Research on mentoring in higher education is increasingly widespread. This article aims to provide insight into different kinds of mentoring programs and the research conducted to determine the effectiveness of these programs. A review of the literature revealed multiple definitions of what mentoring means, how programs operate, and types of research conducted. This investigation concluded in findings that the majority of mentoring research is incomplete and methodologically unsound. Additionally, the literature conceptualizes mentoring in dichotomous forms: informal/formal and traditional/non-traditional. Understanding how these forms operate within higher education can impact the overall effectiveness of the mentoring relationship. Suggestions for improved research methodology and program design are provided.

The concept of mentoring has become increasingly popular over the past few decades. Mentoring has been advertised as necessary in order for students and employees to flourish in their environment. However, the lack of research concerning peer mentoring programs in particular is surprising. While there is an abundance of articles on the topic of mentoring in the educational setting, authors must be held to more stringent research standards and more definitional consistency. In addition to higher quality research, the fundamental flaws within peer mentoring programs need to be corrected before these programs can reach their full potential on college campuses.
The purpose of this article is to identify problems within mentoring programs in higher education and provide suggestions to overcome these issues. Since the majority of the literature on mentoring describes mentoring within the organizational/business setting, the research and its implications in this particular sector are discussed in the beginning of this article. Mentoring in K-12 education is also mentioned in this section. The second section of this review discusses peer mentoring in higher education. The literature on non-traditional peer mentoring in higher education is much less extensive than mentoring literature in the organizational setting. The third and fourth sections provide both a theoretical and research basis for why female and minority students are underrepresented in mentoring relationships. The last section highlights the issues within mentoring programs and research while proposing suggestions to improve both of these areas. Without understanding the many dimensions of mentoring, educators and future program trainers will only perpetuate the status quo.

Mentoring Outside of Post-Secondary Education
A substantial amount of research in the business setting reveals that mentoring relationships provide a vital aspect of career advancement and growth for both mentors and mentees (Allen, 2003; Bova, 2000; Kerka, 1998; Noe, 1988). Individuals with mentors report more promotions, higher incomes, more opportunities, higher job satisfaction, and exert greater influence than non-mentored individuals (Baugh, Lankau, & Scandura, 1996; Bova, 2000; Eby & Lockwood, 2005; Eby & McManus, 2004; Fagenson-Eland, Marks, & Amendola, 1997; Noe, 1988; Scandura & Williams, 2001). Mentoring is an important career training and development tool that socializes employees into the organization, lowers work stress, and increases mentors’ and mentees’ self-efficacy and self-esteem (Baugh et al., 1996; Fagensen-Eland et al., 1997; Scandura & Williams, 2001). Mentors themselves describe benefits as well. They report enhanced support networks, fulfillment from helping others mature and succeed, and access to information that promotes job performance (Eby & McManus, 2004). The organization itself benefits from lower mentee turnover, higher mentee and mentor commitment to their organizations, and the creation of more leadership talent for their organizations (Baugh et al., 1996; Eby & McManus, 2004; Scandura & Williams, 2001).

Besides being popular in the business and organizational setting, mentoring programs are also abundant in high schools, middle schools, and elementary schools. These programs typically pair a teacher or an older student with a K-12 student in order to increase self-esteem, academic achievement, goal-setting, and relationship building (King, Vidourek,
According to Ryan, Whittaker, and Pinckney (2002), successful mentoring programs with younger students require facilitating the growth of mentee/mentor relationships that produce social, emotional, academic and/or economic development for students involved in the program.

Peer Mentoring In Post-Secondary Education
Mentoring in higher education is also becoming an essential aspect of student life. Typically, traditional mentoring in higher education has included faculty and staff members who provide mostly informal mentoring to graduate students in the university setting. However, as traditional notions of mentoring relationships are changing, the definitions are changing as well. Jacobi (1991) notes that within higher education, undergraduates are being more frequently used as peer mentors, calling into question the value traditionally placed on a large age difference between mentors and mentees.

One of the major reasons why mentoring has been implemented in the university setting is to increase retention rates. After closely monitoring retention and graduation rates and other indicators of the quality of the university, Quinn, Muldoon, and Hollingworth (2002) noted that these problems were frequently associated with insufficiently prepared students and reduced government funding. In large part, mentoring programs were established to address the wide range of difficulties these undergraduates experience. Mentoring programs that offer support and encouragement to students with academic deficiencies and adaptation problems during their freshmen year have seen increases in their retention and graduation rates (Mee-lee & Bush, 2003).

Peer mentoring programs have had a number of positive effects on both the mentees and mentors (Vaidya, 1994). For mentors, developing or advancing interpersonal and communication skills were found to be the two most important outcomes. Both mentors and mentees specified that they had also expanded other qualities such as patience and compassion. Maturation, time management, and greater responsibility have also been noted as beneficial aspects of mentoring (McLean, 2004). An academic or peer mentor might also increase a college student's self-esteem and academic self-efficacy, as well as general satisfaction with their academic program (Ferrari, 2004). While the effects listed above fall under a psychosocial category, there are also many academic benefits of mentoring. Mentoring can positively influence the career choices students make, their perseverance in following their educational goals, and their achievement in higher education (Brown, David, & McClendon, 1999; Ferrari, 2004; Packard, 2003).
Gender and Mentoring
Historically, the concept of mentoring has been dominated by traditional notions of men guiding men in their pursuit of success. Levinson, Darrow, Klein, Levinson, and McKee’s (1978) research and theoretical work on mentoring took only men into account. While this research contributed greatly to the understanding of how frequently mentoring relationships occur and how much these relationships contribute to success, it posed two problems for future research: (1) external validity is lacking; and (2) the research has reaffirmed traditional gender norms. First, while it seems obvious that Levinson et al.’s (1978) exclusively male research pool would not have much external validity, it appears that this methodological error has not resonated with much of the research community. Literature on mentoring constantly cites Levinson et al.’s research as revolutionary; businesses and universities began formal programs and their own research after the wide acclaim this research received. Second, by modeling mentoring programs on the Levinson et al. study, these programs are reinforcing the notion that male norms are sufficient for the entire population.

An understanding of the concept of gender is important to realize why stereotypes and barriers exist in mentoring. The conceptualization of gender functions by providing an overt connection between being born biologically male or female and the cultural meaning that accompanies one’s sex (Gilbert & Rossman, 1992). Within the broader cultural meaning, psychological and social features are contextualized by notions of what it means to be biologically male or female (Gilbert, 1994).

Gender stereotypes and socialization practices shape the way in which individuals interact with one another. Mentoring is a particularly applicable example of a relationship where gender stereotypes are manifested. Given that women are perceived as lacking desirable traits such as leadership, emotional control, assertiveness, and competitiveness, they are less likely to be considered for mentoring relationships within the organizational setting (Noe, 1988). Scandura and Williams (2001) contend that established assumptions of males and females are that males will be insistent and assertive and women passive when seeking out a mentor relationship. However, assertive action concerning mentoring on the part of the female can be perceived as too aggressive. Along with an institution perceiving men and women as having certain characteristics, female socialization promotes the expansion of personality traits and behaviors (e.g., apprehension of achievement, reluctance to take risks) that are divergent to traits necessary to be a successful manager in a male-dominated organization (Noe, 1988).

One of the main benefits of mentoring women is that women perceive
Mentoring as critical to the development of their career (Bova, 2000; Ragins & Cotton, 1999; Ragins & Scandura, 1997; Sosik & Godshalk, 2000). For example, research conducted on Hispanic women showed that they thought mentoring was extremely important for their career development, and that this importance was exemplified by the fact that it is very difficult for Hispanic women to receive traditional mentoring (Bova, 2000). Sosik and Godshalk (2000) also found that in dyads where the mentor was male and the mentee was female, the mentee reported a higher amount of career development than any other arrangement of mentoring dyads.

Many of the authors who address cross-gender mentoring theorize or have analyzed results that show cross-gender mentoring to be unsupportive and dysfunctional. One of the first reasons given is that women mentees may feel some uneasiness in a mentoring relationship with males due to sexual apprehension and fears of public inquiry about the relationship (Long, 1994). One of the most widely cited reasons for same-gender mentoring is that female role models appear to be more important for women than for men (Cullen & Luna, 1993; Ensher & Murphy, 1997). Female mentor/female mentee combinations might also open up space for more assertiveness and inventiveness by mentees in terms of guiding the direction that the mentoring relationship acquires (Scandura & Williams, 2001).

Despite several studies claiming that cross-gender mentoring is actually detrimental or unhelpful, many other studies reached the opposite conclusion. Bova’s (2000) study found that cross-gender and cross-cultural mentor relationships in the organization permit for a mutual examination of stereotypes and ascriptions concerning differences and also allow for the improvement of communication between the mentor and mentee. Similarly, research has shown that mentees in cross-gender mentoring relationships actually report more psychosocial support from their mentors than the mentees in same-gender mentoring relationships (Sosik & Godshalk, 2005).

Mentoring Minority Populations
Because traditional mentoring has typically excluded individuals of less represented races, ethnicities, sexual identities, and socioeconomic status, minority populations are in even more need of mentoring. Many minority students are unaware of the types of mentoring resources that are available to them. Even if the students are aware, they may believe that mentoring services will not help them (Jacobi, 1991). Research based on mentoring in corporate and university settings demonstrates that formal, or planned, mentoring is successful in assisting minorities
to accomplish goals in unfamiliar settings (Redmond, 1990). Similarly, research has established that students who are involved in mentoring programs are more fulfilled by their experiences in college than individuals who are not involved in these programs (Pope, 2002).

An additional perception about traditional mentoring is that it is only available to white males or those who come from traditionally powerful or privileged backgrounds (Bova, 2000). Interestingly, even if mentoring programs for minority students are in place, students seem to feel that these programs are only offered infrequently (Pope, 2002). Pope presents an interesting example of this phenomenon. His research has indicated that Asian students in particular feel as though mentoring may be less available for them. He theorizes that this may come from the stereotype that Asian students are expected to always be successful in an academic setting, and because they appear to have higher success rates for graduation, retention, and matriculation.

When administrators are pairing mentors with mentees, they should be aware of the implications of cross-cultural mentoring; Ortiz-Walters and Gilson (2005) mention that these implications have only just begun to be emphasized. Just as with cross-gender mentoring, the literature on cross-cultural mentoring has been divided. One point of view about cross-cultural mentoring is that individuals who are different, ethnically and racially, often feel uncomfortable with one another due to expectations deriving from stereotypes and historical race relations (Ferrari, 2004; Jacobi, 1991; Johnson-Baily, Cervero, & Baugh, 2004; Long, 1994; Ortiz-Walters & Gilson, 2005; Tenenbaum, Crosby, & Gliner, 2001). According to Johnson-Baily et al. (2004), these stereotypes may cause the mentoring relationship to become aggressive, threatening, and devoid of intimacy.

However, much of the literature has a very different viewpoint on cross-cultural mentoring. Current research regarding cross-cultural mentoring reports that it is extremely successful when it does occur (Bova, 2000; Johnson-Bailey et al., 2004; Packard, Walsh, & Seidenberg, 2004; Ragins & Scandura, 1997). In fact, cross-cultural mentoring may be even more beneficial than same-culture mentoring due to the learning process that takes place. Mentors and mentees might initially fear engaging in a cross-cultural relationship; however, discussing differences between the mentor and the mentee can increase mutual respect and trust between the dyad. Bova (2000) contends that cross-cultural mentoring relationships in the workplace permit for a reciprocal testing of stereotypes and acknowledgment vis-à-vis differences, while also allowing for growth of cross-cultural communication skills.
Suggestions and Implications for Programs and Further Research
Definitions of mentoring in education should be consistent and applicable to the educational setting. One of the most apparent problems within the mentoring literature was the lack of consistency in defining mentoring among organizations and universities that design mentoring programs. According to Jacobi (1991) this absence of an operational definition leads to less valid research. Additionally, peer mentoring programs appear to define their programs based off of older and commonly used business and organizational definitions. Definitions ranged from coach to mentor to career sponsor, or in the context of higher education, peer counselor. Bierema and Merriam (2002) encompass this entire range by quoting Zey (1984, p. 7), who defines a mentor as someone “who oversees the career and development of another person, usually a junior, through teaching, counseling, providing psychological support, protecting, and at times promoting or sponsoring”. This particular literature search provided eight different definitions of mentoring: (1) a more advanced or experienced individual guiding a less experienced individual; (2) an older individual guiding a younger individual; (3) a faculty member guiding a student; (4) an individual providing academic advising; (5) an individual who shares their experience with another individual; (6) an individual who actively interacts with another individual; (7) an experienced individual guiding a group of individuals; and (8) an experienced, older individual who guides a younger, less experienced individual via internet resources.

Another distinction the literature makes is between formal and informal mentoring. In formal mentoring, a mentee is assigned to a mentor. Formal mentoring frequently features mentor training, planned meeting sessions, and specific matching of a mentor to a mentee. Informal mentoring, on the other hand, is a spontaneously developing relationship between two or more individuals, where one individual provides support, advice, and guidance to the other individual(s) (Eby & Lockwood, 2005). An additional distinction the literature provides is between traditional and non-traditional mentoring. Traditional mentoring is most often described as an informal relationship between two white men where the mentor is assumed to be older and more experienced; non-traditional mentoring encompasses any other type of relationship that deviates from that model.

The mentoring literature boasts about the overwhelming benefits of mentoring. While mentoring is perceived as mainly advantageous, there may also be drawbacks to the experience. Without acknowledging the potentially negative aspects of mentoring, established programs may
find change and success difficult to achieve. As mentioned widely in this review, the definition of mentoring must be multidimensional to allow for the inclusion of non-traditional aspects of mentoring. Piper and Piper (1999) explain that understanding mentoring as a narrow, specific activity between a mentor and a mentee may be considered a “delusion,” whereas defining the mentoring relationship too broadly results in an understanding of mentoring that may not even be “mentoring.” An inclusive definition of mentoring would discard the traditional notions of the mentor being an older (usually by fifteen years), more experienced, heterosexual White male; this new, comprehensive definition would strive to include all individuals, regardless of gender, race, ethnicity, class or sexuality. Since many individuals feel excluded from the traditional definition of mentoring, advertising the institution’s mentoring program with an inclusive definition may compel more students to utilize the program. Additionally, the more open a program is about their commitment to supporting these less-recognized populations, the more likely it is for all students to recognize the mentoring program as being helpful for them.

Research must be appropriate to the educational setting, as well as incorporate empirical studies. The majority of the literature on mentoring leads the reader to believe that there are very few problems within mentoring. One major problem within both traditional and non-traditional mentoring is that programs frequently accept the existing research at face-value, without asking critical questions. An array of questions regarding mentoring and higher education remain unanswered. First, what is the frequency of spontaneous or informal mentoring in higher education? Second, how and to what degree does mentoring contribute to academic success? What mentoring tasks are most significant to academic achievement (Jacobi, 1991)? These unanswered questions also show that the research on mentoring is lacking. Jacobi’s assertion that there is no research on how mentoring actually improves academic achievement is valid. Most of the research and articles on mentoring in higher education draw from the business mentoring literature. While connections between the organizational and educational research might help draw theoretical conclusions, the external validity in these articles becomes extremely weak due to the misapplication of research.

Even among the methodologically sound articles, only one article to date has performed empirical research on peer mentoring (Grant-Vallone & Ensher, 2000). The studies that have looked at peer mentoring relationships concentrate on the same theoretical and qualitative evidence that most mentoring literature makes use of. The lack of research on peer mentoring might be due to two factors: (a) it is a relatively new
concept that is only beginning to be discovered; or, (b) peer mentoring is not considered as traditional mentoring. The first reason is a relatively simple explanation for the deficiency in the literature. As more and more higher education programs start to implement programs where students offer advice and guidance to their peers in a formal setting, more research will begin to unfold. However, this research will not become more available until programs start defining what peer mentoring is, and if they fall into that particular category. The second issue is more complicated. Despite the variability in definitions of mentoring, most literature agrees that a mentor is an individual who is much more experienced and older than the mentee. Peer mentoring, by its very nature, does not meet that criterion.

While every study of this type calls for further research, many authors in this field of mentoring are calling for further research on the research. Since the definition of mentoring usually identifies a specific population, most of the research on mentoring is inclusive only of that specific population. Moreover, the majority of organizations and universities who conduct this research draw from a very small sample. As we know, sampling a very small, homogenous group is detrimental to external validity. The effects of not having any external validity have been shown numerous times; one example includes the many studies that are based on Levinson et al.’s (1978) mentoring research. Because his population of seventy White males cannot be generalized to other populations, subsequent research has most likely been confounded by this bias. The reliability of mentoring research is questionable in another way. Before administering Likert scales or other types of questionnaires to the mentors and mentees, the reliability of the scales should be assessed. Few, if any, research articles on mentoring have mentioned the reliability, or given the alpha coefficients, of their scales.

There are potentially two solutions to these methodological problems. First, do not restrict the sample to the particular program being studied. Research should include both experimental and control groups when possible. When not feasible or applicable, the research design should sample mentoring populations from different institutions. Not only will this allow for more diversity within the study, it may also allow for random sampling. Second, the actual testing process should be reevaluated. Questionnaires should be tested for reliability and validity. Both qualitative and quantitative methods should be used simultaneously to gain a better perspective from the participant. Additionally, interviews with the mentors and mentees individually, focus groups, and observations of the mentoring relationship should be conducted (Jacobi, 1991).

Mentoring programs and research must be inclusive of women
and minorities. After reviewing the literature, there appears to be an even greater need for research on gender in the academic setting than previously thought. Even though there is greater knowledge about the benefits of mentoring, less is known about college women's experiences with mentoring (Packard, et al 2004). Authors are beginning to demand that higher education embrace tactics and procedures to mentor women (Cullen & Luna, 1993). Because of the emphasis on publication productivity, research production, and success in higher education, the shortage of women in mentoring relationships places women in higher education at a distinct disadvantage (Paterson & hart-Wasekeesikaw, 1994). Because of this disadvantage, college women in particular profit from mentoring relationships. This is because mentors increase the acknowledgement of their presence, help with their competitive vanguard, and enhance success in an environmental context where women are traditionally overlooked for opportunities (Packard et al., 2004).

For formal mentoring programs, it is important for the administrators to organize their programs to include mentees from underrepresented populations. Pope (2002) suggests that administrators start long-term planning for multiple forms of mentoring that are conducive to effective mentoring for underrepresented populations of students. He asserts that administrative support will promote academic success and lead to support from all levels of the university. As part of administrative support, the academic counselors who pair mentees with mentors must be aware that students from different backgrounds and cultures may react in a different way to the interview; this type of academic counseling has increased the counselors' level of cultural awareness and increased the number of minority students who seek out mentoring from their universities (Frisz, 1999).

An important suggestion on this author's part is to also include sexual minorities into the minority mentee category. Sexual minorities are rejected by the dominant culture for many of the same reasons other minority populations are rejected—it is a constant power struggle for sexual minorities to be included in a society that tends to disallow individuals who do not fit into the “acceptable” social norm; which, in this case, is a heterosexual ideal that prescribes masculinity for men and femininity for women. Mentors and mentees who follow these specific assumptions may feel uncomfortable working in a mentoring relationship with a sexual minority. Training and education appear to be two of the best suggestions regarding this issue. However, until this can occur, Williams (1998) suggests that gay and lesbian faculty should develop mentoring skills for gay, lesbian, bisexual, and transgendered students. Mentoring GLBT college students is particularly important because a
delayed adjustment, combined with feelings or shame, unworthiness, and social rejection, may put many of these students in the academic “at-risk” category (Minns, 2005).

Programs must be restructured in order to become more effective. Another widely discussed problem within the literature regards the training of the mentors. While training cannot be systematically required for informal, non-traditional mentors, formal mentoring programs should have an extensive training plan in place before their programs even begin. Many programs already require training for their mentors; however, programs that do not train their mentors need to implement training before any effective mentoring can occur (Grant-Vallone & Ensher, 2000; Mee-lee & Bush, 2003; Packard, 2003; Quinn et al., 2002; Yates, Cunningham, Moyle, & Wollin, 1997). One of the first suggestions for training is to have a considerable orientation before the mentors meet their mentee(s). The mentor should be provided with a handbook that includes administrative expectations, answers to frequently asked questions, and strategies to help the mentee within the relationship. This orientation should also include a significant amount of time for mentors to ask questions about their role in, and expectations of, the mentoring relationship. Additionally, a time for meetings, weekly or bi-monthly, should be set at this point as well. These weekly or bi-monthly meetings may be one of the most important aspects of mentor training. Many mentors are unaware of the expectations they have for mentoring—frequently, mentors will need guidance when certain issues surface in the relationship. When asked about their training, mentors reported wanting more training concerning the activities appropriate for mentoring (Rutherford & Matlou, 1998). Weekly meetings are beneficial to mentors because the issues that they want to talk about will be fresh in their minds and they can receive feedback from their peers as well. This also benefits the other mentors in the event that a similar situation arises with their mentees. In end-of-semester reports, peer mentors related their initial uncertainty with the program due to a lack of frequent mentor meetings; the mentors indicated that they would have profited from meeting together as a group more regularly and that meeting individually with a project team member would have been beneficial (Yates et al., 1997).

The program director should also design training sessions around diversity issues or at least provide an open forum to discuss diversity issues during the weekly meetings. Whether he or she decides to do this training during the orientation or during a weekly meeting, it is important to discuss mentoring in relation to minorities and gender dynamics. According to Pope (2002), mentors need to be able to provide as much
support as possible to their mentees; incorporating diversity issues into training can help mentors to be more conscious of the concerns and needs of the mentees.

A second recommendation is to have the mentors provide progress reports every time, or every other time, the mentor and the mentee meet. A high-quality reporting system, which includes mentor reports from the mentoring sessions and feedback from students and mentors, would assist the mentors to expand recognition, as well as to encourage program evaluation and improvement of the program itself (Mee-lee & Bush, 2003).

Frequent meetings and convenient meeting times are a third recommendation for mentoring programs. The low attendance rate for some mentoring programs has been attributed to the time of day sessions are set. If the sessions are set too early in the day, it is possible attendance rates will drop. It was also suggested that sessions should be shorter and offered more frequently (Yates et al., 1997). In fact, in a study conducted by Miller and Packham (1999), a regression analysis revealed that there is a strong positive relationship between the number of sessions attended by a student and improved academic performance.

**Conclusion**

Despite mentoring being proclaimed as an excellent source of guidance, programs in higher education still have a long way to go before the value of mentoring can be understood. Reconceptualizing mentoring as a holistic process that includes the perspectives of many different individuals can assist mentoring programs in improving their effectiveness. Because the very essence of mentoring includes guidance and support, it is counterintuitive to ignore the limitations of some traditional mentoring. Acknowledging that there is room for improvement within the mentoring paradigm is the first step for actual change within the system.

**References**


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