DISSERTATION

WEB SITE RECRUITMENT IN COUNSELING AND CLINICAL PSYCHOLOGY:

AN EXPLORATORY EVALUATION OF MULTICULTURAL CONTENT

Submitted by

Serenity Chambers

Department of Psychology

In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Summer 2006
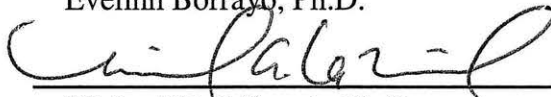
COLORADO STATE UNIVERSITY

May 11, 2006

WE HEREBY RECOMMEND THAT THE **DISSERTATION** PREPARED

UNDER OUR SUPERVISION BY SERENITY CHAMBERS ENTITLED WEB

SITE RECRUITMENT IN COUNSELING AND CLINICAL PSYCHOLOGY: AN

EXPLORATORY EVALUATION OF MULTICULTURAL CONTENT BE

ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE

OF DOCTOR OF PHILOSOPHY.
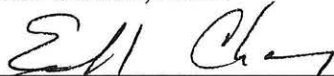
Committee on Graduate Work

Evelinn Borrayo, Ph.D.

Michael De Miranda, Ph.D.

Randall Swaim, Ph.D.

Adviser: Ernest Chavez, Ph.D.

Department Head: Ernest L. Chavez, Ph.D

ABSTRACT OF **DISSERTATION**

WEB SITE RECRUITMENT IN COUNSELING AND CLINICAL PSYCHOLOGY:

AN EXPLORATORY EVALUATION OF MULTICULTURAL CONTENT

The multicultural movement in Psychology calls for racial/ethnic parity in its graduate student representation. One method of increasing minority student representation is to foster a multicultural graduate program. The current study explored the extent to which the multicultural development of a program as portrayed by its Web site affected prospective students' attraction to the program. Participants were contacted via email through their Department of Psychology or Psi Chi chapter, and were randomly assigned to a Web site of a fictitious graduate program in Counseling/Clinical Psychology, representing one of the four multicultural levels. Participants included 134 prospective graduate students in Counseling or Clinical Psychology (78.4% female, 18.7% male) who were at the junior level or above. Minority-identified participants made up 26.9% of the sample. Participants were asked to view the Web site of the fictitious graduate program as if it were real, after

which they completed the online Prospective Student Survey, which assessed their attraction for the program.

A factor analysis of the Prospective Student Survey yielded two components. Factor scores were calculated and used as dependent variables in subsequent analyses. Employing a MANOVA with an alpha level of .05 yielded a significant main effect for multicultural level. Post-hoc tests revealed significant differences for General Affinity Scores ($p < .05$), suggesting that prospective students preferred graduate programs with low and high levels of multicultural development to the placebo. No differences were found between minority and non-minority students.

Overall, results suggest a relationship between the information presented on a graduate program's Web site and a prospective student's attraction for that program. Namely, prospective students value programs with either no multicultural emphasis or with multiculturalism integrated throughout. The disregard of the placebo program suggests that a Web site containing very little information is unattractive to prospective students. Congruent with past studies, the results imply that program materials, namely information presented on Web sites, can and should be used as a cost-efficient recruitment tool. To help psychology programs in this endeavor, a list of 12 components to include on Web sites is stipulated.

Serenity Chambers
Department of Psychology
Colorado State University
Fort Collins, CO 80523
Summer 2006

ACKNOWLEDGEMENTS

DEDICATION

To my mother, who taught me the value of hard work, persistence, and humility.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1: INTRODUCTION

In the 21st century, the United States has experienced an even greater diversification of its people and population. Psychology as a field has attempted to meet the needs of these changing population demographics through various efforts. This paper will first review current and future demographic patterns. The implications of these demographic patterns for Psychology will then be stipulated. We will then take a broad chronological overview of the history of the multicultural movement within Psychology, with a specific emphasis on the recruitment of racial/ethnic minorities to the field and the training of culturally competent psychologists. Special consideration will be given to recent anti-affirmative action legislation. An evaluation of these recommendations and efforts will assist in the assessment of where we stand today in terms of the diversification process in Psychology.

Changing Demographics: Trends and Predictions

First, let us consider the current demographics of our nation. Then we will assess current projections for the future and examine some of the consequences of these predicted changes for the field.

According to the American Community Survey Profile for 2004 (U.S. Census Bureau, 2005), non-Hispanic Whites constituted 67.3% of the population, whereas Hispanic/Latino(a)s (of any race) made up 14.2%, Blacks/African Americans comprised 12.2%, Asians represented 4.2%, Native Hawaiians/Pacific Islanders constituted .1%, and American Indian/Alaska Natives were counted at .8%. People not of Latino or Hispanic origin who identified as "some other race" or "two or more races" were calculated at 1.6%. Past predictions for minority populations have tended to overestimate the non-Hispanic/Latino White population, while underestimating minority groups such as Hispanic/Latino and Asian populations (see Atkinson, Morten, & Sue, 1998c). The population of the U.S. is diversifying rapidly, perhaps more quickly than originally predicted, and is expected to continue throughout the 21st century.

Population projections issued by the U.S. Census Bureau (2004) indicate that the numerical majority of the non-Hispanic White population will come to an end within the next 50 years. These projections estimate that by the year 2050, non-Hispanic Whites will decrease to 50.1%, while 24.4% of the population is expected to be Hispanic (of any race), 14.6% Black, 8% Asian American, and 5.3% all other races (including American Indian, Alaskan Native, Native Hawaiian/Pacific Islander, and two or more races). In terms of the effects of current demographic trends on institutional compositions, some researchers predict that by the year 2030, 75% of the workforce will be either racial/ethnic minority or female, and 45% of students in the public school system will be of racial/ethnic origin (Sue, Parham, & Bonilla-Santiago,

1998). The greater representation of racial/ethnic minorities in certain arenas of society speaks to the reality of our diversifying world.

Implications of demographic trends for the field of Psychology. Undoubtedly, demographic changes in the general population have profound consequences for psychologists and other mental health professionals who render services to this changing populace. Specifically, with the majority becoming minority, the monocultural basis of psychological training, education and practice is seriously called into question (Sue, Bingham, Porche-Burke, & Vasquez, 1999). Secondly, even the term "minority" itself is rendered suspect, and in the future will likely become obsolete. No longer can we ethically assert that the discrepancies in the utilization of services to racial/ethnic minority populations are due to a perceived lack of need (Atkinson, Morten, & Sue, 1998a), nor can we justifiably marginalize coursework on diverse issues within Psychology training as optional or specialized (Hills & Strozier, 1992). How could we excuse such a practice when statistically speaking, a psychologist in a state such as California has a greater chance of working with a racial/ethnic minority person than with someone who is (non-Hispanic) White? As outlined under 2.01(a) of the Ethical Principles of Psychologists and Code of Conduct (APA, 2002a), psychologists must "provide services ... with populations and in areas only within the boundaries of their competence, based on their education, training, supervised experience, consultation, study, or professional experience" (p. 4). The implications of this principle, in light of current population trends, are straightforward, and were expressed over a decade ago:

This means that psychologists not properly trained to provide services and to conduct research with minorities will increasingly be placed in positions of having to either withhold services or practice outside the boundaries of their competence (Olmedo, 1990, p. 198).

With these population shifts and professional mandates in mind, psychologists clearly have an ethical and professional urgency to infuse a multicultural framework into the training and development of psychologists, as well as to recruit more racial/ethnic minority psychologists.

The Multicultural Movement in Counseling Psychology

For decades, the field of Psychology and Counseling Psychology in particular, has been answering a call to diversify the training and education of its future Psychologists. The official call began during the Civil Rights movement of the 1960s. With the recognition that racial/ethnic minority persons were vastly underrepresented in the field, equal opportunity and affirmative action became the goal; the American Psychological Association (APA) thus began examining its institutional policies and standards.

In 1963, the APA Board of Directors put forth its first effort to address racial/ethnic minority concerns by establishing the Ad Hoc Committee on Equality of Opportunity in Psychology (CEOP) (Heppner, Casas, Carter, & Stone, 2000). The committee's task was to develop official policy related to the education, training, employment and status of minority groups in Psychology (namely, the four major racial/ethnic groups: Asian Americans, African Americans, Hispanics, and Native Americans). Over the next twelve years, separate racial/ethnic minority constituencies

were established within the APA: the Association of Black Psychologists (1968) (Williams, 1974), the Association of Psychologists Por La Raza (1970) (Bernal, 1994), the Asian American Psychological Association (1972) (S. Sue, 1994), and the Society of Indian Psychologists (1975) (LaFromboise, 1994). These groups were intended to address three major issues related to the underrepresentation of racial/ethnic minorities in Psychology: (a) the paucity of racial/ethnic minority psychologists as well as of graduate and undergraduate students in Psychology, (b) the APA's failure to address certain social problems (i.e., racism, poverty), and (c) the lack of representation of people of color within APA's governing structure (Heppner et al., 2000).

The diversification movement gained further momentum during the 1973 Vail Conference. The conference became a springboard for the development of key political, ethical, and structural changes within the field. For example, the implementation of affirmative action programs within the APA, and the emphasis of racial/ethnic minority student recruitment, admission, and graduation was adopted as an ethical obligation (Heppner et al., 2000; Korman, 1974). Further recommendations were made that mandated Psychology training programs to provide academic and clinical experiences in the multicultural realm in order to ensure multicultural competence in an increasingly pluralistic society. The last major victory for the multicultural movement during the Vail Conference called for further structural changes. Namely, the APA agreed to establish minority boards and committees to more accurately represent the constitution of the U.S. population at large more accurately.

Another major multicultural accomplishment was achieved when, in 1974, the APA created the APA Minority Fellowship Program (Guzman, Schiavo, & Puente, 1992) to encourage scholarship in Psychology among students of color. Over the next several years, the representation of racial/ethnic minority students in Psychology began to improve. As the commitment to diversity issues increased, new scholarly journals dedicated to the psychological study of racial/ethnic minority issues were born. In 1974 the *Journal of Black Psychology* published its first issue (Street, 1994). A few years thereafter, in 1979, followed the debut of the *Hispanic Journal of Behavioral Sciences* (Bernal, 1994).

The year 1979 saw continued progress for the diversification process in Psychology. First, the Office of Ethnic Minority Affairs (OEMA) and a Committee on Minority Affairs (CMA) were established by the APA Board of Directors (Comas-Díaz, 1990). Second, the Committee on Accreditation added Criterion II to those criteria used by APA to improve the education and training of tomorrow's psychologists (APA, 1979). Criterion II advocated for a greater understanding of cultural and individual differences across all areas of Psychology, especially with respect to fostering multicultural competence in an increasingly diverse society.

Unprecedented advances occurred in 1980 with the founding of the Board of Ethnic Minority Affairs (BEMA) (Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology [CEMRRAT], 1997). This event was especially significant to the multicultural movement in Psychology in that it institutionalized a means to achieve diversity goals within the APA governance structure (Heppner et al., 2000). BEMA then began tackling systemic issues

embedded within the education and training of psychologists by forming the Task Force on Minority Education and Training. This task force outlined recommendations for the recruitment and retention of racial/ethnic minority faculty and students, as well as the need to integrate multicultural curricula into the basic education for psychologists-in-training (Wyatt & Parham, 1985).

In 1982, the Education and Training Committee of Division 17, the Division of Counseling Psychology, reiterated the idea that Counseling Psychology should focus its attention on the recruitment and retention of racial/ethnic minority students (Heppner et al., 2000). In addition, it suggested that population shifts be monitored more closely in order to more accurately determine the centrality of needed services. Further efforts to diversify counseling practices came during this period with the timely publication of a position paper on cross-cultural counseling competencies (Sue et al., 1982), again highlighting the urgency of a paradigm shift toward multiculturalism. Division 17 continued to refine its commitment to diversifying Counseling Psychology during a national conference held in Atlanta in 1987 (Meara et al., 1988). The recommendations of the conference underscored three needs: (a) to increase the quantity of racial/ethnic minority research, (b) to conduct research on cross-cultural interventions, and (c) to integrate alternative paradigms into research practices. The following year, Division 17 extended its advocacy of diversity by making its Committee on Ethnic and Cultural Diversity a standing committee in APA, thereby procuring input from APA to Division 17 constituents regarding service, training, and research issues relevant to working with racial/ethnic minority populations (Heppner et al., 2000).

Seeking to establish a network of racial/ethnic minority psychologists within divisions of APA and state associations, BEMA created its second task force, the Task Force on Communications with Minority Constituencies (Comas-Díaz, 1990). From these efforts spawned the establishment of Division 45 of the APA in 1986, and thus the Society for the Psychological Study of Ethnic Minority Issues was born. A third task force, the Task Force on the Delivery of Services to Ethnic Minority Populations, addressed the need for graduate education courses to include cultural diversity within coursework. Subsequently, the Task Force drafted "Guidelines for Providers of Psychological Services to Ethnic, Linguistic, and Culturally Diverse Populations" (APA, 1993).

The 1990s witnessed further advances within Counseling Psychology education and training. Indeed, multiculturalism came to be considered the "fourth force" in counseling (Pederson, 1991). The inclusion of multicultural courses into counseling Psychology program curricula became widespread (Hills & Strozier, 1992). The APA Code of Ethical Principles was revised in 1992 to reflect a stronger commitment to competently serving an increasingly diverse society. Two years later, the APA Board of Directors established the Commission on Ethnic Minority Recruitment, Retention, and Training (CEMRRAT) to achieve the following two objectives: (a) evaluate the status of racial/ethnic minority participation in Psychology, including barriers to such participation; and (b) to develop a five-year plan to direct APA's efforts to minimize these barriers (CEMRRAT, 1997). Furthermore, in 1995, APA's accreditation guidelines were once again modified to reflect the need to consider individual differences and diversity in the accreditation of

Psychology training programs (APA, 1995). The creation of Domain D: Cultural and Individual Differences and Diversity expounded on Criterion II, outlining two levels of diversity on which programs applying for accreditation must focus. The first level emphasizes affirmative action, recognizing that the diversity of the faculty and student body is an essential first step in reflecting a training program's commitment to diversity. The second level mandates that graduate programs in Psychology integrate an emphasis on cultural and individual differences into their curricula and clinical training experiences (Bluestone, Stokes, & Kuba, 1996).

As the decade progressed, the salience and relevance of multicultural competence became apparent by the increase in number of books published on the topic (e.g., Atkinson, Morten, & Sue, 1998b; Ponterotto, Casas, Suzuki, & Alexander, 1995; Pope-Davis & Coleman, 1997; Sue & S. Sue, 1990), as well as by the development of various multicultural assessment instruments. Employing a multicultural model, inventories such as the Multicultural Counseling Awareness Scale (Ponterotto et al., 1996) and the Multicultural Counseling Inventory (Sodowsky, Taffe, Gutkin, & Wise, 1994) were specifically developed to assess multicultural competence. In 1997, Division 17 officially sanctioned the multicultural competencies designated and updated by D. W. Sue and colleagues in 1992 (Sue, Arredondo, & McDavis, 1992).

In 1999 the first National Multicultural Conference and Summit (NMCS), organized and co-sponsored by Division 17 was held. The conference was charged with three main goals: (a) to investigate state-of-the-art issues in racial/ethnic minority Psychology, (b) to identify the barriers to realizing multiculturalism within

9

the profession, and (c) to create coalitions for political action and advocacy to achieve multiculturalism (Sue et al., 1999). The outcome of this conference was far-reaching. Most notably, a proposal for multicultural competence was outlined and approved by the three sponsoring divisions, and was subsequently presented and approved by the Council of National Psychological Associations for the Advancement of Ethnic Minority Interests. This proposal eventually became the recently APA-approved Multicultural Guidelines (APA, 2002c; more details to follow). The National Multicultural Conference and Summit was such a success that it has become a biannual event, with the fifth meeting planned for January 2007. In the keynote address for the 2003 NMCS, Gordon L. Berry reminded attendees that a "minority majority" is a certainty for the United States in the near future, urging social institutions to embrace the values of cultural pluralism (Farberman, 2003).

The year 1999 was also significant in that it was the inaugural year for a new journal, *Cultural Diversity and Ethnic Minority Psychology*, the official journal of Division 45 of the APA. In addition, the year 1999 was also recognized for its increase in racial/ethnic minority representation in APA's constituency. For the first time, a psychologist of Asian American descent was elected to the APA presidency (Suinn, 1999), and several other psychologists of racial/ethnic minority origin took office in various divisions of the APA: (a) Rosie Bingham, an African American, was elected president for Division 17, (b) Steven James, a Native American, accepted the presidency for Division 44 (Society for the Psychological Study of Gay, Lesbian, and Bisexual Issues), (c) Derald Wing Sue, an Asian American, became president of Division 45, and (d) Melba J. T. Vasquez, a Latina, took over as president of Division

35 (Society for the Psychological Study of Women). These leadership roles occupied by racial/ethnic minorities represented a marked contrast to the state of affairs three years earlier, when there was not even a single person of racial/ethnic minority status occupying such positions. The goal of diversifying the APA had begun to materialize.

In late 2002, twenty-two years of effort resulted in the APA approval of the *Guidelines on the Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists* (APA, 2002c) as official APA policy. These guidelines were drafted by a joint task force of APA divisions 45 and 17, and represent the collaboration and dedication of several psychologists. The document introduces six guidelines outlining the importance of recognizing the ubiquitous role culture plays in the daily work and lives of psychologists. Specifically, the guidelines address the need for psychologists to be aware of the impact of their own cultural identity on individuals with different cultural backgrounds (guideline 1), to gain a greater understanding and appreciation of racially and ethnically different individuals (guideline 2), to employ concepts of diversity and multiculturalism in all educational endeavors (guideline 3), to integrate culturally-sensitive and ethical research practices with individuals from different racial/ethnic backgrounds (guideline 4), to utilize culturally-appropriate clinical intervention skills with clients from different racial/ethnic backgrounds (guideline 5), and finally to support organizational change that reflects the development of culturally-informed organizational practices (guideline 6).

Clearly the APA and the profession of Psychology have made significant progress in diversifying the field. In the next section we will take a look at one of the major threats to the diversification process: anti-affirmative action legislation.

Affirmative action: Impact of the legal system on the minority pipeline

In order to gain full perspective of the diversification of Psychology, we must also examine the current state of affirmative action legislation. The landmark 1978 U.S. Supreme Court decision of *Regents of the University of California v. Bakke* upheld the use of race as one of a variety of factors in admissions (Orfield & Mills, 1998). Some twenty years later, federal courts of appeals in Texas (*Hopwood v. Texas*, 1996) and a state initiative in California (Proposition 209) effectively outlawed the *Bakke* (1978) decision, banning race as a consideration in the admission of students in Texas and California, respectively. Similar lawsuits have been filed in Maryland, Louisiana, and Mississippi. Given that Texas and California are both highly populated and highly diverse, such legislation poses a grave challenge to the diversification of Psychology. In a more recent turn of events, the 2003 Supreme Court decision in two cases filed against the University of Michigan (*Grutter v. Bollinger, Lehman, Shields, Regents of University of Michigan and the University of Michigan Law School* and *Gratz and Hamacher v. Bollinger, Duderstadt, the University of Michigan, and the College of Literature, Arts, and Sciences*) upheld the use of race in the admissions process, thereby procuring a victory for the University of Michigan and setting a precedent to maintain affirmative action policies in Michigan. The same year, the U.S. Supreme Court reversed the *Hopwood* (1996) decision to allow the state of Texas to resume using race in its selection process.

Nevertheless, the debate and the accompanying threat to affirmative action persist, prompting many admissions committees to search for alternative ways to recruit minority students (Orfield & Miller, 1998).

In a recent article, Vasquez and Jones (2006) reviewed the points and counterpoints of affirmative action, and the implications for recent lawsuits for the diversification of Psychology. The authors reiterated the underrepresentation of minorities at all levels of the Psychology pipeline, reviewing recruitment and retention strategies offered in the literature, and advocating for continued pursuit of policies that will further the goals of a multicultural Psychology. The authors conclude:

> In psychology, representation of diversity is important because we know that our worldviews frame the research questions, shape the content and nature of our training curricula, and influence the services we provide…Furthermore, strategies to increase diversity are not reverse discrimination but can be considered as reversing discrimination…Diversity is a compelling interest in Psychology (p. 141).

Hence the authors offer us a pointedly relevant view of the significance of affirmation action legislation within the field of Psychology.

With these legal threats in mind, we will revisit the multicultural revolution in Psychology, paying specific attention to those efforts that have been directed toward the recruitment of minority students and the diversification of graduate training programs in Psychology.

Psychology's Diversification Efforts

Given the plethora of APA recommendations and imperatives to establish a multicultural Psychology, as well as the wealth of scholarly research on diversity issues, an assessment of these interventions is in order. For instance, what is the status of racial/ethnic minorities in the profession? How much do our graduate programs emphasize multicultural issues in the curriculum? To what extent do practicum and/or internship opportunities with multicultural populations exist? What is the level of cultural competence among psychologist practitioners? What are the rates of utilization of psychological services among minority populations? Exploring these issues further will not only provide evidence of the effectiveness of our diversification endeavors thus far, but will help determine how successful future minority student recruitment efforts may be.

Status of minorities in Psychology: Demographic trends and the Psychology pipeline. Although the diversification of the profession of Psychology is unmistakably occurring at a slower pace than that of the populace, trends in the data suggest that the representation of racial/ethnic minorities with bachelor's, master's and doctor's degrees in Psychology are, in fact, moving toward equity. Extensive research has been conducted to evaluate the Psychology "pipeline" (e.g., CEMMRAT, 1997) and ongoing research is recommended for many years to come (see Maton et al., 2006, for a thorough review). For example, in 1993, racial/ethnic minorities comprised 16.2% of all bachelor's degrees in Psychology, 11.6% of all master's degrees, and 9.4% of all Psychology doctorates (National Center for Education Statistics, 1995, as cited in CEMRRAT, 1997). These percentages are

highly unrepresentative of the 25% minority representation in the nation's population in this year (U.S. Census Bureau, 2000).

Further data on racial/ethnic minority applicants to doctoral programs in Psychology offers some added hope that the status of minorities in Psychology is indeed changing. Results from the APA survey of graduate departments of Psychology (Kyle & Williams, 2000) indicated that for the 1998-1999 academic year, racial/ethnic minority applications (defined as belonging to one of the following four groups: Black/Non-Hispanic, Hispanic, Asian/Pacific Islander, and Native American/Alaskan Native) to doctoral programs in health service provider subfields in Psychology (of which Counseling Psychology is a part) accounted for approximately 15.6% of total applications, whereas the percentage of students enrolled full-time in doctoral programs in this area was found to be 22.5%. It is important to note, however, that 9.6% of applications were of unknown racial/ethnic origin, and hence the difference between the percentages of applications from racial/ethnic minorities versus the percentage of enrolled racial/ethnic minority students may be slightly overestimated. Nonetheless, a racial/ethnic minority composition of 22.5% in doctoral programs is quite encouraging. Other statistics suggest that the percentage of doctoral degrees conferred in Psychology to racial/ethnic minorities during this same year was 13.4% (NCES, 2002, Table 270). This 9.1% difference between entry into doctorate programs and the receipt of the doctoral degree suggests an increase in representation, but may also implicate minority retention issues as a grave concern.

A recent article (Maton et al., 2006) discussed both promising and troubling trends with regard to the Psychology pipeline. While receipt of bachelor's degrees in Psychology among minorities has increased since 1989, its growth was halted from 2000 to 2002, staggering between 24.3% and 24.9%. As far as master's-granting programs, there was a significant increase in the percentage of minority students receiving master's degrees between 1989 and 2002 (from 10.6% to 21.5%), but shows a similar halt between 2001 and 2002. Relative to minority representation in the U.S., minority receipt of the master's degree for the year 2002 can be viewed proportionally as .68.

Maton and colleagues (2006) indicated that these encouraging trends seem to predominate at lower levels of the pipeline (e.g., bachelor's and master's degrees), while troubling issues seem to prevail at the higher end. With respect to the receipt of the doctorate in Psychology among all minorities, an increase was observed between 1989 and 2003: from 8.0% to 14.8% for the Ph.D., which is calculated at .46 of their representation in the U.S. population. However, as of 2003, no growth has been witnessed among minorities receiving the doctorate since 1999, and this is especially apparent among Hispanic/Latino(a) and African American students. While it is clear that minorities are increasing across the pipeline, at the highest level, minorities are represented at less than half of their representation in the U.S. population. This led the authors to conclude that, indeed, progress toward diversification has been achieved, but we still have much work ahead.

The report published by CEMRRAT (1997) summed up disparities in racial/ethnic minority student representation as follows: "At the doctoral degree level,

the small number of minority doctoral graduates foretells a severe limitation on the racial/cultural diversity of the pool of academicians, service providers, and scientists in Psychology" (p.3). This limitation remains evident in graduate departments of Psychology, where minority faculty members represented only 12% of total faculty in 2003, not even two-fifths of their U.S. population representation (Maton et al., 2006). Clearly, the recruitment and retention of racial/ethnic minority graduate students and faculty members continues to be a well-established need within the field of Psychology (See "Ethnic Diversity," 2006, for a full review).

Multicultural curricula and practica. Various researchers have examined the inclusion of multicultural course requirements in Clinical, Counseling, and School Psychology programs. A survey of APA-accredited Clinical Psychology programs conducted between 1990-1991 (Bernal & Castro, 1994) found that 62% of programs offered at least one minority-focused course, and 26% required the same. Although these numbers may sound encouraging, almost four in ten of these programs did not offer any minority-focused course and three out of four did not require one for the doctoral degree. Furthermore, 40% of programs reported utilizing no off-campus clinical practicum sites that serve racial/ethnic minority populations. Data with respect to faculty interest in minority issues revealed 47% of clinical programs with no faculty conducting racial/ethnic minority mental health research and 54% of programs with no faculty involved in training students in racial/ethnic minority issues.

In terms of Counseling Psychology programs, the numbers are slightly more encouraging. Quintana & Bernal's (1995) survey of Counseling Psychology programs

for the 1990-1991 academic year found that 88% of programs offered at least one multicultural course, although less than half (41%) required one. Again, these data suggest that about six in ten Counseling programs (59%) did not require students to obtain any formal education on multicultural issues. Counseling Psychology programs did exhibit minimally higher rates of utilization of community settings serving racial/ethnic minority populations as practicum sites (66%) than Clinical Psychology programs (40%; Bernal & Castro, 1994); however, approximately one-third of Counseling programs offered no multicultural practicum experiences. With respect to racial/ethnic minority faculty members, 42% of Counseling programs reported having no racial/ethnic minority faculty, and nearly half (48%) had no faculty conducting research on multicultural issues.

Lastly, less recent data on School Psychology programs revealed similar trends. A 1987-1988 survey (Rogers, Ponterotto, Conoley, & Wiese, 1992) indicated only 60% of programs offered a racial/ethnic minority-focused course. Further, fully 55% of programs did not require any courses on multicultural issues for the completion of the School Psychology degree. In terms of exposure to racial/ethnic minority clientele, 69% of programs reported some student interaction with such a population; however, approximately one in three programs reported students received minimal to no exposure to such clients.

Cultural competence of counselors. The level of success of Psychology's diversification efforts may be extrapolated from the level of cultural competence found among psychologist practitioners. However, in terms of empirical assessments of multicultural competence among mental health practitioners, published studies are

18

sparse. Among these studies, findings suggest that training efforts to procure culturally competent Counseling and Clinical psychologists have met with limited success (Allison et al., 1994). Interestingly, research comparing Counseling and Clinical Psychology graduate students has found slightly higher levels of self-reported multicultural competence among Counseling students (Pope-Davis, Reynolds, Dings, & Nielson, 1995). This difference has been attributed to factors such as exposure to multicultural coursework, level of experience, number of multicultural client hours, and amount of multicultural supervision hours. However, these studies utilize self-report data, as no objective measure of multicultural competence has yet been implemented in a pervasive manner within the field. Indeed, the widespread evaluation of multicultural competence among counselors is urgently needed. Without general baseline data on multicultural competence among counselors, the effectiveness of any interventions will remain unknown.

Minority underutilization of mental health services. Another aspect to consider when evaluating the effectiveness of the profession's diversification efforts is racial/ethnic minority utilization of services. Although early theories advocated a needs-based approach to understanding the utilization of services (Atkinson et al., 1998a), later research reinterpreted treatment rates and ascertained that such an approach tended to ignore barriers to mental health utilization among racial/ethnic minorities. This realization led the Special Populations Task Force of the President's Commission on Mental Health in 1978 to conclude that racial/ethnic minorities are clearly underserved or inappropriately served by the mental health system (Special Populations, 1978, as cited in Atkinson et al., 1998a). Subsequent studies have

documented a pattern of racial/ethnic minority underutilization of mental health services in community agencies (e.g., Cheung & Snowden, 1990), college counseling centers (e.g., Magoon, 1988), and inpatient psychiatric facilities (Leong, 1994). Among the barriers implicated were clashing cultural values, alternative sources of help, limited financial resources, restricted availability of ethnicity-specific mental health services, and minority clients' perceptions of mental health services as being irrelevant to their needs (Atkinson et al., 1998a). Although such a pattern of underutilization has been consistently noted in the literature, Atkinson and his colleagues uphold that "when ethnic minority people have the financial resources to make use of mental health services, and when ethnicity-specific mental health services are made available to them, they will make use of those services" (p. 66). This latter contingency reinforces the urgent need to emphasize the training of multiculturally skilled clinicians within Psychology.

The Diversification of Psychology: Where Do We Stand Today?

So far we have seen that the field of Psychology has made great strides to meet the needs of a changing populace. Several initiatives have been implemented to diversify psychological theory and practice. However, racial/ethnic minorities continue to be underrepresented in the profession of Psychology, despite the implementation of mandates and guidelines for the recruitment of these groups. Additionally, the status of racial/ethnic minority representation in graduate programs, as well as multicultural competence among counselors and the continued minority underutilization of mental health services all paint a bleak picture of our field in terms of its success in meeting the demands of an increasingly diverse society. Furthermore,

the tide of anti-affirmative action legislation that swept through Texas and California in 1996, effectively outlawing the use of race as a consideration for college admissions in these states as well as Mississippi and Louisiana, and threatening its use in other states, profoundly threatens the *Bakke* decision and is prompting universities to devise alternative methods of creating diversity on campuses (Orfield & Miller, 1998). Such a backlash against racial equity in higher education poses an immense challenge to doctoral programs in Psychology aiming to diversify the field. The debate about how to achieve racial parity in educational systems without the use of race as a factor in admissions is currently in full swing. The deleterious effects of the removal of special programs and funding for minorities have already been witnessed in some Texas universities. Now more than ever,

> ...educational and political leaders must ask how much they value that hard-won diversity and what they are willing to do to keep it. From that debate could emerge a new understanding of common goals—and the energy to build a more democratic system for educating the future leaders of our rapidly changing society (pp.15-16).

This statement speaks to the crucial multicultural imperative that is resounding in the walls of educational institutions across the United States today, charging them with the task of examining the entire admissions process. Such a task will lead us to advocate for long-overdue systemic changes in the definition of "merit" in American educational institutions, and foster more equitable racial parity in society for the long term.

Let us now turn to a review of the body of literature on the recruitment and retention of racial/ethnic minorities in Psychology. This information will allow us to understand where further efforts to diversify Psychology should be concentrated.

Review of the literature on recruitment strategies. An APA survey of graduate departments of Psychology (Kyle & Williams, 2000) found a variety of different techniques to increase the representation of minorities. The initiatives employed by graduate programs to increase applications and enrollments of minority students were outlined as follows: 54% of doctoral programs reported using the involvement of racial/ethnic minority faculty, students, and alumni as part of the recruitment process. In addition, several of these institutions utilized flexible admissions criteria (49%) and offered adequate financial support (45%) for prospective minority students. Other strategies included specific recruitment plans targeting minority students (44%), outreach programs targeting racial/ethnic minority communities or "feeder" schools (40%), and recruitment materials (e.g., brochures) geared toward minorities (18%).

Other recruitment efforts have focused on increasing the presence and/or salience of racial/ethnic minority faculty members. The presence of racial/ethnic minority faculty, as well as the proportion of faculty members conducting multicultural research tend to go hand-in-hand with the presence of racial/ethnic minority graduate students (Muñoz-Dunbar & Stanton, 1999). Furthermore, employing minority students and faculty in a program's recruitment efforts has been shown to be an especially popular strategy among programs that contain a critical mass of 20% minority student representation (Rogers & Molina, 2006). Once a critical mass of racial/ethnic minority students and faculty has been created, it will

tend to support itself via subsequent recruitment and retention activities. In other words, racial/ethnic minority students themselves will serve to recruit other minority students by their mere presence in a graduate program. Such a presence may not only reduce possible feelings of alienation, but theoretically may work to change the institutional climate to be more minority-friendly. Without such a critical mass of students and faculty to reflect diverse perspectives, subsequent efforts to create racial/ethnic diversification within departments of Psychology may prove futile.

Several other recruitment strategies have been attempted with varying degrees of success. Some approaches underscore the importance of "selling" Psychology at each and every level of education (Highlen, 1994). These types of efforts aggressively target racial/ethnic minority students beginning in high school and extending to 2-year colleges, 4-year colleges, and universities, with the aim of producing more racial/ethnic minority students with bachelor's degrees in Psychology. One such project targets minority students in high school and community colleges by conducting workshops and speakers forums to educate students about the wide range of activities that psychologists perform, as well as to provide tips to overcome racial barriers and opportunities to be mentored by minority college students (Dittmann, 2005). Educating students early about the various opportunities with the field may help to increase minority representation in early stages of the pipeline, which will then diversify the pool from which graduate programs recruit.

Some Clinical Psychology programs have reported relative success using special task forces or committees to recruit minority students (Muñoz-Dunbar & Stanton, 1999). Other tactics employed by Clinical programs to attract minority

students have included offering fellowships, using the GRE Minority Locator Services, and sending advertisements or other printed materials targeted specifically toward racial/ethnic minorities. In terms of selection criteria, a large proportion of Clinical programs surveyed in 1994 reported utilizing flexible criteria to aid in the admission of racial/ethnic minority graduate students (Bernal & Castro, 1994). Unlike Clinical programs, Schools of Professional Psychology have been found to favor using personal contacts to communicate with prospective racial/ethnic minority students, and to organize formal preadmissions activities for these candidates (Hammond & Yung, 1993). Finally, the Office of Ethnic Minority Affairs of the APA conducts a program called MUSE, or Minority Undergraduate Students of Excellence. This program solicits the names of high-achieving undergraduate minority students in Psychology from institutions across the country, and then publishes the list of names on their Web site, enabling graduate programs to recruit prospective minority graduate students (Rabasca, 2000). In addition, the APA Web site contains guidebooks for students of color in high school, college, and graduate school, as well as resources for Psychology training programs seeking to recruit students of color (see APA, n.d.).

In addition, Guzman (1991) proposed that programs emulate other successful institutions by developing a strong commitment to a multicultural training program. Evidence of such dedication should exist across the university hierarchical structure, as well as among non-minority faculty members. This broad commitment should extend into clearly defined and funded programs, such as "buddy" systems, minority coordinator positions, outreach activities to minority communities, and an identifiable

and integrated minority-focused training agenda for graduate students. This message concerning the need for programs to espouse an overarching commitment to diversity and multiculturalism has been reiterated over the years (e.g., CEMRRAT, 1997; Rogers, Hoffman, & Wade, 1998; Rogers & Molina, 2006; Speight, Thomas, Kennel, & Anderson, 1995).

Other researchers studying minority student recruitment have focused on the delivery of key information to potential minority candidates. In addressing the potential reasons why recruitment fails, Porche-Burke (1990), reviewing the research of Bernal, Barron, & Leary (1983), pointed to the significance of the first contact between the prospective minority student and the graduate program:

> Clearly, it will be difficult to attract the potential ethnic minority student if the program materials do not adequately describe (a) the training opportunities and facilities for working with ethnic minority groups, (b) curriculum that addresses ethnic minority issues, (c) availability of an ethnic minority student support group, and (d) other types of information that clearly indicate an interest in and commitment to issues related to ethnic minorities. Furthermore, application materials should clearly indicate the program's interest in and commitment to alleviating the financial hardships that a graduate education creates... Therefore, application materials need to address the financial aspect and provide substantive information regarding the available financial opportunities (p. 132).

Porche-Burke further suggested that recruitment efforts begin at the very latest at the undergraduate level, when most potential graduate students begin planning their post-

baccalaureate careers. Finally, using flexible criteria on the Graduate Record Exam (GRE) was recommended to bolster the number of racial/ethnic minority students admitted to a program.

Over a decade ago, Ponterotto and his colleagues (1995) identified some of the factors involved in attracting Black and Hispanic American students to Professional Schools of Psychology. Employing as participants currently or recently graduated African American and Hispanic American master's level students from Counseling, Counseling Psychology, or School Psychology programs, the researchers examined participants' perceptions of several different aspects of program application materials. Using information gathered through interviews, major and minor themes were deduced. Major themes included aspects that were mentioned by all or the majority of students, and were emphasized as important to the decision-making process in choosing a graduate program. The following essentials were derived as major themes that professional Psychology programs should consider as they prepare application packets as a "cost-effective device for minority student recruitment" (p. 202): financial aid information; program requirements and course descriptions; demography of the student body; and quality, clarity, and comprehensiveness of application materials. Minor themes included admission and application procedures, faculty demographics, faculty research on diversity issues, community information, and personal contacts. Using these data, Ponterotto and his colleagues compiled a list of 10 recommendations for programs to include in the contents of their application packets (see Ponterotto et al., 1995).

Many of the ingredients for successful recruitment suggested by Ponterotto et al. (1995) were echoed by a qualitative study seeking to operationalize multicultural training in doctoral programs and internships (Speight et al., 1995). Fifty multicultural experts in the field offered their perspectives of what constitutes a multicultural doctoral program or internship. Among the most frequently mentioned attributes for multicultural doctoral programs were the following: a multicultural curriculum, diversity within the student and faculty body, a broad definition of diversity infused into coursework, multicultural field placements, departmental community involvement, and multicultural research among faculty and students. These factors can be used by graduate programs aiming to promote multicultural training and increase competence among their future psychologists.

In a very recent study, Rogers & Molina (2006) described exemplary efforts by Psychology programs to recruit and retain graduate students of color. Exemplary programs were defined on the basis of having met certain criteria, one of which was that the departments or programs enrolled 20% or more students of color. Using semi-structured interviews of 11 departments/programs, several commonly utilized recruitment strategies were highlighted. Among these strategies, the following were most frequently used: providing financial aid (100%), involving minority faculty and/or students in recruitment activities (100%), and employing personal faculty contacts with prospective minority students (91%). All departments/programs provided some type of financial aid package for newly admitted students, and 91% of these institutions reported advertising this funding in their brochures or on Web sites.

Barriers to recruiting minority students. Several barriers to minority graduate student training in health fields were discussed by Hammond and Yung (1993). One notable obstacle is possible academic under-preparation, which may contribute to low standardized test scores or less opportunity to obtain needed fellowships or assistantships at the graduate level. Such lack of preparation also appears to contribute to higher rates of attrition among minority graduate students. Programs such as the Health Careers Opportunity Program (HCOP) have effectively intervened to alleviate this difficulty for potential racial/ethnic minority candidates with educational pursuits in the health professions. In essence, HCOP, funded by the U.S. Department of Health and Human Services (1988, as cited in Hammond & Yung, 1993), has developed formal liaisons with feeder institutions to help prepare potential candidates for graduate study.

Other barriers to the pursuit of graduate degrees reported by racial/ethnic minorities were perceptions of subtle instances of discrimination, feelings of isolation, lack of relevance of coursework and training, and few faculty role models (Hammond & Yung, 1993). These concerns are further aggravated by financial circumstances that preclude many racial/ethnic minorities from realistically pursuing graduate study in the first place. For example, Coyle & Bae (1987) found that approximately two-thirds of Clinical Psychology doctorate recipients reported personal sources as their primary means of financial support. Guzman (1991) also emphasized the potential prohibitive effects of financial stress on a racial/ethnic minority student's opportunity to attend graduate school. Therefore, financial assistance should be the first and foremost consideration for programs aspiring to

increase their proportion of racial/ethnic minority students. Without such endeavors, reaching a critical mass of 20% minority faculty and students will not likely be realized.

Review of the literature on retention strategies. Closely related and equally important to the recruitment of racial/ethnic minority students is the retention of such students. Although recruitment initiatives have been given far more attention, the "constricting pipeline" (CEMMRAT, 1997, p. 23, Figure 2) in Psychology suggests that recruitment of racial/ethnic minority students is only the first step. One study conducted in 1992 (Guzman, 1992) found that although 11% of graduate students entering doctoral Psychology programs were of racial/ethnic minority background, only 9% of doctorates in Psychology were conferred upon racial/ethnic minority persons. Hammond and Yung (1993) have pointed to "non-academic" retention strategies in understanding the number of racial/ethnic minority graduate students in a particular program. Among the most popular strategies used by Psychology graduate programs use were the following: cultural or social activities, support groups, community support and/or involvement, social interactions with faculty, group or individual counseling, and "buddy" programs. Due to a lack of research on outcomes, the success rate of these varying types of retention strategies is inconclusive.

Quite recently, Rogers & Molina (2006) identified several retention strategies used by exemplary graduate departments/programs in Psychology. Common among all institutions were (a) a critical mass of students of color, (b) encouraging students to conduct diversity research with faculty, and (c) offering at least one course within their department concerning diversity issues. A fourth commonly used strategy (82%)

was the implementation of faculty mentorships. These findings corroborate a relationship between the some of the aforementioned retention strategies (e.g., Hammond & Yung, 1993) and the presence of critical mass of minority students of color.

Porche-Burke (1990) discussed some of the reasons for minority student attrition, implicating many of the same issues that tend to discourage minority students from applying or entering graduate school initially. Financial constraints were ranked highest, with institutional racism and sexism rated as a close second, followed by the absence of racial/ethnic minority issues in the training and curriculum, few or no racial/ethnic minority role models, and lack of support groups. Each of these factors was recently corroborated in an article offering the personal reflections of three minority faculty members and three students of color (Vasquez et al., 2006). Combined, these factors have the potential to create an unwelcome, perhaps even threatening environment from the perspective of a minority student. Without institutional support for racial/ethnic minority students, the limited pool of racial/ethnic minority psychologists will be likely constricted even further.

Critique and synthesis of literature on recruitment and retention. These recruitment and retention strategies should come as no surprise; recommendations such as those previously discussed have been put forth in various publications over the past two and a half decades (e.g., Bernal & Padilla, 1982; Myers, Echemendia, & Trimble, 1991; Stricker et al., 1990). However, empirical data on the status of specific recruitment practices utilized by graduate programs in Psychology remains limited, and the impact of these practices remains virtually unknown.

One limitation of past research is that it has often focused on the overall status of programs in terms of their multicultural curriculum or training without assessing the extent to which programs have succeeded in recruiting or retaining racial/ethnic minority students. For example, the presence of a multicultural curriculum has been speculated to facilitate the recruitment of racial/ethnic minority students. However, the effectiveness of recruitment efforts cannot be assessed without knowing the number of racial/ethnic minority applicants and/or enrollments for a given program. Likewise, knowing the status of programs in terms of their diversification process (e.g., presence of multicultural coursework) without data about their corresponding recruitment strategies offers us little opportunity to evaluate the effectiveness of these strategies. Clearly we need large-scale studies that take account of both the status of programs' diversification processes as well as the quality of their recruitment initiatives (e.g., an expanded version of Rogers & Molina, 2006).

One way to assess the status of programs' diversification processes can be achieved utilizing Porche-Burke's (1990) conceptualization of why racial/ethnic minority student recruitment fails, i.e., by examining how graduate programs in Psychology are portraying themselves in their advertising to prospective students. Namely, the extent to which programs are emphasizing a commitment to diversity in their application materials should be inspected. Such studies have been minimally conducted. For example, two decades ago Bernal et al. (1983) investigated the use of application materials as a recruitment tool for racial/ethnic minority students. A modest relationship was found between the amount of minority information included in the program application packet (i.e., descriptions of racial/ethnic minority students,

faculty, and courses; financial support; admission criteria; training opportunities) and the number of racial/ethnic minority students enrolled in the program. Indeed, this type of result supports Porche-Burke's claim that the initial exposure between prospective student and graduate program is of the utmost significance.

In a similar study of graduate program representation, Yoshida, Cancelli, Sowinski, & Bernhardt (1989) used a fictitious prospective male applicant name, varying the reported racial/ethnic background of the applicant, to request information from doctoral programs in Clinical, Counseling, and School Psychology. In general, Yoshida and colleagues found that the fictitious applicant received a response more often when he indicated being Black or Hispanic than when no race was reported. Furthermore, programs were more likely to send personal forms of communication to the prospective minority student. However, the overall finding of this study was that "few programs are using materials sent to prospective minority applicants as a method for implementing their affirmative action policy" (p. 184). In other words, programs do not seem to routinely capitalize on those crucial opportunities to recruit minority students.

Finally, a previously mentioned qualitative study exploring the perceptions of Clinical Psychology application materials among Black/African American and Latino prospective students yielded essential recommendations for graduate programs (Ponterotto et al., 1995). The importance of this first impression was again emphasized in a recent study of Psychology application materials (Bidell, Turner, & Casas, 2002). The authors' evaluation of the racial/ethnic and LGB content in application packets from APA-accredited Clinical and Counseling Psychology

programs yielded updated information regarding the use of these materials to diversify Psychology. Specifically, the authors found that "professional Psychology programs can do much to improve both their development of diversity-based policies and programs and their articulation of this information in program application materials" (p. 101). Furthermore, the amount of diversity information in these materials was significantly related to the enrollment of racial/ethnic minority students, supporting previous findings (e.g., Bernal et al., 1983) and reminding programs of this empirical method of recruiting minorities.

In an attempt to design a more contemporary study of minority recruitment strategies included in such materials, the author investigated the use of Counseling Psychology program Web sites as a recruitment tool for racial/ethnic minority students (Chambers, 2002). Translating minority recruitment recommendations from pertinent studies (e.g., Bernal et al., 1983; Ponterotto et al., 1995, Yoshida et al., 1989) into a new medium, a content analysis of the Web sites of APA-accredited Counseling Psychology doctoral programs was conducted. The content areas researched were similar to those used in Bidell et al.'s (2002) study, and findings were a mixture of good and bad news: although a majority of programs seemed to be following certain recommendations (e.g., including a commitment to diversity issues, an interest in increasing the racial/ethnic diversity of students, and the availability of financial aid), other recruitment strategies (e.g., special programs for racial/ethnic minorities, the presence of multicultural coursework, the integration of diversity issues across the training mediums) were being minimally implemented. Two of the major suggestions outlined in the recruitment literature, i.e., including information on

the racial/ethnic diversity of the student body and specific financial aid options for incoming students, were lacking; only 27% of programs described the cultural or ethnic makeup of their current students, and a mere 15% made specific mention about financial aid for first-year students. Results from this study suggest that Counseling Psychology programs have far from maximized the potential recruiting power of their Web sites, and may want to invest in this cost-effective, contemporary medium to reach out to prospective minority students.

In summary, further assessment of the diversification of Psychology calls for a couple of changes. First, we need to validate the utility of recruitment recommendations by conducting longitudinal studies on the use of specific strategies and the effects on minority applications, enrollments, and degrees they procure. At this point, the latter part of this equation has been largely missing. Recent statistics with regard to minority student entry into master's and doctoral degree programs in Psychology, as well as to minority student degree receipt at all levels of the pipeline (Maton et al., 2006) has begun to help procure an overall picture of minority status in Psychology. This information has helped us to identify where growth has occurred (e.g., at lower ends of the pipeline) and where we have continued to see a lag (e.g., at the doctoral level), making it clear that the recruitment of minority students stands as an imperative in the diversification of Psychology.

A second need in the assessment of the diversification process implicates the outdated nature of many of the reviewed studies. A simple replication of some of the older studies (e.g., Hammond & Yung, 1993; Muñoz-Dunbar & Stanton, 1999; Rogers et al., 1992) would procure a better understanding of the changing nature of

Psychology program practices targeting minority students. The study conducted by Bidell and colleagues (2002) represents one such replication.

Third, more studies on the actual perceptions of minority graduate students in Psychology (e.g., Ponterotto et al., 1995; Rogers & Molina, 2006; Vasquez, et al., 2006) are needed to address this major shortcoming in the literature on minority student recruitment. Gaining an empirical understanding of what makes a graduate program in Psychology attractive and feasible to minority students is a logical and essential step in creating more effective recruitment strategies. In order to understand the complex process of applying to graduate programs in Psychology, will now take a brief look at this process from the perspective of the student.

Applying to graduate programs in Psychology. Several books are available as guides for the aspiring graduate student in Psychology. Some books offer advice for students in a number of areas in Psychology (e.g., APA, 1993), while other focus specifically on Clinical and Counseling Psychology programs (e.g., Mayne, Norcross, & Sayette, 2001). One factor that becomes evident when perusing these guides is the competitiveness of graduate programs in Clinical and counseling Psychology. Indeed, on the second page of APA's *Getting In: A Step-by-Step Plan for Gaining Admission to Graduate School in Psychology*, the authors explain that "Yes, the competition for available openings in graduate school in Psychology is fierce, and yes, the admission standards are high" (APA, 1993, p.2), further footnoting this comment by pointing out that accredited Clinical Ph.D. programs receive the most applications, yielding an average applicant-to-opening ratio of between 11 to 1 and 40 to 1.

The text then outlines each of several steps over the next six chapters, from assessing whether Psychology is right for the reader, to choosing a concentration, evaluating and boosting qualifications, choosing which programs to apply to, and finally to actually applying. Areas that prospective applicants are urged to consider in choosing which programs to apply to are as follows: the program's training requirements, the applicant's qualifications, and the applicant's specific program preferences. This latter category includes factors such as faculty interests, research/service with specific populations, accreditation status, geographic location, disability-related needs, financial considerations, and mentorship. The text offers worksheets and appendices to aid in the creation of a preliminary list of programs, and then, after researching all possibilities and filling out worksheets for each, suggests a formula to yield these programs into three categories: strong bets, good bets, and long shots. From here the authors suggest narrowing the list down to the ten most attractive programs. There is even a section dedicated to questions that minority students might want to ask of programs (APA, 1993, p.115). Clearly, the time-consuming application process necessitates many hours of laborious diligence.

While the aforementioned resources are available at many libraries and bookstores, data on the use of such planned strategies to gain admission into graduate programs of Psychology among minority applicants is not available. As the authors of *Getting In* (APA, 1993) point out, "Many students bumble their way haphazardly through the application process without a plan" (p.8), suggesting that there may be a major disconnect between how a prospective applicant should go through the process and the way most actually do complete applications. Similarly, although the list of

questions designed for minority students (APA, 1993, p.115) may be helpful, they are only helpful to the extent that they are read and implemented. Suffice it to say that research on how prospective applicants complete the application process would provide clues on where and how to intervene. However, such studies have not been conducted.

The last area in which the recruitment literature needs to address involves technology. In other words moving the minority recruitment discussion into the new millennium to understand how students of today search for information requires an understanding of the Internet and the Psychology of the World Wide Web. It is towards this last issue that we now turn.

Psychology and the World Wide Web

Internet use in the United States. Although the Internet was introduced in 1991, it did not become widely available and accessible until 1994, when Web browsers began to be offered for free to consumers (Rainie & Horrigan, 2005). Over the last decade, the Internet has introduced major changes in our lives. As of 2004, 63% of adults (18 years and older) and 81% of teenagers (ages 12-17) in this country were part of an ever-growing online population. Over a four-year period the number of online users on a given day increased by 37%, reaching 70 million. Some of the differences with regard to age, socioeconomic status, and ethnic background are important to keep in mind. For example, younger people are more likely to be users of the Internet, with the youngest age group (ages 18-29) leading at 78%. This age group is also more likely than older users (ages 30+) to use the Internet to do research for job or school training (76% vs. 48%) or look for a new job (65% vs. 31%).

Internet use is also positively related to household income and educational status, with 89% of the wealthiest and 88% of the most educated individuals cited as using the Internet. Those living in a suburb are more likely to be users (68%) over their urban (62%) and rural (56%) counterparts, as are Whites (67%) over Hispanics (59%) and Blacks (43%).

A recent survey (Horrigan & Rainie, 2002) of Internet users suggested that 80% expected to be able to find news, government information, health care and commercial products and services online. About three-fourths of users who have sought these types of information online in the past reported success in finding what they were looking for. And for many Internet users, the Web is the first place they turn to for information on a government service or health care.

Internet use among college students. But what about Internet use specifically among undergraduates? A recent survey of undergraduate Internet use comparing students from the year 2000 with 2003 (Malaney, 2004-2005) found a significant increase in Internet use, with almost all students (99.7%) surveyed from 2003 affirming Internet use, and 89.6% reportedly using it on a daily basis. Compared to the students surveyed in 2000, the 2003 students also showed significant increases in reported Internet access in their homes during high school (81.8% vs. 95.3%), as well as a decrease in the mean age reported when their Internet use began (14 vs. 13). Furthermore, 98% of students in the 2003 survey indicated owning a personal computer, compared to 89% in 2000. This led Malaney to conclude "Internet use to be ubiquitous among undergraduate students, regardless of gender" (p. 63). Other studies, such as those conducted by the Pew Internet and American Life Project (e.g.,

38

Jones, 2002) confirm that today's college students are heavy users of the Internet, as they have grown up with it and has increasingly become a part of their daily routine.

Using the Internet to search for information on colleges and universities. Results from a recent survey suggest that the Internet is a common search tool for teens considering colleges (Hitlin & Rainie, 2005). Of the 87% of teens (ages 12-17) that report being Internet users, some 57% have used the Internet to search for information about colleges they were considering. Among 17-year-olds, this statistic jumps to 85%. Given these statistics, along with the ubiquitous use of the Internet by today's college students, it is extremely likely that undergraduates will use the Internet to search for information about potential graduate programs. A quick search using an Internet search engine and the keywords "how to apply Psychology graduate school" yields over 53 million entries, with several useful Web sites offering the prospective applicant advice on how to prepare for and apply to graduate Psychology programs, complete with book recommendations and other Web sites that are helpful in this process. The highly recommended book for prospective applicants, *Graduate Study in Psychology* (APA, 2002b), which is published bi-annually, now includes Web site and email addresses for all graduate programs listed. The addition of this data to program's contact information first took effect in the 1996 edition, suggesting that programs were beginning to transition toward electronic communication by this time.

Psychological characteristics of Internet users. Internet user characteristics have been cited by various researchers and subsequently utilized by Web designers to offer the user an optimal experience while visiting a Web site. First and foremost,

studies of Internet users have shown that the maximum tolerance for waiting time (e.g., for a Web page to load) is short. One study indicated this window to be as small as 5 to 7 seconds for the first time during an Internet session, but pointed to a shorter average 2-second wait time for subsequent loads (Nah, 2004). Other studies estimated the average tolerable waiting time to be approximately 8 to 10 seconds before the user moves on or disconnects (e.g., Ryan & Valverde, 2003). This translates into a need for Web sites to promote Web usability from the very first click. Bernard (2003) explained, "Usable Web sites incorporate human tendencies and limitation into its overall design" (Introductory paragraph). Namely, the organization, navigability, and text presentation of a Web site should be designed for maximum usability.

 General organization of a Web site. Good organization includes writing style as well as the placement of links and text (Bernard, 2003). Using concise, objective writing that is easily scannable is highly recommended (Morkes & Nielsen, 1997). It is also helpful to include only one key idea per paragraph, and use highlighted words/phrases and bulleted lists when feasible. There are also certain logistic expectations among Internet users, e.g., about the placement of internal Web links (upper left side of the browser), external Web links (right or lower left side of browser), "back to home" link (top-left corner and bottom-center of browser), and internal search engine (top-center of screen) (Bernard, 2001). Other organizational aspects of Web sites that have been found to be preferred by users and to facilitate finding information quickly were fluid layouts (Bernard & Larsen, 2001), links with summaries (Baker, Bernard, & Riley, 2002), bulleted lists (Spain, 1999), index menus over vertical or horizontal cascading layouts (Bernard & Hamblin, 2003), and

40

categorical rather than alphabetical menus (Bernard & Chaparro, 2002, as cited in Bernard, 2003) arranged in columns rather than rows (Parkinson, Sisson, & Snowberry, 1985, as cited in Bernard, 2003). One study found embedded links to be preferred over other types of links, although they were not shown to reduce errors or speed up information searches (Bernard, Hull, & Drake, 2001). Furthermore, Maldonado and Resnick (2002, as cited in Bernard, 2003) found that the use of "breadcrumb" menus reduced user search time and errors.

Web site navigability. To make a Web site more navigable, designers should also take into account common user errors (Bernard, 2003). The first and most important of these occurs when users become lost within the structure. This may occur because of disorientation or unfamiliarity with a given site, which can be addressed by implementing color coding, submenu titles, or by organizing a site in terms of user expectations.

A second type of error that may occur is due to digressive searching via embedded links. Although one study indicated that users prefer embedded links (Bernard, Hull, & Drake, 2001), these types of links produced no significant differences in search time, accuracy, or efficiency. Hence, designers should attempt to limit the amount of links they embed, perhaps facilitating orientation via submenu titles, breadcrumb menus, or other navigational aides.

A third difficulty is called the "art museum" problem. This refers to a user's lack of memory of location within the Web site due to the large amount of information on the site (Bernard, 2003). To reduce errors on this front, designers can reduce the amount of information presented at one time, while limiting the number of

links to only the ones that are necessary for navigation. The use of a mixed design (i.e., hierarchical structure with cross referential links; McDonald & Stevenson, 1998, as cited in Bernard, 2003) as well as sitemaps (Bernard, 1999) can also aid in ameliorating the "art museum" problem.

Another dilemma for users may be the structure of the Web site itself. When designing the structure of a site, users generally prefer that a site is broader rather than deeper, with three hierarchical levels from the homepage being optimal. In general, the more levels users have to peruse in order to get to the desired information, the less likely they will find it (Bernard, 2003).

The last piece to keep in mind in terms of Web navigability is the arrangement of links. Links grouped in columns are searched faster than those in rows (Nygren, 1996, as cited in Bernard, 2003), and advanced users generally prefer columns arranged categorically rather than alphabetically (Bernard, 1999).

Presentation of text on Web sites. Currently the debate about which font type and size are most effectively comprehended lend to little definitive answers. It appears that the most commonly used font types (e.g., Arial, Tahoma, Times New Roman, Verdana, Courier New, Georgia) tend to be equally legible at the 10-, 12-, and 14-point size. However, Bernard (2003) found that people read Times New Roman and Ariel fonts faster than Courier New, Century Schoolbook, and Georgia fonts. Significant reading speed differences were also found favoring 12-point fonts over 10-point fonts. In terms of preference, Verdana font was found to be most preferred.

Bernard (2003) also emphasized correct placement of text on a Web site, stating that important information should always be placed within the typical viewing area of the screen to avoid the necessity of scrolling. In terms of optimal text line length, it is commonly recommended the Web sites employ shorter line lengths because the longer line lengths are more tiring to read, and make it more likely that readers will lose their place. Longer lengths may also necessitate horizontal scrolling, an activity found to be horizontal among Internet users. Hence regardless of line length, Web designers should avoid placing information in areas outside what can be seen with the most widely used 800 x 600 screen resolution. To avoid any need for scrolling, this translates into an actual usable size of 595 x 295 pixels. When in doubt, Web sites should be designed for lower resolution settings, placing less crucial information in viewable areas designed for higher resolutions.

Purpose of the Study

The technology of the Internet has made great changes in our lives (Rainie & Horrigan, 2005). One change pertains to how people search for information. Given the "ubiquitous" use of the Internet by undergraduate students (99.7%; Malaney, 2004-5), it is reasonable to assume that prospective students will begin their search of graduate institutions using the World Wide Web. Therefore, graduate psychology program Web sites can be viewed as the crucial piece of "initial communication" between the prospective applicant and the graduate program (Porche-Burke, 1990, p. 132) and therefore may serve as an extremely powerful recruitment tool. As a continuation to an earlier study (Chambers, 2002), and an extension of Ponterotto et al.'s (1995) research, this study attempted to answer two questions: (1) Do

prospective minority students prefer programs that have a stronger multicultural emphasis? (2) Is there a difference in preference between minority and non-minority-identified students in their attraction for multicultural programming? The current study utilized Web sites as the medium of advertisement for the hypothetical graduate program in place of application materials/brochures as conducted in earlier studies (Bernal et al., 1983; Ponterotto et al., 1995; Bidell et al., 2002), and explored the extent to which multicultural aspects of a program included in Web site materials (the IV) influenced their reported attraction to a program as well as their decision to apply (the DV). Further, this study employed the Multicultural Organizational Development Model (Jackson & Holvino, 1988) to distinguish three levels of multicultural emphasis of the hypothetical graduate programs in Psychology.

Hypotheses

It is hypothesized that the level of multicultural emphasis reflected in the graduate Psychology program's Web site will be positively correlated with the program's attractiveness to both racial/ethnic minority as well as racial/ethnic majority students, as measured by the following variables:

(1) A greater reported likeness toward the coursework listed for the graduate program.

(2) A greater reported likeness toward the faculty research interests listed for the graduate program.

(3) A greater reported likeness toward the clinical opportunities offered by the graduate program.

44

(4) A greater reported likelihood of performing well academically in the graduate program.

(5) Perceptions of greater support from the graduate program for the student's personal and professional growth.

(6) Greater reported overall attraction to the graduate program as a whole.

(7) Greater reported likelihood of applying to the graduate program.

(8) Greater anticipated levels of satisfaction overall with the graduate program.

However, it is hypothesized that the effect will be greater for racial/ethnic minority students.

CHAPTER II: METHOD

Participants

Eligible participants were either students at the junior level and above, or individuals who had already completed at least a bachelor's degree, who expressed an interest in pursuing a graduate degree in Clinical or Counseling Psychology. A total of 157 surveys were submitted. Twenty-three surveys were excluded for the following different reasons: six surveys were submitted with no responses, four surveys were completed by individuals not yet at the junior level, eleven surveys were from individuals who reported "not intending to apply," and two surveys were duplicates. Hence valid surveys were received from 134 eligible participants.

Participant characteristics. Of the 134 completed surveys, 38.8% individuals reported junior status (n = 52), 43.3% senior status (n = 58), 11.2% reported having already completed a bachelor's degree (n = 15), 1.5% reported being enrolled in a second bachelor's degree (n = 2), 1.5% reported being graduate students (n = 2), and 3.7% did not report current student status (n = 5). In terms of gender, 78.4% reported being female (n = 105), 18.7% reported being male (n =25), .7% reported being transgender (n = 1), and 2.2% did not report gender (n = 3). Ages ranged from 18 to

45, with a mean age of 23 and median and mode age of 21. Two respondents (1.5%) did not report age. Participants who self-identified as belonging to one of the four underrepresented racial/ethnic minority groups made up 20.1% of the total: 5.2% African American (n = 7), 8.2% Latino/Chicano/Mexican American (n = 11), 6.7% Asian American/Pacific Islander (n = 9), and 0% Native American (n = 0). Those who self-identified as Caucasian/European American made up 68.7% (n = 92), while Biracial/Multiracial-identified comprised 3.0% (n = 4), and 4.2% self-identified as "Other" (n = 6). Of the "other"-identified, one indicated "Asian: Chinese," another indicated "Indian (Asian)," a third stated "Caribbean American," a fourth reported "Salvadoran," a fifth as "Mostly Caucasian, some Native American identity," and the last as "Irish." Five individuals (3.7%) did not report racial/ethnic identification. For purposes of this study, all but the last other-identified respondent (who identified as "Irish"), as well as the Biracial/Multiracial-identified participants, were counted as minority-identified. Hence, 26.9% of the sample was considered minority status, 69.4% non-minority status, and 3.7% unknown.[1] Computerized random assignment placed 33 participants in Level 1, 33 in Level 2, 51 in Level 3, and 17 in the Placebo condition.

Sampling and recruitment procedures. The population of interest was those individuals who intend to apply to graduate programs in Clinical or Counseling Psychology. This includes individuals interested in masters programs, doctorate programs, or both. Some applicants to these programs may be still enrolled as undergraduates, while some may be enrolled in graduate programs, and others may no

---

[1] It is acknowledged that racial/ethnic status in a complex variable that is difficult to measure. These issues will be reviewed in the Discussion section of this paper.

longer be enrolled at all. The prospective applicants targeted in this study were those still enrolled as undergraduates.

In order to garner the largest sample size with the highest racial/ethnic participation possible, two lists of undergraduate institutions were created. First, a list of the top ten largest universities was located (*List of largest,* n.d.) using Google, an Internet search engine. Second, a list of the top 50 most ethnically diverse institutions (according to minority enrollment figures) was found (*Universities Ranked,* n.d.) using the same search engine. One of the universities contained three campuses, one university had no Psychology department, while another was included on both lists, hence there were a total of 60 possible campuses to contact. (In addition, an announcement of the study was distributed to students in Psi Chi of the primary investigator's home university.) The P.I. used university Web sites to search for email contacts for (1) the Chair of the Department of Psychology, and (2) the faculty sponsor and/or President of the Psi Chi or Psychology Club chapter at each of these institutions. When the email address of the Chair could by located on the Web site, s/he was sent an introductory email explaining the study with the official invitation email attached. When the email of the faculty sponsor or President of Psi Chi could be located on the Internet, s/he/they were sent a similar introductory email with the invitation email attached. From the possible 60 undergraduate institutions, the search yielded successful contact and dissemination of the study announcement to undergraduates at a minimum of 17 different institutions. Because the invitation was attached to the introductory email, it is possible that it may have been distributed

among undergraduates at other institutions without the knowledge of the Primary Investigator.

Obtaining informed consent. The prospective student participant received a forwarded email via either the Psychology department's student listserve or the Psi Chi/Psychology Club listserve or bulletin. (In some cases, the student may have seen a flyer posted on the door of the Psi Chi/Psychology Club office or near the Department of Psychology, in which case they were directed to a Web site address.) The invitation email contained an introduction to the P.I. and explained the nature of the study, requesting the participation of juniors and seniors considering pursuing graduate school in Clinical or Counseling Psychology (see Appendix A). It then stated that the study had been approved by the Institutional Review Board, and included contact information for the P.I. Finally, it explained that participants would be required to peruse a Web site of a fictitious graduate program and then give their impressions, that the study would take about 30 minutes, and that the participant needed to have access to a computer connected to the Internet to participate. The participant was instructed to click on a link that took them to an online cover letter, which was similar to a consent form (see Appendix B). After reading through the consent form, the participant then either gave consent by clicking on a link to begin the study, or exited the browser. If s/he consented, s/he was instructed to print a copy of the consent form for her/his records.

Design

The study employed a between-subjects design. The independent variables were minority status (minority- or non-minority-identified) and level of multicultural

emphasis (low, medium, high, or placebo) of the graduate Psychology program. The dependent variable was the score on the Prospective Student Survey, which measured attraction for and intention to apply to the program they viewed. Participants were randomly assigned to one of the three conditions or to the placebo condition when they clicked on the initial link to begin the study.

Materials

The only materials required for participation in this study was a computer connected to the Internet. Participants were advised to have access to a printer to print a copy of the informed consent.

Independent variables

Minority status. Minority status was determined by the participants' response to the item on the Prospective Student Survey that asked, "What is your racial/ethnic identification?" The following options were given: Caucasian/European American, Black/African American, Latino(a)/Chicano(a)/Mexican American, Native American, Asian American/Pacific Islander, Biracial/Multiracial, and Other. Those who marked "Other" were given an empty box in which to describe how they identify. Those that identified as one of the four targeted racial/ethnic minority groups, as well as those who indicated a Biracial/multiracial status, were considered part of the minority-identified group. Those that identified as Caucasian/European American were considered part of the non-minority-identified group. Participants that identified as "Other" were grouped into one of the two groups based upon their response. For example, participants who identified as "Salvadoran" and "Indian (Asian)" were counted as minority-identified, and a participant who reported as "Irish" was included

as European American or non-minority-identified. Participants who did not respond to this question were included in the non-minority group.

Levels of multicultural emphasis. Multiculturalism is an evolving concept in psychology that has yet to be operationalized definitively. One way to conceptualize a multicultural graduate program is from an organizational perspective. From this standpoint, a graduate program can be considered in terms of its stage of change toward multiculturalism, with each level representing a varying degree along a continuum toward a fully multicultural program. One such organizational paradigm is the Multicultural Organizational Development Model developed by Jackson and Holvino (1988). This model described three levels of multicultural development, emphasizing the structure, philosophy, and goals of organizations in each level. These three levels of multicultural development were used directly to create the three levels of multiculturalism in a graduate psychology program[2]. Specific information about how these organizational facets were incorporated is addressed in subsequent sections on the content of the three levels.

Another study that provided guidance in creating the three different multicultural levels was one conducted by Speight and colleagues (1995). This study represents one of the only attempts known to operationalize multicultural training in doctoral programs. The results from this study, which summarized responses from fifty multicultural experts on what constitutes multicultural training, were incorporated directly to create the multicultural levels in this study.

---

[2] Jackson and Holvino (1988) described three levels encompassing six stages. The levels named in this study pertain to Stage Two, Four, and Six of these Levels in Multicultural Development.

Several other recommendations offered by various researchers on the recruitment of racial/ethnic minority graduate students (e.g., CEMMRAT, 1997; Ponterotto et al., 1995; Porche-Burke, 1990; and Guzman, 1991) were included on the Web sites to varying degrees depending on the multicultural level represented. For example, including a commitment to diversity issues in program materials is a common suggestion for programs seeking to recruit minorities. However, this commitment would be expressed differently depending on the program's level of multicultural development. For a level one program, this commitment would not exist, whereas for a level two program, it would focus on affirmative action (i.e., recruiting female candidates and candidates of color), and for level three the commitment would be all-encompassing. These differences can be most clearly seen by viewing the Web sites directly (see enclosed CD).

Creation of Web sites. As with any experimental research study, in order to maximize internal validity, each condition or "treatment" level must be delivered in an equal manner to allow inferences about the effect of the independent variable. In the current study, this need was addressed by creating the same Web site structure for "Descartes University" across the three experimental levels and the placebo level. In the next few sections we will discuss the guiding principles used to create group equivalence among the Web sites.

Step one: Basic organization. The first step taken to create the Web sites was to design a basic template. Heeding the information discussed in the previous sections under *Psychology and the World Wide Web,* and employing a book on Web usability (Krug, 2000), the P.I. and an Information

Technology specialist from the University of California, San Diego discussed and planned the basic template for the Web sites. The basic template included standard Web design procedures, such as selecting appropriate font type and size and creating a basic organizational structure for the Web site. Congruent with literature on legible fonts (e.g., Bernard, 2003; Morkes & Nielsen, 1997), a 10-point Tahoma font type was used across the main Web site text. Other aspects of the organizational structure included choosing a layout for the Web site. We chose a centered (fixed-width) layout displaying the name ("Descartes University") and tagline ("Excellence in Education") of the university along a top banner. Beneath this banner was the sub-heading "Department of Psychology." Next, a list of bulleted links was embedded onto the left side of the browser to depict the different aspects of the fictitious graduate program; this is a standard location to place internal links (Bernard, 2001). The names and organization of the links were derived in part from the results of previous research conducted by the author (Chambers, 2002) which yielded information about how real Counseling Psychology program Web sites are depicted. Names of the eleven links included the following: Home, Mission Statement, Faculty, Coursework, Clinical Training, Research, Program Requirements, Financial Support, Current Students, How to Apply, and FAQ. A twelfth link, Instructions, was included on the bottom left side of the browser to allow participants to return to the instructions during the course of their participation. These four components (i.e., the name, tagline,

department heading, and links) were included on each and every page of each of the four Web sites, and made up the basic template.

The I.T. specialist wrote the html for the four Web sites using a program called Bbedit. He also wrote the code to enable the randomization mechanism, which assigned participants who clicked on the initial link to one of the four Web sites. The P. I. was then trained by the Web designer in basic html with the aid of an html guidebook (Robbins, 2002), which gave her the ability to review and rewrite text as needed. The last page of the Web site included a link that directed participants to the online Prospective Student survey. The information gathered from the survey was recorded onto a server, to which only the P.I. and IT specialist had access.

Step two: Pictures. For each experimental level, a picture of five students was included along the top banner, and a picture of one student was embedded into the left side of the browser, below the links. A statement about the program's recruitment of students was included beneath the picture on the left. The racial appearance of the students pictured varied depending on the multicultural level, as did the recruitment statement. The placebo Web site included no pictures, nor did it contain a recruitment statement. Details about how the pictures and statements differed by multicultural level will be explained in a succeeding section on the manipulation of multicultural emphasis.

Step three: Text. The next step in creating the Web sites after designing the basic template was deciding on the text to be included on each

Web page. The goal was to create a Web site that offered information about a graduate psychology program with enough detail to appear similar to a real program, but concise enough to allow participants to read through and give their impressions in 30 minutes or less. A second goal was to create brief statements about the program that would facilitate the replacement of key words to reflect the different multicultural levels.

The text on the Web pages pertaining to each of the eleven links was created in the following fashion. First, the text was created for the level one (monocultural) program. As a reminder, a level one program is essentially a program that is entrenched in maintaining traditional white male privilege within the program, and hence will not make statements reflecting interests in affirmative action or multiculturalism. Instead, this program would emphasize its prestige.

To create the level two Web site, the level one Web pages were first duplicated. Then, while preserving the length and semantic essence of the statements made, certain key words were replaced to reflect a level two (non-discriminatory) program. This is a program that seeks to increase the representation of women and minorities without disturbing the structure, mission, and culture of the organization. So, while certain key words were replaced to reflect the program's desire to recruit minority students, the actual structure of the level two program was maintained identical to that of level one. These components included the general mission statement and description of the program; longevity of the program's APA-accreditation;

average time to complete the Ph.D.; coursework, research, and clinical requirements; number and gender of faculty members, as well as names and research areas of key stakeholders (e.g., Department Chair and Director of Training); amount of financial support offered by the program; current student accomplishments; application procedures; applicant criteria (including GRE cut-off scores); application deadline; average number of admitted students; and cost of attendance. The only exception to these similarities was that the nondiscriminatory program had one added course requirement, a diversity course called "Diversity Issues in Counseling." This method of adding on diversity components is the essence of a level two or non-discriminatory organization.

Finally, to depict a level three program, a duplicate Web site was again created, this time from the level two program. Unlike the level two program, the level three multicultural program is not simply a replica of a monocultural program with a few added diversity components. Rather, a level three program is a radical departure from the traditional program, wherein it is not only committed to multiculturalism but it demonstrates this commitment through action. This action may be reflected in the missions, norms, and policies of the program, as well as in the integration of multicultural issues throughout different facets of the training program. This multicultural paradigm should also be evident in the representation of ethnic minority students and faculty, and in their research areas.

In order to encompass the multicultural program in the text, a couple strategies were used. When possible, key word replacement was used to maintain consistency in the text across levels. However, in many cases, the simple replacement of key words did not capture the essence of a multicultural program and an additional phrase or sentence was added. The result was a program that maintained similarity to level one and two in terms of the following aspects: general description of the program, longevity of APA-accreditation, average time to complete the Ph.D., research and clinical requirements, number and gender of faculty members, amount of financial support offered by the program, current student accomplishments, application procedures, application deadline, average number of admitted students, and cost of attendance.

In the next section, we will discuss the manipulation of the multicultural level used in the description of the graduate program on each Web site. For each level differences in pictures and accompanying recruitment statements are explained, as well as differences in the text describing the program. Each text section is divided by Web page, however the "Program Requirements" page is not included because it is the same across the three experimental levels.

Level 1: The Club. The first level in the multicultural organizational development model represents an organization that "maintains the privilege of those who have traditionally held social power" (p.15). Hiring practices and membership policies may be overtly or covertly exclusionary. A limited number of members from oppressed groups may be granted membership,

provided that they espouse perspectives that agree with those in power. Hence a graduate Psychology program in this first level of the multicultural development process would advertise minimal, if any, minority-focused information for prospective students. It would not include multicultural coursework, research opportunities, or practica opportunities in their graduate program, or if it did, it would not highlight such experiences in its Web site materials. Instead, the "prestige" or reputation of the program would likely be emphasized. In short, programs engaged in the initial stages of multicultural development would not make efforts to recruit racial/ethnic minorities through its Web site materials.

Pictures. For the level one, monocultural program, pictures of five Caucasian students (three males, two females) were included along the top banner, and a picture of a Caucasian male was included on the left side of the browser. Beneath this side picture was the statement, "Descartes is a leader in recruiting the world's finest students."

Text pages

Home and Mission statement. Prestige was emphasized throughout descriptions of the level one program. Examples of words used to describe the program were as follows: rigorous, world's finest, most astute, tomorrow's leaders, prestigious, renowned, and highest demands.

Faculty. In terms of faculty, none of the names indicated diverse backgrounds and research interests did not suggest a study of diversity issues. Research interests reflected typical areas for Counseling and Clinical Psychologists, such as neuropsychological assessment, learning disabilities, severe mental disorders, identity development, and intelligence testing. Both female faculty members in the program were Assistant Professors. Three of the four males were full Professors, and the fourth was an Associate Professor. In addition, two males, named Larry Johnson and Edward Rollins, served as Director of Training and Department Chair, respectively.

Coursework. Required coursework included the standard areas for Counseling/Clinical Psychology programs, including psychological theory, research, and psychological intervention and assessment. In addition, the program stressed a rigorous research curriculum of requiring advanced statistics classes in Multivariate Statistical Methods and Structural Equation Modeling. In addition, the list of sample seminars included an Advanced Structural Equation Modeling Course, as well as a course in Neuropsychological Testing.

Clinical training. The only area in which level one differed from other levels was with respect to the sample

internship listed. These included a list of highly renowned placements, such as Yale University School of Medicine, New York University's Bellevue Hospital, Harvard Medical School, and Brown University.

Research. Research areas among students in the level one program reflected faculty research interests, and were devoid of cultural/ethnic issues. Examples of research projects were "Neuropsychological correlates of stress in adolescents" and "Adolescent identity conflict: Precursors for psychopathology."

Financial support. A general description of financial support is included, divided into two sections, Internal and External Support. Within each section are listed current departmental and private scholarships, respectively. For the level one program, no funding for ethnic minority students is mentioned. Scholarships listed include the B.F. Skinner Teaching Scholarship, Dissertation Award in Neuropsychology, National Science Foundation Graduate Research Grant, and other prestigious, highly competitive awards.

Current students. The description of students reflects the highly selective nature of the program, using words such as "finest scholars" and "highest caliber of cognitive skills." The

inclusion of names and accomplishments of current students reflects a monocultural student body that has made significant contributions as scholars and in leadership positions.

How to apply. This page lists the components of a complete application packet. The only difference across levels is in one statement that describes the emphasis the program places on certain materials. The level one program "strongly emphasizes" undergraduate transcripts, GRE scores and letters of recommendation while research, clinical experience, and personal statements are "considered."

FAQ. The same eleven questions were listed on each of three Web sites, addressing information on application, admittance and attendance, as well as financial considerations. Differences for the level one program included minimum GRE scores for applying, as well as definitive statements about the impossibility of students enrolling part-time or working outside the graduate program.

Level 2: The Affirmative Action Organization. The second level of multicultural organizational development is characteristic of organizations that are compliant in their commitment to reduce discrimination, and hence support affirmative action endeavors through recruitment and hiring of racial/ethnic minorities. Racism awareness programs, as well as programs that target racial/ethnic minorities are likely to be conducted in such organizations.

However, these organizations operate without disturbing the structure, mission and culture of the organization, an organization in which all members abide by and conform to the norms and practices put forth by the dominant group. Hence a graduate program engaged in this second level would advertise a commitment to increasing the participation of racial/ethnic minorities in its program, as well as emphasize multicultural coursework, research opportunities, and practica experiences. Structurally, however, the second level graduate program will look identical to the first level program; for example, the core course requirements would be the same, and the individuals occupying the most powerful positions will likely represent those who traditionally have held social power (i.e., Caucasian males). In short, clear efforts are made to recruit racial/ethnic minority students to the graduate program through Web site advertising materials, however these token efforts would be added onto and coexist with philosophical statements that exemplify the exclusionary underpinnings on which the entire program and/or department rests.

Pictures. For the level two, nondiscriminatory program, pictures of five students were similarly included along the top banner, however one of the original Caucasian males was replaced with a Black male, and another Caucasian male was replaced with an Asian female. Hence this group included three of the same Caucasian students as level one, as well as two ethnic minority students. Further, the level two program had a greater representation

of females (three females, two males). The picture of the Caucasian male that was included on the left side of the browser in level one was replaced with a Caucasian female. Beneath this side picture the statement was changed to read, "Descartes is a leader in recruiting women and students of color."

Text pages

Home and Mission statement. Academic excellence, ethics and competence, as well as and affirmative action were emphasized throughout descriptions of the level two program. Examples of words used to replace level one words to describe the program were as follows: academic excellence, diverse, scholarly, highly ethical and competent, brightest, and most ambitious. Unlike the level one program, the level two program included the following additional affirmative action statement in their mission statement: "Women and racial/ethnic minorities are strongly encouraged to apply."

Faculty. In terms of faculty, one of the six faculty names was changed from Mary Simpson to Maria Sanchez to indicate a Latina/Chicana background, with other names staying the same. In addition, certain changes and additions were made to faculty research interests to show a program commitment to nondiscriminatory practices. To accomplish this, key words were added to some of the research interests

listed. For example, the research interests of Larry Jackson in level one was changed from "Assessment of learning disabilities" to read "Assessment of learning disabilities among African American adolescents" and the word "Gender" was added to "Identity development" to be the new research area for Maria Sanchez. Male faculty members in the program maintained their higher ranks (i.e., three as full Professors, one as Associate Professor) over the two female Assistant Professors, and the two male faculty members maintained their positions as Chair of the Department and Director of Training.

Coursework. Required coursework for level two included precisely the same rigorous components, except that the level two program also required a "Diversity Issues in Counseling" course. In terms of sample seminars included in the level two program, key words were again added to level one seminars to reflect an interest in diversity issues. For example, a course called "Neuropsychological Testing" was included in level one, whereas in level two this was changed to "Neuropsychological Testing with Multicultural Populations." Other changes were subtler, e.g., "Current Issues in Psychology" was modified to be "Current Social Issues in Psychology" and "Fundamentals of Organizational Behavior" was changed to "Fundamentals of Organizational Change."

Clinical training. As stated in the description of level one, the only area of difference with respect to other levels was in the sample internships listed. The level two program maintained two of the four prestigious internships listed in level one (Yale University School of Medicine and Harvard Medical School), and two multiculturally-oriented internships were added. These sites were located through the use of the APPIC (Association of Psychology Postdoctoral and Internship Centers) web site (APPIC, n.d.), which lists available predoctoral and postdoctoral internship training sites available to Counseling, Clinical, and School Psychology doctoral candidates. The two multicultural training programs included in the level two internship list were UCLA Student Psychological Services and Arizona Psychology Training Consortium.

Research. Research areas among students in the level two program were again created by adding key diversity words to some of the existing level one research project descriptions. The research project entitled "Neuropsychological correlates of stress in adolescents" was changed to reflect an interest in "Latino" adolescents, and "Adolescent identity conflict: Precursors for psychopathology" was altered to reflect this same interest among African American males.

Financial support. The only differences between level one and level two on this page were in regard to the list of current departmental and private scholarships. Of the three departmental scholarships listed in level one, two remained the same. The level one B.F. Skinner Teaching Scholarship was changed to the Mary Calkins Teaching Scholarship. Among the four private scholarships listed in level one, two remained the same, while two were changed to reflect awards for ethnic minority students. These two new scholarships were the Gates Foundation Minority Scholarship and the APA Minority Fellowship Program.

Current students. The description of students in the level two program reflects both the highly selective nature of the program (like level one) as well as the diversity of students. Words such as "ambitious," "promising young scholars," "active researchers" and "cognitive strengths" were utilized in the description. The inclusion of names and accomplishments of current students reflects a slightly more diverse student body than the level one program. This was facilitated by changing level one names of George Martin, Jeanne Childress, and Kenneth Holmes to George Martinez, Jeanne Chin, and Keisha Holmes. The students' accomplishments were left unchanged from level one.

How to apply. This page was not changed from level one to level two.

FAQ. Identical to the level one program, the level two program included minimum GRE scores for applying, as well as definitive statements about the impossibility of students enrolling part-time or working outside the graduate program. The only difference in level two is that in question 8 which asks how students pay for tuition and living expenses, one additional statement was included as follows: "Although funding is not guaranteed, it is available to a majority of students." Including this statement reflects a minority recruitment initiative, namely that programs discuss the availability of funding openly in program materials.

Level 3: The Multicultural Organization. The third level of multicultural organizational development includes organizations that are not only committed to creating numerical equity within the graduate program with respect to racial/ethnic minorities, but also to scrutinizing all of its activities for their impact on all members' access to growth and success in the organization. These types of organizations develop policies and practices that aim to distribute power among all diverse groups within the organization. Collaborative networks would likely exist among faculty, graduate and undergraduate students. The highest third-tier level organization, the "Multicultural Organization," acts to eliminate all forms of social oppression

that exist within it, as well to educate others from diverse perspectives. Graduate Psychology programs reflecting the third level would include a strong commitment to fostering multiculturalism and valuing diversity as an integral part of the philosophy of the training program. Such statements would be integrated into all aspects of the program's Web site materials, and would be apparent in its descriptions of coursework, research opportunities, practica opportunities, and in its recruitment efforts. Individuals occupying the most powerful positions in the program would likely be persons of color with research interests that exhibit their commitment to fostering a multicultural world. Faculty members of the graduate program would likely serve in multicultural leadership positions outside of the graduate program, department, or university that aim to eliminate social injustice in the national and/or international arenas.

Pictures. For the level three, multicultural program, pictures of five students were again included along the top banner, however these students differed from level one and two in the following way. Only one of the Caucasian females was kept the same as level one, the four other students pictures included the Black male and Asian female from level two, plus the addition of a Latina female and a male that appears to be of mixed racial/ethnic background. Hence the five students included only one Caucasian and the other four of minority backgrounds. The picture of the Caucasian female that was included on the left side of the browser in level two was replaced

with a picture of a Black male and female that appears to be of mixed race/ethnicity. Beneath this side picture the statement was changed to read, "Descartes is a leader in recruiting the world's most diverse students."

Text pages

Home and Mission statement. Diversity, multiculturalism, and social justice, as well as academic excellence were emphasized throughout descriptions of the level three program. Examples of words used to replace level one and level two words to describe the multicultural program were as follows: diverse, pluralistic, ambitious, tomorrow's leaders, multiculturally competent, social justice advocacy, collaborative, diversifying, and multicultural. Like the level two program, the multicultural program included an additional statement in their mission statement regarding the recruitment of students that read: "We are committed to the recruitment and retention of a diverse student body reflecting the multicultural world in which we live."

Faculty. In terms of faculty, several changes were made to reflect a deeper investment in multiculturalism and an interest in social equity. These interests were reflected in the following ways: in addition to changing the name Mary Simpson to Maria Sanchez to indicate a Latina/Chicana

69

background, three of the five remaining names were changed in a similar fashion, again to denote more cultural/ethnic pluralism among faculty. Further changes and additions were made to all faculty research interests to reflect a multicultural program. For example, the research interest in level two of "Assessment of learning disabilities among African American adolescents" became "Multicultural strategies in the assessment of learning disabilities and "Gender identity development" became "Multiracial identity development." In addition, two faculty members were donned with additional titles to indicate their involvement outside the program in diversity-related scholarly activities, e.g., President-Elect, Division 35 and Editor-in-chief, *Cultural Diversity and Ethnic Minority Psychology*. Further, the level three program evidenced more equity in the ranking of professors across genders. This was illustrated by making only one of the four male faculty members in the program full Professors, while giving one Assistant and two others Associate levels. As for the two female faculty, one was given Associate status while the other maintained Assistant rank. Although the two male faculty members maintained their positions as Chair of the Department and Director of Training, both of these males' names were changed to reflect ethnic minority backgrounds.

Coursework. Required coursework for level three differed from level two in several ways. In order to include a similar number of required courses some of the level one/two courses had to be exchanged with diversity-focused courses. Within the psychological theory area, a course entitled "History of Multiculturalism in Psychology" was added, and within the research area "Qualitative Research Methods" were added. To balance out these additional courses, two courses from level one and two, Multivariate Statistics and Structural Equation Modeling, were removed. A third change was that instead of "Advanced Psychological Assessment," the level three program required "Diversity Issues in Psychological Assessment" and instead of "Psychological Interventions with the Severely Disturbed" it included "Psychological Interventions with Diverse Populations." Like the level two program, the level three program also required a "Diversity Issues in Counseling" course. In terms of sample seminars included in the level three program, key words were again used to denote an commitment to multiculturalism and social justice issues. For example, the level two course called "Fundamentals of Organizational Change" became "Fundamentals of Multicultural Organizational Change," and "Current Social Issues in Psychology" was changed to

"Promoting Social Justice in Psychology." Lastly, a "Multicultural Research in Psychology" seminar replaced the "Advanced Structural Equation Modeling" seminar.

Clinical training. In comparison to the level two program, which maintained two prestigious internships and two multiculturally-oriented internships, the level three program reflected multiculturalism in all of its internship sites. The only site maintained from level two was the Arizona Psychology Training Consortium. The three sites that were added were as follows: Boston Medical School, Center for Multicultural Training in Psychology; University of South Florida, Louis de la Parte Florida Mental Health Institute; and the Center for Multicultural Human Services, Falls Church, Virginia. In addition, in the description of the third year practicum, additional words were added to describe the clientele as being from a "diverse range of cultural backgrounds" as well as psychological concerns.

Research. Of the eight listed research projects among students in level two, six were changed for the level three program, again by adding/changing key words. The result: each research project represented the study of race, ethnicity, gender, culture, or sexual orientation. Level three also employed a more empowering framework for the

understanding of individuals with psychological issues. For example, the study entitled "Adolescent identity conflict among African American males: Precursors for psychopathology" was altered to be "Multiracial identity issues among adolescent males: Precursors for resilience."

Financial support. The level three program maintained the Mary Calkins Teaching Scholarship and added two scholarships that reflect minority and social justice issues. They were the Dissertation Award in Ethnic Minority Mental Health (instead of in Neuropsychology) and the Outstanding Scholar Award for Social Justice (versus simply the Outstanding Scholar Award). Among the private scholarships listed in level two, the two minority-focused entries remained, while the other two were changed to the Horowitz Foundation Award for Social Policy and the Ford Foundation Dissertation Fellowship for Minorities.

Current students. The description of students in the level three program reflects both the highly diverse nature of the students as well as their significant contributions. Words such as "diverse," "thriving," "aspiring," "new perspectives" and "multiculturally competent" were utilized in the description. In addition, this program emphasized the treatment of students as collaborating colleagues. Further, the program

describes the students in terms of their varied backgrounds, specifically noted that students are from "various cultural and ethnic backgrounds, socioeconomic levels, sexual orientations, religions and spiritual affiliations, ages, life experiences, countries of origin, and world perspectives." Finally, the names and accomplishments of current students illustrated an even more diverse student body than the level two program. This was facilitated by changing level two names of George Martinez, Jeanne Chin, and Keisha Holmes to Jorge Martinez, Jung-mei Chin, and Keisha Ebony Holmes. The students' accomplishments were also changed, reflecting leadership in Division 45 (Society for the Psychological Study of Ethnic Minority Issues), a Dissertation Award for Ethnic Minority Mental Health for a dissertation about Chinese American females, and an APA Minority Mental Health and Substance Abuse Services Fellowship program.

How to apply. The use of culturally-biased scores in the selection of graduate school candidates has long been stipulated as a barrier for minority students, and the recommendation to not use these materials prohibitively has been strongly emphasized in the minority recruitment literature. Hence, the only difference for level three was the emphasis placed on application materials. Namely, it was

stated that undergraduate transcripts and GRE scores are considered, but will not be used to screen out applicants.

FAQ. A few differences existed from level two. First, responses reflect that no minimum GRE scores are used to screen out applicants, nor is the Psychology GRE required. As far as the question regarding tuition and living expenses, the level three program takes the level two statement a step further by indicating, "We make every effort to fund the students we recruit, and are dedicated to the admission and retention of our selected students despite financial difficulty." Including this statement reflects a deeper commitment to the recruit of ethnic minority students and students from socially disadvantaged backgrounds. Finally, less definitive responses were used in answering questions about the possibility of working or enrolling part-time, including statements such as "we understand that because of diverse life circumstances, students may need to enroll part-time." This again reflects the program's commitment to the students and the varied needs each brings.

Placebo Web site. In order to control for demand characteristics, a placebo Web site was created. This Web site had the same structure as the experimental Web sites, however it was devoid of pictures and included very minimal and generic information in each section.

Pictures. For the placebo, no pictures of students were included along the top banner or along the left side of the browser. There was also no recruitment statement included.

Text pages

Home and Mission statement. The placebo included the same welcome statement as the other three Web sites followed by a similar, though more generic description of the program. Unlike the other levels, the placebo did not discuss the amount of time it takes to earn the Ph.D., nor did it offer contact information should the prospective student have questions. Further, the placebo offered a nondescript mission statement. It did not discuss the history or reputation of the program, nor did it include a statement about the types of students the program would like to recruit.

Faculty. In terms of faculty, all the level two names, rankings, and position titles were retained, but no research interests were listed.

Coursework. Required coursework for the placebo program were listed according to the same three content areas as the other levels, however the course names were abbreviated and not included in a bulleted list (e.g., under Psychological Theory section, "Includes History & Systems, Social, Developmental.."). It also used general labels and did not

expound upon them (e.g., "Psychological Assessment" versus "Psychological Assessment: Personality") and simply stated, "Other seminars are available" rather than describing the purpose of the additional seminars and then listing a few sample seminars.

Clinical training. This section includes an abbreviated version of the information included in the other three levels, briefly stating the course that students take to become skilled in clinical work. However, the placebo did not include a list of sample externships or internships.

Research. The first statement in this section was identical to the other three levels. Unlike the other levels, it did not include the second statement that encouraged students to join the research projects of other faculty members. Similarly, under the subheadings "Master's Thesis" and "Doctoral Dissertation," the first few statements are again, identical, to the other levels. However, the placebo program did not include a statement regarding the timeline for completing the thesis, nor did it include a list of recently completed master's theses and doctoral dissertations.

Program requirements. The placebo program Web site was the only one of the four that had any differences on this page. Namely, the placebo did not include a statement about

the average length of time it takes students to complete the program.

Financial support. Compared to other levels, this page was greatly abbreviated. It included only three brief statements about assistantships, scholarships, student loans, and private scholarships. Unlike the other levels, it did not explain the differences between the types of financial support, nor did it offer a more detailed explanation of the departmental assistantship. Finally, it did not list current departmental scholarships and private scholarships.

Current students. Two generic statements were included about current students, similar to the structure of the opening statements on this page for other levels. Unlike other levels, there was no section on student accomplishments illustrating the program's support of its students.

How to apply. The only difference on this page for the placebo was that it did not include a statement regarding how certain application material would be weighed (e.g., emphasis on GRE scores, transcripts, etc.).

FAQ. Unlike the other levels, which included eleven questions and answers, the placebo included only six. Unlike the other levels, it did not address whether minimum GRE are needed to apply, if applicants should take the Psychology GRE,

if students can enroll part-time, and if students will have time to work outside the program. The questions and answers of the six questions included in the placebo are precisely the same as the level one program.

Measures

Assignment of demographic variables for analysis using SPSS 14.0.

Age. Age was maintained as a continuous variable and was entered directly into SPSS.

Gender. Cases were assigned "1" for male, "2" for female, and "3" for transgender.

College status. Scores were assigned to designate increasing experience in higher education. For example, scores of 1 were given to juniors, 2 to seniors, 3 to those who had completed the bachelor's degree, 4 to those who were enrolled in a second bachelor's degree, and 5 to graduate students.

Grade point average. This variable was divided into four intervals and labeled 1 to 4 to represent increasing G.PA: 2.0-2.5 were given scores of 1, 2.5-3.0 were given scores of 2, 3.0-3.5 were given scores of 3, and 3.5 and above were given scores of 4.

Minority status. Cases that were considered part of the non-minority-identified group were given a dummy label of "1" while the minority-identified participants were given a label of "2."

Online survey. The online Prospective Student Survey was designed to measure participants' attraction for the program they viewed (see Appendix C). Participant instructions were to respond to questions posed in the survey with regard to the Web site they just viewed, and to imagine that they were planning to apply to graduate Psychology programs like the one advertised on the Web site. It asked participants to not spend too much time on any one item, and to skip any item they did not wish to answer. The survey contained a total of 30 questions, 9 of which were Likert-scale items assessing their preferences for different aspects of the program. Each of these 9 Likert items was followed by an open-ended question that asked participants to clarify their previous response. In addition, four open-ended questions asked participants to explain how the program could be a better fit for them, what they liked best and least about the program, and any additional comments or feedback they had. Two open-ended questions were designed to check how well participants read the Web site: these questions asked participants for the name of the university offering the graduate program, and what type of degree the program offered. Finally, five demographic questions were asked (age, gender, college status, current G.P.A., and racial/ethnic identification), and one last questioned asked when participants were planning to apply to graduate programs of Psychology. This last item, as well as the one assessing college status, was used to determine participant eligibility (i.e., participants had to be at least at junior status and could not report "not intending to apply" to the last question).

Procedures

Participant instructions. Prospective participants read through an email invitation outlining a description of the study and requirements of participation. Once the participants clicked the link to begin the study, they were randomly assigned to one of three experimental conditions or the placebo condition. Regardless of which condition the participant was assigned, the first page to which participants were directed was an online consent form (see Appendix B). After reading the consent form, participants were instructed to print a copy for their records if they agreed to participate. By clicking on the link at the bottom of the consent form, participants gave their consent, and were then directed to an "instructions" page. On the instructions page participants were told to imagine that they were preparing to apply to graduate schools in Clinical/Counseling Psychology and are perusing Web sites of programs to gather information. They were asked to read through each of the pages, beginning with the home page, and continue to each subsequent page by clicking on the arrow at the bottom of the page. Participants were directed through 11 pages describing different aspects of the fictitious graduate program. The final page ("FAQ") contained a link that directed the web browser to the online survey.

Online survey. The online survey assessed participants' perceptions and opinions about the fictitious graduate program they reviewed (see Appendix C). The survey consisted of a total of 30 questions and employed both Likert Scale and short-answer formats. The Likert Scale portion of the survey asked about participants' affinity for the coursework, research, clinical opportunities, faculty members, and students. Other Likert items asked participants to anticipate how satisfied and well

supported they think they would be in the program, as well as how well they believe they would do academically. Additionally, this portion asked participants how appealing/attractive the program was to them overall and how likely they would be to apply to this program. The short-answer questions asked participants to elaborate on each of these previous Likert Scale responses. Participants were also asked what they liked best and least about the program, and how they might suggest the program be changed to make it a better fit. The participants were also encouraged to add any additional comments about the program. Finally, participants were asked to provide some demographic information, including their age, gender, racial/ethnic group identification, status in college, cumulative grade-point-average, and anticipated graduate school application date. Once the online survey was submitted the screen thanked the student for participating in the study and instructed the participant that the study had been completed. It once again gave the contact information for the P.I. in case the participant had further questions.

CHAPTER III: RESULTS

Assessing the Dependent Variable

Reliability analysis. A reliability analysis was conducted on the nine-item

Likert-scale that comprised the Prospective Student Survey. Cronbach's alpha was

calculated to be .840, suggesting that the measure had very good reliability. Hence,

all nine items were entered into a subsequent factor analysis.

Factor analytic procedures. Factor analysis is an analytic technique that

allows a large number of interrelated variables to be reduced to a smaller number of

latent dimensions (Tinsley & Tinsley, 1987), with the goal of achieving parsimony.

The outcome of this technique is that the smallest number of concepts (represented by

factors) is used to explain the maximum possible common variance. In order to

determine the appropriateness of factor analysis, some conditions should be

considered. One issue is the sample size. Although no absolute rule has been

stipulated, some suggest that for each item there be at least 5-10 participants (Tinsley

& Tinsley, 1987), while others recommend at least 100 participants and a 2:1 ratio of

participants to variables (Hinton, Brownlow, McMurray, & Cozens, 2004). Since

there are nine variables, the first suggestion would equate to need for at least 45 to 90

participants, and the second would imply a need for 100 participants. This study employed 134 subjects, so these conditions were satisfied.

Another issue is that of multicollinearity (Hinton et al., 2004). A common test of multicollinearity is the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO test), which was found to be greater than .05 for the current study. This result suggested that the data did not show multicollinearity. The determinant of the correlation matrix exceeded the minimum value of .000001, further indicating that the data lacked multicollinearity. The last consideration for multicollinearity was an inspection of the correlation matrix itself (see Table 1). No items correlated above .80, providing a final assurance that multicollinearity was not an issue with this data. Finally, Bartlett's Test of Sphericity resulted in a high level of significance, χ^2 (36, N =134) = 418.035, p < .001, demonstrating that relationships did exist among variables, and suggesting that a factor analysis is a feasible procedure for the data. With all of the conditions satisfied, the data was deemed appropriate for factor analysis.

To determine the number of factors to be included, a principal components analysis was conducted. The solution extracted two components with eigenvalues over 1, which comprised 58% of the variance. An examination of variance accounted for by other components, along with an analysis of the scree plot confirmed an optimal extraction of two factors.

The next step was to rotate the two extracted factors to produce the most optimal solution. Rotation is utilized to stabilize factors by distributing the variance across factors more equitably (Tinsely & Tinsely, 1987). This process generally helps

to produce a solution that is both more interpretable and generalizable. Because the variables under consideration represent related items on the same questionnaire, there are theoretical reasons to believe that these items are correlated. In this case, an oblique rotation is preferred. To assess goodness-of-fit for this two-factor solution, a Generalized Least Squares method of extraction was utilized with Equamax (a type of oblique) rotation. Results suggested that the solution was a good fit for the data, χ^2 (19, N=134) = 19.785, p = .408. This solution yielded seven items loading onto Factor One (items # 1, 3, 9, 11, 13, 15, and 17; see Appendix C), and two items loading onto Factor Two (items # 1 and 5). Loadings less than .30 were suppressed. Table 2 shows the rotated factor loading matrix for this solution.

The next step is to name the extracted factors based upon their theoretical constructs. Factor one in this case is made up of questions assessing affinity toward coursework and faculty research interests, similarity toward faculty, projected support from and satisfaction in the program, overall appeal/attractiveness of program, and likelihood of applying. Because these items seem to address several different facets of a prospective student's general affinity toward a graduate program, this factor was named "General Affinity." Factor two included only two items, addressing affinity toward coursework and clinical opportunities. A look at the factor loadings of this factor (see Table 2) suggests that this factor is driven primarily by interest in clinical training, and secondarily by interest in didactic training. Hence this factor was named "Training Affinity."

Factor scores. In order to effectively combine scores, factor scores were calculated. A factor score is a composite score whereby scores for each variable

loading onto a factor is multiplied by its factor score coefficient and then the scores are summed together. Utilizing this procedure with factor score coefficients produced by SPSS, two sets of factor scores were generated. These two sets of scores (referred to as General Affinity Scores and Training Affinity Scores) were employed as dependent variables in the experimental analyses.

Primary analyses

In order to test the hypothesis that prospective minority students prefer programs with a stronger multicultural emphasis, a multivariate analysis of variance was conducted using minority status (minority and non-minority) and level of multicultural content (low, medium, high, and placebo) as factors and the two factor scores as dependent variables. Employing an alpha level of .05, the MANOVA produced a significant main effect for level, $F(3, 119) = 2.705$, $p = .049$, $\eta_p^2 = .064$. Tukey's HSD post-hoc tests revealed significant differences for General Affinity Scores between the placebo group and both the high and low multicultural content levels ($p < .05$), suggesting that prospective students preferred graduate programs with low and high levels of multicultural content over the placebo (See Table 3).

Supplemental analyses

In order to investigate possible relationships among other variables, bivariate correlations were conducted with demographic information (i.e., age, gender, college status, G.P.A., and minority status) and General Affinity and Training Affinity Scores. Several significant relationships were observed (See Table 4). To investigate the differences driving the significant correlation between college status and General Affinity Scores, a one-way ANOVA was conducted. Due to small cells sizes, scores

for participants who had reportedly completed a bachelor's degree were combined into one group, encompassing those not currently enrolled, those enrolled in a second bachelor's degree program, and those enrolled as graduate students. A significant effect was found for college status, $F(2,121) = 3.888$, $p = .023$. Tukey's HSD post-hoc analyses revealed that juniors had higher General Affinity Scores than those who had completed bachelor's degrees ($p < .05$).

Secondly, the relationship evidenced between minority status and G.P.A. was investigated. Results from a Mann-Whitney U test suggested that prospective minority students reported lower G.P.A. scores than their non-minority counterparts ($z = -2.150$, $p = .016$). Examination of frequency scores shows that while the median and modal G.P.A. for minority participants was between 3.0 and 3.5, for non-minorities it was 3.5 and above.

CHAPTER IV: DISCUSSION

Overall, the results of this study suggest there is a relationship between the information presented on a graduate program's Web site and a prospective student's attraction to that program. When shown a graduate program Web site with very little information regarding multicultural interests within the program (i.e., the placebo program Web site) as opposed to a Web site with more detailed information (e.g., oriented toward either prestige or a combination of prestige and multiculturalism), prospective students reported lower levels of affinity for the coursework and faculty research, less similarity with faculty and students, as well as lower anticipated support from and satisfaction in the program. Prospective students also tended to view the placebo program as less appealing and attractive overall, and stated a lower likelihood of applying to such a program. Therefore these results suggest that the amount of information on Web sites may have an effect on prospective students attraction for a program and their intention to apply.

However, preferences for the Affirmative Action (Level Two) program were not significantly different from those of the placebo. In other words, it is not just the amount of information, but also the specific content of the information on the Web

site that makes a difference in the perceived attractiveness of a graduate program. Adding multicultural components onto a graduate program with essentially the same structure (e.g., faculty, coursework and research requirements, clinical opportunities, financial aid, and current students) as the Level One "Club" program seemed to neutralize the appeal of the program, rendering it indistinguishable from a program that includes almost no information at all on its Web site. This may provide evidence that the "add-on" method described by Jackson & Holvino (1988) may be an ineffective recruitment tool.

So what recommendations can be made from these results for graduate programs in Counseling/Clinical Psychology? In terms of specific content to include on a Web site, the current results suggest that programs do one of two things: either the program should stress its academic rigor and prestige and include *no* information whatsoever about minorities and diversity-related issues, or they should depict a program that is both highly reputable and oriented toward multiculturalism and social justice issues. In contrast, programs hoping to attract students simply by adding on a few statements here and there about diversity are not likely to meet with success. It is precisely this approach that accredited programs may have taken in order to satisfy Domain D (APA, 1995), and hence these programs may likely be as ineffective in attracting prospective students as the Affirmative Action (Level Two) program in this study. Without changing the structure and emphasis of the program to reflect an integrated multicultural emphasis, similar to the Multicultural (Level Three) program, prospective students (and more pointedly, prospective minority students) may simply discount such programs.

Two specific hypotheses were investigated with regard to the preferences of prospective ethnic minority graduate students. The first question explored whether prospective minority students prefer a program with a stronger multicultural emphasis. The second question was related to the first, and asked if any differences existed between minority and non-minority students' preferences for multicultural programs. Although no differences were found in these preferences, follow-up analyses suggest other relationships that may contribute to the relationship between minority status and attraction for different graduate programs.

Two noteworthy significant relationships were found; one was between G.P.A. and minority status and the other was between college status and General Affinity scores. Prospective minority students reported lower G.P.A. scores than their non-minority counterparts. Given these differences, gaining admission to doctoral programs may only occur with the help of affirmative action programs, which are currently under siege (see Orfield & Mills, 1998). Taken together with the lower GRE scores found among minority students (see ETS, n.d., Table C.3), we can imagine how prohibitive it may seem for a minority student who aspires to go to graduate school. Accredited Ph.D. graduate programs in Psychology are extremely competitive. With a 10% acceptance rate and an emphasis on G.P.A. and GRE scores (Pate, 2001), even subtle differences in scores could be quite significant in terms of admissions. As with other decision-making processes, prospective minority applicants must weigh their chances of gaining admission with the time it takes to complete applications. Given the significant time and energy that must be dedicated to the application process, the result may be that many interested and qualified minority

candidates will instead pursue less prohibitive professional goals. These considerations may suggest a need to shift our focus away from recruitment strategies and toward admissions policies.

The strict graduate admissions criteria have long been stipulated as prohibitive for minority entry (see Guzman, 1991; Porche-Burke, 1990), and several programs have indicated that they use "flexible" admission criteria to admit more minority students (see Kyle & Williams, 2000). Although this method may succeed in creating more equity in minority student entry, it may unintentionally cause retention to become an issue. More specifically, by boosting minority student entry artificially without changing the structural basis by which students are evaluated, we may be setting these students up to fail. These possibilities once again point to a continuing need to evaluate and refine admissions criteria.

Although the relationship between college status and General Affinity scores was modest, the fact that students who are further along in their education tend to score lower in their preference level for programs may suggest that students with more educational experience may have more stringent criteria for what constitutes a compatible program. This tentative finding points to a need to consider other factors related to the decision-making process in choosing graduate Psychology programs.

Taken together with the results of previous research on application materials for graduate Psychology programs, the current study adds new information. Previous studies have found a relationship between minority information included in paper application materials and minority student representation in the program (e.g., Bernal et al., 1983; Bidell et al., 2002). Other studies have included the perspectives of

91

minority students directly in assessing the factors involved in choosing a graduate program (e.g., Ponterotto et al., 1995). The current study attempted to incorporate both of these entities, while updating the application medium to assess Internet Web-based materials. The results provide support for the conclusions made by Bernal et al. (1983), Ponterotto et al. (1995) and Bidell et al. (2002), namely that application materials make a difference to students, and that programs should pay attention to these materials. However, since only one other study is known to have examined Psychology program Web sites (Chambers, 2002), results must be considered preliminary. While the 2002 study established that APA-accredited doctoral programs in Counseling Psychology were consistently using Web sites to convey differing levels of diversity-related program information to prospective students, the current study has established that the content of these Web sites influences a prospective student's level of attraction for the program. The study therefore represents a new and exploratory facet of research into graduate student recruitment and specifically to the recruitment of minority students.

Recommendations for Designing Psychology Graduate Program Web sites

At minimum, the results of this study suggest that a Web site with very little information and no pictures is not likely to attract students. However, with a small investment of time and energy, a Web site can easily be transformed to serve as a cost-efficient recruitment tool. This recommendation is congruent with past findings that have stressed the quality and comprehensiveness of application materials (Bernal et al., 1983; Ponterotto et al., 1995), only now we can apply this discussion to Internet materials as well.

92

Hence this study provides testimony that Web sites can and should be utilized to convey detailed program information including the following: (1) a mission statement, (2) faculty descriptions, along with position titles and research interests; (3) required coursework and supplemental seminars, along with descriptions of each (4) clinical training requirements along with sample training sites; (5) research requirements along with samples of completed project titles and/or descriptions; (6) a list of all major requirements to complete the degree and information about the amount of time it takes on average to complete these requirements; (7) a listing and description of financial aid availability, including departmental aid (e.g., assistantships, fellowships, and scholarships) as well as possible external funding, along with samples of such departmental and external aid; (8) a description of current students, including student accomplishments, awards, and active participation or involvement in Psychology-related organizations; (9) explicit directions on how to apply to the program, including downloadable forms, deadline dates, and which items need to be sent directly (e.g., recommendations, transcripts); (10) answers to frequently asked questions (FAQs) regarding deadlines, application procedures, standardized tests requirements along with minimum scores needed to apply, number of students admitted each year, costs of attendance, financial aid information, and the possibility of working and enrolling part-time; (11) pictures of students, faculty, and/or campus, and finally, (12) contact information, including names, phone numbers, and email addresses.

Limitations

The fact that this exploratory study did not find a specific relationship between minority students and multicultural graduate programs should not be taken to mean that a relationship does not exist. Indeed, several factors could be contributing to this outcome and these might well be considered weaknesses of this project.

The dependent measure. One reason for the lack of relationship between variables may be related to measurement issues. The dependent variable in this case was based on nine items included in a new instrument (the Prospective Student Survey) created to measure a prospective student's attraction for a graduate program. Although this survey showed high reliability, its' validity has yet to be determined. Hence we cannot say with certainty that responses on this survey are adequate for measuring attraction to a specific graduate program.

Multiculturalism as a construct. Few studies have attempted to operationalize multicultural training in psychology per se (Speight et al., 1995), and hence the consensus regarding the definition of a multicultural graduate program is tentative. The current study designed and evaluated a multicultural graduate program, based on the available data, but did not validate these premises. This is a weakness of the study that should be remedied in future studies that explore the topic of Web site recruitment.

The operationalization and manipulation of multicultural content level may also help explain the lack of effect found in this study. It is not known if participants were keen to this manipulation, and future studies should incorporate an explicit question to assess this such as, "How much of an emphasis do you think this program

places on diversity and/or multiculturalism?" Including this information in future studies will help to draw more confident conclusions about the specific influence of multicultural content.

Furthermore, the operationalization of the multicultural levels resulted in a confound between a lack of diversity emphasis and a prestige-orientation included in Level One. Although Level Two and Level Three included some components of prestige, these levels also included a focus on diversity and multiculturalism. Hence the identity of a Level One program was based solely on prestige, while the other two programs incorporated both prestige and multiculturalism. Although this operationalization was congruent with the levels as described by the Multicultural Organizational Development model (Jackson & Holvino, 1988), this confound made it unclear whether a preference for a Level One program was being driven by a lack of attraction for a multicultural program or by an attraction for a highly prestigious program.

Confounding variables. There are many reasons other than a multicultural emphasis that prospective students may be attracted to a given graduate program. Some of these factors include financial aid availability, physical location, specific research and/or clinical opportunities, prestige of a program, demography of students, and quality and comprehensiveness of application materials (Ponterotto et al., 1995). Other considerations are the philosophy or model employed by the program (e.g., scientist-practitioner), the type of degree granted (e.g., Ph.D., Psy.D., Ed.D.), the balance of clinical work versus research, and the flexibility of the program to

accommodate students' individual goals. Among the factors involved, multicultural emphasis is but one that we chose to investigate in this study.

Insight into potentially confounding variables could be obtained by asking questions about the prospective applicants' graduate search process, including how much time has been spent researching programs and preparing applications, types of resources used for researching programs (e.g., Web sites, books, paper application materials), and what they think their chances are of being accepted and eventually attending a graduate program. In terms of racial/ethnic status, the current study utilized the self-report method, congruent with the method used by most graduate programs to determine affirmative action eligibility. In future studies, students could be asked more elaborative questions pertaining to their ethnic identity, acculturation level, family income level, or parents' educational level. This could provide a more complex understanding of the relationship between race/ethnicity and application to graduate school in Psychology.

External validity. The manipulation of multicultural content in programs came at a price of decreased external validity. Though participants were asked to imagine the program was real, the use of a fictitious graduate program Web site in this study limits our ability to generalize these findings to actual programs. Future studies in this area may seek to extend previous findings of paper application materials (e.g., Bidell et al., 2002) to the Internet. For example, an examination of the Web sites of randomly selected APA-accredited Counseling and Clinical Psychology programs for their inclusion of diversity information, along with an assessment of prospective student perceptions of these Web sites could provide us with the missing link between

prospective student perceptions of actual graduate programs as depicted on the Web. Along with questions similar to those assessed in this study, student sensitivity to the different levels of diversity found in Web site materials could be assessed. Due to the lack of research on prospective student perceptions, qualitative techniques (e.g., grounded theory) may be a desirable method of research.

Sample size and power. Finally, the difficulty in obtaining a large sample of ethnic minority-identified prospective graduate students merits attention. The current study included a racial/ethnic participant breakdown that is similar to the current U.S. population. However the sample of minority-identified participants and hence the power to find differences was small. This restriction necessitated collapsing participants across cultural groups into one minority group in the current study. It is recognized that combining minority groups may obscure important differences between subgroups. Further, because there is some disparity in the level of graduate student representation across these different racial/ethnic/cultural groups (see Maton et al., 2006), evaluating the differences between prospective students of differing minority backgrounds could prove worthwhile. Future studies may aspire to collaborate with APA, Psi Chi, or some other constituency that has direct contact with prospective minority students, and hence may have better success at recruiting a larger sample of minorities. Another idea would be to target minority students in community colleges, where their representation is considerably greater. Studies like these may have more power to detect differences between separate ethnic groups, thereby providing a clearer understanding of minority students in Psychology.

REFERENCES

Allison, K. W., Crawford, I., Echemendia, R., Robinson, L., & Knepp, D. (1994). Human diversity and professional competence: Training in clinical and counseling psychology revisited. *American Psychologist, 49,* 792-796.

American Psychological Association. (1979). *Criteria for accreditation of doctoral training programs and internships in professional psychology.* Washington, DC: Author.

American Psychological Association. (1993). *Getting in: A step-by-step guide for gaining admission to graduate school in psychology.* Washington, DC: Author.

American Psychological Association. (1993). Guidelines for the providers of psychological services to ethnic, linguistic, and culturally diverse populations. *American Psychologist, 48,* 45-48.

American Psychological Association. (1995). *Guidelines and principles for accreditation of programs in professional psychology.* Washington, DC: Author.

American Psychological Association. (2002a). *Ethical principles of psychologists and code of conduct: 2002.* Retrieved April 25, 2006, from http://www.apa.org/ethics/

American Psychological Association. (2002b). *Graduate study in psychology.* Washington, DC: Author.

American Psychological Association (2002c). *Guidelines on multicultural education, training, research, practice, and organizational change for psychologists.* Retrieved April 6, 2006, from http://www.apa.org/pi/multiculturalguidelines/homepage.html

American Psychological Association (n.d.). Psychology education and careers guidebook series. Retrieved April 6, 2006, from http://www.apa.org/pi/oema/careers/

American Psychological Association, Office of Ethnic Minority Affairs. (May 2000). *Model strategies for ethnic minority recruitment, retention, and training in higher education.* Retrieved July 14, 2004, from http://www.apa.org/pi/oema/onlinebr.html

Association of Psychology Postdoctoral and Internship Centers (n.d.). APPIC Web site. Retrieved September 6, 2006, from http://www.appic.org

Atkinson, D. R., Morten, G., & Sue, D. W. (1998a). Addressing the mental health needs of racial/ethnic minorities. In D. R. Atkinson, G. Morten, & D. W. Sue (Eds.), Counseling *American Minorities* (5th ed.) (pp. 51-80). Boston: McGraw Hill.

Atkinson, D. R., Morten, G., & Sue, D. W. (Eds.). (1998b). *Counseling American Minorities* (5th ed.). Boston: McGraw Hill.

Atkinson, D. R., Morten, G., & Sue, D. W. (1998c). Defining populations and terms. In D. R. Atkinson, G. Morten, & D. W. Sue (Eds.), *Counseling American Minorities* (5th ed.) (pp. 3-20). Boston: McGraw Hill.

Baker, R., Bernard, M., & Riley, S. (2002). Reading online news: A comparison of three presentation formats. Retrieved March 14, 2006, from http://Psychology.wichita.edu/surl/usabilitynews/42/depth.htm

Bernal, M. E. (1994, November). Hispanics in psychology. *Focus* (APA Division 45 newsletter), 8(2), 9-10.

Bernal, M. E., Barron, B. M., & Leary, C. (1983). Use of application materials for recruitment of ethnic minority students in psychology. *Professional Psychology: Research and Practice, 14*, 817-829.

Bernal, M. E., & Castro, F. (1994). Are clinical psychologists prepared for service and research with ethnic minorities: Report on a decade of progress. *American Psychologist, 49*, 797-805.

Bernal, M. E., & Padilla, A. M. (1982). Status of minority curricula and training in clinical psychology. *American Psychologist, 37*, 780-787.

Bernard, M. (1999). Preliminary findings on the use of sitemaps. Retrieved March 14, 2006, from http://Psychology.wichita.edu/surl/usabilitynews/1W/Sitemaps.htm

Bernard, M. (2001). Developing schemas for the location of common web objects.

 Retrieved March 14, 2006, from

 http://Psychology.wichita.edu/surl/usabilitynews/3W/Web_object.htm

Bernard, M. (2003). Criteria for optimal web design (designing for usability).

 Retrieved June 28, 2004, from http://Psychology.wichita.edu/optimalweb/

Bernard, M., & Hamblin, C. (2003). Cascading versus indexed menu design.

 Retrieved March 14, 2006, from

 http://Psychology.wichita.edu/surl/usabilitynews/51/menu.htm

Bernard, M., Hull, S., & Drake, D. (2001). Where should you put the links? A

 comparison of four locations. Retrieved March 14, 2006, from

 http://Psychology.wichita.edu/surl/usabilitynews/3S/links.htm

Bernard, M., & Larsen, L. (2001). What is the best layout for multiple-column web

 pages? Retrieved March 14, 2006, from

 http://Psychology.wichita.edu/surl/usabilitynews/3S/layout.htm

Bidell, M. P., Turner, J. A., & Casas, J. M. (2002). First impressions count:

 Ethnic/racial and lesbian/gay/bisexual content of professional psychology

 application materials. *Professional Psychology: Research and Practice, 33,*

 97-103.

Bluestone, H. H., Stokes, A., & Kuba, S. A. (1996). Toward and integrated program

 design: Evaluating the status of diversity training in a graduate school

 curriculum. *Professional Psychology: Research and Practice, 27,* 394-400.

Chambers, S. (2002). *Recruitment of racial/ethnic minority doctoral students in psychology: A content analysis of counseling psychology program Web sites.* Thesis-2002. Fort Collins, CO: Colorado State University Library.

Cheung, F. K., & Snowden, L. R. (1990). Community mental health and ethnic minority populations. *Community Mental Health Journal, 26,* 277-291.

Comas-Díaz. L. (1990). Ethnic minority mental health: Contributions and future directions of the American Psychological Association. In F. C. Serafica, A. E. Schwebel, R. K. Russell, P. D. Isaac, & L. B. Myers (Eds.), *Mental health of ethnic minorities* (pp. 275-301). New York: Prager.

Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology (1997). *Visions and transformations: The final report.* Washington, DC: American Psychological Association.

Coyle, S., & Bae, Y. (1987). *Summary report 1986: Doctorate recipients from United States universities.* Washington, DC: National Academy Press.

Dittman, M. (2005). Attracting minority students early: Psychology faculty and undergraduates reach out to minority high school students. *APA Monitor on Psychology, 36,* 30-31.

Educational Testing Service (n.d.). *Graduate Record Examinations (GRE): Factors that can influence performance on the GRE general test, 2002-2003.* Retrieved April 25, 2006, from http://www.ets.org/Media/Tests/GRE/pdf/gre_factors_02-03.pdf

Ethnic Diversity. (2006). *American Psychologist, 61,* 117-171.

Farberman, R. K. (2003). Preparing for the 'minority majority' [Electronic version].

    APA Monitor, 34, 42.

Guzman, L. P. (1991). Incorporating cultural diversity into psychology training

    programs. In H. F. Myers, P. Wohlford, L. P. Guzman, & R. J. Echemendia

    (Eds.), *Ethnic minority perspectives on clinical training and services in*

    psychology (pp. 67-70). Washington, DC: American Psychological

    Association.

Guzman, L. P., Schiavo, S., & Puente, A. E. (1992). Ethnic minorities in the teaching

    of psychology. In A. E. Puente, J. R. Matthews. & C. L. Brewer (Eds.),

    Teaching Psychology in America: A history (pp.189-213). Washington, DC:

    American Psychological Association.

Hammond, W. R., & Yung, B. (1993). Minority student recruitment and retention

    practices among schools of professional psychology: A national survey and

    analysis. *Professional Psychology: Research and Practice, 24*, 3-12.

Heppner, P. P., Casas, J. M., Carter, J., & Stone, G. L. (2000). The maturation of

    counseling psychology: Multifaceted perspectives, 1978-1998. In S. D. Brown

    & R. W. Lent (Eds.), *Handbook of Counseling Psychology* (3rd ed.) (pp. 3-49).

    New York: John Wiley & Sons.

Highlen, P. S. (1994). Racial/ethnic diversity in doctoral programs of psychology:

    Challenges for the twenty-first century. *Applied and Preventive Psychology, 3*,

    91-108.

Hills, H. H., & Strozier, A. L. (1992). Multicultural training in APA-approved

counseling psychology programs: A survey. *Professional Psychology:*

Research and Practice, 23, 43-51.

Hitlin, P., & Rainie, L. (2005). *Teens, technology, and school* [data memo]. Retrieved

March 14, 2006, from

http://www.pewinternet.org/pdfs/PIP_Internet_and_schools_05.pdf

Hinton, P. R., Brownlow, C., McMurray, I., & Cozens, B. (2004). *SPSS explained.*

NY, NY: Routledge, Inc.

Horrigan, J. B., & Rainie, L. (2002). *Counting on the internet.* Pew Internet and

American Life Project. Retrieved March 12, 2006, from

http://www.pewinternet.org/pdfs/PIP_Expectations.pdf

Jackson, B. W., & Holvino, E. (1988). Developing multicultural organizations.

Journal of Religion and Applied Behavioral Sciences, 9(2), 14-19.

Jones, S. (2002). *The Internet goes to college: How students are living in the future*

with today's technology. Pew Internet and American Life Project. Retrieved

online March 16, 2006 from http://www.pewinternet.org/

Korman, M. (1974). National conference on levels and patterns of professional

training in psychology: The major themes. *American Psychologist, 29*, 441-

449.

Krug, S. (2000). *Don't make me think! A common sense approach to Web usability.*

Indianapolis, IN: Que.

Kyle, T. M., & Williams, S. (2000). *Results of the 1998-1999 APA survey of graduate departments of psychology.* Available from the American Psychological Association Web site: http://research.apa.org/9899graduate.html

LaFromboise, T. (1994, November). American Indians in psychology: A journey through the life of Carolyn Attneave. *Focus* (APA Division 45 newsletter), 8(2), 11-13.

Leong, F. T. L. (1994). Asian Americans' differential patterns of utilization of inpatient and outpatient public mental health services in Hawaii. *Journal of Community Psychology, 22,* 82-96.

List of largest United States universities by enrollment. (n.d.). Retrieved November 23, 2005, from http://en.wikipedia.org/wiki/List_of_largest_United_States_universities_by_e nrollment

Magoon, T. M. (1988). *1987/88 College and university counseling center data bank.* College Park, MD: University of Maryland Counseling Center.

Malaney, G. D. (2004-2005). Student use of the Internet. *Journal of Educational Technology Systems, 33,* 53-66.

Maton, K. I., Kohout, J. L., Wicherski, M., Leary, G. E., & Vinokurov, A. (2006). Minority students of color and the psychology graduate pipeline: Disquieting and encouraging trends, 1989-2003. *American Psychologist, 61,* 117-131.

Mayne, T. J., Norcross, J. C., & Sayette, M. A. (2001). *Insider's guide to graduate programs in clinical and counseling psychology.* New York: Guilford Press.

Meara, N. M., Schmidt, L. D., Carringtion, C. H., Davis, K. L., Dixon, D. N., Fretz, B. R., Myers, R. A., Ridley, C. R., & Suinn, R. M. (1988). Training and accreditation in counseling psychology. *The Counseling Psychologist, 16,* 366-384.

Morkes, J. & Nielsen, J. (1997). Concise, scannable, and objective: How to write for the Web. Retrieved March 16, 2006, from

http://www.useit.com/papers/webwriting/writing.html

Muñoz-Dunbar, R., & Stanton, A. L. (1999). Ethnic diversity in clinical psychology: Recruitment and admission practices among doctoral programs. *Teaching of Psychology, 26,* 259-263.

Myers, H. F., Echemendia, R. J., & Trimble, J. E. (1991). In H. F. Myers, P. Wohlford, L. P. Guzman, & R. J. Echemendia (Eds.), *Ethnic minority perspectives on clinical training and services in psychology* (pp. 3-11). Washington, DC: American Psychological Association.

Nah, F. F-H. (2004). A study on tolerable waiting time: How long are Web users willing to wait? *Behaviour and Information Technology, 23,* 153-163.

National Center for Education Statistics (2002). *Digest of education statistics.* Retrieved February 21, 2004, from

http://www.nces.ed.gov/programs/digest/d02/index.asp

National Center for Education Statistics (2003). *Internet Access in U.S. Public Schools and Classrooms: 1994-2002.* Washington, DC: U.S. Department of Education.

Olmedo, E. L. (1990). Training must assure compliance with ethics. In L. Bickman & H. Ellis (Eds.), *Preparing psychologists for the 21ˢᵗ century: Proceedings of the national conference on graduate education in psychology* (pp. 198-200). Hillsdale, NJ: Lawrence Erlbaum.

Orfield, G., & Miller, E. (Eds.). (1998). *Chilling admissions: The affirmative action crisis and the search for alternatives.* Cambridge: Harvard Education Publishing Group.

Pate, W. E. (2001). Analyses in data from Graduate Study in Psychology: 1999-200. Retrieved April 20, 2006, from http://research.apa.org/grad00contents.html

Pederson, P. B. (Ed.). (1991). Multiculturalism as a fourth force in counseling. [Special issue]. *Journal of Counseling and Development, 70* (2).

Ponterotto, J. G., Burkhard, A., Yoshida, R. K., Cancelli, A. A., Mendez, G., Wasilewski, L., & Sussman, L. (1995). Prospective minority students' perceptions of application packets for professional psychology programs: A qualitative study. *Professional Psychology: Research and Practice, 26,* 196-204.

Ponterotto, J. G., Casas, M., Suzuki, L., & Alexander, C. (Eds.). (1995). *Handbook of multicultural counseling.* Thousand Oaks, CA: Sage.

Ponterotto, J. G., Rieger, B. P., Barrett, A., Harris, G., Sparks, R., Sanchez, C. M., & Magids, D. (1996). Development and initial validation of the Multicultural Counseling Awareness Scale. In G. R. Sodowsky & J. C. Impara (Eds.), *Multicultural assessment in counseling and clinical psychology* (pp. 247-282). Lincoln, NE: Buros Institute of Mental Measurements.

Pope-Davis, D. B., & Coleman, H. L. K. (Eds.). (1997). *Multicultural counseling competencies: Assessment, education and training, and supervision.* Thousand Oaks, CA: Sage.

Pope-Davis, D. B., Reynolds, A., Dings, J. G., & Nielson, D. (1995). Examining multicultural competencies of graduate students in psychology. *Professional Psychology: Research and Practice, 26,* 322-329.

Porche-Burke, L. (1990). Minority student recruitment and retention: Is there a secret to success? In G. Striker, E. Davis-Russell, E. Bourg, E. Duran, W. R. Hammond, K. Polite, & B. E. Vaughn (Eds.), *Toward ethnic diversification in psychology education and training* (pp. 131-136). Washington, DC: American Psychological Association.

Quintana, S. M., & Bernal, M. E. (1995). Ethnic minority training in counseling psychology: Comparisons with clinical psychology and proposed standards. *The Counseling Psychologist, 23,* 102-121.

Rabasca, L. (2000). Attracting more minority students to psychology programs. Retrieved April 5, 2006, from http://www.apa.org/monitor/mar00/muse.html

Rainie, L., & Horrigan, J. (2005). Internet: The mainstreaming of online life. In Pew Internet and American Life Project report, *Trends 2005* (pp. 58-69). Retrieved March 12, 2006, from http://www.pewinternet.org/

Robbins, J. N. (2002). *HTML Pocket Reference* [2nd Ed]. Sebastopol, CA: O'Reilly.

Rogers, M. R., Hoffman, M., & Wade, J. (1998). Notable multicultural training in APA-approved counseling psychology and school psychology programs. *Cultural Diversity and Mental Health, 4,* 212-226.

Rogers, M. R., & Molina, L. E. (2006). Exemplary efforts in psychology to recruit and retain graduate students of color. *American Psychologist, 61*, 143-156.

Rogers, M. R., Ponterotto, J. G., Conoley, J. C., & Wiese, M. J. (1992). Multicultural training in school psychology: A national survey. *School Psychology Review, 21*, 603-616.

Ryan, G., & Valverde, M. (2003). Waiting online: A review and research agenda. *Internet Research: Electronic Networking Applications and Policy, 13*, 195-205.

Sodowsky, G. R., Taffe, R. C., Gutkin, T. B., & Wise, S. (1994). Development of the Multicultural Counseling Inventory: A self-report measure of multicultural competencies. *Journal of Counseling Psychology, 41*, 137-148.

Spain, K. (1999). What's the best way to wrap links? Retrieved March 14, 2006, from http://Psychology.wichita.edu/surl/usabilitynews/1w/Links.htm

Speight, S. L., Thomas, A. J., Kennel, R. G., & Anderson, M. E. (1995). Operationalizing multicultural training in doctoral programs and internships. *Professional Psychology: Research and Practice, 26*, 401-406.

Stern, C. M. (2002). *Needle – haystack + you: How undergraduates search and use the Internet* [pdf version]. Proceedings of the annual conference of the Society for Technical Communications. Retrieved March 12, 2006, from www.google.com

Street, Warren R. (1994). *A chronology of noteworthy events in American Psychology.* Washington, DC: American Psychological Association.

Striker, G., Davis-Russell, E., Bourg, E., Duran, E., Hammond, W. R., Polite, K., & Vaughn, B. E. (Eds.). (1990). *Toward ethnic diversification in psychology education and training*. Washington, DC: American Psychological Association.

Sue, D. W. (1991). A model for cultural diversity training. *Journal of Counseling and Development, 70,* 99-105.

Sue, D. W., Arredondo, P., & McDavis, R. J. (1992). Multicultural counseling competencies and standards: A call to the profession. *Journal of Counseling and Development, 70,* 477-486.

Sue, D. W., Bernier, Y., Durran, A., Feinberg, L., Pedersen, P. B., Smith, E. J., & Vasquez-Nuttal, E. (1982). Position paper: Cross-cultural counseling competencies. *The Counseling Psychologist, 10,* 45-52.

Sue, D. W., Bingham, R. P., Porche-Burke, L., & Vasquez, M. (1999). The diversification of psychology: A multicultural revolution. *American Psychologist, 54,* 1061-1069.

Sue, D. W., Parham, T. A., & Bonilla-Santiago, G. (1998). The changing face of work in the United States: Implications for individual, institutional, and societal survival. *Cultural Diversity and Mental Health, 4,* 153-164.

Sue, D. W., & Sue, D. (1990). *Counseling the culturally different: Theory and practice* (2nd. ed.). New York: Wiley.

Sue, S. (1994, November). Asian Americans in psychology. *Focus* (APA Division 45 newsletter), 8(2), 6-8.

Suinn, R. M. (1999). Progress in ethnic minority psychology: An overview and challenge, or "When you wish upon a star." *Cultural Diversity and Ethnic Minority Psychology, 5*, 37-42.

Tinsely, H. E. A., & Tinsley, D. J. (1987). Uses of factor analysis in counseling psychology research. *Journal of Counseling Psychology, 34,* 414-424.

U.S. Census Bureau (2000). *Resident population estimates of the United States by sex, race, and Hispanic origin: April 1, 1990 to July 1, 1999, with short-term projection to November 1, 2000.* Retrieved April 2001, from http://www.census.gov/population/estimates/nation3/html

U.S. Census Bureau (2001). *Population by race and Hispanic or Latino origin for the United States: 1990 and 2000* (Census 2000, PHC-T-1). Retrieved April 2001, from http://blue.census.gov/population/www/cen2000/phc-t1.html

U.S. Census Bureau (2004). *U.S. interim projections by age, sex, race, and Hispanic origin.* Retrieved June 2004, from http://www.census.gov/ipc/www/usinterimproj/

U.S. Census Bureau (2005). *American community survey profile: 2004.* Retrieved March 2006, from http://www.census.gov/acs/www/index.html

Universities ranked by percentage of minorities. (n.d.). Retrieved November 23, 2005, from http://collegeapps.about.com/od/rankings/a/u_minorities.htm

Vasquez, M. J. T., & Jones, J. M. (2006). Increasing the number of psychologists of color: Public policy issues for affirmative diversity. *American Psychologist, 61,* 132-142.

Vasquez, M. J. T., Lott, B., Garcia-Vasquez, E., Grant, S. K., Iwamasa, G. Y., Molina, L. E., Ragsdale, B. L., & Vestal-Dowdy, E. (2006). Personal reflections: Barriers and strategies in increasing diversity in psychology. *American Psychologist, 61,* 157-172.

Williams, R. (1974). A history of the Association of Black Psychologists: Early formation and development. *The Journal of Black Psychology, 1*(1), 9-24.

Wyatt, G. E., & Parham, W. D. (1985). The inclusion of culturally sensitive course materials in graduate school and training programs. *Psychotherapy: Theory, Research, and Practice, 22,* 461-468.

Yoshida, R. K., Cancelli, A. A., Sowinski, J., & Bernhardt, R. (1989). Differences in information sent to minority and non-minority prospective applicants to clinical, counseling, and school psychology programs. *Professional Psychology: Research and Practice, 20,* 179-184.

Table 1

Intercorrelations Among Variables Used in Factor Analysis

	Course(1)	FacRes(3)	ClinOpp(5)	Acad(7)	Sim(9)	Support(11)	Appeal(13)	Satisfy(15)	Apply(17)
Course	---	.346**	.414**	.172*	.265**	.311**	.486**	.415**	.461**
FacRes	---	---	.324**	-.054	.390**	.481**	.513**	.488**	.548**
ClinOpp	---	---	---	.097	.363**	.350**	.360**	.289**	.307**
Acad	---	---	---	---	.114	.008	.185*	.131	.059
Sim	---	---	---	---	---	.290**	.349**	.304**	.373**
Support	---	---	---	---	---	---	.621**	.551**	.583**
Appeal	---	---	---	---	---	---	---	.698**	.712**
Satisfy	---	---	---	---	---	---	---	---	.646**

Note: Numbers in parentheses are item numbers from the Prospective Student Survey (see Appendix C).
*Correlation is significant at the .05 level. **Correlation is significant at the .01 level.

Table 2

Item Descriptives and Rotated Factor Matrix

				Rotated Factor Loadings	
Item	*M*	*S.D.*	Comm.	1	2
Course(1)	5.57	1.077	.381	.473	.321
FacRes(3)	5.10	1.394	.482	.612	---
ClinOpp(5)	5.88	1.143	.999	---	.980
Acad(7)	3.86	.723	.182	---	---
Sim(9)	3.38	.875	.285	.354	---
Support(11)	4.06	1.061	.562	.691	---
Appeal(13)	3.63	.944	.791	.857	---
Satisfy(15)	3.58	1.098	.607	.764	---
Apply(17)	3.10	1.344	.701	.814	---

Note: Item numbers in parentheses correspond to the Prospective Student Survey (see Appendix C). S.D. = Standard deviation. Comm. = Communalities extracted. Factor loadings below .30 were suppressed. Results shown used an Equamax rotation.

Table 3

General Affinity Scores by Level of Multicultural Content

Level	*M*	*SD*	*N*
Low	4.94	.999	32
Medium	4.51	1.224	30
High	4.91	.981	51
Placebo	3.93	1.309	14
Total	4.72	1.122	127

Note: General Affinity scores were calculated as the sum of individual factor scores across seven items from the Prospective Student Survey. Individual factor scores were calculated by multiplying factor coefficients by raw scores.

Table 4

Correlations Among Demographic Variables and Factor Scores

	Demographic Variables					Factor Scores	
	Age	Gender	C.S.	G.P.A.	M.S.	G.A.	T.A.
Age	---	-.076	.212*	.173*	-.025	-.193*	-.094
Gender	---	---	-.049	.001	.060	.142	.101
C.S.	---	---	---	.077	-.010	-.235**	-.052
G.P.A.	---	---	---	---	-.194*	-.121	-.003
M.S.	---	---	---	---	---	.078	.094
G.A.	---	---	---	---	---	---	.435**

Note: C.S. = College status; G.P.A. = Grade point average; M.S. = Minority status; G.A. = General Affinity; T.A. = Training Affinity
*Correlation is significant at the .05 level (2-tailed).
**Correlation is significant at the .01 level (2-tailed)

APPENDIX A

Invitation Email

Greetings. My name is Serenity Chambers and I am a doctoral student in
Counseling Psychology at Colorado State University. Under the supervision of Dr.
Ernie Chavez, I am conducting an online study about the recruitment of graduate
students into doctoral level Psychology programs. If you are a junior or senior in
college and you are considering pursuing graduate school in clinical or counseling
Psychology, I need your input!!

The study requires that you peruse a web site for a (fictitious) graduate
program in Psychology and then give your impressions. It takes about 30 minutes to
complete. Your responses will aid in the creation of more effective ways to recruit
students into these programs. Participation in this study may give you more
information about graduate programs in Psychology and/or may increase your interest
in Psychology as a career. This research project has no known risks and has been
approved by the Institutional Review Board at Colorado State University.

To participate in this study, you will need access to a computer with an
Internet connection. From your web browser, please go to
http://psy.psych.colostate.edu/serenity/index.html to begin.

Please direct any questions, concerns, or comments to Serenity Chambers at
sc@lamar.colostate.edu or 619.757.7227.

APPENDIX B

Online Consent Form

Greetings. My name is Serenity Chambers and I am a doctoral student in

Counseling Psychology at Colorado State University. Under the supervision of Dr.

Ernie Chavez, Ph.D, I am conducting an online study about the recruitment of

graduate students into doctoral level Psychology programs. You are being asked to

take part in this study because you are a junior or senior undergraduate student and

have expressed an interest in pursuing graduate school in clinical or counseling

Psychology.

If you agree to take part in the study, you will be asked to peruse a web site

for a (fictitious) graduate program in Psychology and then complete a questionnaire

about your impressions. It takes about 30 minutes to complete. Participation in this

study may benefit you by giving you more information about graduate programs in

Psychology and increasing your interest in Psychology as a career. Your responses

will also aid in the creation of more effective ways to recruit students into these

programs.

Participation in this study is completely voluntary. There will be

approximately 200 participants in this study. You have the right to refuse to answer

any question or skip any question you choose not to answer. There are no risks to this study; however, should you decide to withdraw your participation you may do so at any time without penalty. You may do so by simply leaving the web site.

Your name will not be requested in this study so your responses will be anonymous. All research records will be kept confidential by the PI (Primary Investigator). No one other than the PI and individuals involved with conducting this study will have access to this data. No person's data will be singled out or analyzed individually, but rather will be presented and/or published as a group along with data from other persons who participate in the study. You may call Celia S. Walker at Colorado State University at (970) 491-1563 to inquire about your rights as a research subject or to report any research-related problems. Please direct any other research-related questions, concerns, or comments to Serenity Chambers at sc@lamar.colostate.edu or 619.757.7227.

If you agree to participate, please print this document for your records.

If you no longer wish to participate, or are ineligible according to the criteria listed above, please exit by closing this browser window.

Once you have a printed copy of your consent, you may begin the study by clicking below.

By clicking below you give your informed consent to participate.

Click here to Enter Study

APPENDIX C

Prospective Student Survey

Perceptions of a Fictitious Psychology Program

1. How much do you like the coursework offered in this program?
   - Like Strongly
   - Like Moderately
   - Like Mildly
   - Neutral (Neither like nor Dislike)
   - Dislike Mildly
   - Dislike Moderately
   - Dislike Strongly

2. What specific coursework component most contributed to your response?

3. How much do you like the faculty research interests offered in this program?
   - Like Strongly
   - Like Moderately
   - Like Mildly
   - Neutral (Neither like nor Dislike)
   - Dislike Mildly
   - Dislike Moderately
   - Dislike Strongly

4. What specific research component most contributed to your response?

5. How much do you like the clinical opportunities offered in this program?
   - Like Strongly
   - Like Moderately
   - Like Mildly
   - Neutral (Neither like nor Dislike)

- Dislike Mildly
- Dislike Moderately
- Dislike Strongly

6. What specific clinical component most contributed to your response?

7. How well do you think you would do academically in this program?
   - Well Above Average
   - Somewhat Above Average
   - About Average
   - Somewhat Below Average
   - Well Below Average

8. What factor(s) most contributed to your answer to #7?

9. How similar do you feel to the faculty and students described in this program?
   - Very Similar
   - Somewhat Similar
   - Neither Similar nor Dissimilar
   - Somewhat Dissimilar
   - Somewhat Dissimilar

10. What factor(s) most contributed to your answer to #9?

11. How supportive do you feel the program would be of your professional goals?
    - Extremely Supportive
    - Somewhat Supportive
    - Neither Supportive nor Unsupportive
    - Somewhat Unsupportive
    - Extremely Unsupportive

12. What factor(s) most contributed to your answer to #11?

13. How appealing/attractive is this program overall?
    - Extremely appealing/attractive
    - Somewhat appealing/attractive
    - Neither appealing/attractive nor unappealing/unattractive
    - Somewhat unappealing/unattractive
    - Extremely unappealing/unattractive

14. What factor(s) most contributed to your answer to #13?

15. How satisfied do you think you would be if you attended this program?
   - Extremely satisfied
   - Somewhat satisfied
   - Neither satisfied nor unsatisfied
   - Somewhat unsatisfied
   - Extremely unsatisfied

16. What factor(s) most contributed to your answer to #15?

17. How likely would you be to apply to this program?
   - Extremely likely
   - Somewhat likely
   - Not sure
   - Somewhat unlikely
   - Extremely unlikely

18. What factor most influenced your answer to #17?

19. What aspect(s) of this program (if any) would you change or create to make it a better fit for you?

20. What did you like best about this program?

21. What did you like least about this program?

22. What is the name of the University offering the graduate program in Psychology?

23. What type of degree does the graduate program offer?

24. Further comments and feedback are VERY appreciated! (Please list)

25. What is your age?

26. What is your gender?
   - Male
   - Female
   - Transgender

27. What is your status in college?
   - junior
   - senior
   - completed bachelors/not currently enrolled
   - graduate student
   - Other:_____

28. What is your current cumulative G.P.A.?
   - 3.5+
   - 3.0-3.5
   - 2.5-3.0
   - 2.0-2.5
   - 2.0 and below

29. What is your racial/ethnic identification?
   - Caucasian/European American
   - Black/African American
   - Latino(a)/Chicano(a)/Mexican American
   - Native American
   - Asian American/Pacific Islander
   - Biracial/multiracial
   - Other:_____

30. When do you intend to apply for graduate programs in Psychology?
   - Fall 2005 (for admission Fall 2006)
   - Fall 2006 (for admission Fall 2007)
   - Fall 2007 (for admission Fall 2008)
   - not sure
   - I am not intending to apply
   - Other:_____