideline for establishing measure

stability and measure fit, and items which do not meet the guidelines. Note that Linacre

did not assign a level of importance to every guideline for every purpose, and this is
denoted by an asterisk (*) in the table. Based on these results, future evaluation of the
PSWCoP should consider collapsing response categories for some items and reevaluating
step structure.

Table 4.21

Step Structure Assessment of the PSWCoP

Guideline	Measure Stability	Measure Accuracy	Violations
At least 10 observations per category	Essential	Helpful	C_3_4, D_5_16, P_5_18
Regular observation distribution	Helpful	*	C_3_4, D_1_5, D_2_6, D_5_16, P_4_17_R
Monotonic advancement	Helpful	Essential	C_2_2, C_3_4, D_2_6, P_2_12, D_4_3, P_4_17_R
OUTFIT < 2.0	Helpful	Essential	None
Ordered step advancement	*	*	C_2_2, P_1_3, C_3_4, D_1_5, D_2_6, D_3_8, D_4_3, D_5_16, P_5_18
Ratings imply measures / Measures imply ratings	*	Helpful	None
Difficulties advance by at least 1.4 logits	*	*	All
Difficulties advance by less than 5.0 logits	Helpful	*	None

IRT analysis produces an item reliability index indicating the degree to which
item estimates would be consistent across different samples of respondents with similar
abilities (Bond & Fox, 2001). High item reliability indicates that some items are more
difficult to endorse and some items are easier to endorse, and that this placement of items
would be somewhat consistent. The reliability index of items for the PSWCoP pilot
survey was 0.99, indicating consistency in ordering of items by difficulty. IRT analysis
also produces a person reliability index indicating the degree of consistency with which
respondents would be ordered according to ability if given an equivalent set of items

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(Bond & Fox).The reliability index of persons for the PSWCoP was 0.60, indicating low

consistency in ordering of persons by level of ability, which may be due to a constricted

range of ability in the sample and/or a constricted range of item difficulty.

MIRT Factor Structure

One of the core assumptions of IRT is unidimensionality, that is, that person

ability and item difficulty can be attributed to a single, latent construct and that each item

contributes to the measure of that single latent construct (Bond & Fox, 2001). However,

item responses may in fact be attributable, whether intended or not, to more than one

latent construct. MIRT analyses allow the researcher to assess the dimensionality of the

measure. Multidimensional models can be classified as either "within items" or "between

items" (Adams, Wilson, & Wang, 1997). Within-items multidimensional models have

items that can function as indicators of more than one dimension, and between-items

multidimensional models have subsets of items that are mutually exclusive and measure

only one dimension.

Competing multidimensional models can be evaluated on the basis of changes in

model deviance and number of parameters estimated. A χ^2 statistic is calculated as the

difference in deviance (G^2) between two nested models with *df* equal to the difference in

number of parameters for the nested models. A statistically significant result indicates a

difference in model fit. When a difference in fit is found, the model with the smallest

deviance is selected; when a difference in model fit is not found, the more parsimonious

model is selected.

The baseline MIRT model corresponds to the four factor model with no cross-loadings estimated in the CFA (Fig. 4.2). This is a between-items multidimensional model with items placed in mutually exclusive subsets. The four dimensions in the model are, "Community" (items 1-3), "Competency" (items 4-5), "Domain" (items 6-10), and "Skills" (items 11-12_. The baseline model fit statistics was G^2=17558.64 with 26 parameters. The baseline model was compared with a series of nested models, each with successively fewer dimensions. A summary of model comparison fit statistics is provided in Table 4.23.

The three dimensional, between-items, multidimensional model corresponds to the originally proposed version of the PSWCoP (Figure 4.3). The three dimensions in the model are "Community" (items 1-3), "Domain" (items 6-10), and "Practice" (items 4-5 and 11-12). The three dimensional model fit statistic was G^2=17728.83 with 22 parameters. When compared to the four dimensional model, the change in model fit was significant indicating that the fit of the three dimensional model was worse than the fit of the four dimensional model ($\chi^2_{(4)}$ = 170.19, p<.001).

The two dimensional model was specified as a within-items multidimensional model because there was no conceptual framework with which to divide the items up into mutually exclusive subsets. Therefore, there were two undefined dimensions and items were treated as indicators of both dimensions. The two dimensional model fit statistic was G^2=17963.99 with 19 parameters. When compared to the four dimensional model, the change in model fit was significant indicating that the fit of the two dimensional model was worse than the fit of the four dimensional model ($\chi^2_{(7)}$ = 405.35, p<.001).

The final model tested was the unidimensional model in which all items were treated as indicators of a single dimension. The unidimensional model fit statistic was $G^2=17962.52$ with 17 parameters. When compared to the four dimensional model, the change in model fit was significant indicating that the fit of the unidimensional model was worse than the fit of the four dimension model ($\chi^2_{(9)} = 403.88$, $p<.001$).

Table 4.22

Comparison of Model Fit Across Nested Models

	Four Factor (Between)	Three Factor* (Between)	Two Factor* (Within)	One Factor*
Deviance (G^2)	17558.64	17728.83	17963.99	17962.52
Df	26	22	19	17
G^2_1- G^2_2		-170.19	-405.35	-403.88
df_1-df_2		4	7	9
$(G^2_1$- $G^2_2)/(df_1$-df_2)		42.55	57.91	44.88
p-value		< 0.001	< 0.001	< 0.001

* Compared to the Four Factor, Between-Items Model

Based on the change in model fit across the four nested models, the four dimensional, between-items model had the best fit. Of the four models considered, this model resulted in the most accurate reproduction of the probability of endorsing a specific level or step of an item for a person with a particular level of ability (Reckase, 1997). Thus, the four dimensional model yielded the greatest reduction in discrepancy between observed and expected responses.

Item Statistics

After it was determined that the four dimensional model provided the best model fit of the models tested, analyses were conducted with respect to item difficulty, item fit, and reliability.

Item Difficulty

MIRT analyses yield an item-person map by dimension. This output provides a visual estimate of person ability in the sample, item difficulty, and each dimension. Two inferences can be made based on the MIRT item-person map (Figure 4.4). First, items appear to be dispersed in terms of difficulty; item difficulties are reported in Table 4.24 and range from -0.807 to +0.838. Furthermore, with regards to dimensions 1, 2, and 3, the item difficulties appear to be well matched to person abilities though cover a limited range of the construct. Second, based on the means of the dimensions, Dimension 2 ("Competency", x_2=0.069) and Dimension 3 ("Domain", x_3=-0.074) are doing a better job of representing all levels of these types of motivation than the other two dimensions. The small positive mean of Dimension 1, ("Community", x_1=0.335) indicates that students sampled for this study found it somewhat easier to endorse those items, while the large positive mean of Dimension 4 ("Skills", x_4=1.42) indicates that students sampled for this study found it very easy to endorse those items.

```
MAP OF LATENT DISTRIBUTIONS AND RESPONSE MODEL PARAMETER ESTIMATES
==============================================================================
                        Dimension              Terms in the Model (excl Step terms)
       ----------------------------------------             ----------------------
       Dimension Dimension Dimension Dimension 4                +item
       ----------------------------------------  -----------------------------------
                |          |         |         |
                |          |         |       X |
    3           |          |         |       X |
                |          |         |       X |
                |          |         |      XX |
                |          |         |     XXX |
                |          |         |     XXX |
                |          |         |     XXX |
                |          |         |   XXXXX |
    2           |          |         |   XXXXXX |
                |        X |         |   XXXXXX |
                |        X |         |   XXXXXX |
            X |          X |         |   XXXXXX |
            X |         XX |         |  XXXXXXX |
           XX |         XX |       X |  XXXXXXX |
         XXXX |         XX |       X |  XXXXXXX |
         XXXX |        XXX |      XX |   XXXXXX |
    1    XXXXX |      XXXXX |      XX |   XXXXX |
         XXXXX |        XXX |     XXX |   XXXXX |10
      XXXXXXXXX |      XXXXXX |      XXX |   XXXXX |
       XXXXXXXX |     XXXXXX |    XXXXXX |    XXXX |7
       XXXXXXXX |     XXXXXX |    XXXXXX |     XXX |1
     XXXXXXXXXX | XXXXXXX |XXXXXXXX |     XXX |11
        XXXXXXXX |     XXXXXX |   XXXXXX |      XX |2  5
    0   XXXXXXXXX |     XXXXXX |  XXXXXXXX |      XX |6
         XXXXXXX |     XXXXX | XXXXXXXX |         |4
          XXXXX |  XXXXXXXXXXXXXXX |      X |
         XXXXXX |     XXXXXX | XXXXXXXX |         |12
           XXX |     XXXXXX |    XXXXX |
           XXX |     XXXXX | XXXXXXX |         |3  8
            XX |       XXX |     XXXXX |
             X |      XXXX |     XXXXX |         |9
   -1         X |       XXX |      XXX |
                |        XX |       XX |
                |        XX |       X |
                |        XX |       X |
                |         X |       X |
                |         X |         |
                |         X |         |
                |          |         |
   -2           |          |         |
                |          |         |
==============================================================================
Each 'X' represents    4.6 cases
------------------------------------------------------------------------------
```

Figure 4.4

MIRT Latent Variable Item-Person Map

Item Fit

Table 4.23 summarizes the items' characteristics. In addition to the estimation of item difficulties, infit and outfit statistics are reported. Using Adams and Khoo's (1996) guideline that items with good fit will have infit MNSQ values between 0.75 and 1.33, only item 2 (C_2_2, "I wanted to attend a MSW program so that I could be around people with similar values to me.") shows poor fit (MNSQ=0.68). In contrast, using Bond and

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Fox's (1997) guideline that items with good fit will have infit and outfit *t*-values between -2 and +2, identifies several items as having poor fit (based on a 95% CI for MNSQ):

- Item 1 (C_1_1, "My main reason for entering the MSW program was to be a part of a community of social workers."), *t*=-3.8;

- Item 2 (C_2_2, "I wanted to attend a MSW program so that I could be around people with similar values to me."), *t*=-5.6;

- Item 6 (D_1_5, "I find social work appealing because it is different than the type of work I have done in the past.", *t*=3.0;

- Item 8 (D_3_8, "I wanted to attend a MSW program so that I could learn more about the social work program."), *t*=4.0;

- Item 9 (D_4_13, "Entering the MSW program allowed me to explore a new area of professional interest."), *t*=2.5.

Table 4.23

Item Parameter Estimates for 4 Dimensional Model

		Model		Infit		Outfit	
Item	Label	Est.	S.E.	MNSQ	ZSTD	MNSQ	ZSTD
1	C_1_1	0.402	0.030	0.77	-3.8	0.77	-4.5
2	C_2_2	0.208	0.030	0.68	-5.6	0.67	-6.5
3	C_3_4	-0.610*	0.042	1.02	0.4	1.04	0.6
4	P_1_3	-0.136	0.029	1.01	0.2	1.00	0.0
5	P_2_12	0.136*	0.029	0.96	-0.5	0.93	-1.1
6	D_1_5	0.106	0.029	1.21	3.0	1.18	3.0
7	D_2_6	0.510	0.030	1.02	0.4	1.04	0.7
8	D_3_8	-0.647	0.030	1.29	4.1	1.30	4.4
9	D_4_13	-0.810	0.031	1.17	2.5	1.22	3.1
10	D_5_16	0.838*	0.060	0.95	-0.7	0.98	-0.2
11	P_3_17_R	0.330	0.038	1.00	-0.0	1.02	0.4
12	P_4_18	-0.330*	0.038	0.99	-0.2	1.00	-0.0
- Indicates that a parameter estimate is constrained							

Differential Item Functioning

Inadequate subgroup sample sizes precluded testing measurement invariance of the PSWCoP in the CFA. However, MIRT analysis was used to assess differential item functioning (DIF) across subgroups at the individual item level. Evaluation of DIF will help determine if items are performing in a consistent way across subgroups (Wilson, 2005). According to Wilson (1995), DIF is not a function of level of ability across groups, but instead an indication of whether or not an item performs the same for members of different groups who have the same level of ability. If DIF exists, respondents from the subgroups who share the same ability on a latent trait "do not have the same probability of endorsing a test item" (Embretson & Reise, 2000, p. 252). Conquest 2.0 (Wu et al, 2008) was used to investigate DIF on the PSWCoP with respect to religious participation, gender, race, age, sexual orientation, and family SES.

DIF was assessed by examining the item, group, and item*group parameter estimates produced by the Conquest 2.0 (Wu et al., 2008) analyses. A significant chi-square for the group*item interaction term signified DIF. The specific items demonstrating DIF were determined by examining the ratio of the item*group parameter estimate and its corresponding standard error. Wu et al. (1998) stated that when a parameter estimate is more than twice its standard error, it indicates significant DIF between the groups being tested. The magnitude of DIF was calculated by adding the estimates of the two groups together. Wilson (2005) classifies the magnitude of DIF as "negligible" (DIF<0.426), "intermediate" (0.426<DIF<0.638), or "large" (0.638<DIF).

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DIF values may be positive (+) or negative (-); positive DIF values indicate that it was easier for the reference group to endorse an item, while negative DIF values indicate that it was easier for the comparison group to endorse an item.

DIF by Religious Participation

Respondents were classified on the basis of self-perceived level of participation in religious activities ("Limited/None," "Moderate," and "Frequent"), and the "Frequent" group was selected as the reference group. Based on the item*group analysis, there was no evidence of DIF ($x^2_{(22)}$=31.12, p=0.094) between the "Frequent" group and either of the comparison groups with regards to the 12 items on the final version of the PSWCoP. A summary of item*group parameter estimates is provided in Table 4.24. Participation is coded as "1" equals limited or no participation in religious activities, "2" equals moderate participation in religious activities, and "3" equals frequent participation in religious activities. Group "3", frequent participation, was chosen as the reference group. Item difficulty parameter estimates and associated errors are provided for each group, along with fit statistics for item by group.

In comparing the "Frequent" group to the "Limited/None" group, one item met the criterion for DIF as defined as [(estimate/error)>2]. Item C_1_1, ("My main reason for entering the MSW program was to be a part of a community of social workers.") had an estimate/error value=2.34, and a DIF of 0.192 ("negligible"). It was more difficult for students who rated their level of participation in religious activities as "limited/none" to endorse this item than students who rated their participation as "frequent". In comparing the "Frequent" group to the "Moderate" group, one item met the criterion for DIF as

defined as [(estimate/error)>2]. Item C_3_4, ("I chose a MSW program because I thought

social work values were more similar to my values than other professions.") had an

estimate/error value=2.32, and a DIF of -0.303 ("negligible"). It was easier for students

who rated their participation in religious activities as "moderate" to endorse this item

than students who rated their participation as "frequent".

Table 4.24

Item*Group Parameter Estimates for Religious Participation

item*participation								
VARIABLES				UNWEIGHTED FIT			WEIGHTED FIT	
item	participation	ESTIMATE	ERROR	MNSQ	CI	T	MNSQ	CI	T
C_1_1	1 1	0.096	0.041	0.51 (0.79, 1.21) -5.6			0.50 (0.86, 1.14) -8.5		
C_2_2	1 1	-0.018	0.039	0.51 (0.79, 1.21) -5.6			0.50 (0.86, 1.14) -8.3		
C_3_4	1 1	-0.085	0.047	0.65 (0.79, 1.21) -3.6			0.65 (0.78, 1.22) -3.5		
P_1_3	1 1	-0.025	0.040	0.66 (0.79, 1.21) -3.6			0.66 (0.85, 1.15) -5.1		
P_2_12	1 1	0.013	0.039	0.68 (0.79, 1.21) -3.2			0.68 (0.86, 1.14) -5.0		
D_1_5	1 1	-0.078	0.039	0.71 (0.79, 1.21) -3.0			0.71 (0.86, 1.14) -4.6		
D_2_6	1 1	-0.045	0.041	0.73 (0.79, 1.21) -2.8			0.73 (0.84, 1.16) -3.7		
D_3_8	1 1	-0.006	0.041	0.55 (0.79, 1.21) -4.9			0.57 (0.83, 1.17) -5.8		
D_4_13	1 1	-0.016	0.044	0.66 (0.79, 1.21) -3.5			0.65 (0.80, 1.20) -4.0		
D_5_16	1 1	0.030	0.046	0.60 (0.79, 1.21) -4.3			0.60 (0.80, 1.20) -4.7		
P_3_17_R	1 1	0.071	0.046	0.74 (0.79, 1.21) -2.6			0.73 (0.79, 1.21) -2.8		
P_4_19	1 1	0.063*		0.68 (0.79, 1.21) -3.3			0.66 (0.78, 1.22) -3.4		
C_1_1	2 2	-0.001	0.042	0.54 (0.78, 1.22) -5.0			0.54 (0.86, 1.14) -7.5		
C_2_2	2 2	-0.033	0.040	0.53 (0.79, 1.21) -5.1			0.54 (0.85, 1.15) -7.5		
C_3_4	2 2	-0.109	0.047	0.69 (0.79, 1.21) -3.2			0.70 (0.77, 1.23) -2.9		
P_1_3	2 2	0.019	0.040	0.87 (0.78, 1.22) -1.2			0.87 (0.85, 1.15) -1.9		
P_2_12	2 2	0.036	0.039	0.64 (0.78, 1.22) -3.7			0.63 (0.86, 1.14) -5.8		
D_1_5	2 2	0.065	0.040	0.69 (0.78, 1.22) -3.2			0.68 (0.85, 1.15) -4.7		
D_2_6	2 2	0.014	0.041	0.78 (0.79, 1.21) -2.2			0.78 (0.83, 1.17) -2.7		
D_3_8	2 2	-0.029	0.042	0.67 (0.79, 1.21) -3.4			0.68 (0.82, 1.18) -3.9		
D_4_13	2 2	0.077	0.043	0.76 (0.78, 1.22) -2.3			0.78 (0.82, 1.18) -2.6		
D_5_16	2 2	-0.002	0.045	0.75 (0.79, 1.21) -2.4			0.78 (0.81, 1.19) -2.5		
P_3_17_R	2 2	0.001	0.047	0.74 (0.79, 1.21) -2.6			0.72 (0.77, 1.23) -2.7		
P_4_18	2 2	-0.040*		0.59 (0.79, 1.21) -4.4			0.63 (0.69, 1.31) -2.7		
C_1_1	3 3	-0.095*		0.65 (0.71, 1.29) -2.6			0.65 (0.81, 1.19) -4.1		
C_2_2	3 3	0.051*		0.42 (0.71, 1.29) -5.0			0.42 (0.81, 1.19) -7.7		
C_3_4	3 3	0.194*		0.83 (0.71, 1.29) -1.1			0.84 (0.80, 1.20) -1.6		
P_1_3	3 3	0.006*		0.83 (0.71, 1.29) -1.2			0.82 (0.80, 1.20) -1.9		
P_2_12	3 3	-0.050*		0.72 (0.71, 1.29) -2.0			0.72 (0.81, 1.19) -3.1		
D_1_5	3 3	0.013*		0.69 (0.70, 1.30) -2.3			0.69 (0.80, 1.20) -3.4		
D_2_6	3 3	0.031*		0.76 (0.71, 1.29) -1.7			0.77 (0.76, 1.24) -2.0		
D_3_8	3 3	0.035*		0.65 (0.71, 1.29) -2.7			0.66 (0.78, 1.22) -3.5		
D_4_13	3 3	-0.061*		0.68 (0.71, 1.29) -2.4			0.70 (0.73, 1.27) -2.3		
D_5_16	3 3	-0.028*		0.73 (0.70, 1.30) -1.9			0.75 (0.76, 1.24) -2.2		
P_3_17_R	3 3	-0.072*		0.59 (0.71, 1.29) -3.2			0.61 (0.68, 1.32) -2.7		
P_4_18	3 3	-0.023*		0.59 (0.71, 1.29) -3.2			0.63 (0.59, 1.41) -2.0		
• Indicates a parameter estimate that was constrained								

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DIF by Gender

Females were chosen as the reference group for this DIF analysis. Based on the item*group analysis, there was no evidence of DIF ($x^2_{(11)}$=7.69, p=0.741) between males and females with regards to the 12 items on the final version of the PSWCoP. A summary of item*group parameter estimates is provided in Table 4.25. Gender is coded as "1" equals males, and "2" equal females; female students served as the reference group. In comparing the two groups, none of the items met the criterion for DIF as defined as [(estimate/error)>2]. Note that the largest DIF value was 0.268 ("negligible") for item P_4_18 ("My main reason for entering the MSW program was to acquire knowledge and/or skills.", indicating that it was more difficult for males to endorse this item than females.

Table 4.25

*Item*Group Parameter Estimates for Gender*

item*gender									
VARIABLES				UNWEIGHTED FIT			WEIGHTED FIT		
item	gender	ESTIMATE	ERROR	MNSQ	CI	T	MNSQ	CI	T
C_1_1	1 1	-0.057	0.062	0.65 (0.52, 1.48) -1.5			0.65 (0.69, 1.31) -2.5		
C_2_2	1 1	-0.003	0.053	0.57 (0.52, 1.48) -2.0			0.56 (0.68, 1.32) -3.1		
C_3_4	1 1	0.010	0.060	0.75 (0.52, 1.48) -1.0			0.76 (0.55, 1.45) -1.1		
P_1_3	1 1	0.037	0.053	0.52 (0.52, 1.48) -2.3			0.52 (0.68, 1.32) -3.6		
P_2_12	1 1	-0.030	0.053	0.77 (0.52, 1.48) -1.0			0.77 (0.68, 1.32) -1.5		
D_1_5	1 1	-0.089	0.053	0.80 (0.52, 1.48) -0.8			0.79 (0.68, 1.32) -1.3		
D_2_6	1 1	-0.046	0.054	0.83 (0.52, 1.48) -0.6			0.84 (0.65, 1.35) -0.9		
D_3_8	1 1	-0.009	0.055	0.59 (0.52, 1.48) -1.9			0.62 (0.62, 1.38) -2.3		
D_4_13	1 1	0.078	0.064	0.78 (0.51, 1.49) -0.9			0.79 (0.67, 1.33) -1.3		
D_5_16	1 1	-0.057	0.066	0.47 (0.52, 1.48) -2.7			0.47 (0.62, 1.38) -3.4		
P_3_17_R	1 1	0.031	0.079	0.60 (0.52, 1.48) -1.8			0.59 (0.64, 1.36) -2.6		
P_4_18	1 1	0.134*		0.59 (0.52, 1.48) -1.9			0.59 (0.58, 1.42) -2.2		
C_1_1	2 2	0.057*		0.51 (0.86, 1.14) -8.5			0.51 (0.91, 1.09) -13.0		
C_2_2	2 2	0.003*		0.49 (0.86, 1.14) -9.0			0.49 (0.91, 1.09)-13.4		
C_3_4	2 2	-0.010*		0.65 (0.86, 1.14) -5.7			0.66 (0.86, 1.14) -5.5		
P_1_3	2 2	-0.037*		0.78 (0.86, 1.14) -3.3			0.78 (0.90, 1.10) -4.8		
P_2_12	2 2	0.030*		0.68 (0.86, 1.14) -5.2			0.67 (0.91, 1.09) -8.0		
D_1_5	2 2	0.089*		0.68 (0.86, 1.14) -5.1			0.68 (0.91, 1.09) -7.6		
D_2_6	2 2	0.046*		0.73 (0.86, 1.14) -4.2			0.74 (0.89, 1.11) -5.3		
D_3_8	2 2	0.009*		0.62 (0.86, 1.14) -6.3			0.63 (0.89, 1.11) -7.5		
D_4_13	2 2	-0.078*		0.72 (0.86, 1.14) -4.4			0.73 (0.88, 1.12) -4.8		
D_5_16	2 2	0.057*		0.68 (0.86, 1.14) -5.1			0.69 (0.87, 1.13) -5.3		
P_3_17_R	2 2	-0.031*		0.74 (0.86, 1.14) -4.1			0.73 (0.86, 1.14) -4.1		
P_4_18	2 2	-0.134*		0.61 (0.86, 1.14) -6.5			0.62 (0.79, 1.21) -4.1		

DIF by Race

Respondents were classified as either "Caucasian" or "Non-Caucasian", the

"Non-Caucasian" group was used as the reference group. Based on the item*group

analysis, there was no evidence of DIF ($x^2_{(11)}$=9.61, p=0.565) between "Caucasians" and

"Non-Caucasians" with regards to the 12 items on the final version of the PSWCoP. A

summary of item*group parameter estimates is provided in Table 4.26. In comparing the

two groups, none of the items met the criterion for DIF as defined as [(estimate/error)>2].

Note that the largest DIF value was 0.172 ("negligible") for item C_1_1 ("My main

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reason for entering the MSW program was to be a part of a community of social workers."), indicating that it was more difficult for Caucasian students to endorse this item than non-Caucasian students.

Table 4.26

*Item*Group Parameter Estimates for Race*

Item*race									
VARIABLES					UNWEIGHTED FIT			WEIGHTED FIT	
item	race	ESTIMATE	ERROR	MNSQ	CI	T	MNSQ	CI	T
C_1_1	1 1	0.086	0.036	0.51 (0.85, 1.15) -8.2			0.50 (0.90, 1.10)-12.4		
C_2_2	1 1	-0.003	0.037	0.50 (0.85, 1.15) -8.4			0.49 (0.90, 1.10)-12.5		
C_3_4	1 1	-0.007	0.046	0.66 (0.85, 1.15) -5.2			0.66 (0.86, 1.14) -5.2		
P_1_3	1 1	-0.019	0.037	0.76 (0.85, 1.15) -3.5			0.76 (0.90, 1.10) -5.1		
P_2_12	1 1	0.017	0.036	0.67 (0.85, 1.15) -5.0			0.67 (0.90, 1.10) -7.6		
D_1_5	1 1	0.007	0.036	0.67 (0.85, 1.15) -5.1			0.66 (0.90, 1.10) -7.7		
D_2_6	1 1	0.029	0.038	0.73 (0.85, 1.15) -4.1			0.73 (0.89, 1.11) -5.2		
D_3_8	1 1	0.004	0.039	0.61 (0.85, 1.15) -6.2			0.62 (0.88, 1.12) -7.6		
D_4_13	1 1	0.026	0.040	0.68 (0.85, 1.15) -4.8			0.69 (0.87, 1.13) -5.2		
D_5_16	1 1	0.008	0.041	0.66 (0.85, 1.15) -5.1			0.68 (0.87, 1.13) -5.3		
P_3_17_R	1 1	-0.064	0.041	0.71 (0.85, 1.15) -4.3			0.71 (0.84, 1.16) -4.1		
P_4_18	1 1	-0.031*		0.59 (0.85, 1.15) -6.5			0.60 (0.79, 1.21) -4.3		
C_1_1	2 2	-0.086*		0.51 (0.68, 1.32) -3.6			0.51 (0.78, 1.22) -5.4		
C_2_2	2 2	0.003*		0.48 (0.68, 1.32) -3.9			0.48 (0.79, 1.21) -6.0		
C_3_4	2 2	0.007*		0.81 (0.68, 1.32) -1.2			0.84 (0.73, 1.27) -1.2		
P_1_3	2 2	0.019*		0.81 (0.68, 1.32) -1.2			0.81 (0.79, 1.21) -1.9		
P_2_12	2 2	-0.017*		0.73 (0.68, 1.32) -1.8			0.73 (0.79, 1.21) -2.8		
D_1_5	2 2	-0.007*		0.84 (0.68, 1.32) -1.0			0.83 (0.79, 1.21) -1.6		
D_2_6	2 2	-0.029*		0.78 (0.68, 1.32) -1.4			0.79 (0.76, 1.24) -1.8		
D_3_8	2 2	-0.004*		0.68 (0.68, 1.32) -2.2			0.70 (0.75, 1.25) -2.6		
D_4_13	2 2	0.026*		0.82 (0.68, 1.32) -1.1			0.79 (0.74, 1.26) -1.6		
D_5_16	2 2	-0.008*		0.71 (0.68, 1.32) -2.0			0.71 (0.70, 1.30) -2.1		
P_3_17_R	2 2	0.064*		0.70 (0.68, 1.32) -2.0			0.68 (0.72, 1.28) -2.5		
P_4_18	2 2	0.031*		0.67 (0.68, 1.32) -2.3			0.68 (0.67, 1.33) -2.1		

DIF by Age

Respondents were divided into two age groups for this analysis ("Under 30" and "Over 30"). The "Over 30" group was chosen as the reference group for this DIF analysis. Based on the item*group analysis, there was no evidence of DIF ($x^2_{(11)}$=16.44, p=0.125) between the two age groups with regards to the 12 items on the final version of the PSWCoP. A summary of item*group parameter estimates is provided in Table 4.27. In comparing the groups, one item met the criterion for DIF as defined as

[(estimate/error)>2]. Item D_5_16, ("My main reason for entering the MSW program was to decide if social work is the right profession for me.") had an estimate/error value=2.67, and a DIF of -0.288 ("negligible"), indicating that it was easier for students under 30 to endorse this item than students over 30.

Table 4.27

Item*Group Parameter Estimates for Age

TERM 3: item*age									
VARIABLES				UNWEIGHTED FIT			WEIGHTED FIT		
item	age	ESTIMATE	ERROR	MNSQ	CI	T	MNSQ	CI	T
C_1_1	1 1	0.011	0.030	0.48	(0.84, 1.16)	-7.8	0.48	(0.89, 1.11)	-11.9
C_2_2	1 1	0.014	0.030	0.45	(0.84, 1.16)	-8.4	0.45	(0.89, 1.11)	-12.5
C_3_4	1 1	-0.019	0.034	0.60	(0.84, 1.16)	-5.6	0.58	(0.83, 1.17)	-5.8
P_1_3	1 1	0.015	0.030	0.71	(0.84, 1.16)	-3.9	0.71	(0.89, 1.11)	-5.8
P_2_12	1 1	0.020	0.030	0.63	(0.84, 1.16)	-5.1	0.63	(0.89, 1.11)	-7.9
D_1_5	1 1	0.054	0.030	0.60	(0.84, 1.16)	-5.6	0.60	(0.89, 1.11)	-8.5
D_2_6	1 1	-0.037	0.032	0.68	(0.84, 1.16)	-4.4	0.69	(0.88, 1.12)	-5.8
D_3_8	1 1	-0.029	0.031	0.56	(0.84, 1.16)	-6.3	0.57	(0.87, 1.13)	-7.6
D_4_13	1 1	0.050	0.033	0.66	(0.84, 1.16)	-4.6	0.66	(0.86, 1.14)	-5.5
D_5_16	1 1	-0.096	0.036	0.68	(0.84, 1.16)	-4.4	0.68	(0.86, 1.14)	-5.1
P_3_17_R	1 1	-0.003	0.035	0.70	(0.84, 1.16)	-4.1	0.68	(0.83, 1.17)	-4.2
P_4_18	1 1	0.020*		0.62	(0.84, 1.16)	-5.4	0.62	(0.83, 1.17)	-5.1
C_1_1	2 2	-0.011*		0.58	(0.77, 1.23)	-4.2	0.58	(0.85, 1.15)	-6.4
C_2_2	2 2	-0.014*		0.57	(0.77, 1.23)	-4.3	0.56	(0.84, 1.16)	-6.5
C_3_4	2 2	0.019*		0.76	(0.77, 1.23)	-2.2	0.81	(0.78, 1.22)	-1.8
P_1_3	2 2	-0.015*		0.88	(0.77, 1.23)	-1.0	0.89	(0.84, 1.16)	-1.4
P_2_12	2 2	-0.020*		0.80	(0.77, 1.23)	-1.8	0.80	(0.85, 1.15)	-2.7
D_1_5	2 2	-0.054*		0.88	(0.77, 1.23)	-1.0	0.88	(0.84, 1.16)	-1.6
D_2_6	2 2	0.037*		0.86	(0.77, 1.23)	-1.2	0.88	(0.81, 1.19)	-1.3
D_3_8	2 2	0.029*		0.73	(0.77, 1.23)	-2.5	0.75	(0.83, 1.17)	-3.1
D_4_13	2 2	-0.050*		0.80	(0.77, 1.23)	-1.8	0.83	(0.79, 1.21)	-1.6
D_5_16	2 2	0.096*		0.60	(0.77, 1.23)	-3.9	0.64	(0.74, 1.26)	-3.1
P_3_17_R	2 2	0.003*		0.76	(0.77, 1.23)	-2.1	0.76	(0.77, 1.23)	-2.2
P_4_18	2 2	-0.020*		0.71	(0.77, 1.23)	-2.7	0.76	(0.69, 1.31)	-1.6

DIF by Sexual Orientation

Respondents were divided into two groups for this analysis on the basis of self-reported sexual orientation ('Heterosexual" and "Minority Orientation"). The "heterosexual" group was chosen as the reference group for this DIF analysis. Based on the item*group analysis, there was no evidence of DIF ($x^2_{(11)}$=13.77, p=0.246) between the two groups with regards to the 12 items on the final version of the PSWCoP. A

summary of item*group parameter estimates is provided in Table 4.28. In comparing the

two groups, none of the items met the criterion for DIF as defined as [(estimate/error)>2].

Note that the largest DIF value was 0.18 ("negligible") for item C_3_4 ("I chose a MSW

program because I thought social work values were more similar to my values than those

of other professions.". It was more difficult for heterosexual students to endorse this item

than students with sexual minority status.

Table 4.28

*Item*Group Parameter Estimates for Sexual Orientation*

item*orientation					
VARIABLES				UNWEIGHTED FIT	WEIGHTED FIT
item	orientation	ESTIMATE	ERROR	MNSQ CI T	MNSQ CI T
C_1_1	1 1	0.005	0.044	0.51 (0.86, 1.14) -8.4	0.51 (0.91, 1.09)-12.8
C_2_2	1 1	-0.078	0.051	0.50 (0.86, 1.14) -8.6	0.50 (0.90, 1.10)-12.9
C_3_4	1 1	0.090	0.054	0.65 (0.86, 1.14) -5.5	0.66 (0.86, 1.14) -5.5
P_1_3	1 1	0.032	0.044	0.79 (0.86, 1.14) -3.1	0.79 (0.90, 1.10) -4.6
P_2_12	1 1	0.009	0.044	0.69 (0.86, 1.14) -4.8	0.69 (0.91, 1.09) -7.3
D_1_5	1 1	0.011	0.044	0.68 (0.86, 1.14) -5.0	0.67 (0.91, 1.09) -7.7
D_2_6	1 1	0.069	0.051	0.75 (0.86, 1.14) -3.8	0.76 (0.89, 1.11) -4.7
D_3_8	1 1	-0.022	0.045	0.62 (0.86, 1.14) -6.1	0.63 (0.89, 1.11) -7.4
D_4_13	1 1	-0.078	0.045	0.68 (0.86, 1.14) -5.0	0.69 (0.87, 1.13) -5.4
D_5_16	1 1	0.071	.047	0.65 (0.86, 1.14) -5.6	0.67 (0.87, 1.13) -5.6
P_3_17_R	1 1	0.046	0.058	0.72 (0.86, 1.14) -4.2	0.71 (0.86, 1.14) -4.3
P_4_18	1 1	-0.155*		0.57 (0.86, 1.14) -7.0	0.60 (0.79, 1.21) -4.4
C_1_1	2 2	-0.005*		0.55 (0.61, 1.39) -2.7	0.55 (0.74, 1.26) -4.0
C_2_2	2 2	0.078*		0.63 (0.61, 1.39) -2.1	0.63 (0.75, 1.25) -3.3
C_3_4	2 2	-0.090*		0.70 (0.61, 1.39) -1.6	0.73 (0.56, 1.44) -1.2
P_1_3	2 2	-0.032*		0.59 (0.61, 1.39) -2.4	0.59 (0.73, 1.27) -3.5
P_2_12	2 2	-0.009*		0.59 (0.61, 1.39) -2.3	0.59 (0.74, 1.26) -3.6
D_1_5	2 2	-0.011*		0.83 (0.61, 1.39) -0.8	0.84 (0.74, 1.26) -1.2
D_2_6	2 2	-0.069*		0.76 (0.61, 1.39) -1.2	0.76 (0.74, 1.26) -1.9
D_3_8	2 2	0.022*		0.58 (0.61, 1.39) -2.4	0.60 (0.72, 1.28) -3.2
D_4_13	2 2	0.078*		0.84 (0.61, 1.39) -0.8	0.84 (0.72, 1.28) -1.2
D_5_16	2 2	-0.071*		0.80 (0.61, 1.39) -1.0	0.78 (0.68, 1.32) -1.4
P_3_17_R	2 2	-0.046*		0.73 (0.61, 1.39) -1.5	0.73 (0.63, 1.37) -1.5
P_4_18	2 2	0.155*		0.78 (0.61, 1.39) -1.1	0.77 (0.68, 1.32) -1.5

DIF by Socio-Economic Status

Respondents were divided into two groups for this analysis on the basis of self-

reported socio-economic status ('Lower Class", which includes poor, working class, and

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lower middle class, and "Upper Class", which includes upper middle class and upper

class). The "upper class" group was chosen as the reference group for this DIF analysis.

Based on the item*group analysis, there was no evidence of DIF ($x^2_{(11)}$=6.68, p=0.824)

between the two groups with regards to the 12 items on the final version of the PSWCoP.

A summary of item*group parameter estimates is provided in Table 4.29. In comparing

the two groups, none of the items met the criterion for DIF as defined as

[(estimate/error)>2]. Note that the largest DIF value was 0.08 ("negligible") for item

C_3_4 ("I chose a MSW program because I thought social work values were more

similar to my values than those of other professions.". It was easier for students from

lower SES backgrounds to endorse this item than students from higher SES backgrounds.

Table 4.29

*Item*Group Parameter Estimates for SES*

TERM 3: item*SES						
VARIABLES				UNWEIGHTED FIT		WEIGHTED FIT
item	ses	ESTIMATE	ERROR	MNSQ CI T		MNSQ CI T
C_1_1	1 1	-0.017	0.029	0.52 (0.79, 1.21) -5.3		0.52 (0.86, 1.14) -8.1
C_2_2	1 1	-0.038	0.029	0.48 (0.79, 1.21) -6.0		0.48 (0.86, 1.14) -9.0
C_3_4	1 1	-0.040	0.033	0.74 (0.79, 1.21) -2.6		0.74 (0.79, 1.21) -2.6
P_1_3	1 1	0.034	0.029	0.72 (0.79, 1.21) -2.8		0.72 (0.86, 1.14) -4.3
P_2_12	1 1	0.018	0.029	0.73 (0.79, 1.21) -2.7		0.72 (0.86, 1.14) -4.2
D_1_5	1 1	0.005	0.029	0.74 (0.79, 1.21) -2.6		0.74 (0.85, 1.15) -3.9
D_2_6	1 1	0.012	0.030	0.75 (0.79, 1.21) -2.5		0.75 (0.83, 1.17) -3.1
D_3_8	1 1	-0.013	0.030	0.65 (0.79, 1.21) -3.6		0.66 (0.84, 1.16) -4.6
D_4_13	1 1	0.027	0.031	0.74 (0.79, 1.21) -2.6		0.75 (0.83, 1.17) -3.2
D_5_16	1 1	0.001	0.032	0.68 (0.79, 1.21) -3.3		0.69 (0.79, 1.21) -3.2
P_3_17_R	1 1	-0.019	0.034	0.77 (0.79, 1.21) -2.3		0.76 (0.79, 1.21) -2.3
P_4_18	1 1	0.031*		0.81 (0.79, 1.21) -1.8		0.79 (0.79, 1.21) -2.0
C_1_1	2 2	0.017*		0.50 (0.83, 1.17) -7.1		0.50 (0.89, 1.11)-10.9
C_2_2	2 2	0.038*		0.50 (0.83, 1.17) -7.1		0.50 (0.89, 1.11)-10.6
C_3_4	2 2	0.040*		0.61 (0.83, 1.17) -5.3		0.62 (0.83, 1.17) -5.1
P_1_3	2 2	-0.034*		0.80 (0.83, 1.17) -2.5		0.80 (0.88, 1.12) -3.5
P_2_12	2 2	-0.018*		0.66 (0.83, 1.17) -4.5		0.65 (0.89, 1.11) -6.9
D_1_5	2 2	-0.005*		0.68 (0.83, 1.17) -4.2		0.67 (0.89, 1.11) -6.5
D_2_6	2 2	-0.012*		0.73 (0.83, 1.17) -3.4		0.74 (0.88, 1.12) -4.5
D_3_8	2 2	0.013*		0.61 (0.83, 1.17) -5.3		0.62 (0.86, 1.14) -6.3
D_4_13	2 2	-0.027*		0.69 (0.83, 1.17) -4.1		0.69 (0.84, 1.16) -4.2
D_5_16	2 2	-0.001*		0.67 (0.83, 1.17) -4.3		0.68 (0.85, 1.15) -4.7
P_3_17_R	2 2	0.019*		0.68 (0.83, 1.17) -4.2		0.67 (0.82, 1.18) -4.1
P_4_18	2 2	-0.031*		0.54 (0.83, 1.17) -6.4		0.59 (0.75, 1.25) -3.8

DIF by Enrollment Status

Respondents were divided into three groups for this analysis on the basis of their

enrollment status at the time they completed the survey ("Foundation Year", "Advanced

Standing", and "Concentration Year"). The "foundation year" group was chosen as the

reference group for this DIF analysis. Based on the item*group analysis, there is evidence

of DIF ($x^2_{(22)}$=123.75, p<0.001) with regards to the 12 items on the final version of the

PSWCoP. Items were individually inspected to determine which items were

demonstrating DIF and for which groups. In comparing the "Foundation Year" students

to the "Concentration Year" students, five items meet the criterion for DIF as defined as

[estimate/error)>2]. Table 4.31 is a summary of DIF between "Foundation Year" and

"Concentration Year" students. For Tables 4.30 and 4.31, a positive DIF value indicates

that it was harder for members of the comparison group to endorse the item than

members of the reference group, and a negative DIF value indicates that it was easier for

members of the comparison group to endorse then item than members of the reference

group.

Table 4.30

DIF for Foundation and Concentration Students

Item	Statement	(Est/Err)	DIF	Magnitude
C_1_1	My main reason for entering the MSW program was to be a part of a community of social workers.	2.96	0.148	Negligible
C_2_2	I wanted to attend a MSW program so that I could be around people with similar values to me.	2.16	0.094	Negligible
D_2_6	I decided to enroll in a MSW program to see if social work is a good fit for me.	2.31	-0.034	Negligible
D_3_8	I wanted to attend a MSW program so that I could learn more about the social work profession.	2.52	0.121	Negligible
D_5_16	My main reason for entering the MSW program was to decide if social work is the right profession for me.	2.57	-0.09	Negligible

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In comparing the "Foundation Year" students to the "Advanced Placement" students,

seven items meet the criterion for DIF as defined as [estimate/error)>2]. Table 4.32 is a

summary of DIF between "Foundation Year" and "Advanced Placement" students.

Table 4.31

DIF for Foundation and Advanced Placement Students

Item		(Est/Err)	DIF	Magnitude
C_1_1	My main reason for entering the MSW program was to be a part of a community of social workers.	3.23	-0.139	Negligible
C_2_2	I wanted to attend a MSW program so that I could be around people with similar values to me.	2.84	-0.146	Negligible
P_2_12	A MSW degree is necessary to be a good social worker.	3.93	0.072	Negligible
D_2_6	I decided to enroll in a MSW program to see if social work is a good fit for me.	3.76	0.293	Negligible
D_3_8	I wanted to attend a MSW program so that I could learn more about the social work profession.	2.79	-0.136	Negligible
D_5_16	My main reason for entering the MSW program was to decide if social work is the right profession for me.	3.37	0.228	Negligible
P_4_17_R	Learning new social work skills was not a motivating factor in my decision to enter the MSW program	2.69	-0.184	Negligible

A summary of all item*group parameter estimates is provided in Table 4.32.

Table 4.32

Item*Group Parameter Estimates for Enrollment Status

item*enrollment								
VARIABLES				UNWEIGHTED FIT			WEIGHTED FIT	
item	enrollment	ESTIMATE	ERROR	MNSQ	CI	T	MNSQ	CI	T
C_1_1	1 1	0.145	0.049	0.55 (0.69, 1.31) -3.3			0.55 (0.79, 1.21) -5.0	
C_2_2	1 1	0.106	0.049	0.65 (0.69, 1.31) -2.5			0.65 (0.80, 1.20) -3.9	
C_3_4	1 1	0.046	0.057	0.70 (0.69, 1.31) -2.1			0.72 (0.69, 1.31) -1.9	
P_1_3	1 1	-0.081	0.050	0.77 (0.69, 1.31) -1.5			0.77 (0.77, 1.23) -2.0	
P_2_12	1 1	-0.060	0.049	0.82 (0.69, 1.31) -1.2			0.81 (0.79, 1.21) -1.8	
D_1_5	1 1	0.000	0.049	0.94 (0.69, 1.31) -0.3			0.94 (0.80, 1.20) -0.6	
D_2_6	1 1	- 0.120	0.052	0.88 (0.69, 1.31) -0.8			0.87 (0.79, 1.21) -1.2	
D_3_8	1 1	0.126	0.050	0.73 (0.69, 1.31) -1.8			0.74 (0.77, 1.23) -2.4	
D_4_13	1 1	-0.101	0.065	0.79 (0.69, 1.31) -1.4			0.80 (0.70, 1.30) -1.4	
D_5_16	1 1	-0.136	0.053	0.76 (0.69, 1.31) -1.6			0.77 (0.77, 1.23) -2.1	
P_3_17_R	1 1	0.106	0.057	0.78 (0.69, 1.31) -1.4			0.73 (0.70, 1.30) -1.9	
P_4_18	1 1	-0.031*		0.66 (0.69, 1.31) -2.4			0.72 (0.50, 1.50) -1.1	
C_1_1	2 2	-0.142	0.044	0.47 (0.74, 1.26) -5.1			0.47 (0.83, 1.17) -7.7	
C_2_2	2 2	-0.126	0.044	0.46 (0.74, 1.26) -5.2			0.46 (0.82, 1.18) -7.4	
C_3_4	2 2	-0.074	0.052	0.71 (0.74, 1.26) -2.5			0.68 (0.73, 1.27) -2.6	
P_1_3	2 2	0.177	0.045	0.82 (0.74, 1.26) -1.4			0.82 (0.83, 1.17) -2.2	
P_2_12	2 2	0.069	0.044	0.74 (0.74, 1.26) -2.2			0.74 (0.83, 1.17) -3.2	
D_1_5	2 2	-0.006	0.044	0.72 (0.74, 1.26) -2.4			0.72 (0.83, 1.17) -3.5	
D_2_6	2 2	0.207	0.055	0.73 (0.74, 1.26) -2.2			0.75 (0.76, 1.24) -2.3	
D_3_8	2 2	-0.131	0.047	0.75 (0.74, 1.26) -2.1			0.76 (0.78, 1.22) -2.2	
D_4_13	2 2	0.078	0.050	0.83 (0.74, 1.26) -1.3			0.84 (0.80, 1.20) -1.6	
D_5_16	2 2	0.182	0.054	0.67 (0.74, 1.26) -2.9			0.66 (0.69, 1.31) -2.4	
P_3_17_R	2 2	-0.145	0.054	0.80 (0.74, 1.26) -1.6			0.83 (0.70, 1.30) -1.1	
P_4_18	2 2	-0.089*		0.70 (0.74, 1.26) -2.5			0.75 (0.60, 1.40) -1.3	
C_1_1	3 3	-0.003*		0.49 (0.82, 1.18) -6.8			0.49 (0.88, 1.12)-10.3	
C_2_2	3 3	0.020*		0.43 (0.82, 1.18) -7.9			0.43 (0.88, 1.12)-11.9	
C_3_4	3 3	0.028*		0.64 (0.82, 1.18) -4.4			0.65 (0.82, 1.18) -4.4	
P_1_3	3 3	-0.096*		0.71 (0.82, 1.18) -3.4			0.71 (0.87, 1.13) -4.7	
P_2_12	3 3	-0.008*		0.59 (0.82, 1.18) -5.2			0.58 (0.88, 1.12) -7.9	
D_1_5	3 3	0.006*		0.62 (0.82, 1.18) -4.6			0.62 (0.88, 1.12) -7.1	
D_2_6	3 3	-0.086*		0.67 (0.82, 1.18) -4.0			0.67 (0.87, 1.13) -5.7	
D_3_8	3 3	0.005*		0.50 (0.82, 1.18) -6.5			0.52 (0.86, 1.14) -8.1	
D_4_13	3 3	0.022*		0.62 (0.82, 1.18) -4.7			0.62 (0.84, 1.16) -5.3	
D_5_16	3 3	-0.046*		0.59 (0.82, 1.18) -5.1			0.60 (0.84, 1.16) -5.7	
P_3_17_R	3 3	0.039*		0.63 (0.82, 1.18) -4.5			0.63 (0.82, 1.18) -4.6	
P_4_18	3 3	0.120*		0.56 (0.82, 1.18) -5.6			0.55 (0.78, 1.22) -4.8	

Summary of MIRT Analysis Results

A MIRT analysis was conducted on the PSWCoP using Acer Conquest ()

software. The results support the multidimensional nature of the PSWCoP, and the four

dimensional model with between item constraints demonstrated the best fit when

compared to a three dimensional between items model, a two dimensional within items model, and a unidimensional model. Overall, the four dimensional between items model results in the greatest reduction in discrepancy between observed and expected responses.

In evaluation of a measure with a rating scale response format, item difficulty is an indication of how hard it is to endorse the item. Item difficulty was assessed using item difficulty parameters and the item-person map. There appears to be a good match between the difficulty of the items and respondents' abilities for the "Domain", "Community", and "Competency" dimensions. Items are not a good match for respondents' abilities for the "Skills" dimension; overall the items are too easy to endorse. To more fully measure the "Skills" dimension, more difficult items need to be developed, and sampling methods should be geared to ensure a wider range of ability levels.

Item fit is an indication of how well an item performs according to the underlying IRT model being tested, and it is based on the comparison of observed responses to expected responses for each item. Two items met both Bond and Fox's (1997) and Adams and Khoo's (1996) guidelines for poor item fit. Only item two (C_2_2, "I wanted to attend a MSW program so that I could be around people with similar values to me.") met both guidelines for poor fit. Based on the infit MNSQ and t-value, this item over-performed in replicating the pattern of expected responses.

Differential item functioning (DIF) was assessed for several subsamples. DIF is an indication of whether or not an item performed the same for members of different groups who have the same level of ability. DIF was assessed by religious participation,

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gender, race, age group, sexual orientation, socioeconomic status, and enrollment status. Using Wilson's (2005) guidelines, all statistically significant DIF results fell in the "negligible" range (DIF<0.426).

Integration of CFA and MIRT Results

The primary result from both the CFA and MIRT analyses was the establishment of the PSWCoP as a multidimensional measure. Both sets of analyses identified a four factor model in which items loaded on a single factor as having the best model fit when compared to three factor, two factor, and one factor models. The CFA analysis, based on reproducing the observed covariance structure in the data, was found to be more informative at the subscale level, while the MIRT analysis, based on the discrepancy between observed and expected responses, was found to be more informative at the item level.

CFA was found to be more informative in regards to subscale composition and assessing associations among factors. The CFA analysis led to a final form of the PSWCoP with four subscales and evidence supporting the construct validity of the measure. As indicated by the non-significant correlations among factors, each subscale appears to be tapping into a separate construct, and evidence of face and content validity was established for the "Domain" and "Community" subscales; the "Practice" subscale requires revision and reevaluation before any claims of face, content, or construct validity can be made.

MIRT analyses were found to be more informative in regards to assessing individual item performance. Item difficulty was assessed, and the items on the PSWCoP

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appear to be a good match for the abilities of the respondents. Overall item fit was acceptable. MIRT analysis allowed for the assessment of DIF, and in general, there was very little evidence of DIF. Most instances of DIF were negligible, and only one item demonstrated moderate DIF for one group. Further interpretation of these findings is provided in the mixed-methods section of the results. Implications of the findings and a plan for revising and reevaluating the PSWCoP are provided in the next chapter.

<div align="center">Section Two: Evaluation of the Attitudes, Values, and Motivations</div>

<div align="center">Structural Equation Model</div>

Component two of the study was the evaluation of a structural equation model of the relationships between students' attitudes towards diversity, congruency with social work values, and motivations for entering a social work CoP through the pursuit of a MSW degree. Hereafter the model is referred to as the "AVM Model". In this section of the results, the following research questions are addressed:

- Is there acceptable fit between the covariance structure of the data and the theoretically constructed SEM model?

- Are there statistically significant relationships among the latent variables, and if so, what is the direction and magnitude of those relationships?

To answer these questions, the proposed model was evaluated in the following manner:

- Data screening

  - Descriptive statistics for all indicators were computed and evaluated;

  - Sample-specific reliability for all composite indicators was assessed using Cronbach's α as the indicator of internal consistency;

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- Correlations among observed indicators were computed and evaluated with regards to direction, magnitude, and statistical significance;

- Model identification for the measurement component of the model and the latent variable structure of the model was established;

- Parameter estimates were obtained using WLS estimation;

- The fit of the hybrid structural model was assessed;

- The statistical significance of latent variable relationships and indicator loadings were tested using *t*-tests, and the magnitude and direction of these relationships were assessed;

- Parameter estimates were interpreted:

  - Factor loadings,

  - Direct and indirect effects;

- Model respecification;

- Factor indicator scores were computed and tested for group differences.

Data Screening

The AVM SEM model consists of six latent variables and 22 observed variables. As discussed previously, the PSWCoP was assessed to have four latent variables representing the different types of motivation underlying a student's decision to pursue a MSW degree ("Community", "Competency", "Skills", and "Domain") and a total of 12 observed indicators. The fifth latent variable ("Attitudes toward Diversity") is interpreted as students' underlying beliefs and attitudes about minority individuals and groups as expressed using five observed indicators. The sixth latent variable ("Social Work

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Values") is interpreted as the underlying congruency between professional social work values (as established by the NASW, 1998) and the students' personal values with regard to these stated ideals.

A total of 506 participants participated in online data collection. As discussed with regards to the full sample analysis of the PSWCoP, nineteen cases (3.8%) had more than 50% missing data and were deleted from the sample, leaving 487 cases. For those remaining cases, there were 18 missing observations (0.21%) across 15 items. Missing observations for these ordinal variables were replaced using mode imputation. Screening of the remaining data began using these 487 cases. Of these remaining cases, 50 cases (10.3%) were missing more than 50% of the scores for the remaining variables in the data set and were deleted from the sample, leaving 437 cases. Within the final 437 cases, missing data ranged from 1 case to 21 cases for any given variable (0.23%-4.8%), and 63 observations out of 4,370 total observations (1.44%). Missing observations for these continuous variables were replaced using mean imputation.

Indicators of "Attitudes toward Diversity"

The five indicators of the latent variable "Attitudes toward Diversity" were:

- The Personal Beliefs about Diversity Scale (PBDS; Pohan & Aguilar, 2001), a 15-item self-report scale measuring personal beliefs about (a) race/ethnicity, (b) gender, (c) social class, (d) sexual orientation, (e) disabilities, (f) language, and (g) immigration;

- The Attitudes Towards Lesbians and Gay Men Scale – Short Form (ATLGS-S, Herek, 1988), a 10-item self-report scale measuring respondent's towards lesbians and gay men;

- The Modern Symbolic Racism Scale 2000 (MRS, Henry, & Sears, 2002), an eight item scale designed to measure symbolic racism of White/Caucasian respondents towards Blacks/African Americans;

- The AntiBlack Scale (ABS, Katz, & Hass, 1988), a ten item instrument designed to measure negative attitudes towards Blacks or African Americans;

- The Miville-Guzman Universality-Diversity Scale- short form (MGUDS, Fuerteset al., 2000), a measure a respondent's awareness and potential acceptance of similarities and differences in others.

Descriptive Statistics

Descriptive statistics for the five indicators of "Attitudes toward Diversity" are provided in Table 4.33. Note that individual subscale items were scored according to the authors' specifications and then rescored as necessary so that higher values on all subscales indicated more prejudicial attitudes. Two variables exhibited positive skew, ATLGS-S (1.62) and MRS (1.15). All variables were examined for outliers based on standardized scores of ± 3. For a data set of this size, it was expected there would be 2-3 cases with standardized scores greater than ± 3, and only the ATLGS-S exceeded this expectation with nine cases with standardized scores greater than +3. Given the small number of outliers, these cases were retained in the analyses.

Table 4.33

Descriptive Statistics of Indicators of "Attitudes toward Diversity"

	N		Mean	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis	Minimum	Maximum
	Valid	Missing								
PBADS	437	0	31.4073	7.14951	.678	.117	.404	.233	19.00	60.00
ATLGS-S	437	0	19.3859	9.92900	1.621	.117	2.420	.233	10.00	60.00
MRS	436	1	12.5573	3.52122	1.145	.117	1.801	.233	5.00	29.00
ABS	437	0	24.8028	7.98200	.370	.117	-.105	.233	10.00	50.00
MGUDS	437	0	32.0042	8.15777	.025	.117	-.419	.233	14.00	56.00

Correlations

Pearson product-moment bivariate correlations were computed between pairs of indicators. As hypothesized, all indicators demonstrated statistically significant ($p<0.001$) positive correlations. The correlation matrix is provided in Table 4.34. Correlations ranged from 0.239 to 0.601. Overall, the ATLGS-S demonstrated the lowest correlations with the other indicators while the PBADS demonstrated the highest.

Table 4.34

Bivariate Correlations of Indicators of "Attitudes toward Diversity

		PBADS	ATLGS-S	MRS_	ABS_	MGUDS_
PBADS	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	437				
ATLGS-S	Pearson Correlation	.601**	1			
	Sig. (2-tailed)	.000				
	N	437	437			
MRS	Pearson Correlation	.554**	.280**	1		
	Sig. (2-tailed)	.000	.000			
	N	436	436	436		
ABS	Pearson Correlation	.523**	.239**	.524**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	437	437	436	437	
MGUDS	Pearson Correlation	.519**	.277**	.316**	.338**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	437	437	436	437	437

**. Correlation is significant at the 0.01 level (2-tailed).

Internal Consistency

Internal consistency for each of the five indicators was computed. Table 4.35

shows the internal consistency for the current sample as well as the internal consistency

reported in the literature by the authors of the measures. All measures demonstrated

adequate reliability

Table 4.35

Internal Consistency of Indicators of "Attitudes toward Diversity"

Measure	Cronbach's α (Observed)	Cronbach's α (Reported)
PBADS	0.81	0.78
ATLGS-S	0.94	0.85
MRS	0.80	0.79
ABS	0.86	0.79
MGUDS	0.82	0.93

Indicators of "Congruency with Social Work Values"

The five indicators of the latent variable "Congruency with Social Work Values" were:

- The Professional Opinion Scale (POS; Abbott, 1988), a measure of professional social work value orientation;

- The Humanitarianism-Egalitarianism Scale (HES, Katz, & Hass, 1988), a ten item instrument designed to measure "adherence to the democratic ideals of equality, social justice, and concern for the others' wellbeing" (p. 894);

- The SWCIQ Social Change Mission Subscale (SCM, Biggerstaff, 2000), a measure of respondents' endorsements of professional social work values;

- The GSSW Multicultural Survey – Subscale 1(MCSS1, Seelman & Walls, 2006), an internally developed measure addressing students' attitudes towards social equality;

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- The GSSW Multicultural Survey – Subscale 2 (MCSS2, Seelman & Walls, 2006), an internally developed measure addressing students' perceptions of tolerance for value diversity in their MSW program;

Descriptive Statistics

Descriptive statistics for the five indicators of "Congruency with Social Work Values" are provided in Table 4.36. Note that individual subscale items were scored according to the authors' specifications and then rescored as necessary so that higher values on all subscales indicated more congruency with social work values. Three variables exhibited significant negative skew, SCM (-1.101), MCSS1 (-1.023), and MCSS2 (-1.599). Two of these variables also exhibited significant positive kurtosis, SCM (3.134) and MCSS2 (3.2161). All variables were examined for outliers based on standardized scores of $\pm$ 3. For a data set of this size, it was expected there would be 2-3 cases with standardized scores greater than $\pm$ 3, and this expectation was met.

Table 4.36

Descriptive Statistics for Indicators of "Congruency with Social Values"

Statistics

| | N | | | | | | | | | |
	Valid	Missing	Mean	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis	Minimum	Maximum
POS	437	0	1.6205E2	14.34389	-.270	.117	-.220	.233	114.00	196.00
HES	437	0	52.0854	5.76612	-.554	.117	-.386	.233	34.00	60.00
SCM	437	0	34.6544	4.29130	-1.101	.117	3.134	.233	8.00	40.00
MCSS1	437	0	39.9683	7.10315	-1.023	.117	1.413	.233	14.00	54.00
MCSS2	437	0	77.7919	11.18061	-1.599	.117	3.261	.233	36.51	90.00

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Correlations

Pearson product-moment bivariate correlations were computed between pairs of indicators. As hypothesized, all indicators demonstrated statistically significant ($p<0.001$) positive correlations. The correlation matrix is provided in Table 4.37. Correlations ranged from 0.229 to 0.555. Overall, the MCSS1 demonstrated the smallest correlations with the other indicators while no single indicator had consistently high correlations.

Table 4.37

Bivariate Correlations of Indicators of "Congruency with Social Work Values"

		POS	HES	SCM	MCSS1	MCSS2
POS	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	437				
HES	Pearson Correlation	.519**	1			
	Sig. (2-tailed)	.000				
	N	437	437			
SCM	Pearson Correlation	.414**	.510**	1		
	Sig. (2-tailed)	.000	.000			
	N	437	437	437		
MCSS1	Pearson Correlation	.320**	.229**	.278**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	437	437	437	437	
MCSS2	Pearson Correlation	.555**	.473**	.301**	.474**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	437	437	437	437	437

Correlations

**. Correlation is significant at the 0.01 level (2-tailed).

Internal Consistency

Internal consistency for each of the five indicators was computed. Table 4.38 shows the internal consistency for the current sample as well as the internal consistency

reported in the literature by the authors of the measures. All measures demonstrated

adequate reliability.

Table 4.38

Internal Consistency of Indicators of "Congruency with Social Work Values"

Measure	Cronbach's α (Observed)	Cronbach's α (Reported)
POS	0.857	0.817
HES	0.872	0.76
SCM	0.879	0.79
MCSS1	0.798	N/A
MCSS2	0.892	N/A

Model Identification

In order for a hybrid structural model to be identified, both the measurement

model and the structural model must be identified (Kline, 2005). Bollen (1989) provided

a two-step rule for determining the identification of a hybrid model:

1. Specify the hybrid model as a CFA model with all unanalyzed associations among

   the factors and evaluate this model for identification;

2. Evaluate the structural model of latent variables as a path model; if it is recursive,

   the structural model is identified.

Measurement Model Identification

In order for a CFA model to be identified, it must meet two necessary

requirements and one sufficient requirement (Kline, 2005).

1. The number of free parameters must be less than or equal to the number of

   observations (necessary);

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2. Every latent variable must have a scale (necessary);

3. A model with two or more factors must have at least two indicators per factor (sufficient).

The measurement model for the AVM hybrid model is presented in Figure 4.6. The model is over-identified, each latent variable is scaled by constraining a factor loading to 1.0, and each factor has at least two indicators. Therefore, the measurement model is identified.
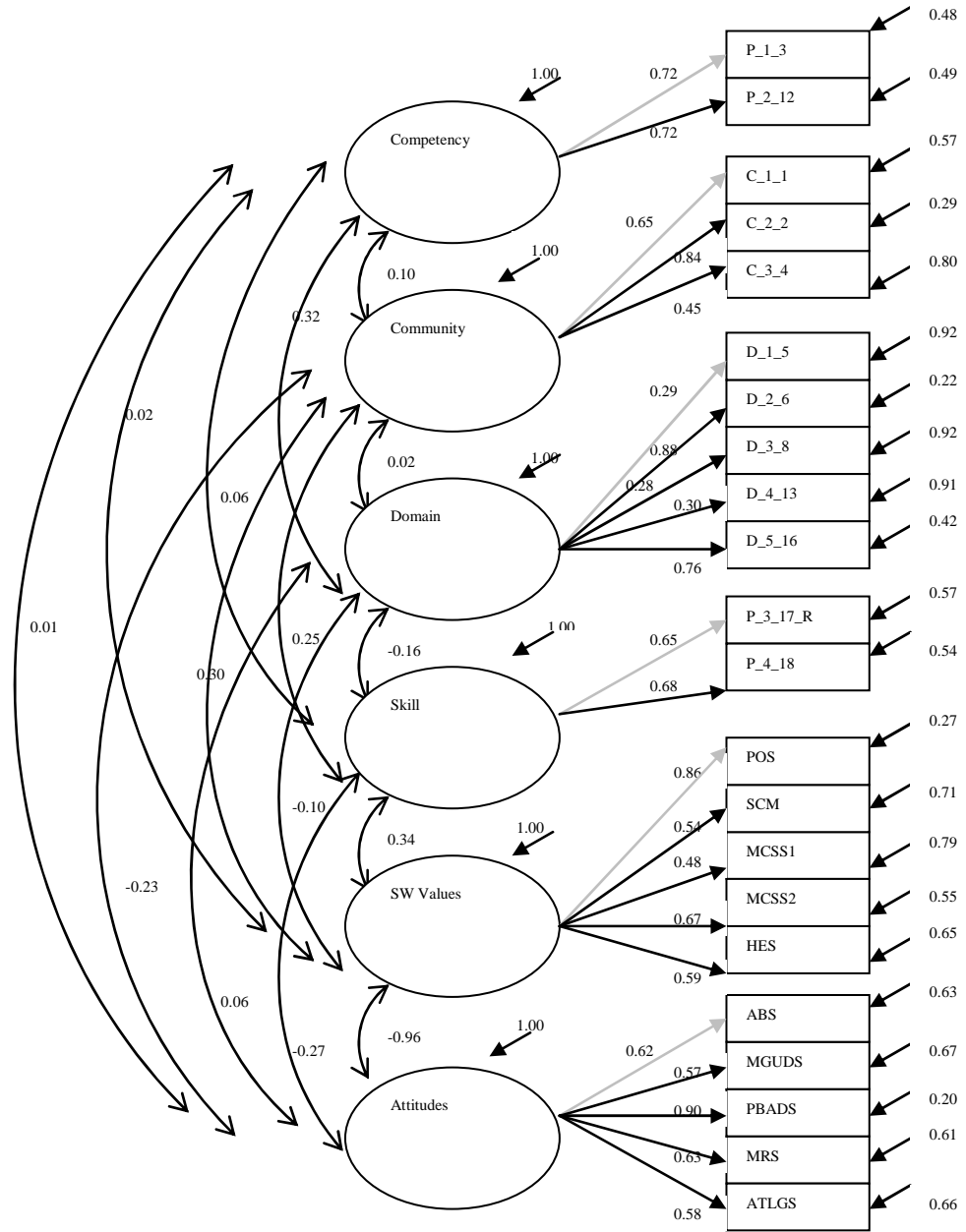
Figure 4.6

Measurement Model of AVM Hybrid Structural Model - Standardized

Structural Model Identification

The structural portion of the AVM hybrid model is presented in Figure 4.7. The model is recursive and therefore identified.
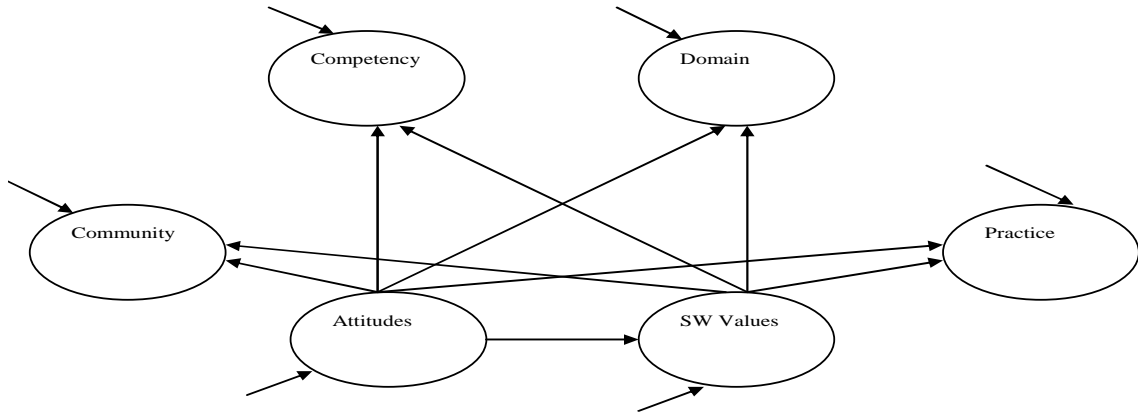

Figure 4.7

Structural Model of AVM Hybrid Structural Model

Evaluation of the AVM Structural Equation Model

LISREL 8.80 for Windows (Jöreskog & Sörbom, 2007) SEM software was used to evaluate model fit, compute parameter estimates between latent variables and between latent variables and indicators, and to compute direct and indirect effects. Model parameters were estimated using WLS estimation due to the ordinal indicators on the PSWCoP and non-normal distribution of some of the observed continuous variables.

AVM Model Fit

The results of the SEM analysis of the AVM hybrid structural model are provided in Figure 4.8. Values provided in this figure are standardized parameter estimates. Based on Kline's (2005) recommended indicators of fit, the overall model has acceptable fit: χ^2 = 758.45, df = 200; RMSEA = 0.080; CFI = 0.89; SRMR = 0.078; GFI = 87.
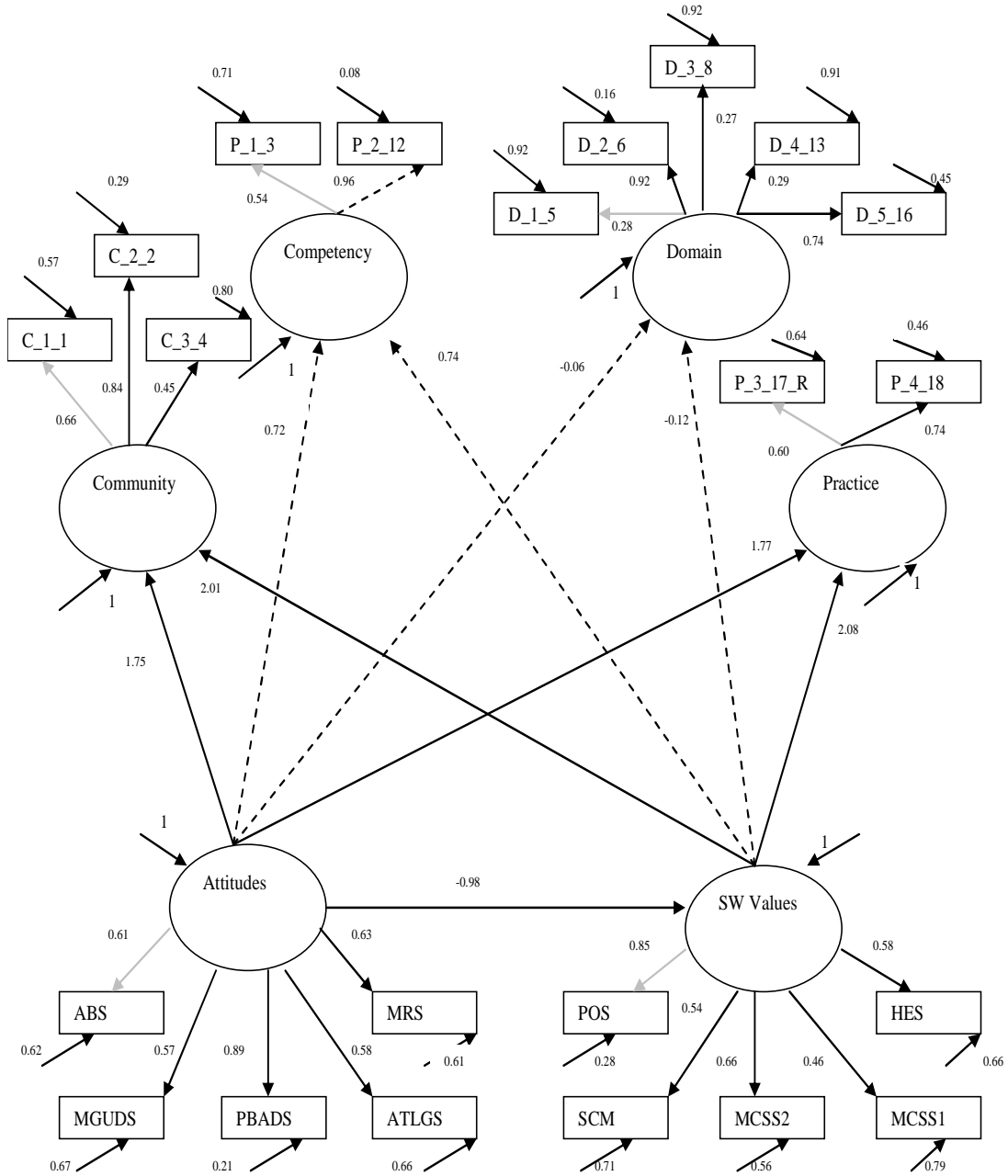
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Figure 4.8

AVM Model – Standardized Parameter Estimates

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Overall model fit could have been improved using the mathematically derived modification indices recommended by the program, but these recommendations consisted of correlating error terms and adding paths between latent variables and indicators, and there was no conceptual or theoretical justification for doing so.

Statistical Significance of Parameter Estimates

After establishing that the AVM model demonstrated acceptable fit, parameter estimates were evaluated for statistical significance. Statistically significant parameters are represented by solid lines, and non-significant parameter estimates are represented by dashed lines. It can be understood from this analysis that several paths are not statistically significant. Particularly notable was the presence of several non-significant paths. Neither the path from the latent variable "Diversity" *("Attitudes toward Diversity")* to "Competency" (t=0.90, p>0.10), or from "Values" ("*Congruency with Social Work Values")* to "Competency" (t=0.90, p>0.10) was statistically significant; note also that the remaining factor loading for indicator P_2_12 is also not statistically significant. Taken in concert with the issues raised in the CFA of the PSWCoP with regard to these indicators and construct, it isn't clear as to whether these findings are in fact reflective of the underlying relationships between these latent variables or are due to poor performance of the items themselves. Neither the path from the latent variable "Diversity" to "Domain" (t=-0.13, p>0.40), or from "Values" to "Domain" (t=-0.29, p>0.25) was statistically significant; given the overall psychometric properties of the "Domain" indicators, these results were retained in the analyses, and an interpretation of

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these results is provided below. All remaining paths were statistically significant, and interpretations of these results are provided in the next section.

Interpretation of Parameter Estimates

Standardized parameter estimates are analogous to β-coefficients in multiple regression and can be interpreted in the same way. Similarly, R^2 values for the percent of variance explained by the model were also computed. Table 4.39 provides a summary of standardized parameter estimates and R^2 values for each indicator variable. The three indicators with the lowest factor loadings (<0.3) are all part of the "Domain" construct and have negligible R^2 values (< 10%); these results are dissimilar to those obtained in the CFA of the PSWCoP in which only one item (D_3_8) had a factor loading <0.3. The remaining indicators have factor loadings ranging from 0.45-0.96, and R^2 values from 20%-92%.

Table 4.39

Indicator Variables Factor Loadings for AVM

Variable	Parameter Estimate (Standardized)	Variance Explained (R^2)
Skills		
• P_3_17_R	0.60	0.36
• P_4_18	0.74	0.54
Competence		
• P_1_3	0.54	0.29
• P_2_12	0.96	0.92
Community		
• C_1_1	0.66	0.43
• C_2_2	0.84	0.71
• C_3_4	0.45	0.20
Domain		
• D_1_5	0.28	0.08
• D_2_6	0.92	0.84
• D_3_8	0.27	0.07
• D_4_13	0.29	0.09
• D_5_16	0.74	0.55
Values		
• POS	0.85	0.72
• SCM	0.54	0.29
• MCSS1	0.46	0.21
• MCSS2	0.66	0.44
• HES	0.58	0.34
Diversity		
• ABD	0.61	0.38
• PBADS	0.89	0.79
• MGUDS	0.57	0.33
• ATLGS-S	0.58	0.34
• MRS	0.63	0.39

Parameter estimates of paths between latent variables were the primary interest in this analysis. Table 4.40 summarizes the direct, indirect, and total effects of the latent variable "Diversity" on the latent variables "Values", "Skills", "Competency", "Community", and "Domain", the direct effect of the latent variable "Values" on the latent variables "Skills", "Competency", "Community", and "Domain", and the R^2 values

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for the percent of variance explained by the model for each if the endogenous latent

variables.

Table 4.40

Standardized Direct, Indirect, and Total Effects

Variable	Skills	Competency	Community	Domain	Values
Diversity					
• Direct	1.77*	0.73	1.75*	-0.06	-0.98*
• Indirect	- 2.038*	-0.725	- 1.97*	0.12	-------
• Total	- 0.268*	0.005	- 0.22*	0.06	-------
Values					____
• Direct	2.08*	0.74	2.01*	-0.13	
R^2	0.26	0.024	0.23	0.006	0.96

*p<0.05

By definition, standardized parameter estimates are bounded between -1.00 and

+1.00. Note in Table 4.41 that several standardized parameter estimates exceed these

values. These estimates, known as Heywood cases, are indicative of problems in the

AVM model. According to Chen, Bollen, Paxton, Curran, and Kirby (2001), one cause of

Heywood cases is extremely high correlations, such as exists between the factors

"Attitudes toward Diversity" and "Social Work Values". The direct effect of "Diversity"

on "Values" was statistically significant and consistent with the original hypothesis. It

was hypothesized that higher levels of prejudicial attitudes would be inversely associated

with level of congruency with social work values because of the professional emphasis

on multiculturalism, social justice, and overcoming oppression of marginalized groups.

Social work values promote inclusion and acceptance of diversity, and prejudicial

attitudes are inconsistent with these core professional values. The magnitude of the

standardized effect of "Diversity" on "Values" is -0.98 with an R^2=0.96, indicating the

presence of multicollinearity. Multicollinearity occurs when two variables are so highly

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correlated as to be redundant (Kline, 2005). In cases of extreme multicollinearity

(r>0.90), empirical under-identification can occur in which there is insufficient unique

variance to estimate all parameters, resulting in illogical parameter estimate values

(Kline).   The measures of attitudes toward diversity are so closely linked to measures of

congruency with social work values that the two factors are essentially the same. Because

of this multicollinearity, the model was respecified and reanalyzed.

Model Respecification and Model Fit

The AVM model was respecified to deal with the issue of multicollinearity

between the latent variables "Diversity" and "Values." All paths associated with the

latent variable "Diversity" were fixed to zero and the model was rerun. Mathematically it

would have been appropriate to merge the two factors, but this was theoretically

unfounded. Although the measures of the constructs are highly correlated, the constructs

themselves are not the same. The measures chosen as indicators of "Attitudes toward

Diversity" were done so on theoretical grounds specifying the role of internalized value

perspectives in relation to externalized value perspectives as incorporated in the social

work profession. Merging the measures into indicators of a single construct implies that

the constructs are indistinguishable, which theory argues against. It was deemed more

appropriate to remove "Attitudes toward Diversity" factor and its indicators from the

model with the intent of exploring the construct in more depth in the future.

The results of the SEM analysis of the new model (AVM_R) are provided in

Figure 4.9. Values provided in this Figure are standardized parameter estimates. Based on

Kline's (2005) recommended indicators of fit, the overall model has acceptable fit: $\chi^2 =$

427.83, df = 115; RMSEA = 0.079; CFI = 0.86; SRMR = 0.084; GFI = 0.90. The change

in model fit between the original and respecified models was small but significant [(χ_1^2 –

χ_2^2)$_{(df1-df2)} =$ (758.46-427.83)/(200-115) = 330.63$_{(85)}$, $p<0.001$].
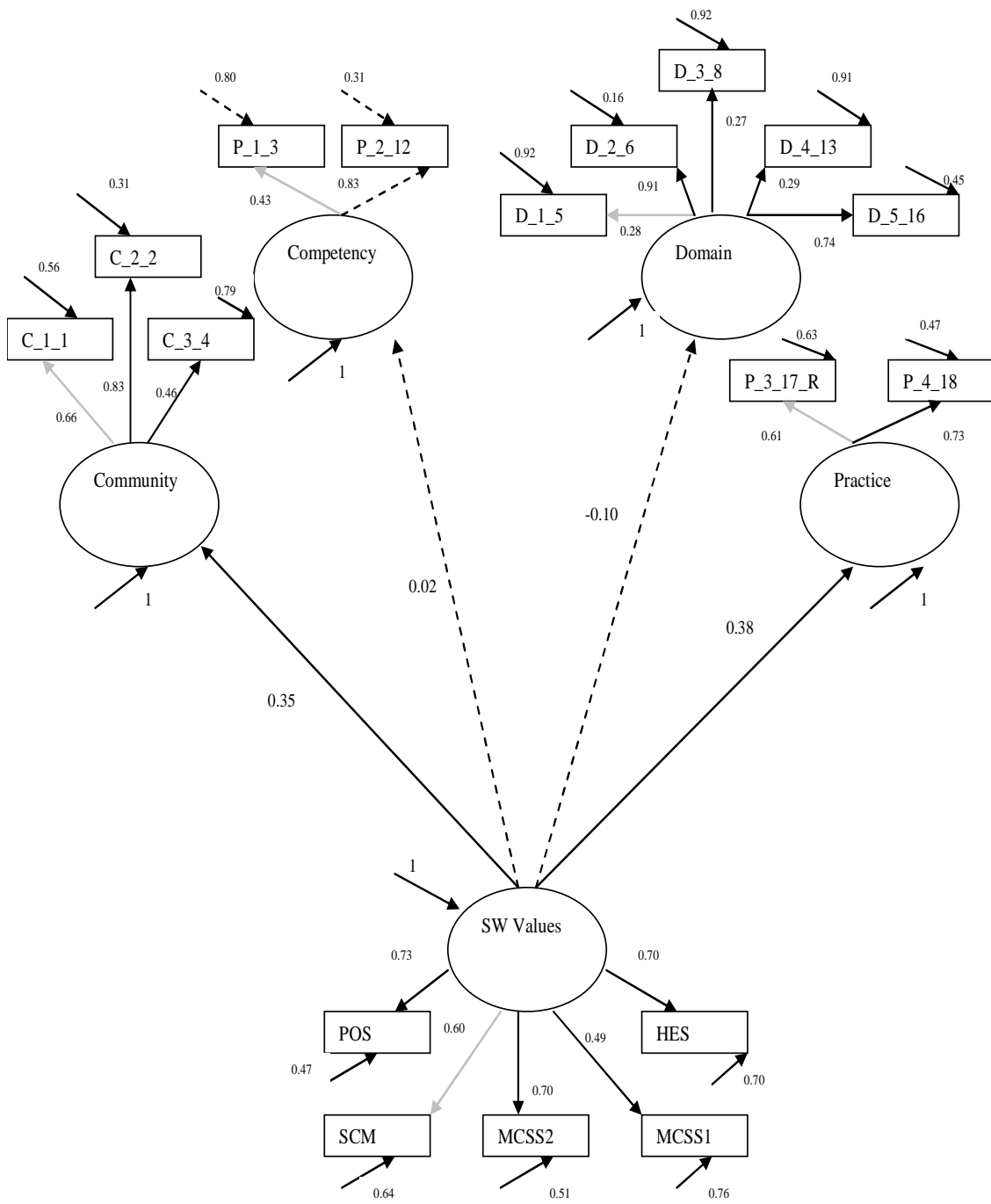
AVM_R – Standardized Solution

Figure 4.9

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Overall model fit could have been improved using the mathematically derived modification indices recommended by the program, but these recommendations consisted of correlating error terms and adding paths between latent variables and indicators, and there was no conceptual or theoretical justification for doing so. The correlation matrix, means, and standard deviations for the 17 indicator variables used in the AVM_R model are provided in Table 4.41.

Table 4.41

AVM_R Correlation Matrix

	C_1_1	C_2_2	P_1_3	C_3_4	D_1_5	D_2_6	D_3_8	P_2_12	D_4_13	D_5_16	P_3_17_R	P_4_18	SCM_Total	HES_Total	MCSS1_Tot	MCSS2_Tot	POS_Total
C_1_1	1																
C_2_2	0.563	1															
P_1_3	0.013	0.051	1														
C_3_4	0.276	0.365	0.051	1													
D_1_5	0.093	0.062	0.083	0.125	1												
D_2_6	-0.032	0.023	0.194	-0.01	0.254	1											
D_3_8	0.193	0.237	0.193	0.208	0.145	0.241	1										
P_2_12	0.022	0.094	0.516	-0.013	0.094	0.176	0.138	1									
D_4_13	-0.081	-0.038	0.06	-0.051	0.341	0.266	0.083	0.088	1								
D_5_16	0.000	0.002	0.194	-0.022	0.167	0.68	0.203	0.189	0.184	1							
P_3_17_R	0.082	0.098	-0.045	0.172	-0.022	-0.147	0.149	0.005	0.014	-0.185	1						
P_4_18	0.116	0.151	0.037	0.181	0.100	-0.053	0.209	0.09	0.137	-0.089	0.443	1					
SCM_Total	0.288	0.27	-0.052	0.338	0.032	-0.102	0.115	-0.005	-0.038	-0.135	0.17	0.217	1				
HES_Total	0.099	0.197	-0.009	0.229	0.048	-0.014	0.057	0.034	0.056	-0.098	0.13	0.168	0.51	1			
MCSS1_Tot	0.197	0.204	-0.042	0.254	-0.009	-0.048	0.021	-0.053	0.094	-0.068	0.108	0.153	0.278	0.229	1		
MCSS2_Tot	0.085	0.121	0.056	0.198	-0.025	-0.054	-0.027	0.032	-0.039	-0.06	0.156	0.21	0.301	0.473	0.474	1	
POS_Total	0.019	0.149	0.029	0.255	-0.041	-0.042	-0.078	0.003	-0.029	-0.101	0.167	0.151	0.414	0.519	0.32	0.555	1
Means	3.417	3.751	3.802	4.682	2.225	2.819	4.265	3.459	4.475	2.436	4.752	5.256	34.654	52.085	39.968	77.792	162.05
S.D.	1.227	1.219	1.526	1.198	1.461	1.466	1.339	1.445	1.307	1.272	1.171	0.848	4.291	5.766	7.103	11.181	14.344

Statistical Significance of AVM_R Parameter Estimates

After establishing that the AVM_R model demonstrated acceptable fit, parameter estimates were evaluated for statistical significance. The results of the significance tests of parameter estimates in the AVM_R model are provided in Figure 4.8. Statistically significant ($p<0.05$) parameter estimates are indicated by solid lines, and non-significant parameter estimates are indicated by dashed lines. When compared to the original model

(Figure 4.8), there was no change in which paths were significant or which paths were not significant.

Interpretation of Parameter Estimates

Standardized parameter estimates are analogous to β-coefficients in multiple regression and can be interpreted in the same way. Similarly, R^2 values for the percent of variance explained by the model were also computed. Table 4.42 provides a summary of standardized parameter estimates and R^2 values for each indicator variable. The three indicators with the lowest factor loadings (<0.3) are all part of the "Domain" construct and have negligible R^2 values (< 10%); these results are dissimilar to those obtained in the CFA of the PSWCoP in which only one item (D_3_8) had a factor loading <0.3. The remaining indicators have factor loadings ranging from 0.43-0.96, and R^2 values from 18%-92%.

Table 4.42

Indicator Variables Factor Loadings for AVM_R

Variable	Parameter Estimate (Standardized)	Variance Explained (R^2)
Skills		
• P_3_17_R	0.61	0.37
• P_4_18	0.73	0.53
Competence		
• P_1_3	0.43	0.18
• P_2_12	0.83	0.31
Community		
• C_1_1	0.66	0.44
• C_2_2	0.83	0.69
• C_3_4	0.46	0.21
Domain		
• D_1_5	0.28	0.08
• D_2_6	0.91	0.83
• D_3_8	0.27	0.07
• D_4_13	0.29	0.09
• D_5_16	0.74	0.55
Values		
• POS	0.73	0.53
• SCM	0.60	0.36
• MCSS1	0.49	0.24
• MCSS2	0.70	0.49
• HES	0.70	0.49

Parameter estimates of paths between latent variables were the primary interest in this

analysis. Table 4.43 summarizes the direct effects of the latent variable "Values" on the

latent variables "Skills", "Competency", "Community", and "Domain", and the R^2 values

for the percent of variance explained by the model for each of the endogenous latent

variables.

Table 4.43

Direct Effects of Latent Variable "Values"

Variable	Skills	Competency	Community	Domain
Values				
• Direct	0.38*	0.02	0.35*	-0.10
R^2	0.13	0.00033	0.15	0.0095

*p<0.05

Effects of "Congruency with Social Work Values"

The analyses resulted in significant direct effects of "Values" on "Skills" and "Community" but not on "Competency" or "Domain". There was a moderate (Cohen, 1988) positive effect of "Values" on "Skills", indicating that higher levels of congruency are associated with greater endorsement of skills acquisition as a motivating factor in the decision to enter a MSW program. This result was contrary to the hypothesis that there would be no relationship between level of value congruency and identification of skills acquisition as a motivating factor. It was hypothesized that all students would be motivated to acquire the requisite skills to practice professionally, and that this motivation would be consistent across levels of congruency. Note that even though the effect size was moderate and statistically significant, the R^2 value was small (0.13), indicating that there was a substantial amount of variance that was not explained by the latent variable "Values".

There was also a moderate (Cohen, 1988) positive effect of "Values" on "Community", indicating that higher levels of congruency are associated with greater endorsement of becoming a member of the professional social work community as a motivating factor in the decision to enter a MSW program. This result is consistent with

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the hypothesis that students demonstrating value congruence with professional social work values would be motivated to enter a MSW program so that they could be part of that value-defined community. Note that even though the effect size was moderate and statistically significant, the R^2 value was small (0.15), indicating that there was a substantial amount of variance that was not explained by the latent variable "Values".

The direct effect of "Values" on "Domain" was not statistically significant. It was originally hypothesized that lower levels of value congruency would be positively associated with motivation based on the desire to learn more about the social work profession and the desire to determine if social work was an appropriate professional choice. This hypothesis was based on the belief that students would have an awareness of the value-base of professional social work and would identify incongruence's between their attitudes toward diversity and social work values, which in turn would motivate students to evaluate the fit between their beliefs and professional social work. One interpretation of these results was that the significant resources needed to obtain a graduate-level degree (i.e., finances, time, effort) would narrow the population of students to those who had already made some level of commitment to obtaining the degree. Restated, students in a MSW program had already decided on this course of action and were not motivated by a need to evaluate social work as a potential profession.

The direct effect of "Values" on "Competency" was also not significant. Because this construct was developed based on the EFA and CFA of the PSWCoP data, its meaning is uncertain. At face value, the items address whether or not the respondent believes that having a MSW is necessary in order to be a good social worker. Based on

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the results, a cautious interpretation is that congruency with social work values is not

related to the belief that a MSW degree is "necessary".

Differences in Factor Indicator Scores by Demographic Characteristics

As part of the SEM analysis, factor indicator scores were computed for each

subject and exported to an SPSS data file. These scores were matched with demographic

and cultural indicators for each participant, and group mean comparisons were computed.

Group comparisons were made using the following group variables: Gender, Race,

Religious Participation, School Orientation, and Enrollment Status. Correlations were

computed for Age and the five latent variable factor indicator scores. To compensate for

inflated Type I error rate, a Bonferroni adjustment was made by dividing the Type I error

rate by the number of contrasts (0.01/5) and an α-level of 0.002 was used for all tests.

Differences by Gender

A series of independent samples *t*-tests for equality of means were conducted to

test the null hypothesis that there is no difference in the group means of males and

females on the five latent variable factor indicator scores ("Values", "Skills",

"Competency", "Community", and "Domain"). The results of the analyses are presented

in Table 4.44. Although there was a drastic difference in sample sizes (92% female, 8%

male), the difference is representative of the distribution of males and females in MSW

programs, which was approximately 85% female and 15% male in 2000 (Schilling,

Morrish, & Liu, 2008). Additionally, Keppel and Wickens (2004) suggest that the

assumption of homogeneity of variances (HOV) is more important than balanced samples

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in ANOVA. No significant differences were found in means of men and women for any

of the latent variable factor scores.

Table 4.44

Independent Samples t-Tests by Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Communit	Equal variances assumed	.138	.710	.496	433	.620	.07273	.14649	-.21519	.36064
	Equal variances not assumed			.517	38.020	.608	.07273	.14063	-.21197	.35742
Skills	Equal variances assumed	2.547	.111	.241	433	.809	.03114	.12898	-.22237	.28464
	Equal variances not assumed			.291	40.662	.772	.03114	.10689	-.18478	.24706
Domain	Equal variances assumed	1.831	.177	-.451	433	.652	-.03373	.07473	-.18060	.11315
	Equal variances not assumed			-.539	40.425	.593	-.03373	.06262	-.16024	.09279
Competen	Equal variances assumed	1.702	.193	.305	433	.761	.03805	.12476	-.20716	.28326
	Equal variances not assumed			.279	36.407	.781	.03805	.13615	-.23796	.31406
Values	Equal variances assumed	.054	.817	1.038	433	.300	.48123	.46340	-.42955	1.39202
	Equal variances not assumed			1.059	37.711	.296	.48123	.45455	-.43918	1.40165

Differences by Race

A series of independent samples *t*-tests for equality of mean were conducted to test the null hypothesis that there is no difference in the group means of Caucasians and non-Caucasians on the five latent variable factor indicator scores ("Values", "Skills", "Competency", "Community", and "Domain"). The results of the analyses are presented in Table 4.45. Although there was a drastic difference in sample sizes (82% Caucasian, 18% non-Caucasian), the difference is representative of the distribution of Caucasians and non-Caucasians in MSW programs, which was approximately 74% Caucasian and 26% non-Caucasian in 2000 (Schilling et al., 2008). No significant differences were found in means of Caucasians and non-Caucasians for any of the latent variable factor scores.

Table 4.46

Independent Samples t-Tests by Race

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Communit	Equal variances assumed	.138	.710	.496	433	.620	.07273	.14649	-.21519	.36064
	Equal variances not assumed			.517	38.020	.608	.07273	.14063	-.21197	.35742
Skills	Equal variances assumed	2.547	.111	.241	433	.809	.03114	.12898	-.22237	.28464
	Equal variances not assumed			.291	40.662	.772	.03114	.10689	-.18478	.24706
Domain	Equal variances assumed	1.831	.177	-.451	433	.652	-.03373	.07473	-.18060	.11315
	Equal variances not assumed			-.539	40.425	.593	-.03373	.06262	-.16024	.09279
Competen	Equal variances assumed	1.702	.193	.305	433	.761	.03805	.12476	-.20716	.28326
	Equal variances not assumed			.279	36.407	.781	.03805	.13615	-.23796	.31406
Values	Equal variances assumed	.054	.817	1.038	433	.300	.48123	.46340	-.42955	1.39202
	Equal variances not assumed			1.059	37.711	.296	.48123	.45455	-.43918	1.40165

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Differences by School Affiliation

A series of independent samples *t*-tests for equality of mean were conducted to test the null hypothesis that there is no difference in the group means of students from secular and religiously-affiliated schools on the five latent variable factor indicator scores. The results of the analyses are presented in Table 4.46. No significant differences were found in means of students from secular and religiously-affiliated school for any of the latent variable factor scores.

Table 4.46

Independent Samples t-Tests by School Affiliation

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Communit	Equal variances assumed	.526	.469	-2.291	433	.022	-.34605	.15105		-.64293	-.04918
	Equal variances not assumed			-2.652	36.795	.012	-.34605	.13049		-.61050	-.08160
Skills	Equal variances assumed	.049	.825	-.591	433	.555	-.07874	.13314		-.34043	.18294
	Equal variances not assumed			-.628	35.512	.534	-.07874	.12534		-.33306	.17557
Domain	Equal variances assumed	.054	.816	-1.309	433	.191	-.10103	.07721		-.25278	.05072
	Equal variances not assumed			-1.346	35.101	.187	-.10103	.07505		-.25338	.05132
Competen	Equal variances assumed	.630	.428	2.104	433	.036	.26820	.12746		.01767	.51872
	Equal variances not assumed			2.185	35.219	.036	.26820	.12274		.01908	.51732
Values	Equal variances assumed	1.615	.204	-.846	433	.398	-.40346	.47710		-1.34118	.53426
	Equal variances not assumed			-1.010	37.347	.319	-.40346	.39931		-1.21230	.40537

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Differences by Socio-Economic Status

A series of one-way ANOVA tests of equality of group means were conducted to test the null hypothesis that there is no difference in the group means of students who categorized themselves as "poor", "working class", "middle class" or "upper class" on the five latent variable factor indicator scores ("Values", "Skills", "Competency", "Community", and "Domain"). Tests for HOV demonstrate that this assumption was violated for three of the five variables (Table 4.47). Therefore, group means for these variables were tested using the Brown-Forsythe test. The results of the ANOVA and Brown-Forsythe analyses are presented in Tables 4.48 and 4.49. No significant differences were found among the students reporting different levels of SES for any of the latent variable factor scores.

Table 4.47

HOV Tests for SES

	Levene Statistic	df1	df2	Sig.
Communit	.604	3	433	.613
Skills	3.031	3	433	.029
Domain	2.115	3	433	.098
Competen	.135	3	433	.939
Values	3.571	3	433	.014

Table 4.48

One-Way ANOVA Tests by SES

		Sum of Squares	df	Mean Square	F	Sig.
Communit	Between Groups	2.022	3	.674	1.017	.385
	Within Groups	287.052	433	.663		
	Total	289.074	436			
Competen	Between Groups	5.624	3	1.875	4.041	.007
	Within Groups	200.872	433	.464		
	Total	206.496	436			

Table 4.49

Browne-Forsythe Tests by SES

		Statistic[a]	df1	df2	Sig.
Skills	Brown-Forsythe	1.467	3	172.451	.225
Domain	Brown-Forsythe	2.031	3	159.368	.112
Values	Brown-Forsythe	5.009	3	210.347	.002

a. Asymptotically F distributed.

Differences by Religious Participation

A series of one-way ANOVA tests of equality of group means were conducted to

test the null hypothesis that there is no difference in the group means of students who

categorized their religious participation as "None/Limited", "Occasional", "Often" or

"Frequent" on the five latent variable factor indicator scores ("Values", "Skills",

"Competency", "Community", and "Domain"). Tests for HOV demonstrate that this

assumption was violated for two of the five variables (Table 4.50). Therefore, group

means for these variables were tested using the Brown-Forsythe test. The results of the

ANOVA and Brown-Forsythe analyses are presented in Tables 4.51 and 4.52. Significant

group differences were found for the "Values" latent variable factor indicator scores. *Post*

hoc analysis was conducted using the DunnetT3 method, and significant differences were

found between students who described their participation as "None/Limited" and the

students who described their participation as "Frequent". On average, students with

no/limited religious participation scored 1.313 points lower than students with frequent

religious participation ($p<0.001$).

Table 4.50

HOV Tests by Religious Participation

	Levene Statistic	df1	df2	Sig.
Communit	1.119	3	422	.341
Skills	.220	3	422	.882
Domain	5.009	3	422	.002
Competen	1.117	3	422	.342
Values	2.500	3	422	.059

Tables 4.51

One-Way ANOVA Tests by Religious Participation

		Sum of Squares	df	Mean Square	F	Sig.
Communit	Between Groups	2.589	3	.863	1.290	.277
	Within Groups	282.409	422	.669		
	Total	284.999	425			
Skills	Between Groups	3.315	3	1.105	2.181	.090
	Within Groups	213.824	422	.507		
	Total	217.139	425			
Competen	Between Groups	.439	3	.146	.308	.820
	Within Groups	200.530	422	.475		
	Total	200.968	425			

Table 4.52

Browne-Forsythe Tests by Religious Participation

		Statistic[a]	df1	df2	Sig.
Domain	Brown-Forsythe	1.318	3	327.765	.269
Values	Brown-Forsythe	6.901	3	334.324	.000

a. Asymptotically F distributed.

Differences by Enrollment Status

A series of one-way ANOVA tests of equality of group means were conducted to test the null hypothesis that there is no difference in the group means of students with different enrollment statuses on the five latent variable factor indicator scores ("Values", "Skills", "Competency", "Community", and "Domain"). Tests for HOV demonstrate that this assumption was violated for one of the five variables (Table 4.53). Therefore, group means for this variable were tested using the Brown-Forsythe test. The results of the analyses are presented in Tables 4.54 and 4.55. Significant group differences were found for the "Domain" latent variable factor indicator scores. *Post hoc* analysis was conducted using the DunnetT3 method, and significant differences were found between Advanced Standing students and Foundation students and Concentration students. On average, Advanced Standing students scored 0.214 points lower than Foundation students, and 0.327 points lower than Concentration students ($p<0.001$). As discussed elsewhere, this result was anticipated because Advanced Standing students have already received a BSW degree and are likely to have already made a commitment to pursuing a career in social work.

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Table 4.53

HOV Tests by Enrollment Status

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Communit	1.757	3	423	.155
Skills	1.121	3	423	.340
Domain	3.611	3	423	.013
Competen	1.662	3	423	.175
Values	1.201	3	423	.309

Table 4.54

One-Way ANOVA by Enrollment Status

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Communit	Between Groups	4.605	3	1.535	2.332	.074
	Within Groups	278.478	423	.658		
	Total	283.083	426			
Skills	Between Groups	1.686	3	.562	1.101	.348
	Within Groups	215.802	423	.510		
	Total	217.487	426			
Competen	Between Groups	2.772	3	.924	1.950	.121
	Within Groups	200.428	423	.474		
	Total	203.201	426			
Values	Between Groups	18.274	3	6.091	.916	.433
	Within Groups	2813.420	423	6.651		
	Total	2831.694	426			

Table 4.55

Brown-Forsythe Test of Equality of Means by Enrollment Status

		Statistic[a]	df1	df2	Sig.
Domain	Brown-Forsythe	11.452	3	339.189	.000

a. Asymptotically F distributed.

Differences by Age

Correlations between respondents' ages and factor indicator scores were computed to test the null hypothesis that age was not related to scores on any of the five factor indicator scores ("Values", "Skills", "Competency", "Community", and "Domain"). The correlation matrix is provided in Table 4.56. There were no statistically significant correlations between age and any of the factor indicator scores.

Table 4.56

Correlation Matrix of Age by Factor Indicator Scores

		Age	Communit	Skills	Domain	Competen	Values
Age	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	434					
Communit	Pearson Correlation	-.015	1				
	Sig. (2-tailed)	.753					
	N	434	437				
Skills	Pearson Correlation	.028	.135	1			
	Sig. (2-tailed)	.557	.005				
	N	434	437	437			
Domain	Pearson Correlation	-.139	-.035	-.037	1		
	Sig. (2-tailed)	.004	.470	.437			
	N	434	437	437	437		
Competen	Pearson Correlation	-.006	.006	.007	-.002	1	
	Sig. (2-tailed)	.895	.892	.884	.970		
	N	434	437	437	437	437	
Values	Pearson Correlation	-.062	.355	.382	-.098	.018	1
	Sig. (2-tailed)	.195	.000	.000	.041	.703	
	N	434	437	437	437	437	437

Summary of Results of SEM Analyses

A structural equation model analysis was conducted to test if there was acceptable fit between the covariance structure of the data and the theoretically constructed AVM model. Although the results of the analysis indicated moderate but acceptable fit, multicollinearity was detected between the latent variables "Diversity" and "Values." It was hypothesized that there would be a strong association between the constructs, but it was not anticipated that the correlation would exceed 0.90. Because of this result, the model was respecified and the "Diversity" variable and its indicators were removed from the model.

The respecified AVM_R model was analyzed, and although model misfit increased slightly, the overall fit of the model was acceptable. The direct effects of "Values" on "Skills", "Competency", "Domain", and "Community" were estimated, yielding the following results:

- Non-significant effect on "Domain";

- Non-significant effect on "Competency";

- Moderate, positive effect on "Skills";

- Moderate, positive effect on "Community".

Students who exhibited higher levels of congruency with social work values also had higher levels of endorsement for the acquisition of skills/knowledge and being part of a community of individuals with similar values as motivating factors in their decision to enter a MSW program. Although the effects on "Skills" and "Community" were statistically significant, R^2 values were very small (0.13 and 0.15 respectively). While

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there is initial support for the proposed model, additional work needs to be done to improve the quality of indicators and reconceptualize the role of personal values in relation to professional values.

Factor indicator scores were computed for each latent variable, and differences by demographic characteristics were tested. Factor indicator scores were tested across Gender, Religious Participation, Race, SES, Sexual Orientation, School Affiliation, Enrollment Status, and Age. Only two differences were detected. First, students who characterized their religious participation as "frequent" had, on average, higher indicator scores on "Values" than students who characterized their religious participation as "none/limited." Second, Advanced Standing students were, on average, less likely than Concentration or Foundation students to endorse "Domain" motivation as a reason for entering a MSW program. Further interpretation of these results is addressed in the mixed-methods results section, and the implications and future directions for continued study are identified in the next chapter.

<div align="center">Section Three: Qualitative Results</div>

Component three of the study was a grounded theory approach to understanding how students make the decision to enter into a MSW program and how they make sense of their experiences in the program. The following research questions served as a framework for this exploration:

- What factors influence students' decisions to pursue a MSW degree?

- How do students make sense of the professional values of social work as stated in the NASW *Code of Ethics* (1999)?

- How do students negotiate and integrate the relationship between personal and professional values?

- How does the educational process influence the development and integration of a professional identity?

- How do students integrate their personal and professional identities?

To answer these questions, the following analytic strategy was carried out:

- Individual interviews were conducted with 20 students currently enrolled in the University of Denver, Graduate School of Social Work MSW program;

- Data collection began with a series of unstructured interviews and progressed into more structured interviews;

- Interviews were coded on a line-by-line basis through the process of open coding, which allowed for the development of initial categories related to constructs embedded in the identified research questions; QSR NVIVO 8.0.2 (2008) software was used to facilitate the process of coding and manage the data;

- Axial coding was used to identify and develop patterns of meaning across interviewees' experiences;

- Emergent themes were explored and interpreted;

- Validation of data and results.

Conceptual Framework

Although the grounded theory approach is used to delineate emergent theory, a conceptual framework based on Wenger et al.'s (2002) work was used to anchor the initial stages of exploration. Wenger et al.'s work identified three reasons why

individuals are motivated to enter into a CoP, defined here as enrolling in a MSW program. The three types of motivation identified by Wenger et al. are "Domain" motivation, "Community" motivation, and "Practice" motivation. Some individuals are motivated to participate because they care about the *domain* and are interested in its development. Some individuals are motivated to participate because they value having a *community* and interacting and sharing with others. The *community* aspect also incorporates participation motivated by an individual's desire to make a contribution in a setting where it will be appreciated. Finally, some individuals are motivated by a desire to learn about the *practice* as a means of improving their own techniques and approaches.

While Wenger et al. (2002) provided some discussion of their framework, they did not delineate how this framework was developed or provide a thorough discussion of the underlying processes by which these different types of motivations come to be. Archer's (2000) work can be used to conceptualize motivation to enter a MSW program as commitment to action based on one's personal beliefs and values. Within this context, a portion of the analysis was attuned to these concepts, but they were not assumed to be comprehensive in their explanation of the complex process of deciding to enroll in a MSW program, nor where they positioned as reified categories of motivation. The analysis of the data yielded support for both Wenger et al.'s and Archer's frameworks, as well as identifying additional types of motivation.

Themes

Core themes that emerged from the analysis of the data were classified and interpreted in the following areas:

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- Motivations for entering a MSW program;

- Impact of learning on value systems;

- Integration of personal and professional identities;

- Cultural contextualization.

Motivations for Entering a MSW Program

Support for Wenger et al.'s (2002) motivations for entering a CoP was found within the data, as was support for Archer's (2000) beliefs about how the commitment to social action is influenced by personal identity and internal values. However, other motivating factors were also discovered. In addition to specific types of motivation, a core source of motivation was found in the experiences of participants. Within the broad theme of "Motivations for entering a MSW program", the following categories were identified:

- Desire to help others;

- Profession legitimacy;

- Value congruity;

- The practicality of the MSW degree.

Desire to Help Others

Every single participant identified their desire to help others and make a positive contribution to society as the fundamental reason they chose to enter the program. As one participant explained "the ability to help people and the desire to help people overrides all other things." This sentiment was also expressed by another participant who stated, "What I'd like to do now is be able to give my time and have a new more personally

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rewarding career, and…make a difference or help people qualitatively through their life. That's the goal, where I'm at now". These responses support Archer's (2002) idea that "doing" develops out of "being". That is, students chose to act by entering the MSW program as a way of expressing their conceptualization of self through creation of a social identity that reflected their internal identity. While this source of motivation was expressed by all participants, its specific relationship to graduate school and social work varied among students.

The desire to help others seemed to stem from multiple sources. Some students identified specific events that shaped their desire to help others. These events seem to have crystallized more abstract and undefined feelings of wanting to, as one older participant described it, "do something important, do something good". For example, one of the older participants decided to return to school after several years running her own business. In the two years prior she had been in counseling for help dealing with a severe bout of depression. As her depression eased and eventually receded, she began thinking more and more about how significantly the event had changed her life, and in particular, how grateful she was to her therapist. As she described it, "I needed to give something back…to repay what I had been given", and this led to her decision to return to school.

One student recounted a story in which her younger sister became pregnant at the age of 12 through a relationship with a teacher at her school. A lot of the media attention focused on the "consensual" nature of the relationship even though there was a 20 year difference between her sister and the teacher, not to mention the issues of power and

authority. "Being outraged by the community's response, just being really angry about that…that's what motivated me to get involved with the field."

Another student described how her interactions with a hospice worker caring for her mother redefined her life.

> We had this amazing hospice nurse; it really did something to me. That experience of having that nurse had a huge impact on me, on my family… Her presence, just seeing her drive up in the driveway was huge. I walked away from that thinking 'I want to do hospice; how do I do that?' I don't want to be a nurse; I like psychology, therapy, the helping professions; that means I need to be a social worker, I need a MSW if I want to do hospice and be in the field. It was kind of backward. I wasn't 'I want to be a social worker and do hospice.' It was 'I want to do hospice, how do I do that? I do that by getting a MSW.'

For some students the desire to help others arose out of beliefs and values rooted in religious traditions. One young student, who was a Mormon, described her feelings this way,

> When I was at [school] I took an intro to social work class, what my teacher said is that 'social work is professional Christianity'. We believe in helping others and all of those things, in helping people's lives. And so for me it's always been a very connected issue. I've always felt that it was. And you want to do good things and help people. I think that's a unique part of us that we want to do those things. Also it's a religious part of what I believe; serving others, giving, trying and helping those who are less fortunate or whatever you want to call it.

This sentiment was echoed in the words of a young Jewish woman who said,

> [In Judaism] there is this concept that the world is, is, the idea that the world was shattered, and putting it back together piece by piece by doing good deeds. It's just this idea that my role in the world as a Jew, to be a good Jew, there's this other idea that goes along with it, 'justice you shall pursue.' These are all thing I learned a long time ago. I heard them several times or seen them; they're just everywhere. So this was a main concept I was taught in my summer camp; 'this too is the focus. What is your role in the world? How do you interact with the world? Your role in the world is to do good and help others'.

For some students, the desire to help others developed out of beliefs and values instilled in them by their families. One student described the impact her parents had on her beliefs surrounding equality and justice as,

> I think both my parents are amazing people and value the same things. They just taught us that. Life is about people and not just about material success, but about relationships with other people; that you gotta do your best to help other people.

As presented here, personal values played an important role in participants' desire to help others and make a positive contribution to society. However, when participants explained the link between their personal values and their desire to help others, this was outside of the context of social work and social work education. The impact of social work values and the intersection of those professional values with students' personal values are discussed in a separate section.

Professional Legitimacy

While the desire to help others was clearly important to all participants, it did not, in and of itself, explain the decision to pursue a graduate degree. Most students made a connection between needing a graduate degree to "legitimately" engage in the practice of helping others. As one participant explained, "the social workers in the hospice all had MSWs. I didn't see where a BSW would fit, not that I had one, but that I needed a Master's degree". One participant stated, "I felt getting a MSW would open up a lot of avenues to what I want to do, to working with families and doing therapy, which you definitely need a higher degree for". When probed further about why a graduate degree was needed to help others, several students suggested that a graduate degree wasn't "necessary" but was instead "a way to progress higher up in the jobs I was getting, not

terribly well paid, but I was getting paid. The things I was allowed to do in those jobs. So I really did see it as a way to move forward in the field".

As stated by one participant "Right now I want to do social work, and I knew I had to get my MSW to anything, to do anything substantial", a thought echoed in the response that, "I definitely think people do social work jobs without having a MSW. People are passionate and very well experienced; it gives me more liberty to go out and work and with employers, its meaningful to them". These responses suggest that a graduate degree isn't required to help others, but instead legitimizes students' capacity and ability to help others within a professional context. Within CoP theory, individuals enter a "learning trajectory" which leads them to "legitimate participation" in the CoP. Consistent with Wenger's (1998) earlier work, the MSW program, and arguably any professional graduate program, is a "learning trajectory" through which participants acquire the requisite skills and knowledge to achieve legitimate and full participation.

Within the context of professional legitimacy, there was a focus on acquiring the skills and knowledge to practice competently. Participants acknowledged that there are many ways and venues for helping others, but also shared the view that to help others in a professional capacity required an advanced level of knowledge and skill. As one of the first participants explained,

> in the domestic violence shelter, no one had their MSW degree, but I didn't think of them as social workers; I just thought of them as really cool activists. Their level of consciousness, really wanting to work with clients, meeting them where they are at, but I didn't really think of them as social workers. There's something about social work, the education, the degree, the research, all the different theories; so, the piece about the knowledge, the skills.

These results support Wenger et al.'s (2002) idea that one type of motivation for entering a CoP then is to acquire the knowledge and skills needed to engage in the practice and move from peripheral or non-participation to legitimate full participation.

A second participant spoke at length about how an experience with another social worker and other professionals in her agency left her feeling like she "didn't have a voice."

> Even though I tried to talk to the social worker, she didn't listen; the police didn't listen; I didn't feel like I had a voice. So, I came to DU to get a voice…Going through that experience was a new thing for me; going through that suspected child abuse was a new experience for me because in that job I was used to calling some of the shots when I felt something needed to be rectified, but I wasn't able to call the shots in that situation… I wanted to get some credentials. I felt that if I had some credentials with the social worker who came out to work on the case, I would have been heard.

Value Congruity

In addition to the desire to help others and the desire to have professional legitimacy as established through the acquisition of a graduate-level degree, participants were also asked to talk about what motivated them to choose a Master's degree in social work over other similar disciplines. The overwhelming response was that social work values were more in line with the individual's personal values. One student, who described her career goal as clinical practice, described her decision as "applying to a MSW program as opposed to a counseling program [because] issues of multiculturalisms within oppressed populations was really meaningful to me; that's sort of the reason I went with the MSW instead of the counseling piece."

When questioned about the intersection of personal and professional values, most students felt strongly that it was important for there to be congruity between the two, and

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that the congruity between their personal values and the values of social work was a key

factor in their decision to enter a MSW program. "What I didn't like about psychology is

that it didn't have the systems approach, the social work values that really drew me,

justice, meeting people where they're at." The three things that students kept identifying

as the main draw of social work over psychology was the systems approach, emphasis on

social justice, and emphasis on multiculturalism.

> I did a lot of research in psychology, sociology, and part of me was like 'no, not social work; who would ever want to do social work as a degree; that's silly.' What I found was that social work has an emphasis on social justice that's an intentional part…when you're looking at schools they tell you that's a large part of what they focus on, and psychology not so much.

Practicality of the MSW Degree

While most students identified the symbolic meaning of the MSW degree as their

motivation to choose a social work program over other disciplines, a core group of

respondents identified the practicality of the degree as their motivation to choose a social

work program over other disciplines. Practicality manifested in two ways. First,

practicality was endorsed as the broader range of professional opportunities afforded by

the MSW degree versus graduate degrees in similar disciplines such as counseling

psychology, school psychology, and clinical psychology. Two students spoke directly to

this idea. One student stated, "this kind of degree is useful in the sense that it is flexible

and you can just go so many different ways in the profession. I felt that if I got bored or

tired, I could make a shift and do something else; that was possible". The other expressed

a similar idea when she said, "I looked into professional counseling, but social work is so

broad and you can do so much. I could have my pick of jobs. It's wonderful because it allows so much flexibility".

Practicality was also endorsed as the amount of resources (time, effort, and cost) needed to obtain the MSW degree in comparison to graduate degrees in similar disciplines. The MSW program lasts two years for a full-time student entering with a non-BSW Bachelor's degree, and slightly more than one year for full-time students entering with a BSW degree ("Advanced Standing"). Most students who invoked this type of practicality as a motivating factor were in the clinical track of the program and expressed career goals based on private, clinical practice. One of the older participants described it this way,

> I researched a lot what would be the best career in the quickest amount of time to get professionally credentialed, whether it is a Master's or professional license, that would allow me to move into the field that would provide those goals for me. In doing my research I found, and also because of the adaptability in the field, would give me the flexibility. So that's where I am today.

Similarly, one of the young women in the program stated,

> I had to ask myself, 'would I rather spend two years in school than five when I can do the same job?' I don't like testing, which is the main difference between a psychologist and a social worker. If that's the main difference, I'd rather do it in two years, and that's how I got here.

For these two women, the ability to complete a graduate program, have flexibility in job opportunities, and meet career goals, all within a two year span, was an important motivating factor. The decision to enter the program was based in part on pragmatics and not inherent qualities of the social work profession. This idea is summed up nicely by one student's response, "it fit in my life, it was quick enough, its paid for; it just fit".

Delineating the Theory – Step One

Each theme is an integral part of the overall theory relating the constructs motivations, value congruity, and identity management. Glaser and Strauss (1967) described "delineating the theory" as a process of solidifying the emerging theory and reducing categories and their properties to the most parsimonious level possible. As each theme was explored, a conceptual model relating the categories for that theme was developed. Following Miles and Huberman's (1994) recommendation, a network display format was created to illustrate the initial conceptual framework relating the four categories developed within the theme *Motivations for Entering a MSW Program* (Figure 4.10). "Desire to help others" seemed to form the basis of students' decisions to enroll in a MSW program, and there were several ways in which this goal developed. For some students it grew out of religious beliefs and tradition, while for others it was based on values instilled in them by their families; other students described specific experiences that shaped and defined what they wanted to accomplish in their lives. In line with this desire to help others was an awareness that the social work profession was a way to express and act on this goal. Two additional motivating factors were the professional legitimacy afforded by a graduate degree and the practicality of obtaining a MSW versus a Master's degree in a similar profession.
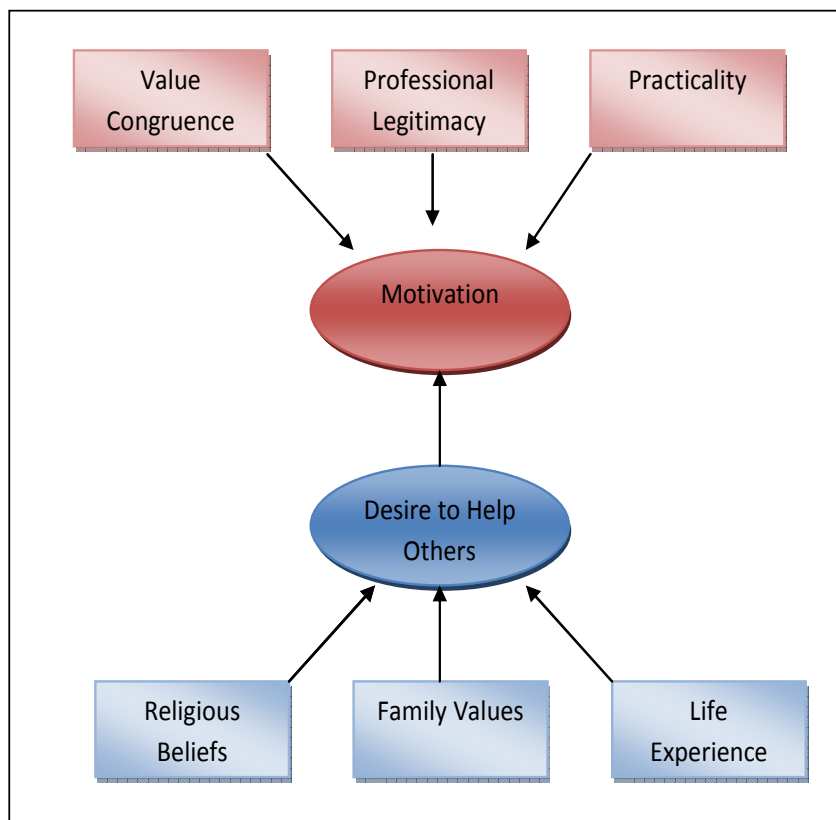
Figure 4.10

Motivations for Entering a MSW Program

Impact of Learning on Value Systems

Black et al. (1998) argue that one purpose of social work education is to

"socialize" students to the profession's value system; exposure to the professions' value

system is believed to "influence" students' values to be more in line with those detailed

in the NASW *Code of Ethics* (p. 166). The purpose of the qualitative portion of the study

was not to evaluate students' value congruity on the basis of some external criteria, but to

instead understand how students experience the intersection between personal and

professional values within the educational process. Students were asked about their

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personal values and whether or not they had ever experienced incongruity or conflict between their personal values and what they were being taught. Most students reported at least one incident where they felt conflicted between their personal values and what they were experiencing in the program, and they were asked to describe how they dealt with those feelings. Students were also asked to talk about what, if any, changes they have experienced in their own value systems as they have progressed through the program. Within the broad theme of "Impacting of Learning on Value Systems", the following categories were identified:

- Impact of MSW education on value systems;

- Value incongruity;

- Negotiating value conflicts.

Impact of MSW Education on Value Systems

Learning about the values of the social work profession is a key component of social work education. As students entered and progressed through the program, their exposure to social work values impacted both their personal value systems and their understanding and interpretation of professional values. For many students the educational process reaffirmed their personal values and strengthened their commitment to professional social work values. For some students the educational process challenged them and resulted in the desire to more fully incorporate professional values into their personal life. A third way the program impacted value systems was to reveal value incongruity.

As discussed above, many students were motivated to enter the MSW program because they believed there was value congruity between their personal values and the values of the profession. These students generally reported satisfaction that this belief was realized in the program. One student described this realization as,

> I always felt like it was a perfect fit for me. I ended up right where I wanted to be, where I should be. I haven't been struggling how to integrate the values or how to accept the *Code of Ethics.* I feel like that was not a struggle for me at all.

Students still felt that the program impacted their value systems, even if there was a high degree of congruity to begin with. For this student, the close alignment of personal and professional values challenged her to explore her beliefs even more deeply:

> In one sense I feel like this program has been a 2 year personal therapy because it's really been about looking at myself and the ways that even I perpetuate racism without even knowing it. In another sense I don't feel like I've had to shift my world view; if anything, my world view was broadened, yeah, and strengthened and reinforced at some core level.

Another student described the impact of the program as "I don't know if it's so much of a personal value as it's sort of an action. I feel more prone to speak out, especially with oppressive remarks in my family. Can't take it, can't leave the room. Values haven't changed specifically." For this student it seemed that her experience of herself in terms of "being" had not changed, but the relationship between "being" and "doing" was impacted. The values stayed the same, but the desire to act on those values was increased. One of the older students beautifully expressed the impact of the program on her as, "the program has made me a better me."

A few students reported entering the program without any foreknowledge of the value base of the profession, meaning that their motivation wasn't based on perceived

value congruity. All of these students realized as they learned more about the value base of the profession that there was congruity between personal and professional values. "I wasn't aware of the social work *Code of Ethics*, but I found out that I had been practicing them, but I didn't know they had a label on them. So I found validation in that." Because value congruity wasn't a motivating factor to enter the program, the discovery of it had a powerful and positive impact on these students. A student, who entered a MSW program based on practicality, "I'd be able to do some sort of clinical therapy and I wouldn't have to go to school for ever before I could do [that]", described his realization that social work values were not only different than the clinical psychology field he had been oriented towards, but were embedded in a community-oriented framework were he "could help so many more people". "I was so inspired by that, and I was like, 'okay, I've found what I want to do…If I would have been on to become a psychologist I would probably been really unhappy."

This experience was shared by the researcher, who entered a MSW program after dropping out of a Master's program in clinical psychology. Practicality was my initial motivator; my work was offering partial tuition reimbursement for a MSW program, and I thought this would be a good way to complete a graduate degree. Before I had completed my quarter I realized that I had found "my place". I felt that social work values were an external manifestation of everything I believed in, and even though I had little prior knowledge about social work as a profession, I quickly found myself identifying with the profession and the ideals it represented.

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A small group of students shared experiences in which they felt their MSW education was challenging them to reevaluate and build on the personal values they came into the program with. An older student described it this way:

> I have even been able to embrace certain things that I would not have, it's not, not embracing, but I wouldn't have even thought about it in that way. I love the fact that I have become more open to seeing things through a different lens, because a lot of times we get tunnel vision, and all we see is what we see. My views have even changed in a lot of areas. Maybe years back I would not have felt that transracial adoptions would have worked, but now I'm very open to transracial adoptions.

Other student felt they needed to more fully incorporate social work values into their day-to-day life. These students perceived strong congruity between personal and professional value systems but were struggling to enact some professional values in their personal life. One student shared her difficulty incorporating the value of social justice into her personal life:

> I'm not good at standing up. I come from a family with verbal, racist, homophobes, so in my personal life, not so good at that; it's exhausting. Definitely there's some disconnect there because I choose not to struggle, to personally struggle, that will never go away.

A second student described her feelings that meeting the high standards of professional behavior was an ongoing source of personal reflection and required a continuing commitment to grow and improve.

> Integrity is, was a struggle for me for most of my life. I knew who I was but I wasn't true to myself, which I think is a big part of integrity. I can't be a social worker without that. I have to always, even when its difficulty, be honest and speak truth. If I screw up, I screw up, and I have to own that. I can still feel that internal struggle, that desire to be…to be not always speak my truth. I struggle with that, but I'm still growing and learning to be comfortable in my own shoes.

Students also encountered circumstances where they perceived value incongruity. Value incongruity developed out of a variety of situations, and it expressed itself in multiple ways. Value incongruity is discussed in the next section.

Value Incongruity

As students entered and progressed through the MSW program, there were times when something they heard, read, or learned did not match with their personal values and/or their interpretation of social work values. For some students this incongruity arose when something happened within the program that they felt was in violation of social work values. In these instances the conflict did not exist between the student's values and social work values, but instead between the student's perception of social work values and what was happening in the program. One student recounted an incident that left her feeling "angry…confused…upset". One of the topics discussed in her multiculturalism class was ageism and society's treatment of older adults and the elderly. As part of a class the professor showed a video about older adults, but the video was ended early because other students complained that it was "boring" and "dull". The participant described her perception of other students' attitudes as "we freaking hate old people; they're slow", and feeling that students like that should be expelled if they didn't "get it [their own bias]".

A second student recalled an incident from her multiculturalism class where the professor made the statement "people of color can't be racist." "I really struggled with that. I tried to sit with it, to sit in it, but it didn't feel right to me; it didn't fit." She described trying "to hear it as a social worker, and I want to be the best social worker that I can be, but I don't think I buy that". As she worked to give words to the meaning of the

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experience, she came to the conclusion that the disconnect was between her values and her perception of the professor's values; "I felt like it was [the professor's] value…and I was disappointed."

A different type of conflict arose when a student felt there was incongruity between personal values and the values of the profession as they were being taught in classes. One student had been actively recruited for the study because the researcher knew her from a previous class and was aware of her religious views towards "homosexuals". The researcher is a gay man who is "out" professionally, and when appropriate, that information is shared in class. This participant was aware that the researcher was gay, and despite obvious conflict between us, we have managed to establish a working relationship based on trust, honesty, and being mindful of each other's beliefs. Both the researcher and the student saw this as a unique opportunity to explore this area. For this student, the conflict arose because,

> In multicultural [class], you [the researcher] brought up a thought a couple of times, and it didn't sit well with me because the way you presented is like it was fact, and I very much don't believe in that. I don't believe that homosexuality is natural.

Based on her religious beliefs, she could not support issues such as same-sex marriage or adoption by same-sex partners. She described the experience of being in conflict as "difficult because sometimes I think it's best to not be obvious by saying things. At the same time it's hard because I don't want anyone to think I believe those things, so it's an internal struggle".

As exemplified in these three stories, it was not uncommon for students to encounter value incongruity at some point during their educational program. For some

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the incongruity existed between their interpretation of social work values and what they saw happening in the program, while for others it existed between their personal values and what they were being taught regarding social work values. When students encountered value conflicts, they employed a variety of strategies to negotiate the incongruity.

Negotiating Value Conflicts

Students employed a variety of strategies for negotiating value conflicts. Students reported "resolving" the conflict in terms of progressing beyond the conflict, although this resolution did not necessarily mean that the conflict was gone. One strategy for negotiating the conflict was selective endorsement of social work values and compartmentalization of conflict. In this instance, the student would differentiate between circumstances when he or she could endorse a specific social work value and when he or she could not. When faced with value incongruity, the student chose to close that path off and not deal with it. For example

> I feel like I'm here to get my education and do the best I can, and I'll find the right fit for me when I'm all done. Do you know what I mean? There are some areas of social work that I won't go into because it's not a good fit for me according to my beliefs.

This type of conflict seemed to arise when the student felt what they were learning about social work values were incongruent with their religious teaching and beliefs. As one student asked me, "If you're beliefs match, that's good, but if they don't, who's to say you can't be a social worker".

A second strategy for negotiating value conflicts was to try and remove the conflict by integrating the different value positions into a congruent whole. Usually this

strategy resulted in the student acknowledging that the conflict could not be removed. If the conflict could not be solved, the student moved forward with the issue set aside. For example, when faced with an incident from her multiculturalism class where the professor made the statement "people of color can't be racist", a student "really struggled with that. I tried to sit with it, to sit in it, but it didn't feel right to me; it didn't fit." She described trying "to hear it as a social worker, and I want to be the best social worker that I can be, but I don't think I buy that". The difference between this strategy and the previous one is that in the second strategy the student acknowledged the conflict, attempted to resolve it by integrating it or rejecting it; either way the issue is dealt with.

A third strategy for negotiating value conflicts was to see the conflict as external to the student. In this situation the student experienced conflict but not because of incongruity within themselves; instead, the student perceived conflict between social work values and the behavior and/or attitudes of others. Dealing with this type of conflict involved reaffirming the student's belief that his or her values were congruent with social work and that any incongruity existed with others. In some instances the student sought to resolve the perceived conflict by educating others about the perceived incongruity between their behaviors and/or attitudes and social work values, while in other instances the student simply discounted the other people. The student in the story recounted above regarding the multicultural class on ageism explained her approach as "confrontational" and being willing to "call them on their stuff"; "if they don't get it [power and privilege], they shouldn't be here". Labeled "authenticity" here, other students also questioned the

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appropriateness of students who they felt were in violation of social work values. One

respondent said,

> I really don't think we should be allowed to practice social work without having
> at least some strive for social justice. That's the main component of all the ethics;
> to not believe in that at all is just the opposite. That people think that's okay is
> weird to me… I don't want to have the same degree as that person.

Just as social work educators are struggling to address issues of value incongruity, so do

students, in their way, try to deal with these issues.

> I hear whispers, like say people saying 'this person is homophobic and they're in
> a social work program.' Or, 'they're not attuned their own privilege.' We have
> conversations like that…, and I wonder whether it's a matter of not knowing or
> understanding your own privilege and identity or if you don't hold those values.

Delineating the Theory – Step Two

The intersection of personal and professional values formed a core area of

exploration in this study. Participants were asked to describe how these two value

systems intersected in their lives, how they managed these two value systems, and the

impact of the program on these value systems. One of the benefits of using a network

data display model is that it allows for the presentation of multiple data within a concise

framework (Miles & Huberman, 1994). Figure 4.11 provides a conceptual model of the

impact of learning on personal and professional values, and links it to the model of

motivation. Students shared that "learning" formed space in which personal and

professional values intersected, and that "learning" impacted value systems in a variety of

ways. When students found congruity between personal and professional values, their

decision to enter the program was affirmed. When students encountered incongruity, they

employed an array of strategies for navigating the conflict.

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Some students chose to resolve value conflict by not dealing with it; a key example of this was selectively interpreting and/or applying professional values in their work in a manner which maintained commitment to personal values. Some students chose to resolve value conflict by actively dealing with the conflict and trying to achieve integration between personal and professional values. A third strategy was to externalize the conflict and thereby maintain an internal sense of personal and professional value congruity. Conflicts of this type were resolved by educating others about the conflict or discounting them.
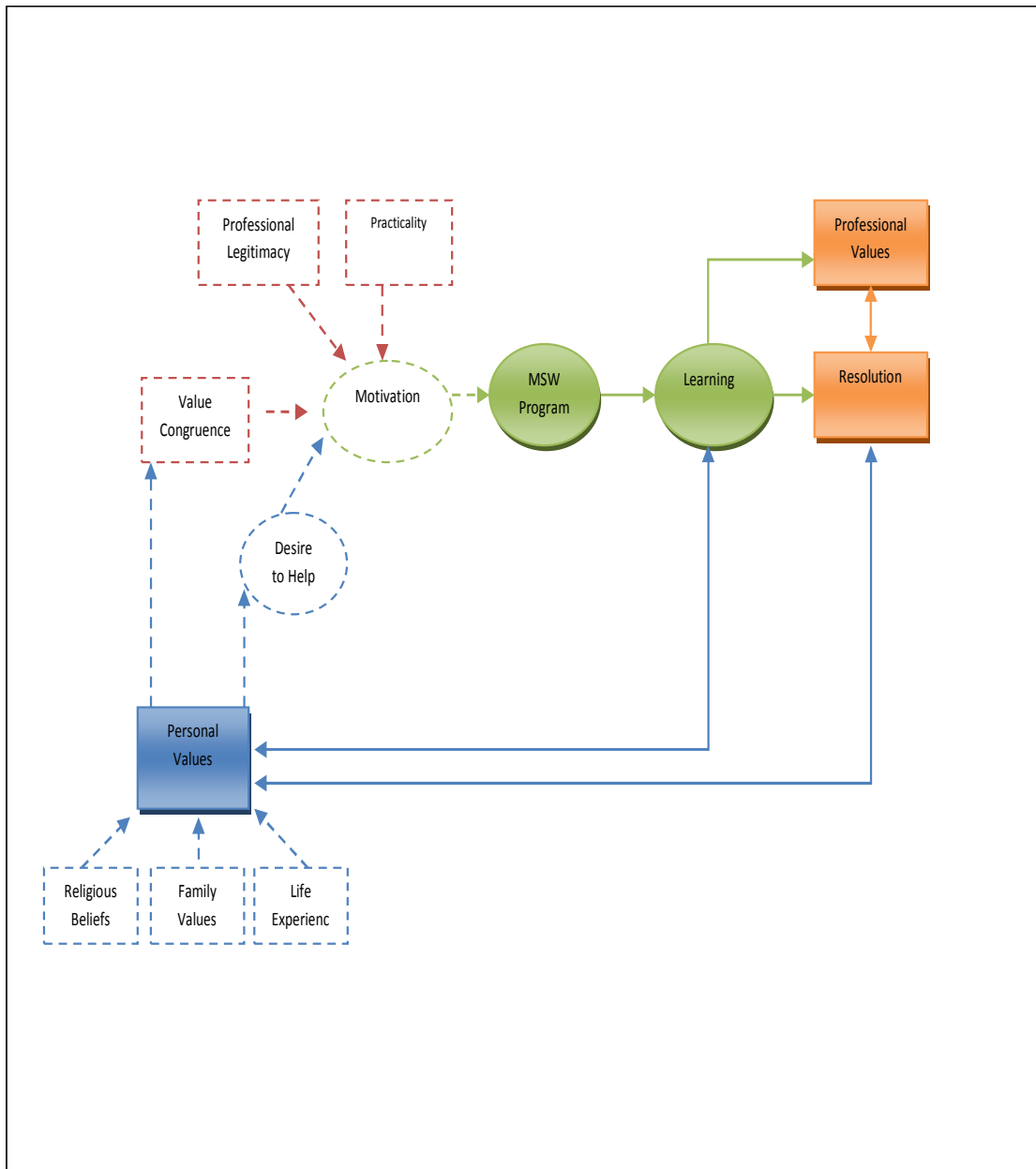
Figure 4.11

Impact of Learning on Value Systems

Integration of Personal and Professional Identities

    Both Archer (2000) and Wenger et al. (2002) address the notion of identity

integration in their works. From a critical realist perspective, Archer (2000) suggests the

primacy of personal identity, and that the choice to commit to a social (i.e., professional) identity is made within the context of the individual's personal values. Alternatively, Wenger et al. suggest that social (i.e., professional) identity develops through the process of becoming a part of a CoP. The idea of identity as both a personal construct and a professional construct was explored with students. Participants were asked to describe what these constructs meant to them and how they made sense of them in their own lives. The question "Are you a social worker?" was used to initiate a discussion about how integration occurs and is expressed.

Participants were asked to describe how they integrated their personal and professional identities. Several students said that they hadn't really thought about it before, and they were encouraged to do so during the interview. "I hadn't really thought of it as two separate things; I don't know. I guess they're the same, but maybe not." A variety of responses were received to the question "Are you a social worker?", and these responses reveal glimpses of a multifaceted process of identity integration.

First, identity integration can yield multiple outcomes. "Integration" can be defined as the result of forming, coordinating, or blending into a functional or unified whole (Merriam-Webster, n.d.). One observed outcome was students adopting the label "social worker" to describe their professional selves; this outcome is label "integrated". The second observed outcome was students not adopting the label "social worker" to describe their professional selves; this outcome is labeled "non-integrated". The third observed outcome was students who felt they were in the process of acquiring a professional social work identity; this outcome was labeled "evolving".

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The concept of an integrated identity seemed pretty consistent for those students who fell into that category. For these students, it seemed that the professional label "fit" their self-conception of who they are *and* what they do. The idea of an integrated identity was expressed in an older student's description of herself; "you know, in my spirit I think I've always been a social worker; I just didn't have a name for it". For her, the professional label "social worker" was a social expression of her internal self. Similarly, one student stated "it's not only the education that I can call myself a social worker, but that I'm very aligned with the ethics of social work". Another student described how the educational process allowed her to become a social worker.

> I've never really considered myself a social worker before I came to school here. I mean I can do social work, but am I a social worker? Helping people, changing communities, whatever. You can do that without having a social work degree. But going through the process of learning about social work and learning what all the other things are about, then I would identify, yes, this is a part of me.

A final student described the intersection of personal and professional selves as "I'm a social worker whether I'm at work or at home."

The non-integrated identity outcome seemed to arise out of a variety of situations, but in each case the student was making a conscious decision to not adopt the "social worker" label. Some students believed that the title was counterproductive to the work they wanted to do, and therefore not helpful in terms of a professional identity. The student, a young Latina woman, described it this way:

> Eventually I won't call myself a social worker, but I'll always know I come from a social worker value system. I don't think in my community, when I tell people I'm a social worker, they don't get it. They think of those bastards at the welfare office. I don't tie my name to that in my community… In my community it's not something people will understand or see that way because they think of those people who have treated them like crap… If people understood the connection

between activism and social work, then I would call myself a social worker; but I feel like I have to adapt anywhere I go.

A similar example shows the non-integrated identity outcome being chosen because the student did not believe the title adequately described his sense of self or his practice. This type of outcome was expressed in the story of a young, advanced standing, male student.

> I have a hard time saying I'm a social worker. I don't know what that's about, I really don't. Sometimes I say I work with kids with substance abuse issues and leave it at that. I really have a hard time, on the flip side of that, labeling myself as 'this is who I am' because of my profession. I just don't like people saying 'I'm this' or 'I'm that'. I don't ever want to be tagged as just being a social worker. 'I am this because I went to school for that.'

This choice to not adopt the social worker title seemed related to his own conceptualization of what it means to be a social worker. He framed it concisely when he said, "I came to this because of who I am…[but] social work is what I do, not who I am".

A third student expressed this non-integration by also distinguishing between his personal self and his professional self. "I would say by profession I am a social worker. My training and degree will show that I'm a social worker, but I feel like I'm so much more than that." For him, "social work" was just a name that applied to the things he cared about and believed in; the title wasn't in and of itself relevant.

> I think even if I wasn't in social work as a profession, I would still care about social justice and equality, and I would just do it in another realm. So it has helped me to see that more and figure out ways to do it. But I would say no, this is who I am as a person, this is what I believe in. For my own knowledge, I don't think it's been that integration of social work professionally that really matters to me on a personal level.

The evolving identity outcome was an option chosen by students who felt they could not integrate their personal and professional identities at the moment. This outcome

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appeared in two situations. The first situation involved students who felt they could not

"claim" the professional identity until they completed their degree. In this sense,

graduation represented, to use Wenger's (1998) terminology, a shift from legitimate

peripheral participation to full participation. A foundation year described her feelings this

way:

> There is a guiding set of standards that I don't have yet. I think that I'm still in the
> process of coming to know myself as a social worker and learning a lot about
> things that sit with me or don't sit with me. I don't feel like I'm ready to be out in
> the world as a social worker. I feel like I still have a lot of training. The training is
> part of my MSW, so hopefully in a year I'll feel ready.

For other students the integration of evolving identities was separated into internal

integration and external integration. Another foundation student expressed her evolving

integration experience this way:

> Am I a social worker? In terms of values, yes; in terms of degree, no, not yet. So
> judging from my beliefs about the value of relationships, integrity, competence,
> multicultural issues, advocating for oppressed populations, as being the central
> values being really important to me? Yes. In terms of 'I have a lot of experience
> in the field. I have a MSW.' Not yet.

The second situation involved a student who did not feel capable of maintaining both

identities at the present time. When asked if she considered herself a social worker, she

responded,

> Sometimes I feel like I am; sometimes I feel like I'm not. I want to become one
> but I don't feel like I'm there yet personally or professionally. When I reach a
> point personally where it's doable, when I can do my personal life and
> professional life at the same time, when I can keep all those balls up in the air at
> the same time, then yes; right now I can't.

A separate student expressed a very similar thought by saying that she needed to focus on

herself first; "[I need to be] more conscious about my role, both in myself as well as

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externally. If I want to be doing [social work] from a good place, I need to do it here first."

The researcher doesn't propose that one outcome is "better" than the other, or that one outcome should be viewed as "success" and the other as "failure". Instead, emphasis should be placed on the dynamic process of identity integration and the agency exercised by students in choosing their own identities. Students who were considered to be "integrated" were nonetheless able to identify circumstances in which they might selectively drop the title "social worker". For example,

> where I work you don't want to tell them you're in that role [social worker] until after you've met with them three or four times. [Clients] automatically think 'social services' and 'you're gonna take my kids away from me'. So I tend not to, until after I met with them several times.

Conversely, students who were considered to be "non-integrated" were willing to use their social work degree in certain circumstances. For example, the young Latina woman described above stated "when I'm here I'm a social worker; when I'm at a job interview I'm a social worker".

Regardless of identity integration status, students expressed commitment to acting in a way that was consistent with their personal values and that was consistent with their interpretation of social work values. However, in instances when they were unable to fully integrate the two identities, their commitment to their personal values took primacy.

> There are certain issues I don't support; if I were told 'you have to support this issue or you'll be cut from social work,' that would be extremely difficult. I would choose my religious belief; that's my foundation. Being a social worker is part of who I am, but it's not my foundation.

Delineating the Theory – Step Three

Exploration of the integration of personal and professional identity was initiated with the question, "are you a social worker?" Although the responses were varied and unique, they generally fell into one of three categories. "Integrated identity" was used to describe situations where students felt a connection between their personal identity and their professional identity and saw social work as a means of acting on important personal beliefs and values. An integrated identity represented more than value congruity, which could be found in students who did not choose the label "social worker"; it was an endorsement of professional identity as a manifestation of personal identity.

"Evolving identity" was used to describe situations where students aspired to the title of "social worker" but did not feel they could legitimately claim it yet. Those who felt the title authenticated their professional identity also felt they needed to have their MSW degree before they could use it. Other students felt that they could not integrate their professional identity until goals in their personal lives had been accomplished, such as being emotionally grounded or more confident in their abilities.

"Non-integrated identity" was used to describe situations where students chose not to adopt the title of "social worker' even though they felt they could if they wanted to. For these students there was dissonance surrounding the professional identity, either between their sense of personal self and professional self, or between their sense of professional self and other people's sense of the professional identity. In either case, while students recognized that the professional identity of "social worker" was available to them, it wasn't applicable.
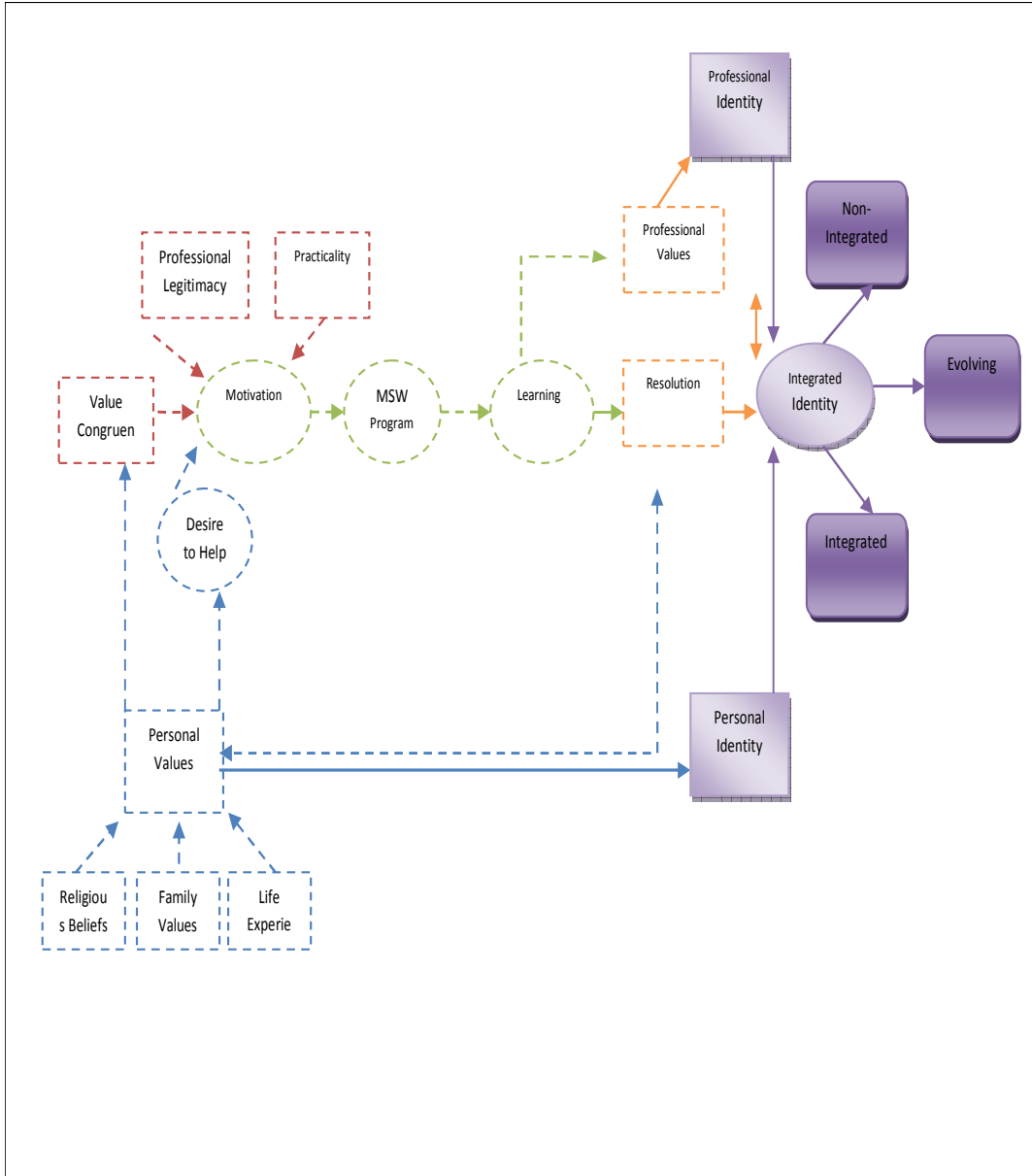
Figure 4.12

Identity Integration Model

Cultural Contextualization

An additional question addressed in this study was how do issues of diversity and cultural identity influence students' experiences of self, others, and the profession. Purposive sampling was used to maximize the presence of diverse cultural identities within the study. Individuals identifying with diverse cultural characteristics of race and ethnicity, sexual orientation, religious affiliation, age, socio-economic status, and gender were all actively recruited to share their stories and experiences. Given the homogenous nature of the student body, which was largely Caucasian, female, and middle-to-upper class, significant effort was put into recruiting individuals with an array of personal characteristics, diverse cultural identities, and different perceptions and perspectives. All students completed a demographic prescreening assessment in which they were asked to self identify in regards to the following characteristics: gender, age, sexual orientation, class standing, religious affiliation, race/ethnicity, and socioeconomic status. Students were encouraged, both explicitly and implicitly, to discuss how these self-defined identities shaped and influenced their motivations for entering the MSW program, their experiences of value incongruence and value conflict, their relationships with peers, faculty, and staff, and the integration of personal and professional identities.

As discussed, the role of religion and religious identity was ever present and contributed deeply to the development and understanding of the theory. However, the influence of other cultural identities, with the exception of age, was less well defined and could not be limited to any specific point along the theoretical path. Instead, culture and cultural identity formed a contextual lens through which students made sense of their

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experiences. Unlike religion, which played important roles in students' decision to pursue a MSW and how they experienced and resolved value incongruity, the influence of other cultural constructs like race, gender, social class, and orientation could not be delineated.

Age, however, seemed to express itself at two specific points along the model path. First, and perhaps unsurprisingly, age seemed to be of importance to older students. The use of "older" didn't equate with a specific number but was instead used by participants to differentiate themselves from the larger group of students who were typically single or partnered without children, under the age of 25, and had less professional experience.

> I get along with a lot of my classmates on the surface, but to sit down and have a decent conversation would never happen. We're just at different places in our lives. Those that are younger want to be out partying every night, and I'm just not at that place.

A few of the older students even felt there were value differences between themselves and the younger students.

> Many of my peers are younger than me, and I sometimes feel that their values are less subtle. Some are becoming social workers as an "easy to get" private counseling degree and are not thinking so much about helping clients or changing the world.

Within this group of self-identified "older" students, there was a smaller group who actually did differentiate themselves from others on the basis of age; for the most part they were in their 40's and 50's, and a favorite saying by students in this smaller and older group was "at my age…".

Older students seemed to place different emphasis on the importance of helping others as a motivator for entering the program. Specifically, these students were all returning to school after careers in other fields, and their desire to help others within a professional context was juxtaposed against the types of jobs they'd had in the past.

> I think being an older person and having a lot of my life already doing achievements and goals, and accomplishments, etc., in some respect, even though those achievements were great, they lacked a lot of inner connection with people that brings a lot of self-satisfaction. I thought what I'd like to do now, is be able to give my time and have a new more rewarding career.

A similar sentiment was expressed by an older student leaving the corporate world.

> It really wasn't that deep sense of reward, of really making a difference on someone else's life, and I don't have children and I think one of the things one likes to think about in older years is that they did make a difference for someone else. That's a personal value that most people hold to.

The other place in the model where age seemed to play a role was in the identity integration stage. Older students fell in the identity-integrated stage while younger students were found in all stages. One woman's story was particularly exemplary:

> You know, in my spirit I think I've always been a social worker; I just didn't have a name for it. As I mentioned, I spent 27 years at [company], so I was done with that type of work. I started in this field because I was bored. I wasn't planning on having another 'job' job. But when I started it really spoke to me. It … brought it full circle, brought it home to me. So, yes, at my spirit I have always been a social worker.

Validation

Creswell (2007) defines "validation" as a "process" to "assess the 'accuracy' of the findings, as best described by the researcher and the participants" (p. 207). There is great variety in not only recommendations for the validation process, but also in the terms and definitions used to describe it. Glaser and Strauss (1967) suggested that the process

of conducting a grounded theory study is, in and of itself, a form of validation, and, to use

their terminology, establishes "credibility". Glaser and Strauss contended that the

credibility of the generated theory should be judged according to the strategies used for

collecting, coding, analyzing and presenting data, and in the way people interpret the

theory.

As outlined in the Method section of Chapter Three, purposive sampling was used

to maximize the diversity of experiences and perspectives in the study, and a systematic

process of collecting data through audio-recording was used. The rigor of the constant-

comparative method of data analysis is designed to correct "inaccuracies" in the data.

Care has been taken to detail each step in the delineation of the theory using participants'

own words to illustrate and support the researcher's interpretations. Both the illustration

of the theory through words and images and the discussion of the researcher's

understanding of the data are provided to aid the reader in judging the credibility of the

data and results for him- or herself. Other methods for establishing credibility include

"member checking", by having participants reflect on the qualitative results. Draft copies

of these results were sent to those participants who were directly quoted, and they were

asked to consider both the context in which their words were used and the meaning and

interpretation given to those words by the researcher

Writing the Theory

Glaser and Strauss (1967) identified "writing the theory" as the next step in a

grounded theory study. According to Glaser and Strauss,

> When the researcher is convinced that his analytic framework forms a systematic
> substantive theory, that it is a reasonably accurate statement of the matters

studied, and that it is couched in a form that others going into the same field could use – then he can publish his results with confidence. (p. 113)

And so here we are.

The intersection of personal and professional values formed a central area of exploration in this study. Studies over the past two decades of the value congruity of MSW students' personal with professional social work values have yielded conflicting results (Abell, & McDonell, 1990; Allen-Meares, 2000; D'Aprix et al., 2004). The adoption of a set of values and their incorporation in practice are definitive of the professional social worker (Clark, 2006), and the impact of value divergence is of fundamental importance to the future of the social work profession. Questions exist about whether or not incongruent personal values interfere with or even prevent the adoption and practice of values that are at the core of professional social work. Black et al. (1998) argue that one purpose of social work education is to "socialize" students to the profession's value system; exposure to the professions' value system is believed to "influence" students' values to be more in line with those detailed in the NASW *Code of Ethics* (p. 166).

The purpose of the qualitative portion of the study was not to evaluate students' value congruity on the basis of some external criteria, but to instead understand how students make sense of the intersection between personal and professional values and how this relates to the development and integration of personal and professional identities. Students were asked to tell their stories of coming to and progressing through the MSW program. Emerging from these stories was a theory that helps relate these different experiences and uncovers a distinct path from students' decision to enter the

program to a place where multiple identities interact in a complex process of integration. Figure 4.13 presents a unified model of motivation, values, and identity integration built on students' experiences and woven together with their words.

A key question in the beginning of the research was what motivated students to pursue a MSW degree, and students identified multiple factors that influenced their decision. First among these factors was a desire to help others, a desire that found its roots in many places. Many students spoke about personal values of giving of themselves, contributing to society, and helping those who are oppressed and marginalized. For some, these values were rooted in religious and spiritual beliefs that emphasized the importance service. Even when students did not invoke religion as a source of personal values, they still spoke of the importance of family and the values they learned from their parents and other important people in their life. Personal experiences also played a role in shaping individuals' desire to help others. Events and experiences, oftentimes painful and challenging, served to focus previously undefined values around justice and equality and make clearer a desire and opportunity to act. Thus students came to a point in their lives where they wanted to act on this desire to help others that was fostered by their personal values.

Given the desire to help others, reasons for choosing a graduate degree program, and more specifically a social work program, were explored. Students readily acknowledged that a graduate degree wasn't "necessary" to help others and identified many different ways this goal was met without a graduate degree. However, the majority of students felt the need for professional legitimacy in order to do the work they wanted

to do in the way they wanted to do it. Professional legitimacy included acquiring the skills and knowledge needed to be a professional, but it also represented competency and accomplishment from the view of society because a graduate degree bestows "credentials" on the successful students.

When asked why they had chosen a graduate degree program in social work, students consistently identified value congruity as an important component in their decision. The perceived congruity between personal values and the values of the profession was a strong draw for most students, but in a very different vein, the practicality of the MSW program was also a strong motivator. In contrast to other professional degrees in the social sciences and helping professions, the MSW program is only two years long, and it is widely accepted as providing the most flexibility in career options, ranging from private clinical practice to community organizing and program management and administration. Students who described themselves as being interested in psychology and seeking a career in counseling still opted for the MSW program because it would help them achieve their goals more quickly than a graduate program in psychology.

According to the Council on Social Work Education (CSWE), the accrediting body for social work education, "the educational experience provides students with the opportunity to be aware of personal values; develop, demonstrate, and promote the values of the profession; and analyze ethical dilemmas and the ways in which these affect practice, services, and clients" (2001, p. 8). As students engaged in the learning process of the MSW program, they were exposed to social work's professional value system and

challenged to understand the relationship between these professional values and their own personal values.

Experiencing conflict or incongruity in regards to professional values was a common occurrence, and it manifested in several ways. Value incongruity existed both internally and externally. Internal value incongruity arose when students learned or were taught an aspect of professional social work values and found it to be in conflict with their personally held beliefs. External value incongruity arose when students perceived attitudes, beliefs, and behaviors in others that they felt violated their interpretation and understanding of social work values.

When confronted with value incongruity, students adopted a range of strategies for resolving the conflict. "Resolution" in this context did not always mean that the conflict went away, but instead that the students found a way of moving forward in spite of the conflict. When confronted with internal value incongruity, some students explored the conflict while others ignored it. Exploring the value incongruity and evaluating whether or not it could or should be integrated into one's personal value system was a challenging task for students, and it often ended with the student concluding that the conflict could not be removed or integrated. An alternative strategy was to ignore the dissonance by judging it to be not applicable. Regardless of whether students chose to explore or ignore internal value incongruity, they adopted a strategy of partitioning or compartmentalizing the conflict in order to move forward in their learning.

External value incongruity most frequently appeared between students. Students spoke about the idea of "fit" and "appropriateness" in the sense that some behaviors,

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attitudes, and beliefs were considered in line with professional social work values, and others were not. External value incongruity arose when students felt their peers were in violation of social work values as they themselves interpreted them. Many students expressed great frustration, and even anger, over these situations. The primary strategy for dealing with these experiences was talking to peers who had been judged "inappropriate" and trying to educate them about the perceived incongruity. If this strategy wasn't successful in resolving the conflict, or if the student decided not to confront his or her peers at all, the offending individuals were considered "inappropriate" and "unfit" for social work and were discounted. Having reached internal resolution of the external conflict, students were able to move forward in their learning.

Another key question of the study was how do students make sense of their multiple identities and how do they integrate their personal and professional identities. Identity integration was conceptualized as congruity between personal and professional selves and commitment to the professional identity "social worker" as a manifestation of one's personal identity. The professional identity of "social worker" was constituted in a variety of ways. For example, professional identity was externally derived through the acquisition of credentials and a graduate degree that legitimately and legally granted the student the right to call themselves a social worker. Professional identity was also internally derived when students labeled themselves as social workers; students supported their claim to the identity on the basis of congruity between personal and professional values and/or on the basis of their practice (professional or otherwise).

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Although all students could, or would be able to eventually, call themselves "social workers" using the criteria they identified, not all students chose to integrate their personal and professional identities. Some students already expressed integrated personal and professional identities and acknowledged that their professional identity and their practice developed out of their personal values and commitment to acting on those values. Some students aspired to the professional identity of social worker but did not feel they were able to claim that identity at present. This evolving identity integration was often the case for students who desired external validation with the degree, but there were also students who felt they weren't ready or weren't able to integrate the two identities until they reached a self-identified goal in their personal lives. A third group of students chose not to endorse the professional identity of "social worker" even though they could based on one or more of the criteria above. These students adopted a non-integrated identity position because they felt the label "social worker" was either inadequate to describe themselves or not appropriate for their intended practice. These different outcomes demonstrate students' agency in adopting or not adopting a professional identity, and emphasize the primacy of the personal self over the professional self.
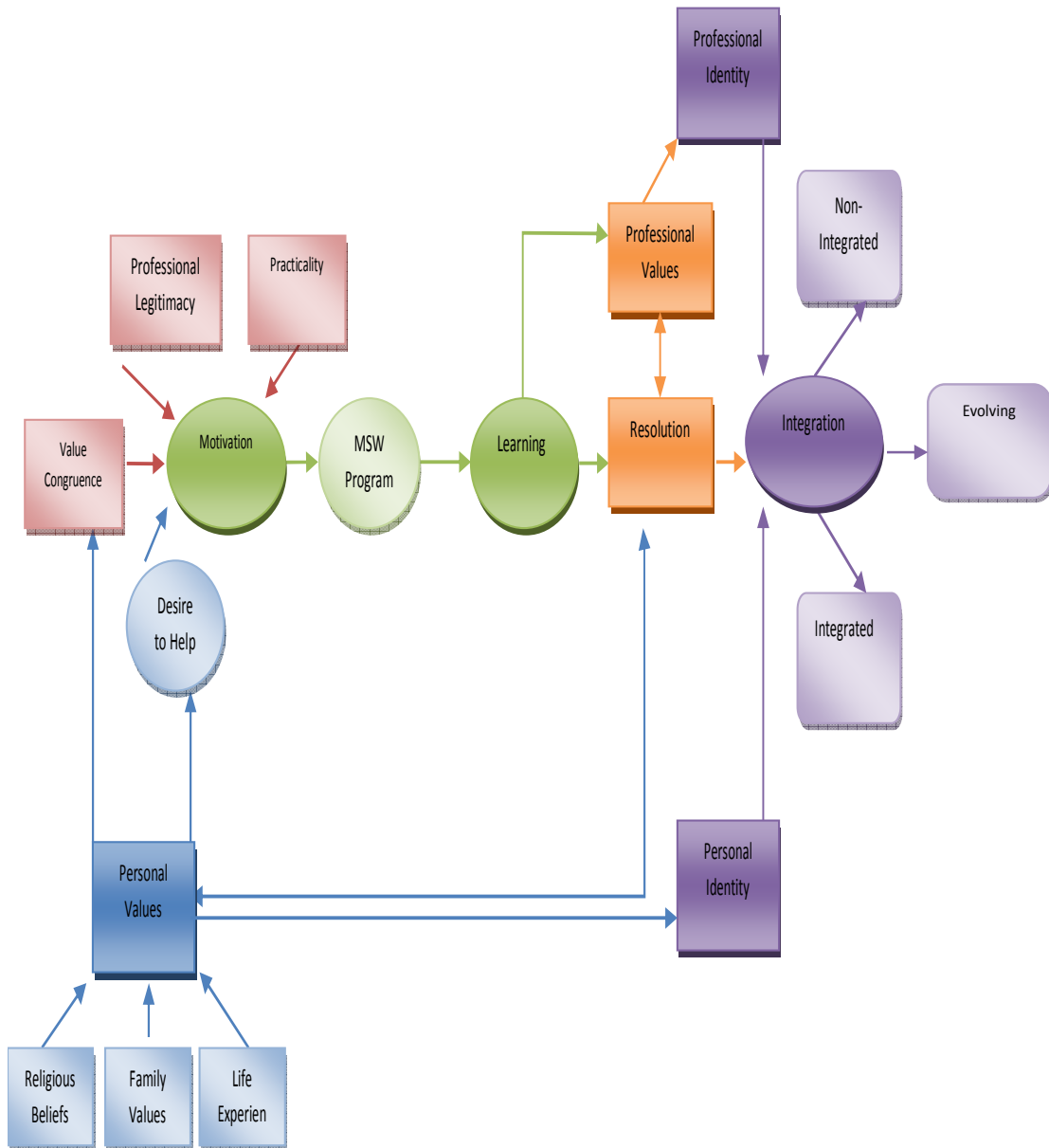
Figure 4.13

Motivation, Values, and Identity Integration Model

Section Four: Mixed Method Analysis and Results

The final section of the results reporting corresponds to the third step in the mixed-methods triangulation design in which the quantitative and qualitative results are compared and contrasted and are interpreted within the context of the other set of results. In this section of the results, the following research questions were addressed:

- To what extent do the quantitative and qualitative data converge?

- What similarities and differences exist across levels and types of analysis?

To answer these questions, the following analytic strategy was carried out:

- Simultaneous collection and analysis of quantitative and qualitative data using a parallel process;

- Quantitative and qualitative data were merged into a single dataset without transformation;

- Quantitative and qualitative data were compared and contrasted and reported using a network model approach;

- Inference quality was assessed.

Design

This study utilized a convergent triangulation mixed method design. Creswell and Plano Clark (2007) described this design as a one-phase design in which quantitative and qualitative data are collected separately but on the same phenomenon. The purpose of the design is to compare results in order to "end up with valid and well-substantiated conclusions about a single phenomenon" (p. 65). Steps in the convergent triangulation design are presented in Figure 4.14 (Creswell & Plano Clark, p. 63).
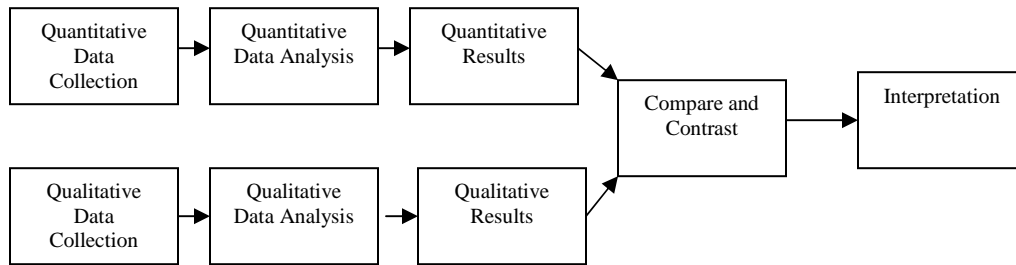
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Figure 4.14

Convergent Triangulation Design

Mixed Method Results

The results of the quantitative portion of the study are presented in Section Two of this chapter, and the results of the qualitative portion of the study are presented in Section Three of this chapter. The core phenomenon explored in both analyses was students' motivation to participate in a social work CoP, defined as enrollment in a MSW program.

Quantitative Model

Wenger et al.'s (2002) model of motivations for participation in a CoP was combined with Archer's (2000) assertion that commitment to personal identity precedes commitment to social identity. The conceptual model, presented again in Figure 4.15, identifies *personal values about diversity* ("*personal values*") as influencing not only students' *endorsement of social work values* ("*value congruity*"), but also the different types of motivation ("*practice*", "*domain*", "*competency*", and "*community*"). *Domain motivation* was related to students' interests in social work and the desire to learn more

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about it. *Practice motivation* (subdivided here into *skills motivation* and *competency motivation*) was related to students' desire to learn about social work practice as a means of improving their own techniques and approaches. *Community motivation* was related to students' desire to be a part of a larger community of individuals who all cared about social work and supported it mission, goals, and values. Students' *value congruity* was also believed to influence the different types of motivation.
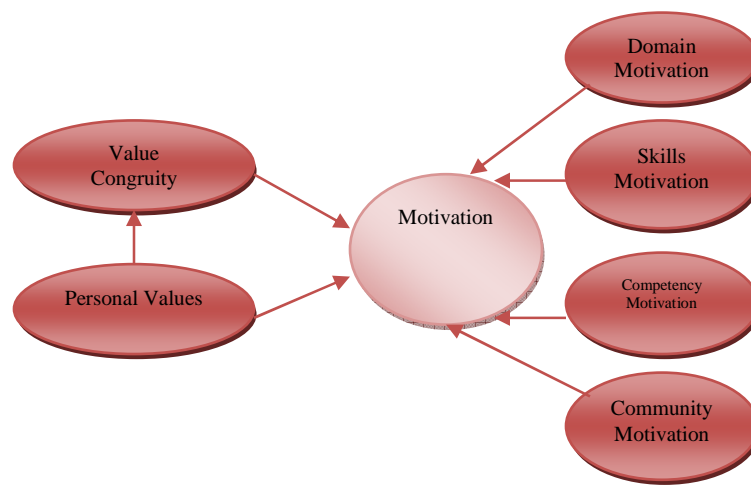

Figure 4.15

Attitudes, Values, and Motivation (AVM) Model

Overall, there was positive endorsement for each of the motivation types. The mean value for each subscale is provided in Table 4.57 with higher scores indicating greater endorsement of the items in the subscale. *Skills motivation* had the highest endorsement (5.0046), while *domain* motivation had the lowest endorsement (3.4648); note that the differences between *domain motivation, community motivation,* and *competency motivation* were small, suggesting that *skills motivation* was the strongest of

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the four types. Based on the SEM analysis, the factor *personal values* was dropped from the model because of multicollinearity. Note that this factor was dropped on the basis of empirical findings and does not represent a reconceptualization of the underlying model. Statistically significant relationships were found between v*alue congruity* and *community motivation* and between *value congruity* and *skills motivation*.

Table 4.57

Endorsement of Motivation Types

	N	Minimum	Maximum	Mean	Std. Deviation
Domain_Endorsement	437	1.00	6.00	3.4648	.87438
Skills_Endorsement	437	1.00	6.00	5.0046	.86137
Community_Endorsement	437	1.00	6.00	3.9691	.94429
Competency_Endorsement	437	1.00	6.00	3.6339	1.29742
Valid N (listwise)	437				

Qualitative Model

A portion of the qualitative study was dedicated to understanding students' motivation for entering a MSW program; a conceptual framework for this model is presented in Figure 4.16. Through the analysis, four categories of motivation emerged: *desire to help others, practicality, professional legitimacy,* and *value congruity*. The *desire to help others* played a foundational role in understanding students' motivations; all students identified this as a prevailing factor in their decision-making process. The *desire to help others* was a direct reflection of their *personal values*, which were in turn rooted in religious and family teachings, beliefs, and traditions, and/or personal experiences.

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In addition to the *desire to help others*, students expressed that *value congruity* between *personal values* and professional social work values was an important factor in their decision to enter a MSW instead of a graduate program in another field. Other factors influencing students' decision to enroll in a MSW program were *practicality* and *professional legitimacy*. *Practicality* was described as being able to obtain a graduate degree in two years instead of the longer programs in other disciplines, and as the flexibility in career options afforded by the MSW degree. *Professional legitimacy* represented motivation derived from the desire to be recognized as a professional in terms of credentials and/or skills. While these sources of motivation were distinct in participants' minds, they frequently described being influenced by multiple types of motivation at the same time.
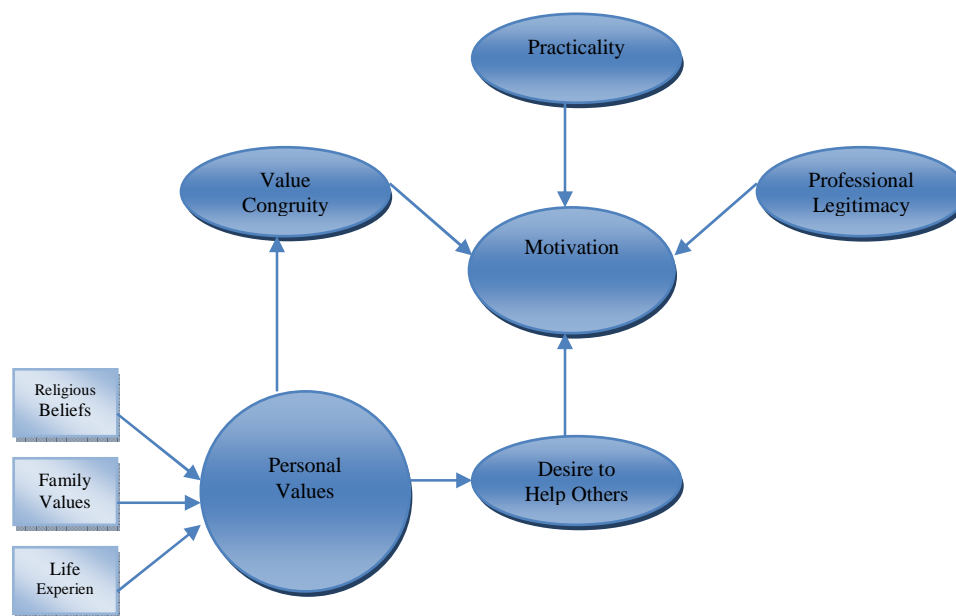

Figure 4.16

Values and Motivations Model

Converged Model

Step One

The two data sets were merged without transformation by integrating the two

models. The first step in integrating the models was to identify components that were

present in both models. Three overlapping elements were found across the models:

personal values, value congruity, and *motivation*. The presence of these three

components isn't surprising given that they represent the basis of the study. However,

what is striking is that the directionality assumed in the quantitative model is supported

by the qualitative model. Archer's (2000) theory advocates the primacy of the personal

over the social, meaning that what is important to us (*personal values*) helps us choose

from among the available social identities. The direction of the relationship between

personal values and social work values (*value congruity*) could not be established using

the quantitative design employed in this study. However, the analysis of the qualitative

yielded a clearer picture in which students strongly felt that it was their *personal values*

that not only impacted *value congruity*, but also formed the basis of their decision to
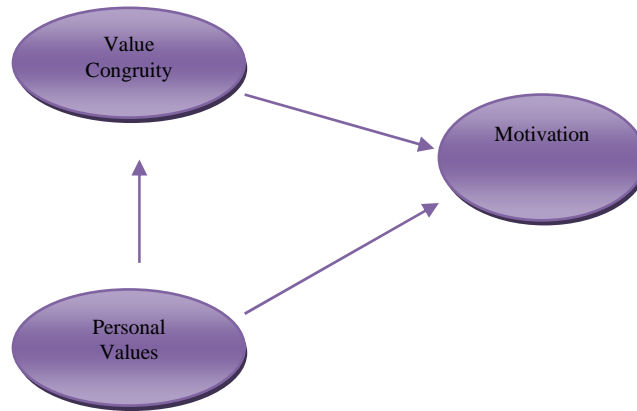
pursue a MSW degree.

Figure 4.17

Converged Model – Step One

Step Two

The second step in converging the data was to include the different components of each model in relationship to the three core components. Results of the qualitative analysis were used to interrelate elements from each model where indicated. Figure 4.18 depicts the initial step two model in which purple elements correspond to overlapping constructs, red elements correspond to the quantitative model, and blue elements correspond to the qualitative model.
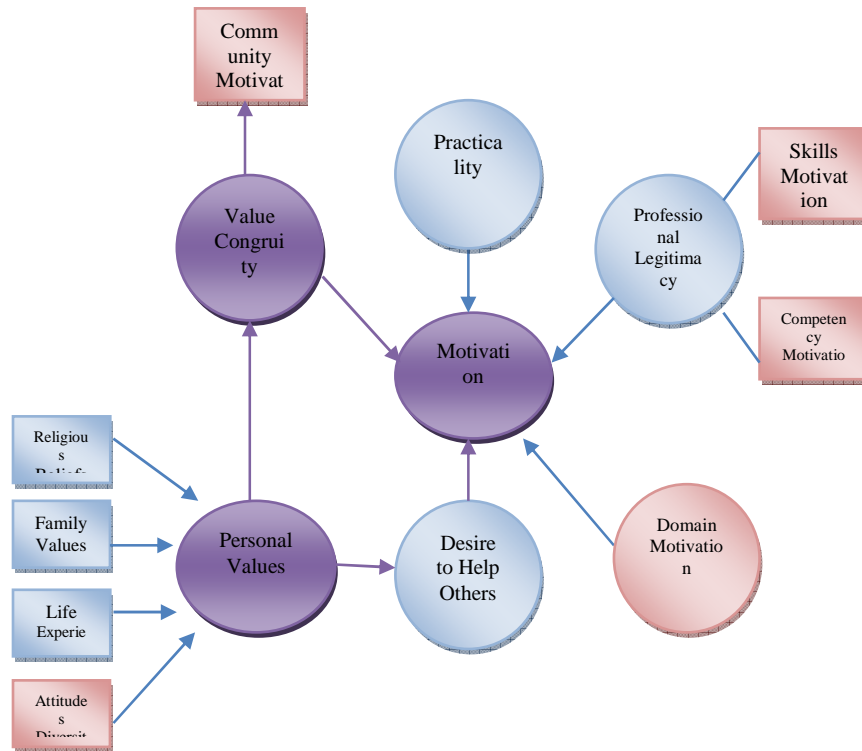
Figure 4.18

Converged Model – Step Two (initial)

As defined in the quantitative model, the construct *personal values* represented

students' attitudes towards diversity, and in the qualitative model *personal values*

represented attitudes and beliefs important to students was seen as being influenced, in

part, by *life experiences, family values,* and *religious beliefs*. Combining these elements

of *personal values* yields a more comprehensive understanding of the construct. Although

participants were not explicitly asked about their *desire to help others* during the

quantitative portion of the study, the qualitative results support its place as a strong

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motivator. Situating this idea within Wenger et al.'s (2002) model wasn't appropriate in the absence of additional data; however, it does fit within Archer's (2000) theory when interpreted as a desire to act on one's values, and a way to accomplish this action was to enroll in a MSW program.

Wenger et al. (2002) identify *community* as a motivation for entering a CoP. In the quantitative model, *community motivation* represented students' selection of social work as a profession because of the congruity in personal and professional values. The qualitative analysis did not yield a reference to *community motivation*, but it did emphasize the importance of *value congruity* as a motivating factor. Because of the close association between *community motivation* and *value congruity*, it is included in the converged model as an offshoot of *value congruity* and not as a separate type of motivation.

Professional legitimacy was an important motivator identified by students in the qualitative portion of the study. *Professional legitimacy* represented students' desire to acquire credentials and/or the knowledge and skills necessary to be a professional practitioner. These properties of the category *professional legitimacy* correspond closely to Wenger et al.'s (2002) idea of *skill* (i.e., *practice*) *motivation*, in which individuals enter a CoP in order to learn about the practice as a means of improving their own techniques and approaches. Problems with the *competency motivation* construct have been described previously; it is included here not on the basis of it empirical characteristics, but instead as a conceptual "place holder". The idea of developing competency as a motivation was present in the qualitative data, and it supports further

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consideration of a *competency* factor in the revision and reevaluation of the PSWCoP

measure.

The *practicality* category discovered in the qualitative data did not have a

corresponding concept in the quantitative data. It's hard to know how this construct fits

into a CoP model, or into a realist social identity model. One thought was that

practicality may be a secondary consideration after students made the commitment to act

on their personal values. That is, once the array of acceptable professional choices was

identified, more pragmatic factors were considered in selecting a course of action.

The *domain motivation* construct tested in the quantitative portion of the study did

not emerge as a category in the qualitative analysis. As discussed previously, *domain*

motivation may not be an applicable concept when applied to a Master's level degree

program, but might be more relevant in understanding motivations among Bachelor's

students. The idea that Bachelor students might endorse *domain motivation* has support

from the qualitative analysis. As one student explained,

> I had decided…earlier than that social work was probably the thing for me, but I
> didn't know why. In undergrad, my sociology degree had an option of social
> justice; we covered a lot of the BSW stuff, and I really felt like that solidified
> social work for me.

Another student described a similar experience in which motivation to learn more about

the domain occurred prior to the decision to enter a MSW program.

> When I was a junior in college I was trying to figure out what I wanted to… I
> decided maybe I'll do clinical psychology and trying to find out what it was, and
> one of my professors sat down with me and we talked, and he asked me if I'd ever
> heard of a MSW, and I said, 'no, what is that?' He told me to do a search and see
> what social workers do, and I did. That's how I got here.

The final version of the converged model is depicted in Figure 4.19. Items in dark purple correspond to overlapping constructs in the models, light purple elements are those derived from one model or the other that are complimentary to the converged model, red elements correspond to the quantitative model, and blue elements correspond to the qualitative model.
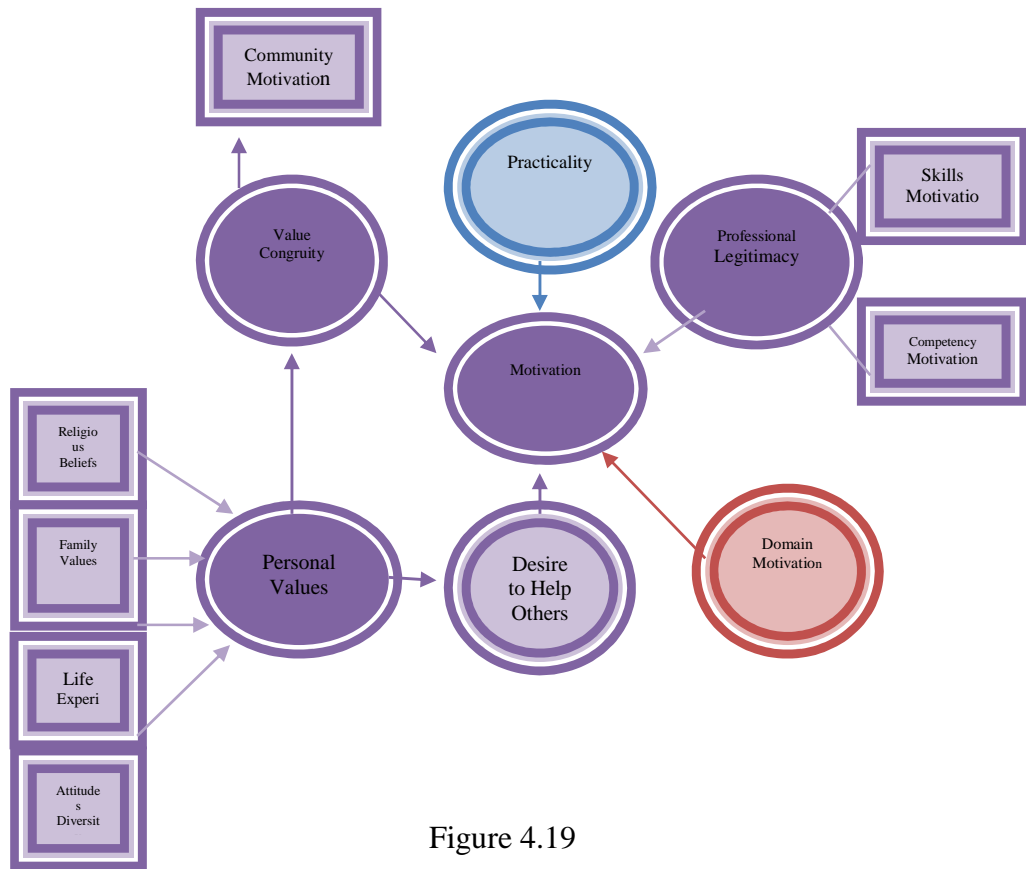

Figure 4.19

Converged Model – Final

Summary of Mixed Method Results

Converging the quantitative and qualitative data through comparative analysis provided support for a multi-factor model of motivation. Furthermore, the data supported both Archer's (2000) emphasis on the primacy of "being" before "doing", and Wenger et al.'s conceptualization of the different motivational factors for individuals' entry into a CoP where "doing" may lead to "being". By demonstrating the capacity to integrate supposedly conflicting theories, the model creates a space in which the cyclical processes between agency, practice, and identity can be further explored.

Chapter Five

Discussion

The overarching goal of this study was to explore the relationships between motivations for entering a Community of Practice (CoP), personal values towards diversity, and attitudes towards professional social work values. The global design of the study was a mixed method approach consisting of both quantitative and qualitative designs, data collection methods, and analytic strategies. The goal of the study was achieved using several distinct, but interrelated, research components. Within each component, specific research questions were asked and answered. This chapter includes the following discussion:

- Restatement of purpose;

- Overview of each research component and summary of results;

- Strengths and limitations of the study;

- Implications of the study

    o Psychometric evaluation,

    o Social work education,

    o Social work practice;

- Directions for future research;

- Conclusion.

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Purpose of the Study

As stated in the National Association of Social Workers' (NASW, 1999) *Code of Ethics*,

> the mission of the social work profession is rooted in a set of core values. These core values, embraced by social workers throughout the profession's history, are the foundation of social work's unique purpose and perspective. (p. 1)

It has been argued that the current emphasis on the knowledge base of the profession has supplanted an emphasis on the values and mission of the profession (Bisman, 2004), and research over the past 15 years has yielded contradictory results on the degree of congruency between MSW students' personal values and those of the profession (Abell, & McDonell, 1990; Allen-Meares, 2000; D'Aprix et al., 2004). Since the adoption of a set of values and their incorporation in practice are definitive of the professional social worker (Clark, 2006), these findings – more particularly those that indicate substantial and continuing value divergences – are of fundamental importance to the future of the social work profession. In addition, this incongruence raises questions about whether or not values that might be held as a part of a personal identity interfere with or even prevent the adoption and practice of values that are at the core of a social identity, such as that of "social worker."

The quantitative and qualitative components of this research explored the nature and context of Wenger et al.'s (2002) motivations for participating in a social work CoP and the relationships between these different forms of motivations, personal value systems about diversity, and attitudes towards professional social work values. Situated within a critical realist framework, the focus of the research was the relationship between

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personal identity-based value positions about diversity and social identity-based value

positions as exhibited in the practice of social work at the individual and collective levels.

The research merged potentially complementary elements from inherently conflicting

theories by exploring a critical realist framework of personal and social identity

development and social learning theory within Wenger's (1998) communities of practice

theory and Wenger et al.'s motivations for participation. Furthermore, the research

explored the intersection of Wenger et al.'s model of motivation with prior research on

the relationship between personal experiences and motivation to pursue a MSW degree

(i.e., Biggerstaff, 2000).

The measurement component of this study compared the use of multidimensional

item response theory (MIRT) analysis to confirmatory factor analysis (CFA) in the

evaluation of an original measure developed to assess students' motivations for entering a

social work community of practice. The development of the Participation in a Social

Work Community of Practice Scale (PSWCoP) was traced from theoretical conception to

pilot and full sample administrations to evaluation of psychometric properties and latent

construct structure. The study compared the conceptual frameworks of MIRT analysis

and CFA within the context of the result obtained from each method.

Study Components

Component One: Development and Psychometric Evaluation of the PSWCoP

Overview

The PSWCoP survey is an assessment of MSW students' motivations for entering

a MSW program as conceptualized in Wenger et al.'s (2002) three dimensional model of

motivation for participation in a CoP.   Following the steps for scale development and

evaluation outlined by Benson and Clark (1982) and DeVellis (2003), Component One of

the study consisted of a pilot study of the survey and a full sample evaluation of the

survey. Data from the full sample of the PSWCoP was used to assess the reliability and

factor structure of the measure using CFA and MIRT analyses.

Two research questions were addressed in this portion of the study:

- Based on the results of EFA/CFA analyses, does the measure of Participation in a

  Social Work Community of Practice (PSWCoP) exhibit a dimensional structure

  consistent with Wenger et al.'s (2002) proposed model of motivations for

  participating in a CoP? Additionally, do the results support the presence of

  desirable psychometric properties of reliability, construct validity, and acceptable

  model fit for the PSWCOP?

- Are the results of the IRT/MIRT analyses of the PSWCoP consistent with those

  produced in the CFA analysis? Specifically, does MIRT analysis lead to the same

  conclusions regarding factor dimensionality, and do the results support the

  presence of desirable psychometric properties of reliability, validity, unbiased

  items, and acceptable model fit for the PSWCOP?

Summary of Results

The CFA analysis of the PSWCoP full sample data supports the

multidimensionality of the measure. Based on the results of the analysis of internal

consistency and EFA, four subscales were identified. Overall the "Domain" subscale was

the only one to remain unchanged from its original form. The reliability analysis

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identified two items on the "Community" subscale for further evaluation, and they were removed based on both empirical evidence and conceptual justification. The original "Practice" subscale demonstrated significant problems. Low internal consistency and inter-item correlations indicated poor content and construct validity and required reevaluation of the subscale. EFA of the "Practice" subscale items identified two underlying factors, which were then included in the CFA analysis instead of the original one factor subscale.

A four factor model with unique indicators on each factor yielded moderate but acceptable fit. The four factor model was tested against a series of increasingly constrained nested models, and results identified the four factor model as the best when considering both empirical evidence and conceptual framework. Correlations between factors were not statistically significant and are supportive evidence for the overall construct validity of the PSWCoP.

MIRT analysis was conducted on the PSWCoP using Acer *Conquest 2.0* (Wu, et al., 2008) software. The results support the multidimensional nature of the PSWCoP, and the four dimensional model with between item constraints demonstrated the best fit when compared to a three dimensional between items model, a two dimensional within items model, and a unidimensional model. Overall, the four dimensional between items model results in the greatest reduction in discrepancy between observed and expected responses.

There appears to be a good match between the difficulty of the items and respondents' abilities for the "Domain", "Community", and "Competency" dimensions. Items are not a good match for respondents' abilities for the "Skills" dimension; overall

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the items are too easy to endorse. To more fully measure the "Skills" dimension, more difficult items need to be developed, and sampling methods should be geared to ensure a wider range of ability levels.

Item fit is an indication of how well an item performs according to the underlying IRT model being tested, and it is based on the comparison of observed responses to expected responses for each item. Two items met both Bond and Fox's (1997) and Adams and Khoo's (1996) guidelines for poor item fit. Only item two (C_2_2, "I wanted to attend a MSW program so that I could be around people with similar values to me.") met both guidelines for poor fit. Based on the infit MNSQ and t-value, this item underperformed in replicating the pattern of expected responses.

Differential item functioning (DIF) was assessed for several subsamples. Using Wilson's (2005) guidelines, most statistically significant DIF results fell in the "negligible" range (DIF<0.426). The only item*group parameter to demonstrate moderate DIF was item D_2_6 ("I decided to enroll in a MSW program to see if social work is a good fit for me."). When comparing Advanced Standing students to Foundation students, DIF for this item was 0.500 ("Moderate").

The primary result from both the CFA and MIRT analyses was the establishment of the PSWCoP as a multidimensional measure. Both sets of analyses identified a four factor model in which items loaded on a single factor as having the best model fit when compared to three factor, two factor, and one factor models. The CFA analysis, based on reproducing the observed covariance structure in the data, was found to be more informative at the subscale level, while the MIRT analysis, based on the discrepancy

between observed and expected responses, was found to be more informative at the item level.

CFA was found to be more informative in regards to subscale composition and assessing associations among factors. The CFA analysis led to a final form of the PSWCoP with four reliable subscales and evidence supporting the construct validity of the measure. As indicated by the non-significant correlations among factors, each subscale appears to be tapping into a separate construct, and evidence of face and content validity was established for the "Domain" and "Community" subscales; the "Practice" subscale requires revision and reevaluation before any claims of face, content, or construct validity can be made.

MIRT analyses were found to be more informative in regards to assessing individual item performance. Item difficulty was assessed, and the items on the PSWCoP appear to be a good match for the abilities of the respondents. Overall item fit was acceptable, with only one item being identified as potentially misfitting. MIRT analysis allowed for the assessment of DIF, and in general, there was very little evidence of DIF. Most instances of DIF were negligible, and only one item demonstrated moderate DIF for one group.

Component Two: SEM Analysis of the Attitudes, Values, and Motivations Model

Overview

Component two of the study was the evaluation of a structural equation model of the relationships between students' attitudes towards diversity, congruency with social work values, and motivations for entering a social work CoP through the pursuit of a

MSW degree. Hereafter the model is referred to as the "AVM Model". The following

research question was addressed in this portion of the study:

- What are the underlying structural relationships among the latent constructs

   "personal values about diversity," "attitudes toward professional social work

   values," Wenger et al.'s (2002) "motivations for participation in a social work

   CoP", and personal motivations to pursue a MSW degree? Do the data support the

   proposed theoretically determined structural equation model?

Summary of Results

A structural equation model analysis was conducted to test if there was acceptable

fit between the covariance structure of the data and the theoretically constructed AVM

model. Although the results of the analysis indicated moderate but acceptable fit,

multicollinearity was detected between the latent variables "Diversity" and "Values". It

was hypothesized that there would be a strong association between the constructs, but it

was not anticipated that the correlation would exceed 0.90. Because of this result, the

model was respecified and the "Diversity" variable and its indicators were removed from

the model.

The respecified AVM_R model was analyzed, and although model misfit

increased slightly, the overall fit of the model was acceptable. The direct effects of

"Values" on "Skills", "Competency", "Domain", and "Community" were estimated,

yielding the following results:

- Non-significant effect on "Domain";

- Non-significant effect on "Competency";

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- Moderate, positive effect on "Skills";

- Moderate, positive effect on "Community".

Students who exhibited higher levels of congruency with social work values also had higher levels of endorsement for the acquisition of skills/knowledge and being part of a community of individuals with similar values as motivating factors in their decision to enter a MSW program. Although the effects on "Skills" and "Community" were statistically significant, R^2 values were very small (0.13 and 0.15 respectively). While there is initial support for the proposed model, additional work needs to be done to improve the quality of indicators and reconceptualize the role of personal values in relation to professional values.

Factor indicator scores were computed for each latent variable, and differences by demographic characteristics were tested. Factor indicator scores were tested across Gender, Religious Participation, Race, SES, Sexual Orientation, School Affiliation, Enrollment Status, and Age. Only two differences were detected. First, students who characterized their religious participation as "frequent" had, on average, higher indicator scores on "Values" than students who characterized their religious participation as "none/limited". Second, Advanced Standing students were, on average, less likely than Concentration or Foundation students to endorse "Domain" motivation as a reason for entering a MSW program.

Component Three: Grounded Theory

Overview

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Component three of the study was a grounded theory approach to understanding how students make the decision to enter into a MSW program and how they make sense of their experiences in the program. The following research question served as the basis of the interview protocol:

- How do students experience and make sense of the interaction, negotiation, and resolution of personal values about diversity, attitudes towards professional social work values, and motivations for pursuing a MSW degree?

Summary of Results

Core themes that emerged from the analysis of the data were classified and interpreted in the following areas:

- Motivations for entering a MSW program;

- Impact of learning on value systems;

- Integration of personal and professional identities;

- Cultural contextualization.

Students were asked to tell their stories of coming to and progressing through the MSW program. Emerging from these stories was a theory that helped relate these different experiences and uncover a distinct path from students' decision to enter the program to a place where multiple identities interact in a complex process of integration. A key question in the beginning of the research was what motivated students to pursue a MSW degree, and students identified multiple factors that influenced their decision. First among these factors was a desire to help others, which found its roots in many places including religious beliefs, family values, and personal experiences.

Given the desire to help others, reasons for choosing a graduate degree program, and more specifically a social work program, were explored. The majority of students felt the need for professional legitimacy in order to do the work they wanted to do in the way they wanted to do it. Professional legitimacy included acquiring the skills and knowledge needed to be a professional, but it also represented competency and accomplishment from the view of society because a graduate degree bestows "credentials" on the successful students.

When asked why they had chosen a graduate degree program in social work, students consistently identified value congruity as an important component in their decision. The perceived congruity between personal values and the values of the profession was a strong draw for most students, but in a very different vein, the practicality of the MSW program was also a strong motivator. In contrast to other professional degrees in the social sciences and helping professions, the MSW program is only two years long, and it is widely accepted as providing the most flexibility in career options, ranging from private clinical practice to community organizing and program management and administration.

As students engaged in the learning process of the MSW program, they were exposed to social work's professional value system and challenged to understand the relationship between these professional values and their own personal values. Experiencing conflict or incongruity in regards to professional values was a common occurrence, and it manifested in several ways. When confronted with value incongruity, students adopted a range of strategies for resolving the conflict. "Resolution" in this

context did not always mean that the conflict went away, but instead that the students found a way of moving forward in spite of the conflict.

Another key question of the study was how do students make sense of their multiple identities and how do they integrate their personal and professional identities. Identity integration was conceptualized as congruity between personal and professional selves and commitment to the professional identity "social worker" as a manifestation of one's personal identity. Although all students could, or would be able to eventually, call themselves "social workers" using the criteria they identified, not all students chose to integrate their personal and professional identities in the same manner.

Some students already expressed integrated personal and professional identities and acknowledged that their professional identity and their practice developed out of their personal values and commitment to acting on those values. Some students aspired to the professional identity of social worker but did not feel they were able to claim that identity at present. This evolving identity integration was often the case for students who desired external validation with the degree, but there were also students who felt they weren't ready or weren't able to integrate the two identities until they reached a self-identified goal in their personal lives. A third group of students chose not to endorse the professional identity of "social worker" even though they could based on one or more of the criteria above. These students adopted a non-integrated identity position because they felt the label "social worker" was either inadequate to describe themselves or not appropriate for their intended practice. These different outcomes demonstrate students'

agency in adopting or not adopting a professional identity, and emphasize the primacy of

the personal self over the professional self.

Component Four: Mixed Method Convergent Triangulation

Overview

The final section of the results reporting corresponds to the third step in the

mixed-methods triangulation design in which the quantitative and qualitative results are

compared and contrasted and are interpreted within the context of the other set of results.

In this section of the results, the following research questions are addressed:

- To what extent do the quantitative and qualitative data converge?

- What similarities and differences exist across levels and types of analysis?

Summary of Results

The quantitative and qualitative data sets were merged without transformation by

integrating the Attitudes, Values, and Motivations SEM model and the Values,

Motivations, and Identity Integration grounded theory model. The first step in integrating

the models was to identify components that were present in both models. Three

overlapping elements were found across the models: *personal values, value congruity,*

and *motivation*. The presence of these three components isn't surprising given that they

represent the basis of the study. However, what is striking is that the directionality

assumed in the quantitative model is supported by the qualitative model. Archer's (2000)

theory advocates the primacy of the personal over the social, meaning that what is

important to us (*personal values*) helps us choose from among the available social

identities. The direction of the relationship between *personal values* and social work

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values (*value congruity*) could not be established using the quantitative design employed in this study. However, the analysis of the qualitative yielded a clearer picture in which students strongly felt that it was their *personal values* that not only impacted *value congruity*, but also formed the basis of their decision to pursue a MSW degree. The second step in converging the data was to include the different components of each model in relationship to the three core components.

Converging the quantitative and qualitative data through comparative analysis provided support for a multi-factor model of motivation. Furthermore, the data supported both Archer's (2000) emphasis on the primacy of "being" before "doing", and Wenger et al.'s conceptualization of the different motivational factors for individuals' entry into a CoP where "doing" may lead to "being". By demonstrating the capacity to integrate supposedly conflicting theories, the model creates a space in which the cyclical processes between agency, practice, and identity can be further explored.

Strengths and Limitations

Limitations of the Study

Several limitations of the current research were identified, specifically in regards to the quantitative components of the study, and are discussed in this section. For any research in which there is a goal of generalizing the results, the use of a non-probability convenience sampling strategy significantly limits the achievement of this goal. Even though the research developed a sampling frame to maximize the representativeness of the school-based sample, poor participation rates among the selected schools was a major limitation. While a few schools chose not to participate because of the timing of data

collection (i.e., at the end of the school year), the majority of non-participating school never responded to the researcher's request for participation. In addition, self-selection of participants within schools also limits the generalizability of the results. It is possible that only students who felt strongly about the subject matter completed the surveys, thus making the results non-representative of the larger population of MSW students. There is also a general culture of intolerance of conservative social values within schools of social work, and students who hold these more conservative (i.e., non-accepting) attitudes about diversity may have been less interested or less willing to participate. A final limitation of the study sample is the lack of adequate within group sample sizes to allow between group analyses.

For component one of the study, the development and evaluation of the PSWCoP, the primary limitation was the poor performance of certain items as indicated by the effect on the internal consistency of the subscales. Although all items written for the *domain* subscale were retained in the final analysis of the PSWCoP, Cronbach's α was only 0.643. Of the five items originally developed for the *community* subscale, only three items were retained in the final analysis with a Cronbach's α of 0.680. Of the five items originally developed for the *practice* subscale, four were retained on the basis of content validity, but Cronbach's α was only 0.467. Although subsequent EFA was used to identify two factors underlying these four items, the intended *practice* subscale had very poor performance. Although Nunnally (1978) suggested that a Cronbach's α > 0.50 is acceptable during the development phase of affective instruments, revision and reevaluation of the PSWCoP is recommended before further use of the scale.

For component two of the study, the SEM analysis of the AVM model, two limitations were identified. First, as discussed above, limitations of the PSWCoP reduced the overall quality of the AVM model and most likely resulted in biased and unstable parameter estimates (Lomax, 1986). Second, multicollinearity between the *personal beliefs about diversity* factor and the *attitudes towards social work values* factor resulted in the deletion of a primary variable of interest. This limitation precluded any assessment of the impact of personal values, as defined by personal beliefs about diversity, on the endorsement of social work values or on students' motivations for entering a MSW program.

Strengths of the Study

In contrast to the limitations discussed above, there were also multiple strengths associated with the study. The first identified strength was the use of a mixed method design, which allowed the researcher to draw on the complementary strengths of both qualitative and quantitative research while minimizing their respective weaknesses (Johnson & Onwuegbuzie, 2004). Greene and Caracellie (2003) argue that mixed-method designs allow the research to take advantage of the representativeness and generalizability of quantitative findings and the in-depth, contextual nature of qualitative findings, and Hanson et al. (2005) contend that a mixed method design allows the researcher to:

- better understand a research problem by converging numeric trends from quantitative data and specific details from qualitative data;

- identify variables/constructs that may be measured subsequently through the use

    of existing instruments or the development of new ones. (p.226)

The use of a mixed method design in this study yielded a more comprehensive

understanding of the constructs of interest and the relationships between them than would

have been obtained using a quantitative or qualitative design alone. In addition to its

specific contribution to this study, the use of a mixed method design adds to the growing

body of scholarly literature on mixed method designs and analysis.

A second strength of this study is its contribution to the scholarly literature on

communities of practice. As pointed out by Cox (2005), there has been little research into

Wenger's conceptualization of CoPs, and the researcher found no articles addressing

Wenger et al.'s (2002) concept of motivations for participating in a CoP. Despite the need

for revision, the PSWCoP is the first identified quantitative measure of Wenger et al.'s

model of motivations. Furthermore, the incorporation of Wenger et al.'s types of

motivations into the AVM SEM model is the first quantitative assessment of these

motivations identified by the researcher.

Similar to the study's contributions to CoP theory, a third strength of the study is

the empirical assessment of Archer's (2000) realist social identity theory. Archer's work

is more conceptual than empirical, and she provides no method of study design, data

collection, or analysis, and there is no reporting of evidence in support of her theory. This

study addresses those limitations through quantitative evaluation of the theory through

SEM analyses and comparison of her theory to the grounded theory developed in this

study.

A fourth strength of the study is its integration of realist social identity theory and CoP theory. There are conflicting propositions between the theories even though there are conceptual arguments supporting both theories. This study is the first identified research merging the congruent elements of the two theories while also offering empirical evidence of how and why the theories diverge on certain elements.

A fifth strength of the study is the incorporation of MIRT analyses. The presence and application of MIRT in the research literature is minimal and is mostly limited to discussion in the field of psychometric theory. Even more limited is the comparison and contrast of MIRT analyses with CFA. No published articles on MIRT analyses and its uses and application were located in any social work oriented journals.

Implications of the Study

Several implications of the research were identified and are discussed here in regards to psychometric evaluation, social work education, and social work practice.

Psychometric Evaluation

There is a limited amount of published research on the application of MIRT and the utility of MIRT analysis, both independently and in comparison to classical CFA, and this study addresses this gap in the literature. Implications of the study for the field of psychometric evaluation include increased awareness of MIRT and its applications, identification of strengths and weaknesses associated with CFA and MIRT analyses, and recommendations for continued study of MIRT.

Even with increasing access to MIRT software and support, researchers continue to rely predominantly on CFA for measure evaluation. CFA is a powerful tool for testing

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the factor structure of a measure, but as identified elsewhere, it has limitations. Coupling MIRT analyses with CFA will provide a more thorough assessment of measures by drawing on the strengths of both analyses while minimizing their weaknesses. In the current study, MIRT and CFA yielded the same result for the factor structure of the PSWCoP, supporting the multidimensional design of the measure. Obtaining congruent results will support researchers' hypotheses about a measure's factor structure, while incongruent results will help researchers identify areas needing additional exploration. A strength of CFA analysis is modeling and assessment at the factor level, while a strength of MIRT analysis is modeling and assessment at the item level. Taken in conjunction, these methods provide powerful tool for the evaluation of measure functioning. By contributing to the growing body of literature on MIRT and demonstrating the utility of MIRT and CFA methods with real data, this study furthers the field of psychometric evaluation.

Social Work Education and Practice

Based on the qualitative results of the study, several implications for social work education were identified. First, it may be in the interest of the field to further assess the role of practicality in students' decision to enter a MSW program. From an economic standpoint, attracting students because of the structure of the MSW program (i.e., only a 2-year program) and the flexibility of the degree may be a benefit to educational institutions seeking to increase enrollment and financial security. What is not known is if there is a relationship between *practicality motivation* and student outcomes. The

research doesn't address this issue, and, if judged to be an issue of interest, programs will need to measure this in some way.

According to the Council on Social Work Education, "The educational experience provides students with the opportunity to be aware of personal values; develop, demonstrate, and promote the values of the profession; and analyze ethical dilemmas and the ways in which these affect practice, services, and clients" (2001, p. 8). As seen in the qualitative results of the study, encountering value incongruity is a common experience for students, and their strategies for navigating these conflicts may not always result in the development, demonstration, and promotion of social work values. Social work programs are encouraged to continue addressing the intersection of personal and professional values through the educational process, but also to consider the different types of value incongruity experienced by students, the multiple strategies for resolving those conflicts, and the impact on students' learning and future practice.

The field of social work is also collectively challenged to further explore the importance and role of professional identities in education and practice. The results suggest that students differentiate between "being" a social worker and "doing" social work, and that there isn't always overlap between the two. For example, is the student who will not support the goal of equal rights and economic and social justice for marginalized groups a "social worker"? Is he or she "doing" social work? Is there a field of practice that is unique to social work, and if so, what roles do personal and professional identities play?

Obtaining the MSW does not mean that a student will choose to identify as a social worker. Similarly, obtaining the MSW does not mean that a student supports and promotes the values of the profession in his or her practice. Only by linking educational outcomes, which need further discussion, to practice outcomes, which also need further discussion, can the field legitimately claim the title of "a value based profession" where the "constellation of core values reflects what is unique to the social work profession" (NASW, 1999, p. 1).

Directions for Future Research

Revision and Reevaluation of the PSWCoP

Evaluation of the internal consistency of the *community* and *practice* subscales resulted in the removal of items from both subscales. Although there is conceptual justification for the removal of the two items from the *community* subscale, the addition of well-written and relevant items would improve the overall internal consistency. The results indicated that students positively endorse connecting with the professional community of social workers as a motivating factor, but the qualitative results suggest that community identification occurs both prior to enrollment in the program and during the program. Community-based motivation may be more relevant to students coming out of a BSW program, while community-based identification may be more influenced by participation in the MSW program for non-BSW students.   Developing additional items related to community-based motivation, and expanding the target sample to include BSW students may improve the *community* subscale and yield a more accurate understanding of this construct.

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The *practice* subscale did not perform as anticipated as questions pertaining to the need for an MSW were not related to skill- and knowledge-based motivation. Changes in wording to questions P_1_3 and P_2_13 may yield greater internal consistency in this subscale. For example:

- P_1_3 (original): Without a MSW degree, I am not qualified to be a social worker.

- P_1_3 (revised): Without the skills and/or knowledge obtained in a MSW degree program, I am not qualified to be a social worker.

The qualitative results also suggested motivation came from the desire for *professional legitimacy*. This type of motivation is not inconsistent with Wenger et al.'s *practice motivation* construct, and will be included in the revision of the PSWCoP. For example:

- I want to obtain a MSW degree so that I can be a professional social worker.

The qualitative results also suggest that practicality is an important consideration in students' decision to enter a MSW degree instead of a graduate program in a different discipline. Including items related to assess the role of practicality as a motivator will help to quantify this construct and assess its relationship to other types of motivation. Although not addressed in Wenger et al.'s theory, it seemed to play a significant role in students' decision to enter a MSW program. Further exploration of this construct may yield a clearer understanding of a generalized model of values and motivations and, potentially, specifically contribute to a more complete conceptualization of motivations for entering a CoP as presented by Wenger (1998).

Future examination of the PSWCoP should include efforts to improve the diversity of the target sample. In addition to expanding the sampling from to include BSW students, concerted efforts should be made to increase overall sample sizes, and more specifically, subgroup sample sizes. Acquiring sufficient sample sizes to assess measurement invariance should be a primary goal in the continued evaluation of the PSWCoP.

Revision and Reevaluation of the Attitudes, Values, and Motivations (AVM) SEM Model

Although the initial results provide some support for the AVM model, several revisions are indicated. First, improvements to the PSWCoP, as discussed above, are necessary before continued testing of the model. Second, the inability to include the *personal values* construct needs to be addressed. Based on the qualitative results, the *personal values* construct needs to be expanded to include more than just students' attitudes toward diversity. Conceptually, it may make more sense to think of *desire to help others* as a composite of the other manifestations of personal values, such as personal experiences, religious beliefs, attitudes toward diversity, and cultural norms/influences.

Exploration of the Values, Motivations, and Identity Integration (VMII) Model

The grounded theory developed in the qualitative portion of this study indentified several exciting new areas for exploration regarding motivations for engaging in practice, situated learning, strategies for resolving incongruity between personal and professional values, and multiple models of personal and professional identity integration. As

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discussed above, the model has already identified one way to improve on the PSWCoP and the AVM model by including *practicality motivation.* The qualitative results support the researcher's goal of integrating elements of CoP theory and realist social identity theory, and additionally, these results suggest that exploration of the different identity integration outcomes may further the researcher's goal in this area. Identifying the presence of different identity integration outcomes leads to questions of how these outcomes are arrived at and the factors that influence them. Further exploration of the VMII model is indicated.

Among social work students

Continued evaluation of the VMII model with BSW and MSW students will yield greater understanding of the complex relationships between personal values, motivations, and identity integration. More wide scale testing of the model should include the integrated quantitative and qualitative models as conceptualized above in the revised AVM model. Sufficient evidence exists to move forward with the testing of the reconceptualized AVM model, beginning with the revision of the PSWCoP, identification of measures for the *desire to help others* construct, and the inclusion of *practicality motivation.*

Furthermore, building on the work of Lave and Wenger (1991) and Wenger (1998/2003), researchers should explore the role of MSW education, through classroom learning and field education, as a learning trajectory leading to legitimate participation in social work practice. Linking field education to practice outcomes is an important issue

for the social work profession, and CoP models can be helpful tools for designing research in this area.

Researchers are also encouraged to continue exploration of the integration of realist social identity theory and CoP theory as related to personal and professional identity integration. As identified above under *Implications*, the field of social work is encouraged to address these issues both in education and practice. Understanding identity integration as the intersection of personal and professional values and linking it to practice outcomes is an important responsibility of the profession.

Among social work consumers

In addition to continued research with BSW and MSW students, the MVII model should be explored with other CoPs, particularly as a model for understanding individuals' motivation for engaging in health promoting practices or high-risk practices. Two issues seem particularly salient. First, understanding individuals' motivations for engaging in behaviors ("practices") may inform intervention research and yield effective methods for supporting behaviors that promote health seeking practices and minimize risk-taking practices by linking those interventions to internal messages of "how" and "why" the individual justifies what he or she is doing. Second, research on value incongruity, particularly when personal values are oriented to health promotion but social practices are oriented to risk taking, may yield interventions that emphasize incongruity and/or develop strategies for successfully resolving incongruity in favor of personal values of health and well-being.

Concluding Remarks

To deny that we are products of our environment is disingenuous, but to believe we are *merely* products of our environment is both disillusioning and disheartening. Multiple schools of thought have taken up the notions of personal and social selves and the interaction of the two. Structuralist theories condemn us to a life bereft of choice as we exist and practice within the constraints of social identifies carved out of institutional stone. Postmodern theories claim to emancipate us from the strictures of society by deconstructing social identities and leaving us the pieces to assemble as we please, all the while failing to understand that the deconstruction of social identity does not equate to the deconstruction of social reality.

Critical realist social theory provides an integrated framework for understanding the iterative and interdependent developmental relationship between personal and social identity. While acknowledging that social actors must perform within the constraints of social structures, the choice to participate resides in the individual. In contrast to both structural and deterministic theories of identity development and post-modernist theories of constructed identities, critical realism can be situated in a central position. CoP theory, as developed out of social learning theory, posits that social identity is partially derived from engaging in the practice of the community to which one belongs or seeks to belong. Social identities are simultaneously developed, maintained, and constrained through participation in a community of practice. It is in the execution of practice, the learning, the mastery, and the application, that social identity is formed.

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During each moment of our lives we are simultaneously one person and many people, and it is the development of and relationships among these "selves" that underpins this study. From a social realist paradigm, who we *are* guides and shapes what we will *do*, while from a social learning theory perspective, what we *do* guides and shapes who we *are.* When confronted with a choice, we always have two options, to do something or to do nothing. Social learning identity theory emphasizes the importance of the "choice", while realist social theory emphasizes the importance of "choosing." Thus, the road to the emancipation of the self begins not with the path taken but in the taking of a path, and we draw on what we know, what we believe, and what we value, to pick the best path among those offered to us.

References

Abbott, A.A. (1988). *Professional choices: Values at work.* Silver Spring, MD: NASW.

Abbott, A.A. (1999). Measuring social work values. *International Social Work, 42*(4), 455-470.

Abbott, A.A. (2003). A confirmatory factor analysis of the Professional Opinion Scale: A value assessment instrument. *Research on Social Work Practice, 13*(5), 641-666.

Abell, N., & McDonell, J.R. (1990). Preparing for practice: Motivations, expectations and aspirations of the MSW class of 1990. *Journal of Social Work Education, 26*(1), 57-64.

Adams, R.J., & Khoo, S.T. (1996). ACER *Quest* [computer program]. Melbourne, Australia: ACER.

Adams, R.J., Wilson, M., & Wang, W. (1997). The multidimensional random coefficients multinomial logit model. *Applied Psychological Measurement, 21*, 1-24.

Allen-Mears, P. (2000). Our professional values and the changing environment. *Journal of Social Work Education, 36*(2), 179-183.

Altemeyer, B. (1981). *Right-wing authoritarianism.* Winnipeg: University of Manitoba Press.

Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*, 411-423.

Andrich, D. (1978). Rating formulation for ordered response categories. *Psychometrika, 43,* 561-573.

Archer, M.S. (1998). Realism in the social sciences. In M. Archer, R. Bhaskar, A. Collier, T. Lawson, & A. Norrie (Eds.) *Critical realism: Essential readings,* (pp. 189-205).

Archer, M.S. (2000). *Being human: The problem of agency.* New York: Cambridge University Press.

Archer, M.S. (2003). *Structure, agency, and the internal conversation.* New York: Cambridge University Press.

Aquino, K. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology, 83*(6), 1423-1440.

Barnes, B.J., Chard, L.A., Wolfe, E.W., Stassen, M.L., & Williams, E. A. (2007). An examination of the psychometric properties of the Graduate Student Advising Survey. Paper presented at the American Education Research Association, RASCH SIG, San Francisco, CA, April 11, 2007.

Benson, J., & Clark, F. (1982). A guide for instrument development and validation. *The American Journal of Occupational Therapy, 36*(12), 789-800.

Berzonsky, M.D. (2005). Ego identity: A personal standpoint in a postmodern world. *Identity: An International Journal of Theory and Research, 5*(2), 125-136.

Berzonsky, M.D. (1993). A constructivist view of identity development: People as post-positivist self-theorists. In J. Kroeger (Ed.), *Discussions on ego identity* (pp.169-203). Hillsdale, NJ: Lawrence-Erlbaum Associates.

Biggerstaff, M. A. (2000). Development and validation of the Social Work Career Influence Questionnaire. *Research on Social Work Practice, 10*(1), 34-54.

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Bisman, C. (2004). Social work values: The moral core of the profession. *British Journal of Social Work, 34*, 109-123.

Black, B., Oles, T.P., & Moore, L. (1998). The relationship between attitudes: Homophobia and sexism among social work students. *Affilia Journal of Women and Social Work, 13*(2), 166-190.

Bock, R.D., & Aiken, M. (1981). Marginal maximum likelihood estimation of item parameters: An application of the EM algorithm. *Psychometrika, 46,* 443-459.

Bogo, M., Raphael, D., & Roberts, R. (1993). Interests, activities, and self-identification among social work students: Toward a definition of social work identity. *Journal of Social Work Education, 29*(3), 279-292.

Bogo, M., Regeher, C., Power, R., & Regeher, G. (2007). When values collide: Field instructors' experiences of providing feedback and evaluating competence. *The Clinical Supervisor, 26*(1/2), 99-117.

Bond, T.G., & Fox, C.M. (2007). *Applying the Rasch model* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Brown, P. &, Barker, R. (1995). Confronting the "threat" of private practice: Challenges for social work educators. *Journal of Social Work Education, 31*(1), 106-115.

Butler, A.C. (1990). A reevaluation of social work students' career interests. *Journal of Social Work Education, 18*, 407-422.

Carpenter, M.C., & Platt, S. (1997). Professional identities for clinical social workers: Impact of changes in health care delivery systems. *Clinical Social Work Journal, 25*(3), 337-350.

Chen, F., Bollen, K.A., Paxton, P., Curran, P.J., & Kirby, J.B. (2001). Improper solutions in structural equation models: Causes, consequences, and strategies. *Sociological Methods and Research, 29*, 468-508.

Clark, C. (2006). Moral character in social work. *British Journal of Social Work, 36,* 75-89.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Mahwah, NJ: Erlbaum.

Cohen, J., Cohen, P., West, S.G., & Aiken, L.S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.

Compton, B.R., & Galloway, B. (1999). *Social work processes* (6th ed.). Pacific Grove, CA: Brooks/Cole.

Council on Social Work Education. (2001). *Educational policy and accreditation standards.* Alexandria, VA: Author.

Cox, A. (2005). What are communities of practice? A comparative review of four seminal works. *Journal of Information Science, 31*(6), 527-540.

Creswell, J.W. (2002). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Creswell, J.W. (2007). *Qualitative inquiry and research design* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Creswell, J.W., & Plano Clark, V.L. (2007). *Designing and conducting mixed methods research.* Thousand Oaks, CA: Sage Publications.

Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced

    mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.),

    Handbook of mixed methods in social and behavioral research (pp. 209–240).

    Thousand Oaks, CA: Sage.

D'Aprix, A.S., Dunlap, K.M., Abel, E., & Edwards, R.L. (2004). Goodness of fit: Career

    goals of MSW students and the aims of the social work profession in the United

    States. *Social Work Education, 23*(3), 265-280.

Deaux, K. (2000). Models, meanings, and motivations. In D. Capozza & R. Brown (eds.)

    Social identity processes: Trends in theory and research (pp. 1-14). Thousand

    Oaks, CA: Sage Publications.

DeVellis, R.F. (2003). *Scale development: Theory and applications.* Thousand Oaks, CA:

    Sage Publications.

DiStefano, C. (2002). The impact of categorization with confirmatory factor analysis.

    Structural Equation Modeling, 9, 327–346.

Elkjaer, B. (2003). Social learning theory: Learning as participation in social processes.

    In M. Easterby-Smith & M.A. Lyles (Eds.), *The Blackwell handbook of*

    organizational learning and knowledge management, (pp. 38-53). Malden, MA:

    Blackwell Publishing.

Embretson, S.E., & Reise, S.P. (2000). *Item response theory for psychologists.* Mahwah,

    NJ: Lawrence Erlbaum Associates.

Gable, R.K., & Wolf, M.B. (1993). *Instrument development in the affective domain* (2nd

    ed.). Boston: Kluwer Academic Publishers.

Gecas, V. (2000). Value identities, self-motives, and social movements. In S. Stryker, T.J. Owens, &, R.W. White (Eds.) *Self, identity, and social movements*, (pp. 93-109). Minneapolis, MN: Minnesota University Press.

Gibbons, J., Bore, M., Munro, D., & Powis, D. (2007). Using personal quality assessment for selection of social work students. *Australian Social Work, 60*(2), 210-221.

Glaser, B.G., & Strauss, A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Hawthorne, NY: Aldine de Gruyter.

Gray, M., & Gibbons, J. (2002). Experienced-based learning and its relevance to social work practice. *Australian Social Work, 55*, 279-291.

Greene, J. C., & Caracelli, V. J. (2003). Making paradigmatic sense of mixed methods practice. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 91–110). Thousand Oaks, CA: Sage.

Greguras, G.J. (2005). Managerial experience and the measurement equivalence of performance ratings. *Journal of Business and Psychology, 19*(3), 383-397.

Hambleton, R.K., & Swaminathan, H. (1985). *Item response theory: Principles and applications.* Boston: Kluwer • Nijhoff Publishing.

Hambleton, R.K., Swaminathan, H., & Rogers, H.J. (1991). *Fundamentals of item response theory.* Newbury Park, CA: Sage Publications.

Hanson, W.E., Creswell, J.W., Plano Clark, V.L., Petska, K.S., & Creswell, J.D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology, 52*(2), 224-235.

Hart, D., Atkins, R., & Ford, D. (1998). Urban America as a context for the development
of moral identity in adolescence. *Journal of Social Issues, 54*(3), 513-530.

Haynes, D.T. (1999). A theoretical integrative framework for teaching professional social
work values. *Journal of Social Work Education, 35*(1), 39-51.

Henard, D. H. (2000). Item response theory. In L.G. Grimm & P.R. Yarnold (Eds.),
Reading and understanding more multivariate statistics, (67-98). Washington,
D.C.: American Psychological Association.

Henry, P. J., & Sears, D. O. (2002). The symbolic racism 2000 scale. *Political
Psychology, 23,* 253-283.

Herek, G.M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates
and gender differences. *Journal of Sex Research, 25*, 451-477.

Horn, J.L., & McArdle, J.J. (1992). A practical and theoretical guide to measurement
invariance in aging research. *Experimental Aging Research, 18*(3), 117-144.

Hulin, C.L., Drasgow, F., & Parsons, C.K. (1983). *Item response theory: Applications to
psychological measurement.* Homewood, IL: Dorsey Professional Series.

Jackson, D.L., Gillaspy, J.A, & Purc-Stephenson, R. (2009). Reporting practices in
confirmatory factor analysis: An overview and some recommendations.
Psychological Methods, 14(1), 6-23.

Johnson, B., & Christensen, L. (2004). *Educational research: Quantitative, qualitative,
and mixed approaches* (2nd ed.). Boston: Pearson.

Johnson, R.B., & Onwuegbuzie, A.J. (2004). Mixed methods research: A research
paradigm whose time has come. *Educational Researcher, 33*(7), 14-26.

Jöreskog, K.G., & Sörbom, D. (1993). LISREL8: Structural equation modeling with the

SIMPLIS command language. Hillsdale, NJ: Erlbaum.

Jöreskog, K.G., & Sörbom, D. (2007). LISREL 8.80 for Windows [computer software].

Licolnwood, IL: Scientific Software International.

Katz, I., & Hass, R.G. (1988). Racial ambivalence and American value conflict:

Correlational and priming studies of dual cognitive structures. *Journal of

Personality and Social Psychology, 55*(6), 893-905.

Kelley, P., Alexander, P., & Cullinane, M.A. (1986). Ethical issues in private practice.

Journal of Independent Social Work, 1(2), 5-17.

Keppel, G. & Wickens, T.D. (2004). *Design and analysis: A researcher's handbook* (4th

ed.). Upper Saddle River, NJ: Pearson Education.

Klem, L. (2000). Structural equation modeling. In L.G. Grimm and P.R. Yarnold (Eds.),

Reading and understanding more multivariate statistics, (pp. 227-260).

Washington, D.C.: American Psychological Association.

Kline, R.B. (2005). *Principles and practices of structural equation modeling* (2nd ed.).

New York: Guilford Press.

Lave, J., & Wenger, E. (1991). *Situated learning*. New York: Cambridge University

Press.

Levine, C. (2005). What happened to agency? Some observations concerning the

postmodern perspective on identity. *Identity: An International Journal of Theory

and Research, 5*(2), 175-185.

Linacre, J.K. (1999a). Guidelines for rating scales. Retrieved April 10, 2009 from

    http://www.rasch.org/rn2.htm.

Linacre, J.K. (1999b). Investigating rating scale category utility. *Journal of Outcome*

    Measurement, 3(2), 103-122.

Linacre, J.K. (2006). Winsteps Rasch measurement 3.68.0. Chicago, IL: Author.

Lomax, R.G. (1986). The effect of measurement error in structural equation modeling.

    Journal of Experimental Education, 54(3), 157-162.

Lord, F.M. (1980). *Applications of item response theory to practical testing problems.*

    Hillsdale, NJ: Erlbaum.

McArdle, J.J., Johnson, R.C., Hishinuma, E.S., Miyamoto, R.H., & Andrade, N.N.

    (2001). Structural equation modeling of group differences in CES-D ratings and

    native Hawaiian and non-Hawaiian high school students. *Journal of Adolescent*

    Research, 16(2), 108-149.

Merriam-Webster (n.d.). Merriam-Webster online dictionary. www.merriam-

    webster.com/dictionary.

Miles, M.B., & Huberman, A.M. (1994). *Qualitative data analysis* (2nd ed.). Thousand

    Oaks, CA: Sage Publications.

Miller, J., & Koerin, B. (1998). Can we assess suitability at admission? A review of

    MSW application procedures. *Journal of Social Work Education, 34,* 437-453.

Moya, P.M.L. (2000). Introduction: Reclaiming identity. In P.M.L. Moya, & M.R.

    Hames-Garcia (Eds.), *Reclaiming identity*, (pp. 1-28). Berkley, CA: University of

    California Press.

Müller, U., Sokol, B., & Overton, W.F. (1999). Developmental Sequences in Class

    Reasoning and Propositional Reasoning. *Journal of Experimental Child*

    Psychology, 74, 69-106.

National Association of Social Workers (1999). *Code of Ethics*. Washington, D.C.:

    Author.

Nicolini, D., Cherardi, S., & Yanow, D. (2003). Towards a practice-based view of

    knowing and learning in organizations. In D. Nicolini, S. Gherardi, & D. Yanow

    (Eds.) *Knowing in Organizations,* (pp.3-31). Arkmonk, NY: M.E. Sharpe.

Nunnally, J.C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.

NVIVO 8 qualitative data analysis program. QSR International Pty Ltd., Version 8.0.2,

    2008.

O'Donnell, V.L., & Tobell, J. (2007). The transition of adult students to higher education:

    Legitimate peripheral participation in a community of practice? *Adult Education*

    Quarterly, 57(4), 312-328.

Patton, M. Q. (2001). *Qualitative research and evaluation methods* (3rd ed.). Thousand

    Oaks, CA: Sage Publications.

Pelech, W., Stalker, C., Regeher, C., & Jacobs, M. (1999). Making the grade: The quest

    for validity in admission decisions. *Journal of Social Work Education, 35*(2), 215-

    227.

Pohan, C.A., & Aguilar, T.E. (2001). Measuring educators' beliefs about diversity in

    personal and professional contexts. *American Educational Research Journal,*

    38(1), 159-182.

Pratto, F., Sidanius, J., Stallworth, L.M., & Malle, B.F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology, 76*, 741-763.

Raju, N.S., van der Linden, W.J., & Fleer, P.F. (1995). IRT-based internal measures of differential functioning of items and tests. *Applied Psychological Measurement, 19*, 353-368.

Rattansi, A., & Phoenix, A. (2005). Rethinking youth identities: Modernist and postmodernist frameworks. *Identity: An International Journal of Theory and Research, 5*(2), 97-123.

Reamer, F.G. (1995). *Social work values & ethics.* New York: Columbia University Press.

Reckase, M.D. (1997). The past and future of multidimensional item response theory. *Applied Psychological Measurement, 21*, 25-27.

Reeser, L.C., & Epstein, I. (1990). *Professionalization and activism in social work: The sixties, the eighties, and the future.* New York.

Regeher, C., Stalker, C., Jacobs, M., & Pelech, W. (2001). The gatekeeper and the wounded healer. *The Clinical Supervisor, 20*(1), 127-143.

Reichardt, C. S., & Cook, T. D. (1979). Beyond qualitative versus quantitative methods. In T. D. Cook & C. S. Reichardt (Eds.), Qualitative and quantitative methods in evaluation research (pp. 7–32). Beverly Hills, CA: Sage.

Reise, S.P., Ainsworth, A.T., & Haviland, M.G. (2005). Item response theory: Fundamentals, applications, and promises in psychological research. *Current Direction sin Psychological Science, 14*(2), 95-101.

Reise, S.P., Widaman, K.F., & Pugh, R.H. (1993). Confirmatory factor analysis and item response theory: Two approaches for exploring measurement invariance. *Psychological Bulletin, 114*(3), 552-566.

Reise, S.P., & Yu, J. (1990). Parameter recovery in the graded response model using MULTILOG. *Journal of Educational Measurement, 27,* 133-144.

Sayer, A. (2000). *Realism and social science.* Thousand Oaks, CA: SAGE Publications.

Schilling, R., Morrish, J.N., & Liu, G. (2008). Demographic trends in social work over a quarter-century in an increasingly female profession. *Social Work*, *53*(2), 103-114.

Schwartz, S.H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M.P. Zanna (Ed.), *Advances in experimental psychology* (V.25), (pp. 1-65). San Diego, CA: Academic Press Inc.

Sears, D. O., & Henry, P. J. (2005). Over thirty years later: A contemporary look at symbolic racism and its critics. *Advances in Experimental Social Psychology. 37,* 95-150.

Seelman, K., & Walls, E.N. (2006). GSSW multicultural survey. Unpublished work. Graduate School of Social Work, University of Denver, Denver, CO.

Smith, R.M., Schumaker, R.E., & Bush, M.J. (1998). Using item mean squares to evaluate fit to the Rasch model. *Journal of Outcome Measurement, 2*(1), 66-78.

SPSS. (Sept. 6, 2007). SPSS for Windows, Rel. 16.0.0. Chicago: SPSS, Inc.

Strauss, A. (1987). *Qualitative analysis for social scientists.* New York: Cambridge University Press.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.* Thousand Oaks, CA: Sage Publications.

Stryker, S. (2000). Identity competition: Key to differential social movement participation? In S. Stryker, T.J. Owens, &, R.W. White (Eds.) *Self, identity, and social movements*, (pp. 21-40). Minneapolis, MN: Minnesota University Press.

Sun, J. (2005). Assessing goodness of fit in confirmatory factor analysis. *Measurement and Evaluation in Counseling and Development, 37*(4), 240-256.

Swaminathan, H., & Gifford, J.A. (1979). *Estimation of parameters in the three-parameter latent-trait model.* Laboratory of Psychometric and Evaluation Research (Report No. 90). Amherst, MA: University of Massachusetts.

Tabachnik, B.G., & Fidell, L.S. (2001). *Using multivariate statistics* (4th ed.). Boston: Allyn and Bacon.

Tanaka, J.S. (1993). Multifaceted conceptions of fit in structural equation models. In K/A/ Bollen, & J.S. Long (Eds.), *Testing structural equation models* (pp. 10-39). Newbury Park, CA: Sage.

Vygotsky, L.S. (1978). *Mind and society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Weinfurt, K.P. (1995). Multivariate analysis of variance. In L.G. Grimm and P.R. Yarnold (Eds.), *Reading and understanding multivariate statistics,* (pp. 245-276). Washington, D.C.: American Psychological Association.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity.* New York: Cambridge University Press.

Wenger, E. (2003). Communities of practice and social learning systems. In D. Nicolini, S. Gherardi, & D. Yanow (Eds.) *Knowing in Organizations,* (pp.76-99). Arkmonk, NY: M.E. Sharpe.

Wenger, E., McDermott, R., & Snyder, W.M. (2002). *Cultivating communities of practice.* Boston: Harvard Business School Press.

Will, G. (October 14, 2007). Social workers' indoctrination. *Denver Post,* E5.

Wilson, M. (2005). *Constructing measures: An item response modeling approach.* Mahwah, N.J.: Lawrence Erlbaum Associates.

Wirth, R.J., & Edwards, M.C. (2007). Item factor analysis: Current approaches and future directions. *Psychological Methods, 12*(1), 58-79.

Worchel, S., Iuzzini, J., Coutant, D., & Ivaldi, M. (2000). A multidimensional model of identity: Relating individual and group identities to intergroup behavior. In D. Capozza & R. Brown (eds.) *Social identity processes: Trends in theory and research* (pp. 15-32). Thousand Oaks, CA: Sage Publications.

Wright, B.D., & Masters, G.N. (1982). *Rating scale analysis: Rasch measurement.* Chicago: MESA Press.

Wu, M.L., Adams, R.J., & Wilson, M., & Haldane, S. (2008). ACER *Conquest* 2.0:

    Generalized item response modeling software [computer program]. Hawthorn,

    Australia: ACER.

Appendix A

Participant Survey

1. Project Information Sheet

PROJECT INFORMATION SHEET
A Critical Realist Exploration of the Relationship between Personal and Professional Value Systems in Social Workers and the Impact on Motivation for Participation in a Social Work Community of Practice

You are invited to participate in a study that will explore the relationship between personal values and attitudes towards professional social work values, and the impact of that relationship on motivations for enrolling in a MSW program. In addition, this study is a dissertation and is being conducted to partially fulfill the requirements of a doctoral program in social work and a doctoral program in quantitative research methods. The study is being conducted by Philip Osteen, MSW, ABD, a 5th-year student at the University of Denver. Results will be used to evaluate a structural equation model linking personal values, professional social work values, and motivations for entering a MSW program. Philip Osteen can be reached at 303-588-6458 or at Philip.osteen@gmail.com. This project is supervised by the dissertation committee chair, Dr. Walter LaMendola, Graduate School of Social Work, University of Denver, Denver, CO 80208, 303-871-2796, wlamendo@du.edu.

Participation in this phase of the study should take about 30 minutes of your time. Participation will involve responding to approximately 100 questions about your personal values, beliefs towards professional social work values, and motivations for enrolling in a MSW program. Participation in this project is strictly voluntary. The risks associated with this project are minimal. If, however, you experience discomfort, you may discontinue your participation at any time. We respect your right to choose not to answer any questions that may make you feel uncomfortable. Refusal to participate or withdrawal from participation will involve no penalty or loss of benefits to which you are otherwise entitled.

There are no benefits to being involved in this study. However, you may enjoy the ability to provide information about your own experiences, and some research participants report a sense of positive feelings associated with volunteering for issues of personal concern or interest to them. There is no financial compensation for your participation in the project; however, all participants will be given the option of entering a random drawing for a $50.00 gift certificate per participating school. Details regarding the random drawing are provided at the end of the survey.

Your responses will be anonymous. That means that no one, including the researcher, will be able to connect your identity with the information you give. Proceeding with the survey will signify your consent to participate in this project.

1. Do you consent to participation in this pilot study?

○ Yes

○ No

2. Demographics

Please select an answer to each of the following questions that best reflects how you identify yourself.

1. What is your gender?

○ Male

○ Female

○ Transgendered

2. How old are you?

_____

3. Do you consider yourself to be multiracial/multiethnic?

○ Yes

○ No

3. Multiracial/Multiethnic Identity

1. Please describe your multiracial/multiethnic identity.

4. International Student

1. Are you an International student?

○ Yes

○ No

5. Country of Origin

1. What is your country of origin?

6. Racial/Ethnic Identity

1. What is your racial/ethnic identity?

- ○ White, non-Hispanic
- ○ White, Hispanic
- ○ African American/Black
- ○ Asian/Pacific Islander
- ○ Native American
- ○ Other

7. Other Racial/Ethnic Identity

1. Please describe your racial/ethnic identity.

8. Sexual Orientation

1. What is your sexual orientation?

○ Straight/Heterosexual

○ Bisexual

○ Gay/Lesbian

○ Queer

○ Other

9. Other Sexual Orientation

1. Please describe your sexual orientation identity.

10. Religious Affiliation

1. What is your religious affiliation?

○ Protestant

○ Catholic

○ Islamic

○ Mormon

○ Jewish

○ Atheist/Agnostic

○ Other

○ None

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11. Protestant Denomination

1. What is your denomination?

12. Other Religious Affiliation

1. Please describe your religious affiliation.

13. Religious Participation

1. How would you describe your level of participation in activities associated with your religion?

○ Limited

○ Occasional

○ Often

○ Frequent

14. Socio-Econimc Status

1. How would you describe your family SES while growing up?

○ Poor

○ Working Class

○ Middle Class

○ Upper Class

○ Wealthy

15. School Affilation

1. What school do you currently attend?

2. How ould you describe your school?

○ Secular

○ Religious

3. What was your enrollment status for academic year 2007-2008?

○ Part-time

○ First Year

○ Advanced Standing

○ Second Year

16. Educational Background

1. What is your major for your Bachelor's degree?

○ Social Work

○ Other Social Science (i.e., psychology, sociology, etc.)

○ Physical/Natural Science (i.e., biology, chemistry, etc.)

○ Business

○ Other

○ Dual/Multi-Major

17. Bachelor's Study

1. Please describe the area(s) of study for your Bachelor's degree.

18. MPSWCoP

The following statements are designed to measure various components of students' values, attitudes about social work, and reasons why students might decide to enroll in a MSW program. Please read through each statement and select the response that most closely reflects how you feel about the statement. Please note that response formats may change from page to page.

1. My main reason for entering the MSW program was to be a part of a community of social workers.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

2. I wanted to attend a MSW program so that I could be around people with similar values to me.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

3. Without a MSW degree, I am not qualified to be a social worker.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

4. I chose a MSW program because I thought social work values were more similar to my values than those of other professions.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

5. I find social work appealing because it is different than the type of work I have done in the past.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

6. I decided to enroll in a MSW program to see if social work is a good fit for me.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

7. There is more diversity of values among students than I expected.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

8. I wanted to attend a MSW program so that I could learn more about the social work profession.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more the Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

9. Learning about the social work profession is less important to me than being part of a community of social workers.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more the Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

10. Learning how to be a social worker is more important to me than learning about the social work profession.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more the Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

11. Before entering the program I was worried about whether or not I would fit in with my peers.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more the Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

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12. A MSW degree is necessary to be a good social worker.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

13. Entering the MSW program allowed me to explore a new area of professional interest.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

14. Being around students with similar goals is less important to me than developing my skills as a social worker.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

15. A MSW degree will give me more professional opportunities than other professional degrees.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

16. My main reason for entering the MSW program was to decide if social work is the right profession for me.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

17. Learning new social work skills was not a motivating factor in my decision to enter the MSW program.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

18. My main reason for entering the MSW program was to acquire knowledge and/or skills.

○ Strongly Disagree

○ Disagree

○ Disagree more the Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

19. MRS 2000

1. It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.

- ○ Strongly agree
- ○ Somewhat agree
- ○ Somewhat disagree
- ○ Strongly disagree

2. Irish, Italian, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same.

- ○ Strongly agree
- ○ Somewhat agree
- ○ Somewhat disagree
- ○ Strongly disagree

3. Some say that black leaders have been trying to push too fast. Others feel that they haven't pushed fast enough. What do you think?

- ○ Trying to push very much too fast
- ○ Going too slowly
- ○ Moving at about the right speed

4. How much discrimination against blacks do you feel there is in the United States today, limiting their chances to get ahead?

- ○ A lot
- ○ Some
- ○ Just a little
- ○ None at all

5. How much of the racial tension that exists in the United States today do you think blacks are responsible for creating?

- ○ All of it
- ○ Most of it
- ○ Some of it
- ○ Not much of it at all

6. Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.

○ Strongly agree

○ Somewhat agree

○ Somewhat disagree

○ Strongly disagree

7. Over the past few years, blacks have gotten less than they deserve.

○ Strongly agree

○ Somewhat agree

○ Somewhat disagree

○ Strongly disagree

8. Over the past few years, blacks have gotten more economically than they deserve.

○ Strongly agree

○ Somewhat agree

○ Somewhat disagree

○ Strongly disagree

20. SWCIQ Personal and Family Experiences

To what degree do you feel the following factors influenced your career choice?

1. Your childhood experiences.

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

2. Your own life experiences with a social problem.

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

3. Your commitment to provide services to families similar to your family.

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

4. Your commitment to help people like yourself.

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

5. Your personal life experiences.

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

6. Your commitment to providing services to families experiencing dysfunction.

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

7. Your commitment to help people with similar life experiences to your own.

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

8. Your personal therapy.

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

21. AntiBlack Scale

1. The root cause of most of the social and economic ills of minorities is the weakness and instability of minority families.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

2. Although there are exceptions, minority neighborhoods don't seem to have strong community organization or leadership.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

3. On the whole, minority people don't stress education.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

4. Many minority teenagers don't respect themselves or anyone else.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

5. Minorities don't seem to use opportunities to own and operate little shops and businesses.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

6. Very few minority people are just looking for a free ride.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

7. Minority children would do better in school if their parents had better attitudes about learning.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

8. Minorities should take the jobs that are available and then work their way up to better jobs.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

9. One of the biggest problems for a lot of minorities is their lack of self-respect.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

10. Most minorities have the drive and determination to get ahead.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

22. POS

1. All direct income benefits to welfare recipients should be in the form of cash.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

2. When they are old enough, children should have the right to choose their own religion, including the option to choose none.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

3. The employed should have more government assistance than the unemployed.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

4. Sterilization is an acceptable method of reducing the welfare load.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

5. Counseling should be available to women who ask for abortions.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

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6. There should be a guaranteed minimum income for everybody.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

7. Couples should decide for themselves whether they want to become parents.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

8. The federal government has invested too much money in the poor.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

9. The government should not redistribute the wealth.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

10. Retirement at age 65 should be manditory.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

11. Women should have the right to use abortion services.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

12. The dying have a right to be informed of their prognoses.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

13. The government should keep files on those with minority political affiliations.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

14. Abductions by parents who do not have legal custody should be considered a family, not legal, matter.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

15. The government should not subsidize family planning programs.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

16. The mandatory retirement age protects society from the incompetence of the elderly.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

17. Welfare mothers should be discouraged from having more children.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

18. Family planning should be available to all adolescents.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

19. Capital punishment should not be abolished.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

20. The government should provide a comprehensive system of insurance protection against loss of income because of disability.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

21. Mandatory retirement based on age should be eliminated.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

22. The death penalty is an important means for discouraging criminal activity.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

23. Local governments should be monitored on the enforcement of civil rights statutes.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

24. The aged require only minimal mental health services.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

25. Welfare workers should keep files on those clients suspected of fraud.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

26. Only medical personnel should be involved in life and death treatment decisions.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

27. Pregnant adolescents should be excluded from school.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

28. Students should be denied government funds if they participate in protest demonstrations.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

29. Juveniles do not need to be provided with legal counsel in juvenile courts.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

30. Corporal punishment is an important means of punishment for aggressive, acting out adolescents.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

31. Unemployment benefits should be extended, especially in areas hit by economic disaster.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

32. It would be better to give welfare recipients vouchers or goods rather than cash.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

33. The gap between poverty and affluence should be reduced through measures directed at redistribution of income.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

34. The government should have primary responsibility for helping the community accept a returning offender.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

35. Efforts should be made to increase voting among minorities.

- ○ Strongly Agree
- ○ Agree
- ○ Neutral
- ○ Disagree
- ○ Strongly Disagree

36. "No knock" entry, which allows the police entrance without a search warrant, encourages police to violate the rights of individuals.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

37. Family planning services should be available to individuals regardless of income.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

38. Older persons should be sustained to the extent possible in their own environments.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

39. The child in adoption proceedings should be the primary client.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

40. A family should be defined as two or more individuals who consider themselves to be a family, and who assume protective, caring obligations to one another.

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

23. MGUDS

1. I would like to join an organization that emphasizes getting to know people from different countries.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

2. I would like to go to dances that feature music from other countries.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

3. I often listen to the music of other cultures.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

4. I am interested in learning about the many cultures that have existed in this world.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

5. I attend events where I might get to know people from different racial backgrounds.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

6. Persons with disabilities can teach me things I could not learn elsewhere.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

7. I can best understand someone after I get to know how he/she is both similar to me and different from me.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

8. Knowing how a person differs from me greatly enhances our friendship.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

9. In getting to know someone, I like knowing both how he/she differs from me and is similar to me.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

10. Knowing about the different experiences of other people helps me understand my own problems better.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

11. Getting to know someone of another race is generally an uncomfortable experience for me.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

12. I am only at ease with people of my own race.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

13. Its really hard for me to feel close to a person from another race.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

14. It is very important that a friend agrees with me on most issues.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

15. I often feel irritated by persons of a different race.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

24. SWCIQ Social CHange Mission

To what degree do you feel the following factors influenced your career choice?

1. Your commitment to helping people with social problems.

○ Strongly disagree

○ Disagree

○ Neither agree nor disagree

○ Agree

○ Strongly agree

2. The stated values of the social work profession.

○ Strongly disagree

○ Disagree

○ Neither agree nor disagree

○ Agree

○ Strongly agree

3. Your commitment to social change.

○ Strongly disagree

○ Disagree

○ Neither agree nor disagree

○ Agree

○ Strongly agree

4. The match of your personal values with the values of the social work profession.

○ Strongly disagree

○ Disagree

○ Neither agree nor disagree

○ Agree

○ Strongly agree

5. Your commitment to provide services to persons experiencing poverty.

○ Strongly disagree

○ Disagree

○ Neither agree nor disagree

○ Agree

○ Strongly agree

6. The commitment of the social work profession to advocacy on behalf of clients.

○ Strongly disagree

○ Disagree

○ Neither agree nor disagree

○ Agree

○ Strongly agree

7. The commitment of the social work profession to social change.

○ Strongly disagree

○ Disagree

○ Neither agree nor disagree

○ Agree

○ Strongly agree

8. Your commitment to social justice.

○ Strongly disagree

○ Disagree

○ Neither agree nor disagree

○ Agree

○ Strongly agree

25. HE Scale

1. One should be kind to all people.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

2. One should always be of help to others less fortunate than one's self.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

3. A person should be concerned about the well-being of others.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

4. There should be equality for everyone - because we are all human beings.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

5. Those who are unable to provide for their basic needs should be helped by others.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

6. A good society is one in which people feel responsible for one another.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

7. Everyone should have an equal chance and equal say in most things.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

8. Acting to protect the rights and interests of other members of the community is a major obligation for all persons

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

9. In dealing with criminals, the courts should recognize that many are victims of circumstances.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

10. Prosperous nations have a moral obligation to share some of their wealth with poor nations.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

26. PBADS

1. There is nothing wrong with people from different racial backgrounds having/raising children.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

2. America's immigrant and refugee policy has led to the deterioration of America.

- ○ Strongly Disagree
- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

3. Making all public facilities available to the disabled is simply too expensive.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

4. Accepting many different ways of life in America will strengthen us as a nation.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

5. It is not a good idea for same-sex couples to raise children.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

6. The reason people live in poverty is that they lack motivation to get themselves out of poverty.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

7. People should develop meaningful relationships with others from different racial/ethnic groups.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

8. People with physical limitations are less effective leaders than people without physical limitations.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

9. In general, White people place a higher value on education than do people of color.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

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10. Many women in our society continue to live in poverty because males still dominate most of the major social systems in America.

○ Strongly Disagree

○ Disagree

○ Neither Agree nor Disagree

○ Agree

○ Strongly Agree

11. Since men are frequently the heads of households, they deserve higher wages than females.

○ Strongly Disagree

○ Disagree

○ Neither Agree nor Disagree

○ Agree

○ Strongly Agree

12. It is a good idea for people to develop meaningful relationships with others having a different sexual orientation.

○ Strongly Disagree

○ Disagree

○ Neither Agree nor Disagree

○ Agree

○ Strongly Agree

13. Society should not become more accepting of gay/lesbian lifestyles.

○ Strongly Disagree

○ Disagree

○ Neither Agree nor Disagree

○ Agree

○ Strongly Agree

14. It is more important for immigrants to learn English than to maintain their first language.

○ Strongly Disagree

○ Disagree

○ Neither Agree nor Disagree

○ Agree

○ Strongly Agree

15. In general, men make better leaders than women.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

27. Multicultural Survey Subscale 1

1. My opinions and values often "conflict" with the mainstream culture of my MSW program.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

2. I sometimes struggle to accomodate both my personal beliefs and the NASW Code of Ethics.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

3. The majority of students I have met in my MSW program hold attitudes and beliefs similar to my own.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

4. I agree with the statement, "social workers should act to prevent and eliminate domination of, exploitation of, and discrimination against any person, group, or class on the basis of race, ethnicity, national origin, color, sex, sexual orientation, age, marital status, political belief, religion, or mental or physical disability."

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

5. The majority of students I have met in my MSW program are intolerant of beliefs with which they do not agree.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

6. It is better to keep my opinions to myself when I know that most others at my MSW program will disagree with me.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

7. There is a lot support for differences in opinions and beliefs at my MSW program.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

8. The majority of professors I have met at my MSW program are intolerant of beliefs with which they do not agree.

- ○ Strongly Disagree

- ○ Disagree

- ○ Disagree more than Agree

- ○ Agree more than Disagree

- ○ Agree

- ○ Strongly Agree

9. Disagreement is encouraged in classrooms.

- ○ Strongly Disagree

- ○ Disagree

- ○ Disagree more than Agree

- ○ Agree more than Disagree

- ○ Agree

- ○ Strongly Agree

28. Multicultural Survey Subscale2

1. Some groups of people are simply inferior to other groups.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

2. It would be good if all groups could be equal.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

3. In getting what you want, it is sometimes necessary to use force against other groups.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

4. It is OK if some groups have more of a chance in life than others.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

5. All groups should be given an equal chance in life.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

6. To get ahead in life it is sometimes necessary to step on other groups.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

7. If certain groups stayed in their places, we would have fewer problems.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

8. We would have fewer problems if we treated people more fairly.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

9. Its probably a good thing that certain groups are at the top and other groups are at the bottom.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Disagree more than Agree
- ☐ Agree more than Disagree
- ☐ Agree
- ☐ Strongly Agree

10. We need increased social equality.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Disagree more than Agree
- ☐ Agree more than Disagree
- ☐ Agree
- ☐ Strongly Agree

11. Inferior groups should stay in their place.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Disagree more than Agree
- ☐ Agree more than Disagree
- ☐ Agree
- ☐ Strongly Agree

12. Group equality should be our ideal.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Disagree more than Agree
- ☐ Agree more than Disagree
- ☐ Agree
- ☐ Strongly Agree

13. Sometimes, other groups must be kept in their place.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

14. We should strive to make incomes as equal as possible.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

15. No one group should dominate.

- ○ Strongly Disagree
- ○ Disagree
- ○ Disagree more than Agree
- ○ Agree more than Disagree
- ○ Agree
- ○ Strongly Agree

29. Multicultural Survey Subscale3

1. Lesbians just can't fit into our society.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

2. Homosexual behavior between two men is just plain wrong.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

3. State laws regulating private, consensual lesbian behavior should be loosened.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

4. Male homosexuality is simply a different lifestyle that should NOT be condemned.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

5. Female homosexuality is a sin.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

6. Female homosexuality in itself is no problem, but what society makes of it can be a problem.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

7. I think male homosexuals are disgusting.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

8. Male homosexuality is a perversion.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

9. Lesbians are sick.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

10. Just as in other species, male homosexuality is a natural expression of sexuaility in human men.

○ Strongly Disagree

○ Disagree

○ Disagree more than Agree

○ Agree more than Disagree

○ Agree

○ Strongly Agree

30. THANK YOU!

You have reached the end of the survey. Thank you for being an impotant part of this study! Your anonymous responses are extremely valuable to the overall study findings.

1. A random drawing for $50.00 will be held for each school participating in the study. To enter the drawing you will need to provide your name, email address, and phone number. This information will not be connected to your responses on the survey. Would you like to enter the random drawing?

○ Yes

○ No

31. Random Drawing

Please send an email containing your name, phone number, name of school, and email to Philip Osteen at philip.osteen@gmail.com

32. Logout

THANK YOU!!

Appendix B

Phase 3: Qualitative Interviews of Participants' Values and Motivations
Qualitative Interview Questions

1. Why are you pursuing a degree in social work?

2. What is it about social work that attracted you in the first place?

3. How would you describe the values of professional social work? Where do you think these values come from?

4. How would you describe your personal values? Where do you think these values come from?

5. Describe a situation in which you felt conflicted over a social work related decision you made.

6. Describe the political and social climate of your school. Do you believe your values are more similar to your peers or more different from them? Why?

7. In what ways do you see your own values portrayed in your social work practice?

8. In what ways do you see social work values portrayed in your day-to-day life?

9. Define what each of these values means to you. Which of these values is most important to you? Why?
    a. service
    b. social justice
    c. dignity and worth of the person
    d. importance of human relationships
    e. integrity
    f. competence

10. Are you a social worker?