Advising in a Multidisciplinary Master's Program: An Evaluation

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Multidisciplinary programs have begun to complement traditional models of graduate and professional education. The development of these programs has begun to reflect the change in graduate student advisement. Multidisciplinary programs necessitate the need for quality advisement approaches. This study assessed faculty satisfaction and commitment to advising graduate students in the Multidisciplinary Studies Individualized (MDSI) program at a metropolitan college in New York State. The intent was to examine faculty level of satisfaction, level of commitment and identify barriers to advising MDSI students. This quantitative study employed a paired samples t – test to compare faculty advising groups. The findings revealed MDSI graduate faculty experience lower levels of satisfaction and commitment compared to single disciplinary graduate faculty. Quotes obtained from faculty advising groups revealed academic advising and MDSI program structure as key barriers to advising MDSI students. Recommendations offer strategies for enhancing advising practices to benefit MDSI graduate faculty, students and the college.

Post baccalaureate programs in American colleges and universities have grown in number and diversity in the past half century. The content, structure, and meaning of academic degrees have also expanded. External and joint degrees, cooperative education, interuniversity consortia, online and distant learning and multidisciplinary programs have been institutionalized and, in many fields, are replacing more traditional models of graduate and professional education (Glazer-Raymo, 2005).

One of the most common types of innovative graduate programs is the interdisciplinary degree that combines subject matter fields around a common theme and seeks to transform the curriculum by infusing new knowledge into existing disciplines (Glazer, 1986). According to Glazer, over the past several decades, there has been a proliferation in multidisciplinary and interdisciplinary programs. The flexibility of such programs moves beyond the traditional discipline structure by bringing together two or more disciplines to develop a curriculum (Glazer, 1986). The development of multidisciplinary and interdisciplinary studies programs have begun to reflect the change in nature of the student body, including their educational, occupational and cultural interests (Glazer-Raymo, 2005). The development of these programs has also begun to reflect the change in student advisement needs.

The advising literature over the past 30 years suggests that quality advising is developmental (Smith & Allen, 2006). Developmental advising is defined as the advisor and student engaging in a series of developmental tasks that leads students to create a plan for personal growth and self-fulfillment within their lives (Crookson, 1994; King, 2005). For more than a decade, a lively debate about the appropriateness of the developmental approach has taken place (Hemwall & Trachte, 2005).

Scholars such as Hagen (1994), Lowenstein (1999), and Strommer (1994) point the theory of academic advising away from the developmental and lay the groundwork for implementing learning as an organizing paradigm in academic advising. This approach connects the advising field with a growing interest in learning as a focus for higher education (Hemwall & Trachte, 2003, p. 13). With advising graduate students, the relationship between faculty members and their advisee(s) is arguably more meaningful and contingent for student success. Unlike their undergraduate counterparts, where the advisor prescribes or gives advice on how to solve a problem and expects the student to follow the advice (Crookston, 1994), graduate students rely on their advisors for much more than course planning and information on degree requirements (Minor, 2003).

Even successful graduate advisors face the complex task of challenging, supporting, critiquing, and empowering graduate students as they progress through their graduate education. These advisors are sometimes unsure about how to support students because each student's needs can appear to be unique and individualized (Bloom, Cuevas, Hall & Evans, 2007). Graduate students in multidisciplinary programs may also present an additional challenge for advisors because they must also provide guidance and support outside of their area of academic discipline and expertise.

Research on graduate advising focuses primarily on the advising of professional and doctoral students. A review of relevant literature provides examples of the effectiveness of the advisor-advisee relationships from the advisee perspective (Schlosser, Knox, Moskovitz, and Hill, 2003), the advisor-advisee relationship from the advisor's perspective (Knox, Schlosser, Pruitt, & Hill, 2006), and the affect of advisor behavior on doctoral student satisfaction (Zhao, Golde, & McComick, 2007). However, little attention has been given to the study and practice of advising graduate students.

The existing literature reveals no specific research on the advising of graduate

students in multidisciplinary master's degree programs. Researchers have typically not asked faculty to evaluate the advising they or others provide (Allen & Smith, 2008). The lack of scholarly research in the multidisciplinary academic advising field warrants studies to examine if changes are needed. Additionally, studies should address the gap in the research relative to graduate faculty attitudes, experiences, and perceptions of advising.

The purpose of this research was to assess faculty satisfaction and commitment to advising master's students in a Multidisciplinary Studies Individualized (MDSI) program at Buffalo State College, State University of New York. The intent was to examine faculty level of satisfaction, level of commitment and identify perceived barriers to advising MDSI students. Drawing from the scholarship of teaching (Boyer, 1990) and advising working alliance inventory (Schlosser & Gelso, 2001) frameworks, this quantitative study helps the profession better understand the advisement process for graduate students.

Descriptive Information

The nation's largest and most comprehensive system of public higher education, The State University of New York (SUNY) has 64 individual colleges and universities. SUNY campuses are divided into four categories, based on educational mission, types of academic opportunities available and degrees offered. These categories include community colleges, technology colleges, university colleges, and university centers/doctoral granting degree institutions. The State University of New York offers 6,000 educational options including short-term vocational/technical courses, certificate, associate, and baccalaureate degree programs, graduate degrees and post-doctoral studies (http://www.suny.edu/academicportal/index.cfm).

Buffalo State College is one of thirteen university colleges. Situated in an urban setting, Buffalo State is the largest of the university colleges in the SUNY system, with 39 master's programs, two certificate of advanced study programs, and six graduate certificate programs, 19 postbaccalaureate teacher certification programs as well as 75 undergraduate degree programs. The College mission is to make quality education accessible to students while addressing the needs of the Western New York community (The Graduate School, State University College at Buffalo, 2010).

Multidisciplinary Studies Program (MDSI)

The purpose of the Multidisciplinary Studies Individualized (MDSI) program is to meet the needs of master's degree students and potential students who were frustrated by the limits of traditional graduate degree programs (Office of Graduate Studies, State University College at Buffalo, 1977). It is believed these potential students would benefit from a degree program with a more flexible structure. The MDSI program was established September, 1977, at Buffalo State College (Office of Graduate Studies, State University College at Buffalo, 1977). In its early inception, the program was designed to serve a relatively small number of students who require interdisciplinary or multidisciplinary graduate study and for whom the traditional discipline-oriented graduate programs are inappropriate formats of study. The new Master of Arts/Master of Science degree program, with emphasis in General Studies offered a self-designed 30-credit hour master's degree program tailored to students' educational and professional goals (Office of Graduate Studies, State University College at Buffalo, 1977).

Today, the MDSI program educates 126 graduate students. Of these students, 52 are full-time and 74 are part-time. The median age of a MDSI student is 28 years. The students' reported gender is 65 female and 61 male. Reported race /ethnicity includes: 23 African American, 3 Asian, 80 Caucasian, 4 Hispanic, 1 Native American and 15 Unreported (Office of Facilities Planning and Institutional Research, State University College at Buffalo, 2010). Presently, over 50% of MDSI students are teachers seeking professional certification. Students outside the field of education are employed careers such as health care, higher education, human service administration, public relations, manufacturing, banking and others. MDSI students select their course-of-study from a full range of courses that may include geography, design, health and wellness, geography, earth science, social work, business and others (Office of Graduate Studies, State University College at Buffalo, 1977).

The Graduate School Office is the setting used for this research. The office is located on the first floor of Cleveland Hall (administration building) and is centrally located on the Buffalo State campus. The Graduate School Office serves as the hub for information and services related to graduate programs, policies, enrollment functions, funding and scholarships opportunities for faculty, and students. The program coordinator/internal evaluator's office is located within the Graduate School Office.

Scope of Activities

Through advisement and with certain guidelines, MDSI students may design their own programs by selecting graduate courses from any department at the college or from other accredited institutions. Each student must convene an academic advisory committee consisting of a principal advisor and two additional graduate advisors representing two academic schools at the college. At the admissions stage, the program coordinator interviews applicants to determine if the MDSI program is the "right fit" to advance their career. Next, the program coordinator reviews the admissions paperwork and examines the admission requirements including the student's credentials, grade point average, a statement of intent that provides an explanation of the reasons for interest in a nontraditional study format, and a detailed outline of proposed plan of study including specific courses. An interview with potential applicants is provided. During the interview, a checklist of items including admission requirements, accepted student information and MDSI guidelines and policies are discussed with applicants. Additionally, information regarding the capstone requirement – a master's thesis or project is provided including the role of advisory committee members.

The admission decision for MDSI program applications is made by the program coordination. Once admitted to the program, the student's principal advisor is informed of the admissions decision and provided a copy of the student's admission paperwork. A memorandum is also sent to principal advisors informing them of the student's acceptance and a description of their role and responsibilities. The principal advisor is requested to sign the memorandum and return to the program coordinator confirming that they agree to serve as principal advisor and that they understand the information presented. At this time, the program coordinator's responsibilities with the student are relinquished to the principal advisor and other members of the advisory committee.

The principal advisor's role is to serve as lead advisor. As lead advisor, he/she is responsible for all aspects of the student's program of study. The principle advisor performs several types of advisement including prescriptive, developmental and intrusive. First, the principle advisor assists students in the development of a flexible curriculum based on the student's and industry market needs. Second, the principal advisor assists students with formalizing the degree candidacy application. The degree candidacy is the college's official program of study for students who have completed between 6 – 12 credit hours of coursework. The degree candidacy application must be approved by the advisory committee and the graduate

school dean. Third, the principal advisor may also recommend inter-institutional study at neighboring colleges and universities as an option for coursework not offered by the college. Forth, principal advisors may also advocate for students having difficulty registering for courses reserved for majors only. Fifth, the principal advisor is responsible for the supervision of the capstone experience. Students are provided assistance with topic selection, overall direction. The principal advisor monitors the student's capstone requirement. Additionally, the principle advisor collaborates with members of the advisory committee members regarding the student's work. Six, in the event students fail to meet the academic requirements and is placed on academic probation, the principal advisor works with the program coordinator/assistant to the dean for strategic and enrollment planning to discuss a plan of action to assist the student in regaining good standing with the college or to provide the best course of action for student. Seven, the principle advisor may assist students with career or vocational exploration. Finally, when the student has met the program requirements (coursework and capstone requirements) completed theses are submitted to the Graduate School Office and projects are submitted to the principal advisor. The advisory committee and the graduate dean grant final approval for graduation and a grade is awarded by the principal advisor.

According to Lynch (2000), the advising unit is an identifiable administrative or organizational entity that is allocated resources and charged with a mission or purpose that includes but may not be limited to providing academic advising. Such units include academic departments and advising centers. In this case, the Graduate School is described as an academic unit. This level of evaluation is appropriate for this program evaluation for two reasons: 1) it has the responsibility for providing academic advisement to a specific population or subpopulation of students; and 2) whereas in the case of the individual advisor the focus is on the performance of that individual, for the advising program attention is also given to the interworking of the component members (the program coordinator and the principal advisor) (Lynch, 2000).

In the fall, 2008, the graduate dean invited faculty who currently serve on the Graduate Advisory Council to serve on the MDSI program sub-committee. The purpose of the sub-committee is to collaborate with faculty from other disciplines to work together to address and help resolve issues and concerns relative to the program. As the internal evaluator, I have been selected by the interim dean to chair the committee. I was granted permission to utilize the committee as one of my stakeholder groups for this research.

Literature Review

The review of the literature begins with the characteristics of adult graduate students and a summary of adult learning theory. This will be followed by an examination of the multidisciplinary and interdisciplinary approaches and the learner's experience. Finally, an examination of academic advising theories and graduate advising are presented.

According to the Council of Graduate Schools (CGS) (2008), increasing numbers of individuals are pursuing graduate education in the United States, with much of the growth being fueled by gains at the master's level and by increases in the numbers of women and minorities enrolled in graduate programs. CGS reports that graduate enrollment and degrees from 1997 to 2007 revealed a 3% average annual growth during this period, increasing numbers of women and minorities pursuing graduate study, and a 9% increase in doctoral degree production between 2006 and 2007. In addition, these students are likely to be employed full-time, commute to and from campus, and enroll on a part-time basis. Many more enroll in courses that are offered in off-campus locations or through a multitude of distance education delivery systems (Polson, 2003). Fischer and Zigmond (1998) suggest that graduate students' interests and realities of the job market may dictate that they pursue a different career track from those who follow a more traditional route through graduate school. These changing demographics have resulted in educational institutions realigning their thinking and delivery of programs and services to this unique population of students.

Today's graduate students represent a diverse group of adults with various needs and interests. As these students seek to build their careers, families, and positions within their communities, they have a desire to earn a postsecondary degree that speaks to their educational and professional goals, lifestyles, values, and attitudes (Polson, 2003). Most adult graduate students know what they want and many view graduate study as one step in the process of achieving their goals (Selke & Wong, 1993). While they have chosen an academic path, they often find themselves delayed or distracted and in need of support. These students need quality academic advising, but not the same kind as undergraduates (Bloom, Cuevas, Hall & Evans, 2007) to assist them throughout their graduate study.

Adults come into an educational activity with different experiences than do youth (Knowles, Swanson, & Holton, 2005; Merriam & Caffarella, 1999). There are individual

differences in background, learning style, motivation, needs, interests, and goals, creating a greater need for individualization of teaching and learning strategies (Brookfield, 1986; Silberman & Auerbach, 1998). The richest resource for learning resides in adults themselves; therefore, tapping into their experiences through experiential techniques (discussions, simulations, problem-solving activities, or case methods) is beneficial (Brookfield, 1986; Knowles et al., 2005; McKeachie, 2002; Silberman & Auerbach, 1998). Adult learners also bring life experiences and knowledge from their work-related activities, interest-based activities, and family responsibilities. It is during this time that adults acquire their self-identity from their experience (Bash, 2003). An understanding and knowledge of the learner's experience may be seen as the first step to assisting graduate students develop the necessary skills as they begin their educational and professional journey.

Brookfield (1986) warns educators that adults are inclusive of a configuration of idiosyncratic personalities, differing past experiences, current orientations, levels of readiness for learning and individual learning styles. He recommends advisors who incorporate adult education concepts in their advising protocol become facilitators of learning. Their advisement should adapt to the students' needs by providing an opportunity by which advisees can discuss how their experiences and interest may help assist in the advising process (Brookfield, 1986).

Over the past decades, andragogy has been used to assist adult learners. Knowles (1980) defines andragogy as:

> The process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing learning strategies, and evaluating learning outcomes (p. 7).

Recognizing the unique learning difference of adult students, Knowles (1998) postulated six assumptions for which adult education should focus. These assumptions include: (1) need to know, (2) self-concept, (3) the role of the learners' experience, (4) readiness to learn, (5) orientation to learning, and (6) motivation. The first assumption, the need to know states adults want know why they need to learn something before undertaking learning (Knowles, Swanson, & Holton, 2005). The second assumption, the learner's self-concept states adults believe they are responsible for their lives (Knowles et al., 2005). They need to be seen and treated as

capable and self-directed (Brookfield, 1986). The third assumption, the role of the learner's experiences maintains adults have individual differences in background, learning style, motivation, needs, interests, and goals, creating a greater need for individualization of teaching and learning strategies (Brookfield, 1986; Silberman & Auerbach, 1998). The richest resource for learning resides in adults themselves (Brookfield, 1986; Knowles et al., 2005; McKeachie, 2002; Silberman & Auerbach, 1998). The fourth assumption, readiness to learn asserts that adults become ready to learn things they need to know and do in order to cope effectively with real-life situations (Knowles et al., 2005). The fifth assumption, orientation to learning points out that adults are life-centered (task-centered, problem-centered) in their orientation to learning (Knowles et al., 2005). Finally, the sixth assumption, motivation emphasizes that adults are responsive to some external motivators (e.g., better job, higher salaries), but the most potent motivators are internal (e.g., desire for increased job satisfaction, self-esteem).

The six assumptions provide a comprehensive understanding of adult development and learning. Of these assumptions, the role of the learner's experiences stands at the forefront in providing a knowledge base for understanding how a graduate students' experience may influence his or her educational development while enrolled in a multidisciplinary or interdisciplinary program.

Academic disciplines have long organized the basic structure of American higher education (Holley, 2009). The evolution of academic disciplines has increasingly grown over the years and has become more specialized than ever before. While academic disciplines are, to some degree, porous, there are certain features that can be agreed upon. The following features are among those normally mentioned:

- the presence of a community of scholars;
- a tradition or history of inquiry;
- a mode of inquiry that defines how data is collected and interpreted;
- a definition of the requirements for what constitutes new knowledge;
- the existence of a communications network.

Three terms are used to describe the variations of discipline approaches in higher education: academic discipline, multidisciplinarity and interdisciplinarity. First, the traditional term, academic discipline is an area of study "with its own theories, methods and content…[with its] distinctiveness being recognized institutionally by the existence of distinct departments,

chairs, courses and so on" (Squires, 1992, p. 202). Academic disciplines are widely considered to be largely discrete and autonomous, although not homogeneous (Becher, 1981).

The term multidisciplinary is based on activities that require the cooperation among scholars from two or more disciplines as the various disciplines are juxtaposed, often with little apparent connection (Organisation for Economic Co-Operation and Development, 1972). Most commonly associated with the undergraduate curriculum, a key feature of multidisciplinary programs is its sequence, where similar topics from multiple disciplines are arranged to coincide with each other (Holley, 2009).

The term interdisciplinary is based on integrating knowledge from multiple disciplines and building on the reductionist insights of specific fields of inquiry to develop a more comprehensive understanding of the larger phenomenon (Newell, 1998). There are several types of inquiry that may be referred as interdisciplinary. The term interdisciplinary is often used interchangeably with other terms such as multidisciplinary, transdisciplinary, and crossdisciplinary (Klein, 1996).

The existing literature suggests that interdisciplinary programs are the term most commonly used when referring to multidisciplinary programs. However, for the purpose of this study, I use multidisciplinary programs as this term is representative of the MDSI program which is being studied and that reflects the purpose of this unique program.

The limitations of the disciplinary approach for knowledge production and dissemination that characterize American higher education are increasingly recognized (Holley, 2009). According to Holley (2009), these limitations include the following. First, they are overly narrow and specialized, enabling only a partial exposure to knowledge. Second, they isolate faculty, students, and practitioners from collaborative dialogue and engagement. Third, they are a specialization where significant knowledge gaps between specialties exist. Finally, they are a specialization that creates unique vocabularies among themselves, thereby restricting their ability to communicate with others outside their specialty (Tow & Gilliam, 2009).

Holley (2009) provides an example of a limitation found in academic disciplines can be seen in professional associations, scholarly journals, and various conference gatherings. Scholars in the various academic fields are affiliated with associations. These associations (e.g. English is affiliated with the Modern Language Association, communication studies is affiliated with the National Communication Association and others) provide a shared professional

reference for these faculty members that are unique to their respective discipline. The author provides another example regarding the fact that academic disciplines boast scholars who serve as key figures in the disciplinary body of literature. Two examples include John Dewey in education and Jerome Friedman's research structure of the atomic nucleus for physics. Clearly, the curriculum of these and other disciplines are representative of the notable scholar's ideas and the research that distinguish one scholarly community from another. The curricula symbolize the knowledge that has shaped their respective discipline (Holley, 2009).

The limitations of the traditional academic discipline have given rise to faculty, administrators, researchers, and others to call for a more interdisciplinary approach to higher education. This new approach is characterized by the autonomy of disciplines that has exhibits large-scale influences on learning, curriculum, knowledge structures, and research (Holly, 2009).

A historical review of multidisciplinary and interdisciplinary programs affirms that there were several factors that have contributed to its inception. The general education movement was one of the first movements that protested the disciplinary specialization embedded in the disciplinary model and the perceived fragmentation of the undergraduate curriculum (Stevens, 2001). Another factor was the development of the "area studies," which focused on shared themes or problems across disciplinary boundaries. American Studies is an example of an interdisciplinary field that emerged from the discontent of disciplinary scholar with intellectual directions and outputs (Holley, 2009). The interdisciplinary field of women's studies emerged as a result of a growing number of scholars in disciplines including sociology, economics, anthropology, and political sciences who expressed frustrated with the study of gender as part of social life. San Diego State University was the first to establish an integrated women's studies program in 1970. Currently, more than six hundred women's studies program exist in American colleges and universities (Boxer, 1998). These factors helped give birth to interdisciplinary/multidisciplinary study in the United States.

Types of Multidisciplinary/Interdisciplinary Programs

Multidisciplinary and interdisciplinary programs are an integral part of graduate education. A review of the literature indicates these programs are offered at the master's and doctoral levels at various colleges and universities. Drawing from the literature, there is no distinct classification of the types of multidisciplinary/interdisciplinary programs. A

preponderance of programs are designated as interdisciplinary which crosses various academic disciplines. To this end, for this evaluation, I offer two distinct types of multidisciplinary and interdisciplinary graduate programs. According to Holly (2009), the first type of program is found within an academic major where students are engaged in cross-disciplinary engagement which focuses on problems with which no single discipline has the cognitive tools to grapple. Engagement with the related discipline is tightly coordinated and limited to whatever tools or concepts can best be applied to the immediate program (Holley, 2009). The second type of program is completely multidisciplinary or interdisciplinary in nature, where students with the assistance of graduate faculty, design their own curriculum (of two or more disciplines) that focuses on addressing a program. Such program is designed to meet the unique educational and professional goals of the student.

Informed by research on the characteristics and learning of adult students, and by a review of multidisciplinary and interdisciplinary programs, this literature review now shifts to academic advising.

Academic Advising

The academic advising literature offers a cadre of terms used to define advising. Advising is seen as an educational activity (Creamer, 2000), a primary integrating factor that brings students, faculty and curriculum together into a meaningful educational whole (Greenwood, 1984), and a major contributor of student involvement (Astin, 1984). Schlosser & Gelso (2001) define advising as a positive or negative relationship in which guidance may or may not be provided with regard to professional skill development. It is within this relationship that the faculty member has the greatest responsibility for helping guide the advisee through the graduate program (Schlosser & Gelso, 2001). This notion of graduate advising will be used for this study.

Academic advising defined as an activity includes three distinct educational philosophies. The first is utility which called for a practical real-life approach to all courses, even the most traditional. Examples of utility include Cornell's emphasis on public services and Harvard's extensive elective system. The second is liberal culture which promotes the pursuit of art and beauty through a classical curriculum. Departments of philosophy, fine arts, and languages have evolved from the liberal cultural thinking (Frost, 2000). The third is research which advocated a

research philosophy of professors who devoted their energy to research and scholarship that placed less value on America's traditional devotion to education and ignored students to advance their own work to advance knowledge (Bush, 1969).

The concept of academic advising plays an integral role in the history of higher education in the United States. Since the inception of the founding institutions (Harvard, William and Mary, Yale and others), there has been a concern with the overall development of the student both morally and intellectually (Gallagher & Demos, 1983). One early attempt to connect students and faculty more closely took the form of a system of academic advising, introduced at Johns Hopkins in 1889. This practice instituted having faculty members advise students about their courses of study (Grites, 1979). According or Veysey (1965), the advisor system for selecting courses was the "fad of the moment at Columbia in 1906" but soon degenerated into brief, impersonal interviews.

By the late 1930s almost all institutions had formalized advising programs (Raskin, 1979). Movements such as the Vocational Guidance and Progressive Education Movements were prominent and helped further promote the idea of advising and counseling. These movements placed attention on the self-direction of the student, placing emphasis on the role of educators as "mentors" who were integral in the development of the student. Student advising was prevalent during the 1960s as issues of social justice, access, usefulness, and accountability became the focal point of a variety of student services (Komives & Woodard, 1996). Today, academic advising is directed primarily toward student development. Measurement and development are still practiced, but under the microscope of accountability, validity and efficiency (Gillespie, 2003).

A well-known approach that appears in the academic advising literature is prescriptive (Broadbridge, 1996). This traditional approach is defined as a single-directional didactic activity in which the advisors limit their activities to providing information about courses, registration procedures, and ensuring enrollment in appropriate courses. In this approach, the advising relationship is based on authority and provides limited opportunity for student to exercise control. This may result in a relationship which is highly convenient and desirable to some advisors, allowing them to control yet remain relatively uninvolved in the relationship (Broadbridge, 1996).

Another prominent approach is the developmental advising approach which serves as an alternative to the prescriptive advising model (Crookston, 1972). Developmental advising recognizes the importance of interactions between the student and the campus environment, it focuses on the whole person, and it works with the student at that person's own life stage of development. The advisor and the student collaborate on who takes the initiative, the responsibility, who supplies the knowledge and skill, and how the knowledge is obtained and applied (Crookston, 1972). The one-to-one nature of this approach opens the door for a connection to be built that fosters honesty and trust and allows for the use of best teaching practices that promote critical thinking and self-efficacy (Broadbridge, 1996).

A review of the literature indicates that advisors have not practiced developmental advising at the same rate that is supported in the literature (Grites & Stockton, 1994). There are several reasons for the lack of adoption including: the advisee load is too large for an advisor to meet with students on a regular basis; lack of training in academic advising; each student has a different expectation from the advising experience; lack of faculty incentives; lack of commitment to advising by key administrators and campus leadership; proliferation on part-time faculty, increased out-of-classroom expectation for faculty; and general depersonalization of the university environment (Pardee, 1994; Strommer, 1994).

Since the implementation of the developmental advising models (prescriptive and development), the advising literature on academic advising has expanded as scholars developed new approaches to further develop their advising philosophy. These approaches include retention, intrusive, and strength-based advising and others (searching for reference). A review of the literature on these approaches revealed these approaches are not relevant to this study as they are primarily associated with advising undergraduates. Therefore, these and other approaches are not included in this study.

Pardee (1994) introduced a new approach relative to academic advising. This concept views faculty members as role models, mentors, and friends to students. The literature documents that strong, positive relationships between faculty and students prove to be a significant retention variable and a positive influence on the development of students (Ender, 1994).

The advising literature reveals a dearth of scholarship has been devoted to graduate advising. The attention given to undergraduate advising clearly outweighs that given to graduate

advising (Minor, 2003). The nature of the relationship between the graduate student and his/her advisor is perhaps the most important determinant of a student's success or failure in any graduate program (Bargar & Mayo-Chamberlain, 1983). According to Habley (2004), advising continues to be part of the role of most faculty, with faculty responsible for 75% to 90% of the academic advising in American colleges and universities.

Scholars have also examined the question, what makes for a good advisor? The qualities of a good advisor include supportiveness (Long, 1987), high levels of interaction (accessibility, frequent informal interactions, and connections with many faculty members) (Gerholm, 1990; Girves and Wemmerus, 1988; Hartnett, 1976; Weiss, 1981), purposefully helping the student progress in a timely manner (Heiss, 1970; Lovitts, 2001; Rudd, 1986), providing regular reviews of progress (Hartnett, 1976; Heiss, 1970), and treating the student as a junior colleague (Girves and Wemmerus, 1988). Further investigation is needed to learn about how advisor behaviors are related to satisfaction with the advising relationship, and if this relationship differs by discipline (Zhao, Golde, & McCormick, 2007).

According to Winston, Miller, Ender, and Grites (1984), the graduate advisor performs a minimum of five essential roles: 1) being a reliable information source, 2) acting as a departmental socialize, 3) acting as an occupational socialize, 4) serving as a role model, and 5) being an advocate for the advisee. Moreover, it is essential that advisors of incoming graduate students take the initiative in establishing sound interpersonal communication grounded on trust, openness, and mutual willingness to grow (Bargar & May-Chamberlin, 1983).

According to Boyer (1990), the extent to which teaching faculty are expected to advise students continues to create rifts in the higher education community. A review of the advising literature suggests four barriers to advising. First, faculty self-perceived inadequacy in advising knowledge (Hancock, 1996) as faculty retreat to their expertise in research and teaching in the most limiting contexts. Second, advising is neither valued nor rewarded by administrators. Many faculty do not believe that advising is presently considered in promotion and tenure decisions (Dillion & Fisher, 2000; Tien & Blackburn, 1996). Third, faculty must learn how to advise, evaluate advising success and recognize advising problems (Gardiner, 1994). Fourth, there is a lack of commitment to advising by faculty (Pardee, 1994; Strommer, 1994).

Since the late 1980s, little has been done to assess faculty attitudes toward advising, the preparation for advising, or the subsequent execution of advising strategies (Myers and Dyer,

2005). Some researchers indicate that the current system is not working and students are not receiving the type of advising required for academic success (Alexith, 1997).

This section reviewed the research literature pertinent to this study's purpose of examining the effectiveness of advising graduate students. It discussed the theories, barriers and areas specific to graduate advisement. In the following section, the two advising frameworks utilized for this study are presented.

The Advisory Working Alliance Inventory (AWAI) developed by Schlosser and Gelso (2001) is the second lens that I drew upon for this study. According to Schlosser and Gelso, the AWAI focuses on the concept, practice, and quality of the advising relationship. The authors believe that the advisory alliance (and the overall advising relationship) encompasses far more than just research. To this end, the purpose of the AWAI is to measure the graduate advising relationships from the advisor's perspective.

Bordin's (1975, 1979, 1980) theories in the field of psychotherapy provide the foundation which lead to the development of the Working Alliance Inventory. The construction of the AWAI was based on Bordin's concept of the supervisory working alliance (Bordin, 1983). Later, Bordin expanded his thinking and created the construct to be adaptable to all change-inducing relationships – including the teacher-student relationship (Bordin, 1983).

The Advisory Working Alliance Inventory (AWAI) (Schlosser & Gelso, 2001) provided an opportunity to address the issues of level of satisfaction and commitment. Each subscale item (rapport, apprenticeship, and task focus) helped to define what satisfaction and commitment represented for faculty and the importance of advising graduate students. In addition, this framework helped to illustrate the associations that exist between the MDSI and single discipline faculty as it relates to the subscales and the influence they have on the dependent variables. This framework provided a psychoanalytical approach to advisement and the relationships between the advisor and advisee.

Method

The purpose of this research is to assess faculty satisfaction and commitment to advising master's students in a Multidisciplinary Studies Individualized (MDSI) program at Buffalo State College, State University of New York. The intent is to examine faculty level of satisfaction, level of commitment, and to identify perceived barriers to advising MDSI students. Drawing

from the scholarship of teaching (Boyer, 1990) and advising working alliance inventory (Schlosser & Gelso, 2001) frameworks, findings from this quantitative study assist faculty and staff in better understanding the advisement process for graduate students.

A constructivist evaluation (CE) model (Guba & Lincoln, 1989) provides the framework design for this program evaluation. Among the various approaches used in social science research, the CE model is situated in the fourth generation evaluation (Guba & Lincoln, 1989) and is based on assumptions underlying the constructivist paradigm. The constructivist paradigm maintains that knowledge is acquired through an active process in which the individual continually structures and restructures experience through self-regulated mental activity (Guba & Lincoln, 1989). Knowledge is created, differentiated and integrated into more comprehensive forms (Mascolo, Pollack, & Fischer, 1997). CE was developed as a solution to address the problems inherent in evaluations based on classical experimental design. It is heavily philosophical, service oriented, and paradigm driven. Knowledge gained in CE is viewed as one or more social-psychological constructions, uncertifiable, often multiple and constantly problematic and changing (Stufflebeam & Shinkfield, 2007). I have selected the CE model because it provided an opportunity to collaborate with various stakeholder groups at the college to address issues relevant to advising graduate students in the MDSI program. The CE model assisted in the development of constructions provided by stakeholder groups to help solve problems, identify barriers, and offer ways to help improve the program. Moreover, the CE model provides stakeholders and beneficiaries a voice to discuss the current state and future of the MDSI program at Buffalo State.

I have selected a quantitative methodology for this evaluation for important reasons. I First, the stakeholders expressed the need for an evaluation that would help solve a problem and/or investigate a particular phenomenon (Muijs, 2004, p. 10). They were also interested in receiving a report on data outcomes, assessments of statistical significance, and information that will help to qualify their judgments (Stufflebeam & Shinkfield, 2007). Second, statistical procedures allowed me to investigate the relationship among program inputs, program processes, and program outcomes, not only two at a time, but all at once (Weiss, 1998, p. 86). Third, many audiences (stakeholders and others) may find quantitative results more authoritative, giving them a high degree of conviction (Weiss, 1998, p. 84).

Although the constructivist model is typically seen as an approach to qualitative research (Creswell, 2009), a quantitative methodology may also be utilized (Alkin, 2004). Naturalistic and constructivist evaluators utilize whatever methods best collect the data that answers one or more specific questions (Alkin, 2004).

Guba and Lincoln's (1989) CE model is carried out through a series of twelve steps. For the purpose of this study, I have adapted the original twelve steps into a four-step process designed for evaluating the advising process for MDSI students. The rationale for condensing the steps is to assist me in carrying out the activities in an effective and efficient manner. Guba and Lincoln (1989) suggest that the steps may be repetitive in practice as constructions evolve and as particular claims, concerns, and issues are dealt with. To this end, the following four-step evaluation plan was implemented.

Step 1: Identification of stakeholders. This initial step identified several stakeholder groups including the Interim Provost, Interim Graduate Dean, the Graduate Advisory Council, MDSI Subcommittee, graduate faculty, and the college administration. Meetings were held with two stakeholder groups: MDSI graduate faculty and the MDSI Subcommittee. Individual meetings were held with the graduate faculty and a group meeting with the MDSI Subcommittee as I engaged them in discussions relative to their opinions and experiences with the MDSI program's structure, advisement process, and other relevant issues. The meetings also served to solicit descriptions (constructions) from stakeholder groups and request their participation in the evaluation (Guba & Lincoln, 1989).

Step 2: Sort-out and prioritized constructions. The second step involved sorting out common themes based on the constructions of the stakeholders that were relevant to the evaluation. Constructions were prioritized based upon their importance by a consensus of the stakeholders. These constructions were used to inform my research questions. Finally my own constructions based on my knowledge of the program, discussions with other graduate faculty, MDSI students and other relevant groups were included (Guba & Lincoln, 1989).

Step 3: Intergroup constructions. On March 11, 2010, a presentation was made to the Graduate Advisory Council (GAC) to discuss the progress of the evaluation and to solicit their constructions regarding issues relevant to the MDSI program. During the meeting, council members were updated on the progress of the evaluation and were asked to rank issues relevant to MDSI program. The GAC will focus on the issues ranked highest on the list during the 2010

– 2011 academic year. Finally, an announcement was made that informed council members that the evaluation report will be presented at the fall GAC meeting (Guba & Lincoln, 1989).

Step 4: Analyze and report results. The final step includes analyzing findings and reporting result findings to the Interim Provost, the Graduate Dean, the GAC and other constituencies at the college upon completion of the evaluation (Guba & Lincoln, 1989).

Study Instruments

According to Muijs (2004), survey research is the most popular research design in the social sciences. Survey research designs are flexible and therefore appear in a variety of forms. They are all characterized by the collection of data using standard questionnaire forms (Muijs, 2004). Survey methodology was found appropriate for this study because it provides an estimate of the attributes of a given population. It also assists in obtaining the necessary information from a undersized portion of the population (Dillman, 2000).

This study employed an online self-administered questionnaire to collect data. Questions used to inform evaluation questions "How does the level of satisfaction of MDSI faculty compare to faculty who advise in a single discipline?" and "What is the level of faculty commitment of MDSI compared to faculty who advise in a single discipline?" were informed by a pre-existing instrument developed by Schlosser and Gelso's (2005) Advisory Working Alliance Inventory-Advisor Version (AWAI-A). In the AWAI-A, the first set of questions were designed to measure the advisor-advisee working alliance in graduate school from the advisor's perspective. The 31- items included in the questionnaire are based upon three subscales taken from the AWAI-A which include: rapport, apprenticeship, and task focus (Schlosser & Gelso, 2005). These variables were selected because of the potential significance to the experiences of faculty advisors in the MDSI program. The initial AWAI-A item development was based primarily on Scholosser and Gelso's (2001) Advisory Working Alliance Inventory- Student Version (AWAI-S) and was governed by three rules including compatibility with the AWAI-S, elimination of redundancy, and fit with the author's conception of advisory working alliance. The results of Schlosser and Gelso's (2005) instrument offers initial support for the reliability and validity of the AWAI-A and its subscales. The instrument demonstrated sound internal consistency and test-retest reliability. In Scholosser and Gelso's (2001) AWAI-S study revealed concurrent and discriminant validity was established through correlations with constructs in a

theoretically consistent manner. The results indicated reliability measures of satisfactory over a 2-week interval using Pearson correlation coefficients.

The Model of Scholarship (MOS) instrument developed by Myers and Dyer (2005) was evaluated for face and content validity by a panel of experts consisting of faculty, administrators, and graduate students at the University of Florida and the University of Illinois. Myers and Dyer's (2005) instrument was pilot tested using faculty and administrators in positions similar to those in the current sample. Reliability for the individual items on the instrument, using a test-retest procedure, was found to be .95.

The MOS instrument was used to inform the survey question used in the evaluation "What are the perceived barriers to advising MDSI students?" which used an open-ended format. Open-ended questions have the potential to collect valid and detailed information (Ritter & Sue, 2007). Recent research shows that respondents to online surveys are more likely to answer open-ended questions than are respondents to other self-administered formats (Schaefer & Dillman, 1998).

In order to address the evaluation question, the open-ended question "What are the 3 most important barriers that you perceive in advising Multidisciplinary Studies Individualized (MDSI) graduate students at Buffalo State?" was developed. The purpose of the open-ended question was to gather data from a qualitative approach to answer the evaluation question. The survey question was designed to give participants an opportunity to share their opinions and experiences relative to perceived barriers to advising MDSI graduate students. The question was crafted so that participants were given three opportunities to provide an open-ended response. These questions provided an important approach to utilizing respondent quotes to understand data.

Finally, this question adds significance to overall understanding of the perceived barriers of graduate faculty. Additionally, the responses may strengthen the data because it does not restrict the respondent to just one response.

The final set of questions was demographic. Respondents were asked to report details about their background including: academic school, academic department, research and teaching interests, years of service at Buffalo State College (BSC), years spend advising graduate students (both single discipline and multidisciplinary), job status, academic rank, tenure status, age, ethnicity, and sex. Demographic questions relevant to the objectives of this study are included in

the questionnaire. This information is also used to segment the sample so that the subset MDSI advisors can be compared to single academic advisors (Ritter & Sue, 2007).

This cross-sectional survey was based upon the research questions guiding this study. I administered the survey using SurveyMonkey, a professional data collection software. As a follow-up, hard copies of the survey were distributed to those individuals who may be more comfortable filling out the hard copy version.

The dependent variables for this study included: level of satisfaction, perceived barriers, and level of commitment. The subscales rapport, apprenticeship, and task focus included in the AWAI-A instrument have been selected to play a key role in the level of satisfaction and level of commitment variables. These subscales are not to be considered dependent variables.

The independent variables for this study include: graduate faculty who advise only single discipline graduate students and graduate faculty who advise only MDSI graduate students. The demographic variables sex, age, ethnicity, tenure status, length of service, academic school, and discipline were analyzed in this study.

Data Collection

Participants of this study included 281 graduate faculty. Faculty members in this evaluation represent four academic schools (Arts and Humanities, Education, Natural and Social Science, and the Professions) and academic departments. Study participants include graduate faculty with the designation graduate faculty status. Graduate faculty status is awarded to faculty who by virtue of their training, experience, and scholarly accomplishments are uniquely qualified. Graduate faculty with this designation include the following requirements: 1) may teach graduate courses, accept the assignment of graduate advisees; 2) shall serve as mentor or reader for master's thesis or project or independent study for graduate students; and 3) shall certify and recommend for graduation all graduate students completing requirements for their respective curricula. Approval of graduate faculty status must be secured before a faculty member can begin teaching a graduate class, serving as chair or member of the student's thesis or project, or serving as principal advisor or member of the advisory committee (Directory of Policy Statements, 2010).

A single-stage sampling procedure was used to obtain participant names from an official graduate faculty status list located in the Graduate School Office and on the Graduate School's

web site. Demographic characteristics of the participants include their tenure status, academic rank, sex, ethnicity, age, job status, academic school and department, teaching and research interests, and length of service. This study included eligible faculty members who have advised at least one master's student during their tenure. In addition, the study sought the opinions of tenured and untenured faculty with the following academic ranking: professor, associate professor, assistant professor, lecturer, and instructor. Subgroups excluded from this population include faculty members who have never advised graduate students, retired, emeritus, on sabbatical leave, and graduate faculty without the graduate faculty status designation. Faculty were excluded from participating in this evaluation for the following reasons: 1) they never advised graduate students; 2) they were currently away from campus (on sabbatical); and 3) they do not have graduate faculty status (Directory of Policy Statements VI:11:00, 2010). A list of graduate faculty with graduate faculty status was obtained from the Graduate School Office. The participant's age ranged from 30-70 years old. The distribution by sex was 47% female and 53% male. The race/ethnicity of the participants reflects the breakdown of the graduate faculty which consisted of 4% African-American, 3% Hispanic, 4%Asian, .03% Native American, and 89% Caucasian.

The Interim Provost sent e-mail invitations to participants informing them of an opportunity to participate in this research study one week prior to distributing the survey. Fink (2009) argues that using a well-known or respected name in the "from" line or address of the respondents e-mail program may deem effective. The Interim Provost's message introduced the study, its purpose, and provided a rationale for how the results of the survey can help improve graduate advising at the college. The message assured participants that their responses would be confidential and would not affect their affiliation with the college. As an incentive for completing the survey, participants were offered a chance to win a $100 gift card from the Barnes and Noble college bookstore for their participation. Participants were also informed of the date when the survey was distributed. Three follow-up email requests were sent to participants who did not complete the survey within a two-week period. At the conclusion of the two-week period, 67 (24%) participants completed the survey. In order to increase the response rate, a fourth email was sent to participants. A final personal email was sent to potential participants on February 22, 2010, requesting their participation. The email informed participants that 67 (out of a possible 281) questionnaires were returned and that in order for me

to get more generalizable results, it is necessary that I reach a goal of 100 responses. Participants were asked to complete the online survey (link provided) or hard copy version which was sent to them (in their departmental mailbox) should they prefer to complete a hard copy. Hard copy surveys were distributed to 214 participants. Remaining eligible participants were given one week to complete the online or hard copy surveys. This effort resulted in the completion of one online survey and 24 hard copy surveys. Total surveys completed were 92, with a final response rate of 33%.

Data Analysis

Descriptive statistics were the procedures involved and their associated numerical indices that helped clarify data from samples (Mertler & Charles, 2008). I used the most commonly used descriptive statistics for this study. Descriptive statistics are the most effective way to ascertain how often respondents answer questions in a certain way or how many respondents belong to different groups is by running a frequency distribution of the variable (Muijs, 2004). The Statistical Package for the Social Sciences (SPSS), widely used by educational researchers was used to perform descriptive and inferential statistics (Mertler & Charles, 2008). Next, I ran mean scores to depict the average of a group of raw scores or other measurements that are expressed numerically (Mertler & Charles, 2008). Mean scores were useful in showing the closeness or distance of a group. I was not only interested in the average for a group, but also the dispersion of values within the group such as, how spread out the scores or measurements are. Thus, a standard deviation was produced to indicate how much each score, on average, differs from the mean (Mertler & Charles, 2008). Finally, to measure the relationship of coefficient of correlation, the Pearson correlations a measure of relationship between two or more sets of scores made by the same group of participants' was used (Mertler & Charles, 2008).

Inferential statistics were used to make inferences about the population. Three statistical procedures were used. Chi-square measurements are expressed as categories in the form of frequency counts, whether a difference exists (1) between two groups; (2) between before-and-after measurements of the same group; or (3) what is expected for a group compared to what is actually observed for the group (Mertler & Charles, 2008). An analysis of variance (ANOVA) was used for determining the significance of differences among means obtained from two or more groups of participants. ANOVA was also used to explore interactions among several

variables to compare the mean score of a continuous variable between a number of groups (Mertler & Charles, 2008). Finally, a paired samples t – test was used to compare the first mean score with the second mean score using two carefully matched paired samples to determine if there was a statistical difference between the two scores (Faherty, 2008).

Open-ended questions were analyzed separately from the scale-based questions. The following steps were employed. First, responses from each of the participant group (SD, MDSI and Both (SD and MDSI) were read. Second, like responses were then grouped together, quantifying the responses by creating frequency counts across like themes. Finally, responses with the highest frequency counts/ranking order counts were designated for each group. Although qualitative analysis techniques were not employed, quotes were incorporated to highlight results and implications for this particular research question.

Safeguarding Participants

The evaluator maintained the confidentiality of participants throughout the evaluation by coding the data. This guaranteed that participants cannot be identified in the study. Participants were assigned a number and all identifiers such as e-mail addresses were removed. Although the Interim Graduate Dean has knowledge of the potential participation of this study, information regarding the actual participants surveyed was not provided to him. Data disseminated in this study was provided in aggregate form only. Encrypting the file data was used by the evaluator as a precautionary measure. This ensured that no one could access the data as it was password protected. Data for this study was stored in a locked file drawer located in the evaluator's office.

Approvals to conduct the evaluation were received by the Research Subjects Review Board (RSRB) at the University of Rochester and Internal Research Board (IRB) at Buffalo State College. RSRB was granted on January 14, 2010, and IRB was granted on February 2, 2010. The purpose of RSRB and IRB is to ensure the rights and welfare of study participants' and guarantee the evaluation is scientifically sound.

Summary and Interpretation of Findings

This chapter provides a summary of the data analysis and interpretation of the findings. Included are four sections: Characteristics of the Participant Population, Graduate Faculty

Experience (Satisfaction), Graduate Faculty Experience (Commitment), and Perceived Barriers to Advising. These sections reflect the research questions and survey instrument.

A four-phase plan was developed for the analyzing data. Phase I presents a descriptive analysis of the data for the independent and dependent variables. Phase II examines statistical tests employed for testing research question 1: What is the level of satisfaction of MDSI faculty compared to single discipline faculty? Phase III presents statistical tests employed for testing research question 2: How does the level of commitment of MDSI faculty compare to faculty who advise single discipline students? Phase IV presents analysis from respondents' quotes from open-ended questions to answer the third research question: What are the perceived barriers to advising MDSI graduate students?

Descriptive statistics are one of the most important tools researchers can use to conduct meaningful analyses. They are necessary to help spot discrepancies with the data that can cause problems with the advanced inferential techniques the researcher subsequently employs (Vogt, 2007).

Phase I analysis focused on gathering information on the demographics of the sample population using SPSS. This initial step employed descriptive techniques to characterize the graduate faculty who advise single discipline (SD), Multidisciplinary Studies Individualized (MDSI), or both (SD and MDSI) graduate students. The demographic information presented includes: sex, age, ethnicity, academic school, academic interests, years working at Buffalo State, years spent advising, academic rank, and tenure status.

As previously reported, the population of graduate faculty used for this quantitative data analysis was 281. An online survey was constructed and distributed to this group. The initial response rate was 23% (66). A second distribution which consisted of a hard copy version increased the final sample size to 92 graduate faculty resulting in an overall response rate of 33%.

During the distribution of the survey, I found that there were a number of individuals with graduate faculty status who had never advised graduate students. Twenty-five (21.4%) respondents answered "no" to the first survey question "Have you ever advised graduate students at Buffalo State?" These respondents were excluded from the sample population. This revelation confirmed that the original number of 281 faculty may not reflect an accurate sample of graduate faculty previously thought. Several attempts were made to ascertain a definitive number of

graduate advisors from academic departments and the Computer Technology Services Department. These inquiries were unsuccessful.

A total of 117 graduate faculty started the survey. Of the 117 participants, 25 answered "no" to the first research question "Have you ever advised graduate students at Buffalo State?" These respondents were removed from the sample because they had missing values. This resulted in a sample of 92. In order to provide an understanding and characteristics of the 92 graduate faculty who completed to the survey, a new variable was created. The purpose for creating this variable was that no single variable provided an accurate description of the sample population. Criteria used to categorize participants were taken from survey questions 2 thru 8. The new variable advcur (advise current) was created. Appendix D provides the sample classifications used in the study. The following include participant classifications: 1) Single Discipline (SD). If a participant responded to any single discipline categories found in survey questions 2 – 8 and did not respond to MDSI advising questions, then they are classified as SD graduate advisors (n=40). If a participant responded to any MDSI categories found in survey questions 2 – 8 and did not respond to SD advising questions, then they are classified as MDSI graduate advisors (n=12). If a participant responded to both SD and MDSI advising questions found in survey questions 2 - 8, then they are classified as both SD and MDSI graduate advisors (n=27). Thirteen participants did not fit into any of these three categories, and they were therefore given a missing value on advcur. After reclassifying faculty, the total number of participants was 79.

Additional descriptive information was classified into three sections: 1) Sex, Age, and Ethnicity; 2) Academic School, Graduate Program and Academic Rank; 3) Faculty Professional Interest and Years Spent Advising; and 4) Faculty Hours Spent Advising Students. A summary of this information is presented below.

Sex, Age and Ethnicity

The sample consisted of 44 men and 31 women. The results indicated that the two largest age groups were 50-59 and 60-64. The remaining groups were 40-49, 65 or more, less than 40, and 14 no response. With regard to ethnicity, this institution is not ethnically diverse in it graduate faculty population. This is reflected in this sample population. To this end, the racial/ethnic classifications originally included in the survey were reclassified into two categories: Caucasian

(White) and Non-Caucasian (Non-White). The preponderance of respondents were Caucasian 65 with Non-Caucasian 8, 19 no response. The original ethnic breakdown included the largest ethnic group Caucasian were 65. Other groups were Hispanic/Latino 5, African American 3, Bi-racial/Multi-racial 1 and 43 no response.

Academic School, Graduate Program and Academic Rank

Respondents reported affiliation with the following academic schools in which they do most of their teaching. Of the four schools, the greatest number of respondents came from the School of Natural and Social Sciences 34. Other schools reported: School of the Professions 18, School of Arts and Humanities 15, School of Education 14, and 11 no response. Of the sample population, 60 reported that their academic department has a graduate program(s), while 19 reported that their academic department does not have a graduate program(s) and 13 no response. At this particular institution, the designation graduate faculty status is a privilege awarded to faculty who by virtue of their training, experience, and scholarly accomplishments are uniquely qualified. The Directory of Policy Statements (DOPS) VI:11:00, lists the rights, privileges, and responsibilities of graduate faculty as follows: 1) may teach graduate courses; 2) shall accept the assignment of graduate advisees and shall serve as mentor or reader for master's thesis, project, or independent study for graduate students; and 3) shall certify and recommend for graduation all graduation students completing requirements for the respective curricula (Handbook for Faculty and Librarians, State University College at Buffalo, 2010).

Graduate faculty represented all levels of academic rank that include: Professor 28, Associate Professor 35, Assistant Professor 12, Lecturer 2, Senior Staff Assistant 1 and 14 no response.

The tenure status of respondents comprised of 61 tenured and 17 untenured, 14 no response. Respondents who reported full-time status were 72, part-time status were 4 and 16 no response. Half of the respondents, 36 reported that they have worked at the institution 16-25 or more years, 25 8-15 years and 18 less than 8 years, 13 no response.

Faculty Professional Interest and Years Spent Advising

With regards to areas in which graduate faculty interest lay, 28 respondents reported their interest lay with both teaching and research, with an emphasis on teaching. Other responses included 27 both with equal emphasis (teaching and research), 13 primarily teaching, 10 both with emphasis on research, 2 primarily research, and 12 no response. Responses relative to years spent advising reported 26 spent 11-20 years advising, 21 spent 5-10 years, 20 spent 21 or more years, 13 spent less than 4 years, and 12 no response.

Faculty Hours Spent Advising Students (SD and MDSI)

Respondents from the two largest groups reported hours spent advising SD students were 36 respondents reported they spent 2-7 hours advising single discipline (SD) graduate students and 35 spent less than 2 hours. Finally, 7 spent 8-25 or more hours and 14 no response. Respondents advising MDSI students were 58 respondents reported they spent less than 2 hours, while 18 spent 2-10 hours and 16 no response.

Graduate Advising Experience: Level of Satisfaction

The second phase of the data analysis consisted of using the survey responses to answer the first research question, "What is the level of satisfaction of MDSI faculty compared to single discipline faculty?" The hypothesis for this question is: MDSI faculty have a higher level of satisfaction compared to SD faculty.

A satisfaction scale was constructed using an established instrument, the Advisory Working Alliance Inventory-Advisor (AWAI-A) (Schlosser & Gelso, 2001). The AWAI-A provided the framework for the development of the questions found in each of the subscales in the survey. The main focus of the AWAI-A is on graduate advising relationships from the advisor's perspective. The satisfaction scale was composed of two subscales – Relationships and Administrative Work. Thirteen questions were identified relevant to satisfaction and used to form the satisfaction scale. Respondents were asked to rate their level of satisfaction based upon their past or present experiences as a graduate advisor using a 4-point Likert scale (e.g. 1=strongly disagree, 2=disagree, 3=agree, and 4=strongly agree).

Reliability is an important aspect of all research designs and measurement techniques. Researchers use reliability techniques to test the internal consistency of multiple measures of the same component to evaluate the quality of the measure (Vogt, 2007). Cronbach's alpha (also

known as alpha and coefficient alpha) was used to test for scale reliability for the 13-items in the satisfaction scale.

According to Aspelmeir and Pierce (2009), item-total correlations less than .30 may be excluded from the measure. To this end, I have decided to exclude item-total correlations less than .30 from the satisfaction scale because they were considered to be less related to the overall scale. Therefore, four questions (#14, #25, #42 and #43) were removed from the scale because they were found not to correlate with the overall scale. Therefore, 9-items were used to form the satisfaction scale.

The internal consistency of the satisfaction scale was found to be satisfactory. Results of the 9-item satisfaction scale yielded a coefficient alpha of .78. The research literature maintains that reliability coefficients of .70 and higher indicates satisfactory reliability (Vogt, 2007).

To further investigate the level of satisfaction, other survey questions were also considered appropriate for inclusion in the satisfaction scale. These questions (#44, #45, #46, and #47) spoke directly and indirectly to satisfaction. Two of the four questions asked: "How satisfied are you with advising (for both SD and MDSI) graduate students? The remaining questions asked "How much do you value the experience of advising (both SD and MDSI) graduate students?" Respondents were asked to rate their level of satisfaction and how they value the experience of advising using a 5-point Likert scale (e.g. 1=completely satisfied, 2=satisfied, 3=dissatisfied, 4=completely dissatisfied, 5=Never advised single discipline students) for these questions.

The decision to include survey questions 44 – 47 in the satisfaction scale presented two issues. The first issue involved the omission of a value label "Never advised MDSI students" in the instrument. It is likely that this error may have prevented respondents from answering questions appropriately. Measures to correct this problem included recoding the data for the select cases and treating them as missing values. The second issue involved making the survey questions in this 5-point Likert scale compatible with the questions in the 4-point Likert scale. This was achieved by placing the questions in the same direction (4-point Likert scale) by recoding the values. If the respondent was not currently advising, then they were treated as missing values. After all questions were corrected and recoded, a revised version (AdvsngsatCR, AdvsngvalCR, AdvmdsatCR, and AdvmdvalCR) of each variable was created. However, when questions 44-47 were included in the reliability analysis, there were only 23 valid cases and so a

decision was made to remove survey questions 44 – 47 from the satisfaction scale, which resulted in a total of 83 valid cases. Finally, a mean score based on the final set of items was calculated from a final set of satisfaction items.

The first technique used to answer survey question 1 was the independent samples t-test. The independent samples t-test was computed to compare the mean satisfaction between the SD and MDSI graduate faculty. The null hypothesis for the level of satisfaction for SD and MDSI graduate faculty is H_0: There is no difference in the level of satisfaction between MDSI and SD graduate faculty. The null hypothesis is not rejected.

The test results shows that although there is no significance difference between the groups, SD graduate faculty showed a higher level of satisfaction compared to MDSI graduate faculty. With regards to research question 1 hypothesis: MDSI faculty have a higher level of satisfaction compared to SD faculty, the findings point in the opposite direction.

A more versatile and preferred technique used by many researchers is the ANOVA. The ANOVA is used to study multiple independent variables with multiple groups (Vogt, 2007). The one-way ANOVA was believed to be the best technique for comparing the mean satisfaction between SD, MDSI and both (SD and MDSI) graduate faculty. The null hypothesis for the level of satisfaction for SD MDSI, and both (SD and MDSI) graduate faculty is H_0: There is no difference in the level of satisfaction between SD, MDSI and both (SD and MDSI) graduate faculty. The null hypothesis is not rejected.

The test results show that although there is no significance difference between the groups. SD graduate faculty showed a slightly higher level of satisfaction compared to MDSI graduate faculty. When compared to the both, SD graduate faculty reported a lower level of satisfaction. With regards to MDSI, this group reported a lower level of satisfaction when compared to SD and both groups respectively. Finally the Both group reported a higher level of satisfaction compared to SD and MDSI groups respectively. With regard to my research question 1 hypothesis: MDSI faculty have a higher level of satisfaction compared to SD faculty, the findings point in the opposite direction. A pattern regarding MDSI graduate faculty experience less satisfaction to advising graduate students has emerged.

An investigation of the Both (SD and MDSI) group provided further investigation for answering question 1. Although the evaluation acknowledges the SD and MDSI groups respectively, the discovery of the "Both" group was unexpected. An independent samples t-test

was computed to compare the mean "basic satisfaction" score between the SD and MDSI groups. The null hypothesis for the basic satisfaction for SD and MDSI graduate faculty is H_0: There is a difference in the level of satisfaction between MDSI and SD graduate faculty. The null hypothesis is rejected.

The test results showed a significant difference between the groups. SD graduate faculty showed a higher level of basic satisfaction compared to MDSI graduate faculty. With regard to my hypothesis: MDSI faculty have a higher level of satisfaction compared to SD faculty, the findings once again point in the opposite direction. The findings show a trend as it relates to SD and MDSI graduate faculty and satisfaction.

A paired – samples t - test was used as a final technique for answering question 1. It was considered appropriate because it determined whether the difference between sample means for paired data was significantly different from the hypothesized difference between population means. For this test, the corrected and recoded values (Advsngsat and Advmdsat) were compared. A new variable *basic satisfaction* was created to compare the basic satisfaction scores. This allowed for the use of this technique, paired – samples t - test. The null hypothesis for the level of basic satisfaction between the paired SD and MDSI graduate faculty is H_0: There is no difference in the level of basic satisfaction between the paired SD and MDSI graduate faculty. The null hypothesis is rejected.

The test results showed a significance difference between the groups. SD graduate faculty showed a higher level of basic satisfaction compared to MDSI graduate faculty. With regard to my hypothesis: MDSI faculty have a higher level of satisfaction compared to SD faculty, the findings once again point in the opposite direction. Therefore the pattern continues. MDSI graduate faculty report lower levels of basic satisfaction compared to SD graduate faculty.

In summary, the findings of the first research questions report MDSI graduate faculty have a lower level of satisfaction compared to SD graduate faculty. The Both group provided an alternative way of evaluating satisfaction by measuring two pairs of data which resulted in the SD group participants within the Both group experiencing a higher level of satisfaction compared to MDSI group participants. This finding was unexpected and may be beneficial for explaining why MDSI graduate faculty experience a lower level of satisfaction compared to SD graduate faculty.

Graduate Advising Experience: Level of Commitment

Phase three of the data analysis consisted of analyzing data from a questionnaire to answer the second research question "What is the level of commitment of MDSI faculty compared to single discipline faculty?" The hypothesis for this question was: MDSI faculty have a higher level of commitment compared to SD faculty.

A commitment scale was constructed using an established instrument, the Advisory Working Alliance Inventory-Advisor (AWAI-A) (Schlosser & Gelso, 2001). The AWAI-A provided the framework for the development of the questions found in each of the subscales in the survey. The main focus of the AWAI-A is on graduate advising relationships from the advisor's perspective. The commitment scale was composed of three subscales – Relationships, Administrative Work, and Advisee Preparation. Twenty-one questions were identified and used to form the commitment scale. Respondents were asked to rate their level of commitment based upon their past or present experiences as a graduate advisor using a 4-point Likert scale (e.g. 1=strongly disagree, 2=disagree, 3=agree, and 4=strongly agree).

Reliability techniques were used to test the internal consistency of multiple measures of the same component to evaluate the quality of the measure (Vogt, 2007). Cronbach's alpha (also known as alpha and coefficient alpha) was used to test for scale reliability for the 21-items in the commitment scale.

Item-total correlations less than .30 were excluded from the commitment scale because they were considered to be less related to the overall scale. Survey questions #11 and #20 were removed from the scale because they did not to correlate with the overall scale. Nineteen items were used to form the commitment scale. The internal consistency of the commitment scale was satisfactory. Results of the 19-item commitment scale yielded a coefficient alpha of .88.

The first technique used to answer survey question 2 was the independent samples t -test. The independent samples t - test was computed to compare the mean commitment between the SD and MDSI groups. The null hypothesis for the level of commitment for SD and MDSI graduate faculty is H_0: There is no difference in the level of commitment between MDSI and SD graduate faculty. The null hypothesis is not rejected.

The test results show no significance difference between the groups, however SD graduate faculty showed a slightly higher level of satisfaction compared to MDSI graduate

faculty. With regard to research question 2 hypothesis: MDSI faculty have a higher level of commitment compared to SD faculty, the findings point in the opposite direction.

A second technique, the one-way ANOVA was used to compare the mean commitment between SD, MDSI and Both (SD and MDSI) groups. The null hypothesis for the level of commitment for SD MDSI, and Both (SD and MDSI) graduate faculty is H_0: There is no difference in the level of commitment between SD, MDSI and Both (SD and MDSI) groups. The null hypothesis is not rejected.

The test results show that although there is no significance difference between the groups, the SD graduate faculty showed a slightly higher level of satisfaction compared to MDSI graduate faculty. When compared to the Both, SD graduate faculty reported a lower level of satisfaction. With regards to MDSI, this group reported a lower level of satisfaction when compared to SD and Both groups respectively. Finally, the Both group reported a higher level of satisfaction compared to SD and MDSI groups respectively. With regards to my research question 2 hypothesis: MDSI faculty have a higher level of commitment compared to SD faculty, the findings point in the opposite direction. The pattern continues as MDSI graduate faculty report lower levels of commitment compared to SD and Both graduate faculty.

An independent samples t – test was computed to compare the means of basic value between SD and MDSI groups using the corrected and recoded variables AdvsngvalCR and AdvmdvalCR. The null hypothesis for the level of commitment for SD and MDSI graduate faculty is H_0: There is no difference in the level of commitment between MDSI and SD graduate faculty. The results of the mean basic value of SD and MDSI and independent sample t – test show a significant difference. The null hypothesis is rejected.

The test results show significant difference between the groups. SD graduate faculty showed a higher level of commitment compared to MDSI graduate faculty. With regard to my hypothesis: MDSI faculty have a higher level of commitment (basic value) compared to SD faculty, the findings once more point in the opposite direction.

A final technique performed was the paired – samples t - test. This test was used for determining whether the difference between sample means for paired data was significantly different from the hypothesized difference between population means. The corrected and recoded values (Advsngval and Advmdval) were used along with the newly created variable basic value to compare the basic value scores. This allowed for the use of the paired – samples t

- test. The null hypothesis for the level of basic value between the paired SD and MDSI graduate faculty is H_0: There is a difference in the level of basic value between the paired SD and MDSI graduate faculty. Cohen's $d = .76$ reports a medium to large effect size. The null hypothesis is rejected.

The test results show a significant difference between the groups as SD graduate faculty reported a higher level of basic value compared to MDSI graduate faculty. With regard to research question 2 hypothesis: MDSI faculty have a higher level of commitment compared to SD faculty, the findings continue to point in the opposite direction.

In summary, the findings of the second research question report MDSI graduate faculty have a lower level of commitment compared to SD graduate faculty. The Both group presented an alternate way of evaluating commitment by measuring two pairs of data which resulted in the SD group participants within the Both group experiencing a higher level of commitment compared to MDSI group participants. This unexpected finding may be helpful in explaining why MDSI graduate faculty experience a lower level of commitment compared to SD graduate faculty.

Perceived Barriers to Advising

Phase four of the data analysis consisted of analyzing data from opened-ended questions on the survey to answer the third research question "What are the perceived barriers to advising MDSI students?" The model of scholarship (MOS) (Myers & Dyer, 2005) provided the framework for the development of survey question #50 to answer the research question. Within the scholarship of teaching, Crookston (1972) and Boyer (1990) have defined advising as a component of teaching. The survey question "What are the 3 most important barriers that you perceive in advising Multidisciplinary Studies Individualized (MDSI) graduate students?" was crafted using the MOS open-ended design. The open-ended design was used to gain a broad understanding of the data. Participants were provided an opportunity to share their opinions and experiences regarding perceived barriers to advising MDSI graduate students in their own words. Participants were provided additional space for comments. The use of quotes to gain an understanding of the data is believed to add strength to overall understanding of the perceived barriers of graduate faculty. A discussion on the steps used to analyze the open-ended question is presented.

The following steps were used to analyze the open-ended questions. These questions were analyzed separately from the scale-based questions presented earlier in this chapter. First, responses from each of the participant group (SD, MDSI and both) were read. Next, like responses were then grouped together, quantifying the responses by creating frequency counts across like themes. Finally, responses with the highest frequency counts/ranking were presented for each participant group. Quotes were used to highlight results and implications for the research question.

Single Disciplinary (SD) Responses

For the SD group, the first step began with reading the open-ended responses. The SD graduate faculty reported a total of 57 barriers to advising MDSI students. Step two involved grouping the responses together to create like themes. A total of nine themes resulted from this process. The most common perceived barrier for the SD group was academic advising which was noted 18 times. According to the National Academic Advising Association (NAAA) 2006, academic advising is defined as a series of intentional interactions that includes a curriculum, a pedagogy, and a set of student learning outcomes. Program structure ranked second (noted 16 times) followed by academic preparedness ranked third (noted 12 times). Quotes from SD graduate faculty highlight the results and implications for this particular research question.

With regard to academic advising, SD participants pointed to several perceived barriers including the role of the advisor, the advisory committee, knowledge of the MDSI program and course selection. Responses pertaining to the role of the advisor included "Clarifying the role of the advisor" and "Active participation of the advisor" were cited by participants from the School of Education (SOE). Other barriers articulated included "The danger of being overloaded with advisees because many faculty do not want to advise MDSI students" and "They just expect me to sign off." In contrast, a participant from the School of Arts and Humanities (SAH) affirmed "The people on the committee don't care and don't get together enough" as a barrier to advising MDSI students.

Responses pertaining to the advisory committee were related to the lack of effective communication and logistics regarding scheduling meetings. Participants of the School of Natural and Social Sciences (SNSS) reported "Interacting effectively with all members of the

MDSI unit" and "Lead advisors do not communicate well with each other" as barriers. A final barrier "Logistics: working around schedules for conservations among multiple faculty members and graduate students" was noted by a participant of the SOE.

Knowledge of MDSI program guidelines and requirements were also presented as barriers for SD participants. A participant of the SOE affirmed "Understanding MDSI guidelines and current requirements" as a barrier. As a final point, a participant from the SNSS confirmed "Being able to offer advice in course selection outside my discipline" as a barrier to advising MDSI students.

Several barriers regarding program structure included organization of the program, course availability, and faculty commitment. With regard to organizational barriers, participants of the School of the Professions (SOP) confirmed "The program needs to be better organized and supported by Buffalo State College" and "They have to fish and beg for advisors." A SOE participant declared "Too scattered in courses – difficult to direct for real work" as a barrier to advising MDSI students.

Course availability was also perceived as a barrier for SD participants. A participant from the SAH avowed "They have difficulty getting into classes that are identified as majors only and sometimes they really need these classes." A similar response "Finding courses that are open to MDSI students" was noted by a participant of the SOP.

Faculty commitment was noted by SOP participants who confirmed "A lack of faculty solely devoted to multidisciplinary," and "Finding faculty willing to serve as advisors" as barriers. A final barrier was articulated by a SOE confirmed "Finding colleagues who understand and support MDSI" was also noted as a barrier.

The findings point to academic knowledge and skills and student preparedness as barriers to advising MDSI students. The following responses suggest a lack of knowledge, skills and student preparedness as barriers to advising MDSI students. "Students' lack of adequate knowledge and skills - they generally seem unfocused and unprepared" was noted by a participant of the SOP. Another response "Insufficient research skills" was affirmed by a SNSS. participant. Another SNSS participant articulated "Content knowledge – these students tends to be weaker." A final barrier reported by a SOE participant confirmed "They are usually clueless as to what they need."

In summary, the overall findings from SD participants suggest academic advising to be the most prevalent barrier to advising MDSI students. Academic advising barriers were also found relevant in the role of the advisor, the advisory committee, knowledge of the MDSI program and course selection. Although the academic advising barrier was perceived most common in this group, the barriers program structure and academic preparedness ranked high with regard to advising MDSI students.

Multidisciplinary Studies Individualized (MDSI) Responses

The process began with reading the open-ended responses for the MDSI group. The MDSI graduate faculty reported a total of 25 barriers to advising MDSI students. The next step involved grouping the responses together to create like themes. This process resulted in 7 themes. The most common perceived barrier for the MDSI group was program structure. Program structure is the overall form of a program, with particular emphasis on the individual components of the program and the interrelationships between these components (Danintith, 2004). Program structure was noted nine times by MDSI respondents. Other themes including commitment/motivation, time constraints and expectations, and academic preparedness, were noted four times. Quotes were taken from MDSI graduate faculty and will be used to results and implications for this particular research question.

Program structure was most frequently noted by participants of the SNSS who affirmed "The current structure of the degree doesn't work" and "Coordinating across sections" as barriers to advising MDSI students. Areas within program structure that were articulated included course availability, knowledge of campus policy/procedures and lack of a centralized contact. With regard to course availability, participants of the SNSS reported "Course availability at Buffalo State," "Lack of courses," and "Students have trouble getting required courses" as barriers. A final barrier expressed by a SNSS participant confirmed "The lack of a centralized contact for the program is frustrating."

Other barriers articulated by the MDSI group included commitment/motivation, time constraints and expectations, and academic preparedness. Although these barriers were not ranked as high as program structure, they share equal ranking relative to perceived barriers to advising MDSI students. With regard to commitment/motivation, participants of the SAH confirmed a lack of commitment/motivation on the part students and presented the following

responses "Unmotivated/ill-prepared students" and "Lack of investment on the part of the student." Equally, a participant from the SAH declared "Students don't take the program seriously.

With regard to time constraints and expectations, participants of the SNSS affirmed "Finding time to meet," "Unrealistic time expectations" and "Staying on track" as barriers to advising MDSI students. A SOE participant affirmed "Adherence to timelines as a barrier to advising MDSI students. Participants of the SNSS found academic preparedness as a barrier. These participants noted "To improve work beyond the undergraduate," "Students don't learn enough about their discipline," and "That they think ahead" was noted as a barriers.

In summary, the overall findings from MDSI participants suggest program structure as the most prevalent barrier to advising MDSI students. Barriers such as course availability, knowledge of campus policy/procedures and a lack of centralized contact were articulated by this particular group. The findings also point to other barriers such as commitment/motivation, time constraints and expectations, and academic preparedness as barriers to advising MDSI students.

Both (SD and MDSI) Responses

For the Both group participants, the first step began with reading the open-ended responses. The Both graduate faculty reported a total of 45 barriers to advising MDSI students. The second step involved grouping the responses together to create like themes. This process of grouping like themes together resulted in eight themes. Of the eight themes, two prevailed as the most common perceived barriers. The first was academic advising which was noted nine times. The barrier, academic preparedness was noted nine times. Academic preparedness is defined as the degree to which students have been prepared for academic work. The theme program structure was noted eight times. While qualitative analysis techniques were not employed in this evaluation, quotes were taken from Both group participants and highlight the results and implications for this particular research question.

The Both group responses to academic advising point to areas including advisor responsibilities and advising on other courses. With regard to advisor responsibilities, participants of the SOE maintained "There should be a key advisor who assists students and bridge communication with departments," "Students showing up in a department office seeking an advisor without any prior notice," and "Seldom see students when just on their committee"

were reported as barriers. SOP participants acknowledged knowing their students and where their student's are in their graduate studies as barriers. These participants confirmed "Not knowing the students as well as my single discipline students" and "I usually get them too late in their graduate studies to help much" as barriers. A concluding remark by a participant from the SNSS avowed "Other advisors who are permissive or apathetic" as a barrier to advising MDSI students. Advising on other courses was also presented as a barrier for SNSS and SAH participants. "Selecting appropriate courses that will meet program requirements and the needs of each candidate was cited as a barrier by a SNSS participant. A similar barrier "Advising on other courses" was articulated by a participant of the SAH.

Equally important, academic preparedness was noted by Both group participants as a barrier. SOP participants focused on areas including poor academic preparedness, developing a plan and knowledge of the theme of study as barriers to advising MDSI students. Responses articulated by SOP participants included "Poor academic preparedness (how did they get out of high school?)," "Organizing and structuring a plan of work," and "Knowing the theme of their study" as barriers. In contrast, a SOE participant pointed to students' clarity about the MDSI program as a barrier. This participant stated "They are not clear as to what they want to do." Participants of the SNSS concluded students' writing skills and the capstone experience as barriers and also acknowledged "Poor writing skills" and "Focusing on and defining a capstone experience" as barriers to advising MDSI students.

Program structure ranked second highest barrier by Both group participants. Barriers included within program structure varied by group participants. Participants of the SNSS affirmed career goals, knowing the coursework needed by MDSI students, differing standards/practices, and faculty bias as barriers. Responses acknowledged by these participants included "Focus on a body of study that aligns with career goals," "Knowing who are the students that need your department coursework," Differing standards/practices across departments and disciplines," and "Faculty bias toward multidisciplinary education."

Other barriers related to program structure were multiple disciplines (within the MDSI program), connecting the disciplines, and oversight of master's projects. A participant from the SAH noted "Finding a suitable way to mesh disciplines" as a barrier. A participant from the SOE confirmed "Taking enough from multiple disciplines to build intellectual confidence with students" as a barrier. The need for the capstone requirement oversight was articulated by a

participant of SNSS who affirmed "Not having Graduate Office oversight of master's projects" as a barrier. A final barrier reported by a SAH participant noted "Setting high standards rather than just getting it done" as a barrier to advising MDSI students.

In summary, the overall findings from Both group participants suggest academic advising and academic preparedness as the most prevalent barriers to advising MDSI students. With regards to academic advising, barriers such as advisor responsibilities and advising on other courses were cited. Equally important, academic preparedness included barriers relevant to students' clarity as to what they want to do, poor academic preparedness, organizing and structuring a plan of work, knowing the theme of their study, and poor writing skills. A final barrier articulated by this group was program structure. Barriers associated with program structure included focusing on students' career goals, connecting disciplines, knowing students who require department coursework, differing standards/practices, faculty bias, and setting high standards.

Analysis of the satisfaction scale to determine the level of satisfaction revealed limited results that could be used in the analysis. Independent samples t – test and an ANOVA were computed which resulted in no significant difference between the two groups (SD and MDSI) as well as the Both group. The satisfaction scale questions were based on advisor relationships and administrative work performed with advisees and was not specific to satisfaction. Further examination lead to the development of a new variable basic satisfaction. The basic satisfaction variable was created to specifically ask respondents if they were satisfied advising SD and MDSI graduate students. The results of the independent samples t – test showed significant difference. The findings suggest that MDSI faculty had a lower level of basic satisfaction compared to SD graduate faculty. Next, findings from the paired – samples t – test also showed a significant difference as the test used the basic satisfaction variable to compare the basic satisfaction scores of the paired groups (SD and MDSI). The results of the paired – samples t – test showed a significant difference. The findings suggest that MDSI faculty had a lower basic satisfaction compared to SD graduate faculty. Because the MDSI and SD groups were found to be similar, it is difficult to pin point the direct reasons for why MDSI faculty experience lower basic satisfaction than SD faculty.

Questions related to the commitment scale questions were based on relationships, administrative work, and advisee preparedness. Although these questions expected to measure

well, the results of the independent samples t – test and ANOVA showed no significant difference. As with the satisfaction scale, the questions were not directly related to commitment. Further examination lead to the development of a new variable basic commitment. The basic commitment variable was created to specifically ask participants how much do you value the experience of advising SD and MDSI graduate students. The results of the independent samples t – test showed a significant difference. The findings suggest that MDSI faculty had a lower basic value compared to SD graduate faculty. Next, findings from the paired – samples t – test also showed a significant difference. This test used the basic value variable to compare the basic satisfaction scores of the paired groups (SD and MDSI). The results of the paired – samples t – test showed a significant difference. The findings suggest that MDSI had a lower basic satisfaction compared to SD graduate faculty. The similarities between MDSI and SD groups made it difficult to determine the specific reasons for why MDSI faculty experience lower basic satisfaction compared to SD faculty.

Quotes utilized from open-ended responses yield important data for understanding barriers to advising MDSI students. Academic advising was reported by SD group participants to be the most prevalent barrier to advising MDSI students. Themes associated with academic advising included the role of the advisor, the advisory committee, knowledge of the MDSI program and course selection. Other themes such as program structure and academic preparedness ranked second and third and provided a further explanation for understanding perceived barriers for this particular group. Program structure was reported by MDSI participants as the most prevalent barrier to advising for MDSI group participants. Barriers such as course availability, knowledge of campus policy/procedures and a lack of a centralized contact were noted as barriers for this group. Other identified barriers included commitment/motivation, time, constraints and expectations and academic preparedness. These barriers were equally ranked with regards to perceived barriers to advising MDSI students. A final point, academic advising and academic preparedness was reported by the Both group participants and was noted as the most prevalent barriers to advising MDSI students. Themes associated within academic advising included advisor responsibilities and advising on other courses. Equally, academic preparedness was articulated and focused on students' clarity as to what they want to do, poor academic preparedness, organizing and structuring a plan of work, knowing the theme of their study, and poor writing skills. Both group participants ranked program structure second to

academic advising and academic preparedness. Other barriers reported by this group included students' career goals, connecting disciplines, knowing students who require department coursework, differing standards/practices, faculty bias, and setting high standards.

The overall findings indicate further statistical analysis is needed for providing a comprehensive understanding of satisfaction, commitment and perceived barriers to advising MDSI students. Research related to the MDSI advising structure may be may be beneficial for informing faculty satisfaction and commitment. Variables related to the structure of MDSI advising include the advisor's load, faculty willingness to advise MDSI students, course availability and MDSI policies and practices. Another area for research includes advisor's clarity about their role and responsibilities advising MDSI students. Clarifying the role of the principal advisor and secondary advisors and the responsibilities associated with these roles may help uncover important insights as it pertains to advisor satisfaction and commitment.

In summary, the findings are significant to stakeholders and the institution as it points to the need to standardize advising policies and practices, define the role of MDSI advisors, and provide professional development for current and potential MDSI graduate faculty.

Conclusions and Recommendation

The summary of findings will address the evaluation questions individually and offer insights and associations to the literature as it relates to andragogy, graduate advising, and multidisciplinary/interdisciplinary approaches. This will be followed by a discussion of the conceptual frameworks of the advisory working alliance inventory and model of scholarship. The strengths and weakness, implications for practice, and recommendations for future research are also discussed. Finally, a conclusion of the key points of the evaluation is presented.

A quantitative method research design was utilized and statistical techniques were employed for analyzing the data. Although the quantitative method research design was deemed most appropriate for this evaluation, the survey instrument also included open-ended questions. The open-ended questions assisted in the understanding graduate faculty attitudes and experiences advising graduate students. Quotes from the respondents were used and incorporated into the analysis.

Research Question 1: How does the level of satisfaction of MDSI faculty compare to faculty who advise in a single discipline? In order to answer this question, data from the

satisfaction scale was used to evaluate the level of graduate faculty satisfaction. Thirteen questions were used in the scale which consisted of two subscales variables: relationships and administrative work. The first statistical test (independent samples t – test) was computed for SD and MDSI graduate faculty. There was no statistical differences found between the graduate faculty in terms of their relationships with their advisees and the kinds of administrative work they perform to assist their advisees. A second test, ANOVA was computed for three groups (SD, MDSI, and both) using the Satisfaction Scale. The findings report there were no significant differences between the three groups. As a result of the similarities found between the groups, it is suggested that other statistical analysis may be used to help explain the differences within these advising groups as it relates to faculty satisfaction.

To further explore this question, a second technique was used. A basic satisfaction variable was created. The variable consisted of two questions that directly focused on the level of satisfaction advising SD and MDSI students. The results of this finding reported a significant difference between the SD and MDSI group. This finding suggests that MDSI graduate faculty have a lower level of basic satisfaction compared to SD graduate faculty.

Findings revealed the discovery of an unexpected group (Both) that included graduate faculty who advise both SD and MDSI graduate students which makes up makes up 34% of the sample population. Although the focus of this evaluation was primarily on MDSI and SD graduate faculty, the both group provided useful information for evaluating graduate faulty basic satisfaction based upon their experiences and perceptions advising both SD and MDSI students. Further investigation of the both group facilitated the use of the paired – samples t – test to measure paired data using the basic satisfaction variable between SD and MDSI graduate faculty. The results indicate that there was a significant difference between SD and MDSI graduate faculty. The inclusion of the both group provides interesting insights to evaluating graduate level of satisfaction to advising MDSI students. Thus, in answering the first research question, the finding suggests that MDSI graduate faculty experienced a lower level of basic satisfaction compared to SD graduate faculty.

Research Question 2: What is the level of commitment of MDSI faculty compared to SD faculty? In order to answer this question, data from the commitment scale was used to evaluate the level of graduate faculty commitment. Nineteen questions were used in the scale which consisted of three subscales variables: relationships, administrative work, and advisee

preparation. The first statistical test (independent samples t – test) was computed for SD and MDSI graduate faculty. The results indicated that there was no statistical difference found between the graduate faculty in terms of their relationships with advisees, performed administrative work, and advisee preparation. A second test, ANOVA was computed for all groups (SD, MDSI, and both) using the commitment scale. The findings report there were no significant differences between the three groups. The commitment scale provided evidence that the groups have a propensity of being similar with respect to age, years worked at the college, and academic rank. It is suggested that other statistical analysis may be useful for explaining faculty commitment differences within these advising groups.

Another method for answering this question involved two survey questions that were used to created the basic value variable. The basic value variable consisted of two questions that focused directly on the level of value when advising SD and MDSI students. The test findings reported significant difference between the SD and MDSI group. This finding suggests that MDSI graduate faculty have a lower level of basic value compared to SD graduate faculty.

The final technique used to answer this question included a paired – samples t – test to measure paired data using the basic value variable between SD and MDSI graduate faculty. The results indicate that there was a significant difference between SD and MDSI graduate faculty. Therefore, in addressing the second question, the finding suggests that MDSI faculty experience a lower level of commitment compared to SD faculty.

Research Question 3: What are the perceived barriers to advising MDSI students? In order to answer this question, open-ended responses were evaluated across the three graduate faculty groups (SD, MDSI and Both). The most prevalent responses were used to understand the data utilizing quotes from the respondents. Interpretation of the findings is summarized in the following sections.

Single Discipline Advisors. The most common barrier reported by SD graduate faculty was academic advisement. Other important barriers discussed include program structure and academic preparedness. Although this group is not responsible for advising MDSI students, their responses were primarily based upon their perceived knowledge and understanding of the MDSI program and its students.

Academic advising practices were noted the most common barrier to advising MDSI students. SD participants pointed to several perceived barriers such as clarifying the role of the

advisor, the active participation of the advisor, the danger of being overloaded with advisees, and expectations of advisors regarding the capstone requirement. Apathy on the part of committee members regarding not getting together enough was found to be a barrier to advising MDSI students. The findings also concluded interacting effectively with all members of the MDSI unit and lead advisors who do not communicate well with each other and the logistics of working around schedules for conservations among multiple faculty members and graduate students as barriers. Finally, understanding MDSI guidelines and current requirements as well as having the ability to offer advice in course selection outside their discipline was confirmed as a barrier to advising MDSI students.

Program structure ranked second as a barrier to advising MDSI students. The findings point to program structure in the areas of organization of the program, course availability, and faculty commitment. SD participants confirmed the following: the MDSI program needs to be better organized and supported by Buffalo State College, advisees are required to fish and beg for advisors and advisees courses are too scattered making it difficult to direct for real work. With regard to course availability, participants noted student's difficulty getting into required classes that are identified as majors and finding courses that are open to them. On a final note, participants acknowledged a lack of faculty commitment solely devoted to MDSI and finding faculty willing to serve as advisors as a barrier.

Academic preparedness ranked third as a barrier to advising MDSI students. Responses regarding academic preparedness pointed to students' lack of adequate knowledge and skills, characterized students as unfocused and unprepared, having insufficient research skills, a lack of content knowledge and clueless as to what they need.

The barriers presented by SD participants are significant and will help inform stakeholders of the perceived barriers to advising MDSI students. Such information may also facilitate an open dialogue regarding the advising needs and concerns of SD graduate faculty.

Multidisciplinary studies individualized (MDSI) advisors. This group is responsible for advising MDSI students exclusively. Program structure was identified as an overarching barrier for this group. To this end, participants noted the current structure of the degree doesn't work and coordinating across sections as barriers. Course availability at Buffalo State, knowledge of campus policy/procedures and the lack of a centralized contact were cited as barriers to advising MDSI students.

Other barriers such as commitment/motivation, time constraints, and academic preparedness reported equal for this particular group. Barriers relevant to commitment/motivation characterized students as being unmotivated/ill-prepared, showing a lack of investment, and not taking their program seriously. With regard to time constraints and expectations, participants pointed to finding time to meet, having unrealistic time expectations, staying on track and adherence to timelines as barriers to advising MDSI students. A final barrier, academic preparedness included the following barriers: the need for students to improve their work beyond the undergraduate level, students not learning enough about their discipline and the importance for students to think ahead.

The barriers articulated by MDSI participants are significant to stakeholders as they point to concrete issues and concerns relevant to advising MDSI students. Such information may prove useful for understanding the special needs of MDSI advisors and their students.

Both (SD and MDSI) advisors. The Both group participants are responsible for advising both SD and MDSI graduate students. Academic advising and academic preparedness were noted as overarching barriers for this group. With regard to academic advising, participant responses point to areas such as advisor responsibilities and advising on other courses.
In relations to advisor responsibilities, several barriers presented included the need for a key advisor to assist students and bridge communication with departments, students showing up to a department office seeking advisement without any prior notice, and advisors seldom seeing students on their committee. Other barriers cited included graduate faculty knowing their advisees and where these student's are in their graduate studies. A concluding barrier in this area was the concern that other advisors are permissive or apathetic. Advising on other courses was presented as a final barrier. Participants asserted selecting appropriate courses that will meet program requirements and the needs of each candidate and advising on other courses as barriers to advising MDSI students.

Stakeholders may find the barriers articulated by Both group participants important as they may help to substantiate factors that may attribute to attrition and retention rates of MDSI students. Additionally, the findings may provide recommendations for providing additional support to graduate faculty in the areas of professional development and academic support for MDSI students.

Strengths and Weakness of Multidisciplinary Advising

A key strength of MDSI advising is that it provides graduate faculty an opportunity to work with graduate students with unique educational and research interests, not found in traditional program structures (Office of Graduate Studies, 1977). Second, MDSI advisors comprise of graduate faculty who are experts in their field and are dedicated to advising MDSI students. As evidenced from the findings, some participants report they are multidisciplinary by nature and training and thus are knowledgeable of multidisciplinary programs and advising. Third, over the past decades, MDSI student interest in identifiable track areas has sparked interest from faculty that has lead to the development of new graduate degree programs.

A major weakness of MDSI advising is the fact that MDSI graduate faculty have a lower level of satisfaction and commitment to advising graduate students compared to SD graduate faculty. Although the reasoning is not evident, the following explanations provide a rationale for this finding: 1) there is no system for tracking faculty who currently advise graduate students; 2) MDSI advisors report they are inundated with advisees; 3) there are no curriculum guidelines; 4) MDSI students are unable to get required courses; 5) academic unpreparedness (writing skills); and finally, graduate faculty advisors receive no compensation for advising MDSI students as the program runs on the good will of faculty to serve on advisory committees.

Implication for Practice

While data cannot explain why MDSI graduate faculty experience lower satisfaction and commitment to advising MDSI students as compared to SD graduate faculty, the following highlights the negative impact the finding may have on students and graduate faculty.

A lack of a centralized data system for keeping track of graduate faculty advisors could have a negative impact on prospective students. Within the current system, prospective students are required to secure a principal advisor prior to admission to the program and two additional advisors. According to the findings, prospective students are forced to solicit several graduate faculty and often times are turned away for reasons including: faculty do not advise graduate students; faculty have exceeded their advising loads; or faculty do not have expertise in the student's field of study. As a result, these students spend much of their time searching for advisors because of the lack of accurate data that would indicate faculty advising status, availability to take new students, and field of expertise. As a last resort, students may contact the

MDSI program coordinator for assistance. Prospective students may find this process frustrating, humiliating, and time consuming. Implications for not obtaining a principle advisor may result in the student's enrollment being delayed until he/she can secure an advisor, the student may decide to enroll in a single discipline program at the college or enroll at another institution.

With regards to graduate faculty, implications for practice involve the lack of a centralized data system for keeping track of MDSI advisors. This may have a negative impact in the following areas: 1) faculty may feel overwhelmed by the number of inquiries (calls, emails and unannounced visits) they receive from prospective students to serve as their advisor; 2) often times faculty may have little to no experience regarding the student's field of study, thus making the request wasted time spent for the faculty; 3) faculty with full advising loads may be contacted by anxious and often times irritated students who may appear very demanding due to their frustration; and 4) faculty may take on MDSI advisees in spite of having full advising load or having expertise in the student's field of study. These implications are likely to lower faculty satisfaction and commitment which may lead to ineffective advising practices and advisor burnout.

Recommendations

These recommendations based on the evaluation findings, strengths and weakness of the program, and implications for practice include the following considerations:

Satisfaction and commitment.

- Findings in this study cannot conclusively identify the reasons why MDSI faculty report lower statistical satisfaction and commitment compared to SD faculty when advising MDSI students. To this end, the following recommendations are offered for future research.
    - Advisor's educational background. Through interviews I will ask questions pertaining to the advisor's educational background and its significance to satisfaction and commitment. The following questions will include: 1) What is your educational background? 2) Can your educational background be considered multidisciplinary/interdisciplinary? 3) What is your level of understanding regarding the multidisciplinary/interdisciplinary conceptual framework and

purpose?; 4) To what extent has your educational background prepared you for advising MDSI students? Research in this area has the potential for examining advisor's educational background with regards to their satisfaction and commitment to advising MDSI students.

- Advisor's role. Through interviews, I will ask questions pertaining to the advisor's perceived role (principal advisor or secondary advisor) during the capstone experience. Interview questions will include: 1) Do you feel your role as an advisor has been clearly defined? 2) What word best describes your role as a graduate faculty advisor (mentor, teacher, facilitator, role model, or advocate, etc.)? 3) How would you rate your role with your advisee (positive, neutral or negative) and why? These questions will examine the advisor's role and include data relevant to their level of satisfaction and commitment to advising MDSI students.
- Advisor multidisciplinary advising training. Through interviews, I will ask questions pertaining to a multidisciplinary advising training program. Questions used in this research will include: 1) Have you ever received multidisciplinary advising training? 2) What key skills are needed for providing effective MDSI advising? 3) Describe the elements of an effective multidisciplinary advising training program for graduate faculty? 4) Would you participate in multidisciplinary advising training if it were made available? Such questions are valuable for determining advisor's level of satisfaction and commitment in relations to receiving multidisciplinary advising training.
- Advisory committee communication. Through interviews, I will ask questions pertaining to advisory committee communication during the capstone requirement. Questions used in this research will include: 1) What types of communication are most commonly used by committee members? 2) How often are committee meetings held during the student's capstone experience? 3) How would you rate the effectiveness of the communication process during the capstone requirement? Research in this area will help to evaluate the level of satisfaction and commitment as it relates to the importance of effective communication between advisory committee members.

Thus, a qualitative research methods inquiry (interviews) would be best suited for understanding graduate faculty experiences and perceptions in the abovementioned areas as it relates to satisfaction and commitment.

- The findings necessitate the improvement of record keeping procedures for graduate advisors. First, the program coordinator will work collaboratively with department chairs to develop a comprehensive list of MDSI graduate advisors. The MDSI Graduate Advisor Listing will consist of graduate faculty who currently advise or has interest in advising MDSI students. All faculty must have graduate faculty status. Second, the list will be made available to potential and current MDSI students through the Graduate School and MDSI program web sites which will be maintained regularly by the program coordinator. A final point, the improvement of record keeping will provide: 1) a more accurate record regarding faculty who currently advise MDSI students; 2) graduate faculty who have interest in advising MDSI students; and 3) information regarding graduate faculty member's area of expertise/research.
- Findings from research question three suggest that advisors are challenged by students who do not seek regular advisement or appear unannounced for advisement. The implementation of the MDSI Advising PIN Pilot Project may be a useful tool for improving the effectiveness, frequency of academic advising for MDSI students. This pilot project is intended to replicate (in some aspects) the Advising PIN Pilot Project recently implemented for undergraduate advisors and advisees. The major purpose of the project will be to evaluate the advising process particularly during the capstone experience. The project will solicit a small number of volunteers (principal advisors, secondary advisors, and their advisee's) to participate in the project. It is believed that the MDSI Advising PIN Pilot Project has the potential for enhancing the program's current advisement process and may offer best practices for advisors and advisees.
- Online advising is another consideration for academic advising. Online academic advising is a relatively new approach and may be used as a supplemental tool for advising. It should be considered as a measure for alleviating issues pertinent to advisors and advisees ability to meet due to busy work schedules. This approach may be beneficial for both advisors and advisees because of its convenience and ease in

advisement. However, on-line advising is not intended to replace the traditional one-to-one contact with an advisor.

- **Academic support services.** The findings indicate that MDSI students lack academic preparation in writing and research. Another area for consideration is the implementation of an academic support center for graduate students. The center will assist students with skills and techniques for research and will be open hours that are convenient for graduate students. The potentialities for implementing a center may serve to strengthen and support retention efforts, time-to-degree, and program completion rates for MDSI and other graduate students.
- **Course availability**. To address the problem of course availability, it is imperative that a dialogue with stakeholder groups, specifically department chairs and faculty who have advised MDSI students to implement a plan by which individual departments would identify a select number of courses for MDSI students. This plan has the potential for opening up or adding select courses (limited to major's only) to MDSI students each semester. Finally, this plan will help students to effectively plan a curriculum that meets their educational and professional needs, allow for greater course selection, and allow for quality advising practices.
- **Advisor training.** Advisor training relates to the findings that speak to providing graduate faculty with information about the MDSI program, available resources, and strategies associated with advising students. Thus, it is recommended that a faculty learning community is implemented. According to Cox (2004), faculty learning communities create connections, establish networks, foster multidisciplinary curricula, and bring together the college community. Advantages of faculty learning communities include: 1) all members of the group are learners, and the group is organized to learn as a whole system (Baker, 1999); 2) they increase faculty collaboration across disciplines; 3) they increase rewards for and prestige of excellent teaching; 4) they create an awareness of the complexity of teaching and learning; and finally, 5) they increase financial support for teaching and learning initiatives (Cox, 2004). The following are examples of activities that may serve beneficial in the implementation of a learning community.
    - **Academic advising handbook project.** The first step of the learning community should be the development of a comprehensive MDSI Program Academic

Advising Handbook (hard copy and web based). According to Ford (2003), employing a comprehensive academic advising handbook that is attractive, useful, versatile, and inexpensive is the cornerstone of a well-developed and implemented academic advising program. The purpose of the MDSI Program Academic Advising Handbook is to provide current and accurate information regarding administration policies and procedures, referral sources and resources and strategies for improving academic advising (Ford, 2003). It is recommended that the program coordinator/internal evaluator assume the lead responsibility for the development of the handbook. Interested stakeholder groups will be solicited for their input and expertise.

- **Orientations, workshops, and seminars.** It is recommended that the Graduate School work collaboratively with academic departments to host campus-wide orientation, workshops, seminars and guest speakers (during Bengal Pause) to promote multidisciplinary graduate education and advising. In addition, presentations will be made by the graduate dean and program coordinator to faculty at the new faculty orientation programs, department meetings, graduate school meetings, and other venues to enlighten faculty about the MDSI program and recruitment new advisors. As an incentive, faculty travel awards and opportunities should be made available for faculty attending national or regional conferences on advising MDSI students in multidisciplinary/interdisciplinary programs.

- **Compensation and recognition**. The findings report compensation is not provided to graduate faculty who advise MDSI students. To this end, it is recommended that compensation is considered and take the form of: 1) monetary compensation based on the number of advisees under their guidance; 2) a stipend for faculty serving as principal advisor; 3) MDSI advisees as part of advisor's official workload; or 4) course release time. Recognition in some form should also be considered including a recognition activity such as a luncheon/dinner reception, certificate of appreciation, or gift card to the bookstore.
- **Faculty buy-in.** Faculty are generally introduced to the MDSI program through their participation in the new faculty orientation program. Additionally, there are other ways

in which faculty may learn about the program which may include: word-of-mouth from other faculty, participation in the Thesis and Project Awards Recognition Dinner, and from prospective or current students seeking an advisor. As a way to recruit new MDSI advisors, an incentive program may be used that will provide incentives such as travel monies to a conference or compensation for advising students. Additionally, it is believed that regular professional development opportunities (orientation, workshops, and seminars), the MDSI program discussed at department meetings, incentive (conference) opportunities, and compensation or recognition will help promote buy-in to the MDSI program which will provide greater opportunities for MDSI students.

Future Research

Future research on multidisciplinary advising should also include graduating MDSI students and alumni. Exit interviews with graduating students would provide helpful information on the advising practices that were effective and those that were least effective throughout their program. Building upon effective practices will be helpful. In order to address the issue of advising practices that were least effective, graduating students would be asked to share their experiences and perceptions regarding advising practices areas for improvement. Such information would to inform MDSI advisors of the specific needs and problems of students from an advisees' perspective. Interviews with alumni may also be helpful for ascertaining information to support that the completion of the MDSI program had a positive effect on their opportunities for professional advancement.

Conclusions

Advising multidisciplinary students is a multifaceted activity. It can be a powerful tool for attributing to students' intellectual growth, career development, and success at the university (Lowe & Toney, 2000). This evaluation examined graduate faculty level of satisfaction and commitment to advising graduate students. The overall findings revealed MDIS faculty experienced lower levels of satisfaction and commitment compared to SD graduate faculty. Although the evaluation could not conclusively identify the reasons for this particular finding, other findings related to perceived barriers to advising found academic advising and the MDSI program structure as key barriers to advising graduate students. To this end, the results of this

evaluation warrant a realignment of the current MDSI advising process. Such realignment is essential for improving MDSI graduate faculty satisfaction and commitment and may help to improve advising practices for MDSI students.

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