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## The Moderating Effect of Gender Differences between Mentoring and Individuals' Career

### L'EFFET MODÉRATEUR DES DIFFÉRENCES DE SEXE ENTRE LE MENTOR ET LA CARRIÈRE INDIVIDUELLE

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**Abstract:** This study was conducted to examine the effect of mentoring program and gender differences on individuals' career using 153 usable questionnaires gathered from employees who work in one public university in Sarawak, Malaysia. Outcomes of hierarchical regression analysis showed two important findings: firstly, interaction between formal mentoring and gender differences positively and significantly correlated with individuals' career. Secondly, interaction between informal mentoring and gender differences positively and significantly correlated with individuals' career. This result confirms that gender differences do act as a

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moderating variable in the mentoring model of the organizational sample. In addition, implications and discussion are elaborated.

Keywords: Formal Mentoring; Informal Mentoring; Gender Differences; Individuals' Career

**Résumé:** Cette étude était conduite à examiner l'effet du programme de mentor et des différences de sexe sur la carrière individuelle, en utilisant 153 questionnaires utilisables recueillis de salariés qui travaillent dans une universitaire publique à Sarawak en Malaisie. Les résultats de l'analyse de la régression hiérarchique montre deux conclusions importantes : d'bord, interaction entre le mentor officiel et les les différence de sexe mises en corrélation positive et significative avec la carrière individuelles. Deuxièmement, interaction entre le mentor familier et les différence de sexe mises en corrélation positive et significative avec la carrière individuelles. Cet résultat confirme que les différences de sexe agit certainement comme une variable modératrice dans le modèle de mentor de l'échantillon organisateur. En plus, les implications et les discussions sont élaborées.

Mots-Clés: mentor officiel; mentor familier; différences de sexe et carrière individuelle

### 1. INTRODUCTION

Mentoring is traditionally viewed as an important field of education (Johnson et al., 1991) and/or counseling (Gregson, 1994) whereby mentors are old man who have wisdom and can be trusted to educate young man who have little experience (Johnson et al., 1991; Kram, 1985; Russell & Adams, 1997; Wanguri, 1996). It has inspired organizational development scholars to generally interpret the concept and practice of mentoring programs inline with the development of the current organization (Dennison, 2000; Northcott, 2000; Oliver & Aggleton, 2002).

In an organizational context, mentoring is often viewed as a method of training and development program that can be used to increase group and/or individuals' potentials to carry out particular duties and responsibilities, familiarize with new techniques, and care all aspects of mentees (Hanford & Ehrich, 2006; Johnson et al., 1991; Long, 2002). Mentoring models have been designed and administered based on differences and uniqueness of an organization in terms of believes, orientations, stresses, strengths and weaknesses (Hawkey, 1997; Irving et al., 2003; Ritchie & Conolly, 1993; Ritchie & Genoni, 1999). These factors have affected the implementation of mentoring type whether formal and/or informal mentoring activities in organizations (Chao et al., 1992; Murray, 1991; Ragins & Cotton, 1993, 1999). Formal mentoring program is often viewed as the structured and coordinated relationship between mentor and mentee, using standard norms, continuously action plans, time frame, and particular objectives (Bahniuk & Hill, 1998; Hansford et al., 2003; Noe et al., 2002). Specifically, this mentoring program has salient characteristics: first, mentor is defined as a more knowledgeable and experienced person (e.g., senior staff) whereas mentee is defined as a less knowledgeable and experienced person (e.g., junior staff) (Kram, 1985; Dreher & Cox, 1996; Noe et al., 2002). Second, mentors should act as role models, teaches, sponsors, encourages, counsels, and befriends to mentees in order to increase individuals' new knowledge, up to date skills and positive attitudes (Anderson & Shannon, 1988; Kram, 1985; Levinson et al., 1978). Third, they are regularly assigned to encourage group and/or individual activities within a defined period of time (Ritchie & Connolly, 1993; Ritchie & Genoni, 1999). Conversely, informal mentoring is often seen as the process and systems of relationship between mentors and mentees to achieve specific demands, spontaneous and adhoc. This mentoring program is widely

implemented to complement and strengthen formal mentoring programs (Goldstein & Ford, 2002; Ragins, 1997, 1999). If both mentoring programs are properly managed they may lead employees to achieve organizational strategies and goals (Friday & Friday, 2002; Ismail et al., 2007; Lindenberger & Zachary, 1999; Irving et al., 2003).

Extant research in this area shows that the ability of managers to properly design and administer mentoring programs may have a significant impact on individuals' career development (Allen et al., 2005; Hegstad & Wentling, 2005; Niehoff, 2006; Okurame & Bologun, 2005). Many scholars, such as Kram (1985), Kram & Bragar (1991), Baugh & Scandura (1999), Hunt & Michael (1983) and Ragins & Cotton (1999) highlight that career development is often viewed as helping individuals to acquire the skills and experiences needed to perform current and future jobs, give advice, increase the ability of individuals to positively influence others, and protect individuals' dignities from affected by negative environments. In a mentoring program model, many scholars think that the ability of mentors and mentees to use comfortable interactional styles, such as communication openness, respect, accountable, honest, respect and active participation may lead to increased individuals' career (Scandura, 1992; Chao et al., 1992; Ragins & Cotton, 1993, 1999).

Surprisingly, a thorough review of such relationships reveals that effect of mentoring program on individuals' career is not consistent if gender differences play positive roles in mentorship (Ragins & Cotton, 1993, 1999; Scandura & Williams, 2001). Several scholars, such as Ragins, (1997, 1999), Ragins and Cotton (1993, 1999), and Young et al. (2006) describe gender differences as the interaction between cross-gender in mentorship, such as the interaction between male mentor-female protégé and female mentor-male protégé in mentoring programs (Allen et al., 2005; Gaskill, 1991; Lyon et al., 2004). Interaction between cross gender in formal and/or informal mentoring programs is often done through building good contacts, exchanging personal and work problems in friendly situations, social support, role modeling and acceptance. These practices may create comfortable relationship between mentors and mentees in doing mentoring activities (Baugh & Scandura, 1999; Lyon et al., 2004; Scandura & William, 2001; Ragins & Cotton, 1993, 1999).

In a mentoring system framework, many scholars think that mentoring program, gender differences and individuals' career are distinct constructs, but highly interrelated. For example, the willingness of mentors and mentees to cooperate in the implementation of formal and/or informal mentoring programs will increase individuals' careers if gender differences can implement comfortable interactional styles, such as communication openness, active participation, support, respect, accountability and honest (Allen et al., 2005; Hegstad & Wentling, 2005). Even though numerous studies have been done, little is known about the moderating role of gender differences in mentoring program literature (Allen & Eby, 2004; Okurame & Balogon, 2005; Niehoff, 2006). Many scholars reveal that gender differences in mentoring programs has been less emphasized because previous studies over emphasize on a segmented approach and direct effects model in analyzing mentoring programs, as well as given less attention on the significance of gender role in developing mentoring program models. As a result, findings of such studies have neglected to focus on gender's view in influencing inconsistent results of mentoring programs (Allen & Eby, 2004; Hegstad & Wentling, 2005; Niehoff, 2006; Okurame & Balogun, 2005).

Therefore, this study was primarily conducted to examine two major objectives: first, effect of formal mentoring and gender differences on individuals' career. Finally, effect of informal mentoring and gender differences on individuals' career.

### 2. METHODS AND MATERIALS

Most previous studies used a direct effects model to investigate general mentoring programs in Western organizations using different samples, such as 510 first-line bank managers (Okurame & Balogun,

2005), and 194 practicing veterinarians (Niehoff, 2006). These studies found that properly implemented formal and informal mentoring activities (e.g., friendship, social support, role modelling, acceptance and participation) had been a determinant of individuals' career (Okurame & Bologun, 2005; Niehoff, 2006). Further, recent studies used an indirect effect model reveal that the moderating effect of gender differences in mentoring program of the UNIVSARAWAK gains a strong support from mentoring research literature mostly published in Western countries. For example, two studies about formal mentoring program were conducted based on different samples, such as fortune 500 companies in US (Hegstad & Wentling, 2005), and 600 members of a professional women's business association in US (Allen & Eby, 2004). In addition, another study on informal mentoring program was conducted in Southeastern healthcare organization based on a sample of 560 employees (Allen et al., 2005). These studies found that the willingness of gender differences to implement comfortable interaction styles in formal and informal mentoring activities (e.g., create a match relationship, no interpersonal communication barriers, cooperation and active participation in decision making) had been a major predictor of individuals' career in the organizations (Allen & Eby, 2004; Allen et al., 2005; Hegstad & Wentling, 2005).

These findings are consistent with the notion of organizational behaviour theory, namely Byrne & Griffitt (1973) similarity-attraction paradigm, and Bowlby (1969) attachment theory. In general, theories state that individuals who practice good interactional styles in planning and administering activities may affect individuals' advancement, especially career (Bowlby, 1969; Byrne & Griffitt, 1973; Turban et al., 2002; Young et al., 2006). Specifically, similarity-attraction paradigm (Byrne & Griffitt (1973) explicitly highlights that the integration of similarity, attractiveness, and liking are important determinants of effective human relationships in the workplace (Berscheid, 1994; Sprecher, 1998). Application of this theory in a mentoring program model shows that individuals who can do work cooperatively, communicate openly and clearly, and interact on social issues positively will positively motivate mentees' perceptions that they have similar values to mentors, high satisfaction with mentors and close contact with mentors. As a result, it may lead to increased individuals' career (Turban et al., 2002).

Attachment Theory (Bowlby, 1969) states that our ability to develop and maintain relationships begins at a very early age based on our attachment to a parent or primary caretaker. In relation to a mentoring program, this theory may be used to explain how and why some mentors and mentees feel more comfortable to keep a professional relationship and/or develop a personal bond (Ainsworth et al., 1978; Young et al., 2006). Application of this theory in a mentoring program framework shows that comfortable interaction between mentors and mentees who have same and/or different genders will positively motivate mentees' perceptions that they feel high security, trust and belongingness in mentoring activities. Consequently, it may lead to enhanced individuals' career (Allen et al., 2005; Scandura & Williams, 2001; Young et al., 2006).

The literature has been used as foundation to develop a conceptual framework for this study as shown in Figure 1.

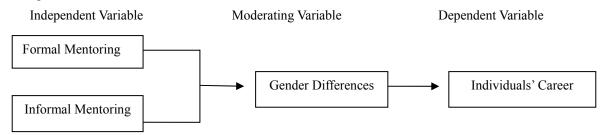


Figure 1. Gender Differences Moderates the Relationship between Formal Mentoring and Individuals' Career

Based on the framework, it seems reasonable to assume that the properly implemented formal

mentoring programs will influence UNIVSARAWAK employees as this practice influences Western employees. Further, organizational behavioral theory suggests that properly implemented formal mentoring programs will increase individuals' career if gender type can properly practice good interaction styles in mentoring activities. Therefore, it was hypothesized that:

- H1: Gender differences positively moderates the relationship between formal mentoring and individuals' career.
- H2: Gender differences positively moderates the relationship between informal mentoring and individuals' career

This study used a cross-sectional research design that allowed the researchers to integrate literature review, in-depth interviews, pilot study and survey questionnaires as a main procedure to gather data for this study. As supported by many researchers, the use of such methods may gather accurate and less bias data (Cresswell, 1998; Sekaran, 2000) and it allows the researcher to create differences among variables being studied. In-depth interviews were first conducted involving four experienced employees, namely two experienced human resource staffs, and two experienced academic staffs who work in the studied organization. They were selected based on a purposive sampling where the selected employees have working experiences more than seven years in the organization. Information gathered from such employees helped the researchers to understand the nature of mentoring program, the role of gender type in mentorship, and individuals' career characteristics, as well as the relationship between such variables in the studied organizations. After refining, categorizing and comparing the information with the related literature review, the triangulated information was used as a guideline to develop the content of survey questionnaires for a pilot study. Next, a pilot study was conducted by discussing pilot questionnaires with four employees who work in the organization. Their feedbacks were used to verify the content and format of questionnaires for an actual survey. Back translation technique was used to translate the content of questionnaires in Malay and English in order to increase the validity and reliability of the instrument (Hulland, 1999; Van Maanen, 1983).

The survey questionnaires had four sections. First, formal mentoring had 4 items that were modified from mentoring management literature (Bisk, 2002; Hansford & Ehrich, 2006; Hansford et al., 2003). Second, informal mentoring had 4 items that were modified from mentoring management literature (Bisk, 2002; Chao et al., 1992; Kram, (1985) and Ragins & Cotton (1993, 1999). Third, gender differences had 4 items were modified from mentoring program literature (Gaskill, 1991; Ragins & McFarlin, 1990). Finally, career had 4 items that were modified from career development literature (Allen & Eby, 2004; Hegstad & Wentling, 2005; Levesque et al., 2005). These items were measured using a 7-item scale ranging from "very strongly disagreed/dissatisfied" (1) to "very strongly agreed/satisfied" (7). Demographic variables were used as controlling variables (i.e., gender, age, education, length of service, position and division) because this study focused on employee attitudes.

The unit of analysis for this study was 1456 employees who work in one public university in Sarawak, Malaysia (UNIVSARAWAK). In a data collection, HR manager did not provide the list of registered employees and did not allow the researchers to directly distribute survey questionnaires to employees who work in the organization. After considering this situation, a quota sampling was used to determine the number of sample based on the duration of study and budget constraints, which is 200 employees. Besides that, a convenient sampling technique was chosen to distribute survey questionnaires to employees because the researchers could not choose respondents randomly. Therefore, 200 survey questionnaires were distributed to employees who willing to answer survey questionnaires through contact persons (i.e., assistant HR manager, supervisors and/or heads of department/unit) in the organization. Of the number, 153 usable questionnaires were returned to the researchers, yielding a 76.5 percent response rate. The survey questionnaires were answered by participants based on their consent and a voluntary basis. A Statistical Package for Social Science (SPSS) version 15.0 was used to analyze the validity and reliability of the measurement scales and thus test the research hypotheses.

### 3. RESULTS AND DISCUSSIONS

Table 1 shows that most respondents were female (57.5 percent), male supervisor (56.9 percent), aged between 21 to 30 years (46.4 percent), STPM/Diploma holders (33.3 percent), staff who served less than 5 years (54.9 percent), non-academic staff (58.2 percent), and employees who worked in academic department (53.6 percent).

Tables 2 and 3 show the results of validity and reliability analyses for measurement scales. A factor analysis with direct oblimin rotation was first done for four variables with 16 items. After that, Kaiser-Mayer-Olkin Test (KMO) that is a measure of sampling adequacy was conducted for each variable and the results indicated that it was acceptable. Relying on Hair et al. (1998), and Nunally & Bernstein's (1994) guideline, these statistical analyses showed that (1) the value of factor analysis for all items that represent each research variable was 0.5 and more, indicating the items met the acceptable standard of validity analysis, (2) all research variables exceeded the acceptable standard of Kaiser-Meyer-Olkin's value of 0.6, were significant in Bartlett's test of sphericity, (3) all research variables had eigenvalues larger than 1, (4) the items for each research variable exceeded factor loadings of 0.50 (Hair et al., 1998), and (5) all research variables exceeded the acceptable standard of reliability analysis of 0.70 (Nunally & Bernstein, 1994). These statistical analyses confirmed that the measurement scales met the acceptable standard of validity and reliability analyses.

Table 3 shows the results of Pearson correlation analysis and descriptive statistics. Means for all variables are between 4.8 and 5.6, signifying the levels of formal mentoring, informal mentoring, individuals' career and gender differences ranging from high (4.0) to highest level (7.0). The correlation coefficients for the relationship between the independent variable (i.e., formal mentoring and informal mentoring) and the dependent variable (i.e., individuals' career), and relationship between the independent variable (i.e., formal mentoring and informal mentoring) and moderating variable (i.e., gender differences) were less than 0.90, indicating the data were not affected by any serious collinearity problem (Hair et al., 1998).

A hierarchical regression analysis as recommended by Cohen & Cohen (1983) was used to measure the moderating effect of perceive value in the hypothesized model. Moderating effect is an interaction that shows the degree of relationship between the independent variables and dependent variables will change if other variables exist in the relationship (Cohen & Cohen, 1983; Jaccard et al., 1990). Results of an interaction are evident when the relationship between interacting terms and the dependent variable is significant. The fact that the significant main effects of predictor variables and moderator variables simultaneously exist in analysis it does not affect the moderator hypothesis and is significant to interpret the interaction term (Baron & Kenny, 1986). The results of testing research hypotheses are shown in Tables 5 and 6.

An examination of multicollinearity in the coefficients table in Table 5 shows that the tolerance value for the relationship between the independent variable (i.e., formal mentoring) and the dependent variable (i.e., individuals' career) was 0.39. While, the tolerance value for the relationship between the independent variable (i.e., formal mentoring), the moderating variable (i.e., gender differences) and the dependent variable (i.e., individuals' career) were 0.41. These tolerance values were more than tolerance value of .20 (as a rule of thumb), indicating the variables were not affected by multicollinearity problem (Fox, 1991; Tabachnick et al., 2001).

Table 5 shows the results of testing research hypothesis are shown in Step 3. The interacting terms (gender differences x formal mentoring) positively and significantly correlated with individuals' careers (B=.38, p>0.001), therefore H1 was supported. The inclusion of gender differences in Step 3 had decreased the effect of formal mentoring on individuals' career from Step 2 (B=.39, p<0.001) to Step 3 (B=.33, p<0.001), accounting for 36 percent of the variance in dependent variable. Relying on the Baron & Kenny's (1986) moderating testing conditions, this result demonstrates that comfortably interactional styles between gender differences has moderated the effect of formal mentoring activities on individuals'

career in the organizational sample.

An examination of multicollinearity in the coefficients table in Table 6 shows that the tolerance value for the relationship between the independent variable (i.e., formal mentoring) and the dependent variable (i.e., individuals' career) was 0.48. While, the tolerance value for the relationship between the independent variable (i.e., informal mentoring), the moderating variable (i.e., gender type) and the dependent variable (i.e., individuals' career) were 0.32. These tolerance values were more than tolerance value of .20 (as a rule of thumb), indicating the variables were not affected by multicollinearity problem (Fox, 1991; Tabachnick et al., 2001).

Table 6 shows the results of testing research hypothesis are shown in Step 3. The interacting terms (gender differences x informal mentoring) positively and significantly correlated with individuals' career ( $\beta$ =.30, p<0.001), therefore H2 was supported. The inclusion of gender differences in Step 3 had decreased the effect of informal mentoring on individuals' career from Step 2 (B=.47, p<0.001) to Step 3 (B=.36, p<0.001), accounting for 36 percent of the variance in dependent variable. Relying on the Baron & Kenny's (1986) moderating testing conditions, this result confirms that comfortably interactional styles between gender differences has moderated the effect of informal mentoring activities on individuals' career in the organizational sample.

This study confirms that gender type does act as a moderating variable in the relationship between mentoring program and individuals' career in the studied organization. In the organizational context, formal and informal mentoring programs are done according to the university's policy and procedures. Majority employees perceive that mentors and mentees actively participate in formal and informal mentoring activities. Besides that, most employees perceive that gender differences comfortably interact in formal and informal mentorship activities. As a result, it may lead to enhanced mentees' careers in the organizational sample.

The implications of this study can be divided into three categories: theoretical contribution, robustness of research methodology and practical contribution. In terms of theoretical contribution, the findings of this study show that gender differences comfortably interact in formal and informal mentoring activities this will create conducive organizational climate, which allow communication openness, knowledge sharing and active participation styles in planning and managing organizational functions, such as human resource, finance, academic program, and physical facilities. Consequently, it may lead to increased individuals' career in the organization. This result is consistent with studies by Byrne and Griffitt (1973), Bowlby (1969), Allen & Eby (2005), and Hegstad & Wentling (2005). However this study has been conducted in a situation that differs from Western countries, its outcome has consistently supported and appreciated the significance of gender views in mentorship literature mostly published in Western countries.

With respect to the robustness of research methodology, the data gathered from compensation literature, the in-depth interviews, the pilot study and the survey questionnaires have exceeded a minimum standard of validity and reliability analysis. This situation may lead to the production of accurate and reliable findings.

In terms of practical contributions, the findings of this study can be used as a guideline by management to improve the design and administration of mentoring programs in organizations. These suggestions are: first, update learning content and method. For example, continuously training programs should focus on up to date knowledge, relevant skills and good moral values. If this training program is properly implemented through oral, skills and team based training method this can upgrade the capability of mentors to use proper treatments in handling mentees' needs and expectations. Second, encourage informal and formal participation styles. For example, mentees should be allowed to provide suggestions, comments and take part in planning and managing mentoring activities. If this aspect is properly given attention this will increase mentees' feelings of satisfaction, trust and acceptance about the programs. Third, improve mentoring activities. For example, mentoring activities should be diversified to cater mentees' needs and preferences, such as sport and camping. Willingness of mentors and mentees to properly implement such activities beyond office hours and outside office may

strengthen brotherhood, accountability and job motivation in the workplace. If these suggestions are heavily considered this may increase the capability of mentoring program to motivate individual employees to maintain and support organizational strategy and goals.

### 4. CONCLUSION

This study confirms that gender differences do act as a moderating role in the relationship between mentoring program and individuals' career. This result has supported previous studies and extended mentoring research literature mostly published in Western organizational settings. Therefore, current research and practice within mentoring program models needs to consider gender differences as a critical aspect of organizational mentoring program where properly implemented interaction styles between gender differences in mentoring programs may strongly increase positive subsequent attitudinal and behavioural outcomes (e.g., career, psychosocial, satisfaction, commitment, performance, trust, and ethics). Thus, these positive outcomes may lead individual employees to increased organizational competitiveness in a global economy.

### REFERENCES

- Ainsworth, M. D. S., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment*. Hillsdale, NJ: Lawrence Erlbaum.
- Allen, T. D., & Eby, L. T.. (2004). Factors related to mentor reports of mentoring functions provided: Gender and relational characteristics. *Sex Roles*, 50(1/2), 129-139.
- Allen, T. D., Day, R., & Lentz, E. (2005). The role of interpersonal comfort in mentoring relationships. *Journal of Career Development*, 31(3), 155-169.
- Anderson, E. M., & Shannon, A. L.. (1988). Toward a conceptualization of mentoring. *Journal of Teacher Education*, 39(1), 38-42.
- Bahniuk, M.H., & Hill, S.K.. (1998). Promoting career success through mentoring. *Review of Business*, 19 (3), 4-7.
- Baron, R. M & Kenny, D. A.. (1986). This moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Baugh, S.G., & Scandura, T.A.. (1999). The effect of multiple mentors on protégé attitudes the work setting. *Journal of Social Behavior and Personality*, 14(4) 503-522.
- Berscheid, E. (1994). Interpersonal relationships. Annual Review of Psychology, 45, 79-129.
- Bisk, L. (2002). Formal entrepreneurial mentoring: The efficacy of third party managed program. *Career Development International*, (7/5), 262-270.
- Bowlby, J.. (1969). Attachment and loss: Vol. 1. Attachment. New York: Basic Books.
- Byrne, D., & Griffitt, W. (1973). Interpersonal attraction. Annual Review of Psychology, 24, 317-336.
- Chao, G. T., Walz, P. M., & Gardner, P. D.. (1992). Formal and informal mentorships: A comparison on mentoring functions and contrast with non mentored counterparts. *Personnel Psychology*, 45, 619-636.
- Cohen, J. & Cohen, P.. (1983). Applied multiple regression/correlation analysis for the behavioural

sciences. Hillsdale, NJ: Erlbaum.

Cresswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. London: SAGE publications.

Dennison, S.. (2000). A win-win peer mentoring guidebook: A practical manual for designing and managing a mentoring program. Clemson, SC: National Droput Prevention Center.

Dreher, G. E, & Cox, T. H., Jr. (1996). Race, gender, and opportunity: A study of compensation attainment and the establishment of mentoring relationships. *Journal of Applied Psychology*, 8, 297-308. Fox, J. (1991). *Regression diagnostics*. Thousand Oaks, CA: Sage Publications.

Friday, E., & Friday, S.S.. (2002). Formal mentoring: Is there a strategic fit? *Management Decision*, 40 (2), 152-157.

Gaskill, L. R.. (1991). Same-sex and cross-sex mentoring of female proteges: A comparative analysis. *Career Development Quarterly*, 40(1), 48-64.

Goldstein, I.L., & Ford, J.K.. (2002). *Training in organizations*. Wadsworth: Thomson Learning. Gregson, K. (1994). Mentoring. *Employee Counseling Today*, 6 (4), 26-7.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C.. (1998). *Multivariate Data Analysis* (5<sup>th</sup> ed.). New Jersey: Prentice Hall International.

Hansford, B., & Ehrich, L. C.. (2006). The principalship: How significant is mentoring? *Journal of Educational Administration*, 44(1), 36-52.

Hansford, B., Tennent, L., & Ehrich, L. (2003). Educational mentoring: Is it worth the effort *Educational Research & Perspectives*, 30(1), 42-75.

Hegstad, C. D., & Wentling, R. M. (2005). Organizational antecedents and moderators that impact on the effectiveness of exemplary formal mentoring programs in fortune 500 companies in the United States. *Human Resource Development International*, 8(4), 467-487.

Hawkey, K.. (1997). Roles, responsibilities, and relationships in mentoring: A literature.

Hulland, J. (1999). Use of partial least square (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20 (2), 195-204.

Hunt, D.M., & Michael, C. (1983). Mentoring a career training and developing tool. *Academy of Management Review*, 8, 475-85.

Irving, E.S., Moore, W. D., & Hamilton, R. J. (2003). Mentoring for high ability school students. *Education and Training*. 45(2), 100-109.

Ismail, A., Abu Bakar, R., Abg Abdullah, S.N.M., Maja, A., Guatleng, C.O., & Abdullah, M.M.. (2007). Peranan Program Mentoring Dalam Pembangunan Pelajar: Satu Kajian Di Sebuah Universiti Awam Di Malaysia Timur. This paper was published in the proceeding of *ASEMAL5*, 18-19 August 2007, The Legend Hotel, Kuala Lumpur.

Jaccard, J., Turrisi, R., & Wan, C.K.. (1990). *Interaction effects in multiple regression*, 72. Newsbury Park, California: SAGE Publications, Inc.

Johnson, S.K., Geroy, G.D., & Griego, O.V.. (1991). The mentoring model theory: dimensions in mentoring protocols. *Career Development International*, 4 (7), 384-391.

Kram, K. E. (1985). *Mentoring at work: Developmental relationships in organizational life*. Glenview, IL: Scott Foresman.

Kram, K.E., & Bragar, M.C.. (1991). Career development through mentoring. A strategic approach for the 1990s. *Mentoring International*, 5, 1-2.

Levesque, L. L., O'Neill, R. M., Nelson, T., & Dumas, C. (2005). Sex differences in the perceived importance of mentoring functions. *Career Development International*, 10(6/7), 429-443.

Levinson, D. J., Darrow, C. N., Klein, E. B., Levinson, M. H. & McKee, B. (1978). *Seasons of a man's life*. Englewood Cliffs, NJ: Prentice-Hall.

Lindenberger, J.G., & Zachary, L.J.. (1999). Play "20 Questions" to develop a successful mentoring program. *Training & Development*, 53 (2), 12-14.

Long, S. (2002). Mentoring: A personal reflection. New Library World, 103 (1174), 94-97.

Lyon, J. M., Farrington, P., & Westbrook, J. (2004). Mentoring of scientists and engineers: A Comparison of gender. *Engineering Management Journal*, 16(3), 17-25.

Merriam, S.. (1993). Mentors and proteges: A critical review of the literature. *Adult Education Quarterly*, 33 (3), 161-73.

Murray, M.. (1991). Beyond the myths and magic of mentoring: How to facilitate an effective mentoring program. San Francisco, CA: Jossey-Bass.

Niehoff, B. P.. (2006). Personality predictors of participant as a mentor. *Career Development International*, 11(4), 321-333.

Noe, R. A. (1988). An investigation of the determinants of successful assigned mentoring relationships. *Personnel Psychology*, 41(3), 457-479.

Noe, R. A., Greenberger, D. B., & Wang, S. (2002). *Mentoring: What we know and where we might go.* New York: Elsevier Science.

Northcott, N.. (2000). Mentoring in nursing. Nursing Management, 7 (3), 30-2.

Nunally, J. C. & Bernstein, I. H. (1994). Psychometric Theory. New York: McGraw Hill.

Okurame, D. E., & Balogun, S. K.. (2005). Role of informal mentoring in the career success of first-line bank managers. *Career Development International*, 10(6/7), 512-521.

Oliver C., & Aggleton, P. (2002). *Mentoring For Professional Development in Health Promotion: A Review of Issues Raised By Recent Research*, Institute Of Education, UK. Universiti of London. 102 (1), 30-38.

Ragins, B. R.. (1997). Diversified mentoring relationships in organizations: A power perspective. *Academy of Management Review*, 22, 482-521.

Ragins, B. R.. (1999). Gender and mentoring relationships. Thousand Oaks, CA: Sage.

Ragins, B. R. & Cotton, J. L. (1993). Gender and willingness to mentor in organizations. *Journal of Management*, 19, 97-111.

Ragins, B. R., & Cotton, J. L.. (1999). Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships. *Journal of Applied Psychology*, 84, 529-550.

Ragins, B. R., & McFarlin, D. B. (1990). Perceptions of mentor roles in cross-gender mentoring relationships. *Journal of Vocational Behavior*, 37, 321-339.

Ritchie, N., & Connolly, M.. (1993). Mentoring in public sector management: Confronting accountability and control. *Management Education and Development*, 24 (3), 253-71.

Ritchie, A., & Genoni, P.. (1999). Mentoring in professional associations: Continuing professional

development for librarians. Health Libraries Review, 16, 216-225.

Russell, J.E.A., & Adams, D.M.. (1997). The changing nature of mentoring in organizations: An introduction to the special issue on mentoring in organizations. *Journal of Vocational Behavior*, 51, 1-14.

Scandura, T. A.. (1992). Mentorship and career mobility: An empirical investigation. *Journal of Organizational Behavior*, 13, 169-174.

Scandura, T. A., & Williams, E. A.. (2001). An investigation of the moderating effects of gender on the relationships between mentorship initiation and protege perceptions of mentoring functions. *Journal of Vocational Behavior*, 59, 342-363.

Sekaran, U.. (2000). Research methods for business: A skill building approach. New York: John Wiley & Sins, Inc.

Sprecher, S. (1998). Insiders' perspectives on reasons for attraction to a close other. *Social Psychology Quarterly*, 61, 287-300.

Tabachnick, B.G., Barbara, G., & Fidell, L.S.. (2001). *Using multivariate statistics*. Sydney: Allyn & Bacon.

Turban, D. B., & Dougherty, T. W. (1994). Role of protégé personality in receipt of mentoring and career success. *Academy of Management Journal*, 37, 688-702.

Turban, D. B., Dougherty, T. W., & Lee, F. K.. (2002). Gender, race and perceived similarity effects in developmental relationships: The moderating role of relationship duration. *Journal of Vocational Behavior*, 61, 240-262.

Van Maanen, J.. (1983). Qualitative methodology. Beverly Hills, CA: SAGE Publications.

Wanguri, D.M. (1996). Diversity, perceptions of equity, and communicative openness in the workplace. *The Journal of Business Communication*, 33 (4), 443-57.

Young, A. M., Cady, S., & Foxon, M. J. (2006). Demystifying gender type in mentoring: Theoretical perspectives and challenges for future research on gender and mentoring. *Human Resource Development Review*, 5(2), 148-175.

Table 1. Respondent Characteristics (N=153)

Gender (%)	Age (%)	Length of Service (%)
Male=42.5	21 to 30 years old=46.4	0 to 5 years=54.9
Female=57.5	31 to 40 years old=39.2	6 to 10 years=22.2
Supervisor's Gender (%)	41 to 50 years old=9.8	11 to 15 years=13.7
Male=56.9	More than 51 years old=4.6	More than 16 years=9.2
Female=29.4	Academic Qualification (%)	Position (%)
Male and Female=13.7	PMR=0.7	Academic Staff=41.8
(More than one Supervisor)	SPM=22.9	Non-Academic Staff=58.2
	STPM/Diploma=33.3	Division (%)
	Degree/Bachelor=15.0	Academic Department=53.6
	Master Degree=18.3	Non-Academic Department=46.4
	PhD/Doctor of Philosophy=9.8	_

Note:

PMR : Lower Certificate of Education

SPM/MCE : Sijil Pelajaran Malaysia/ Malaysia Certificate of Education STPM : Sijil Tinggi Pelajaran Malaysia/ Higher School Certificate

Table 2. Item Validity

Variable	Table 2. Item Validity  Item	Component			
		1	2	3	4
Same	Enhance contact with			.872	
Gender	senior executives				
	Increase work performance			.856	
	Become a role model for others by setting good attitude,			.865	
	value and behavior			.005	
	Enhance enjoyable informal work exchange and other outside experiences			.957	
Cross Gender	Be propose for promotion				.773
3011401	Enhance enjoyable informal work exchange and other outside				022
	experiences				.833
	Enable the exploration of personal concerns				.923
	Feel supported and encouraged through positive interaction				.763
Formal	I prefer to have a say in formal discussion		.782		
Mentoring			.762		
	Participation in formal discussion is a good mechanism for overcome daily job problems		.849		
	Participation in formal discussion helped to improve my		.836		
	confidence while working Participation in formal discussion is important for sharing				
	ideas		.818		
Informal	I prefer to have a say in informal discussion			.771	
Mentoring				.,,1	
	Participation in informal discussion is a good mechanism for overcome daily job problems			.676	
	Participation in informal discussion helped to improve my confidence while working			.774	
	Participation in informal discussion is important for sharing			.840	
	ideas I think that informal gathering helped to enhance sense of				
	belonging among workers			.831	
Individuals' Career	My immediate boss/supervisor gave me assignments that prepare me for a higher position	.750			
Carcer	My immediate boss/supervisor suggested specific strategies	.764			
	to accomplish work objectives	./04			
	My immediate boss/supervisor exchanged experiences with me to improve job problems in the workplace	.674			

Table 3. The Validity and Reliability Analyses for Measurement scales

Measure	Items	Factor	KMO	Bartlett's	Eigenvalue	Variance	Cronbach
		Loadings		Test of		Explained	Alpha
				Sphericity			
Formal Mentoring	4	.7885	.80	389.78	2.95	73.79	.88
Informal Mentoring	4	.6884	.82	455.91	3.47	69.49	.89
Individuals' Career	4	.6795	.82	319.30	2.93	73.19	.88
Gender Differences	4	.7092	.79	383.68	3.04	76.04	.89

Table 4. Pearson Correlation Analysis and Descriptive Statistics

Variable	Mean	Standard Deviation	Pearson Correlation Analysis				
			1	2	3	4	5
1. Formal Mentoring	5.6	.98	1				
2. Informal Mentoring	5.3	1.08	.33**	1			
3. Gender Differences	4.8	1.14	.19*	.38**	.47**	1	
4. Individuals' Career	5.0	1.094	.42**	.50**	.50**	.45**	1

Note: Significant at \*0.05;\*\*0.01

Reliability estimation is shown in a diagonal (1)

Table 5. Result for Hierarchical Regression Analysis

Variables	Dependent Variable (Individuals' Career)				
	Step 1	Step 2	Step 3		
Control Variables	.08	.05	.09		
Gender	.00	.03	.09		
Supervisor's Gender	.12	.07	.05		
Age	27*	23*	18		
Academic Qualification	.00	.06	.13		
Length of Services	.23	.12	.08		
Position	.01	.04	.08		
Division	03	03	01		
Independent Variable		.39***	.33***		
Formal Mentoring		.39	.55***		
Moderating Variable			.38***		
Gender Differences x Formal Mentoring			.36***		
$\mathbb{R}^2$	.07	.28	.36		
Adjusted R <sup>2</sup>	.03	.25	.32		
R <sup>2</sup> Change	.07	.21	.08		
F	1.61	4.87***	8.45***		
F Change R <sup>2</sup>	1.61	25.77***	29.39***		

Note: Significant at \*0.05; \*\*0.01; \*\*\*0.001

Table 6. Result for Hierarchical Regression Analysis

Variables	Dependent Variable(Individuals' Career)				
Variables	Step 1	Step 2	Step 3		
Control Variables	.08	.08	.11		
Gender			.11		
Supervisor's Gender	.12	.09	.08		
Age	27*	20	17		
Academic Qualification	.00	.01	.08		
Length of Services	.23	.14	.11		
Position	.01	.03	.06		
Division	03	06	04		
Independent Variable		.47***	.36***		
Informal Mentoring		.4/	.30***		
Moderating Variable			.30***		
Gender Differences x Informal Mentoring			.30***		
$\mathbb{R}^2$	.07	.28	.36		
Adjusted R <sup>2</sup>	.03	.25	.32		
R <sup>2</sup> Change	.07	.21	.08		
F	1.61	7.16***	8.92***		
F Change R <sup>2</sup>	1.61	42.76***	16.72***		

Note: Significant at \*0.05; \*\*0.01; \*\*\*0.001

Editor: Ala Uddin