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A model for student mentoring in business schools

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Abstract

Purpose – The essence of management education lies in preparing and enabling the students to evolve cognitively, affectively and behaviorally into capable ones equipped to meet and manage challenges from within and outside their organisations or workplaces. Mentoring, as pedagogy, results in enhancing effectiveness of B-schools (Institutions offering MBA program) in ensuring the transformation of students into professionals. The purpose of this paper is to analyze and evaluate the formal and teacher-initiated student mentoring in B-schools in Kerala in terms of the designated activities, to establish effectiveness of mentoring as outcomes of faculty-related antecedents and mentoring activities, and to demonstrate the effectiveness in terms of the psycho-social changes of students.

Design/methodology/approach – This research employed a conclusive approach that combined the features of descriptive and explanatory research designs. The respondents of the study comprised 141 permanent teachers, 327 first-year students and 318 final-year students enrolled in the management programs of 19 B-schools in Kerala that had minimum five years of existence and approval of the All India Council of Technical Education (AICTE).

Findings – The study revealed that less than half of the B-schools had implemented a mentoring program as part of their pedagogy. A structural equation model using the partial least square technique validated the conceptual model and the findings revealed that socio-demographic characteristics, mentoring activities (teach the job, provide challenge, teach politics, career help, sponsor, career counseling and trust) influenced effectiveness of mentoring.

Research limitations/implications – The study was conducted only among B-schools, hence the research results may lack generalization. Therefore, researchers are encouraged to test the proposed model further.

Practical Implications – The paper includes a conceptual framework employed for bringing about effectiveness of mentoring, proven to be valid and may be considered by B-schools that are institutionalizing mentoring as an element of the pedagogy.

Originality/value – The paper bridges the perceptible lack of theoretical and empirical bases to explain the dynamics of student mentoring in management institutes in the country and will be an eye-opener to management institutions which have not incorporated mentoring as part of their pedagogy.

Keywords India, Business schools, Students, Mentoring, Curricula, Conceptual framework, Big-five personality, Mentoring activities, Mentoring effectiveness

Paper type Research paper

Introduction

Management ability, by virtue of its very nature and content, can be transferred experientially and hence management education has got to be essentially an interactive



process between the teacher and the taught. Management and B-schools (business schools offering an Master of Business Administration (MBA) program in Kerala, southern India) provide a learner-centered environment wherein the students participate alongside the faculty in learning. Mentoring is considered as an established management development intervention and an important resource for learning and coping with organizational change (Rigsby *et al.*, 1998). It is an important training and development tool in the academic literature of Hunt and Michael (1983). Generally young people are expected to be “work ready” when they enter employment. Mentoring activities in B-schools become significant in this scenario wherein teachers prepare young people for employment. It supports professional growth and renewal, which in turn empowers faculty as individuals and colleagues (Boice, 1992). Faculty involved in mentoring are more likely to have opportunities to develop not only professionally (career orientation) but personally as well (psycho-social needs) over their span of careers (Kram, 1986). A mentor may be regarded as a highly resourceful person who is organized, rich in skills and experience, knowledge, attitude and willingness to impart his qualities to the younger generation. Mentors play many roles in the life of a protégé guide, counselor, advisor, consultant, tutor, teacher and guru (Nachimuthu, 2006) are just some of the functions a mentor might perform. It is only logical to expect the teacher mentors to differ in their levels of effectiveness as mentors. Differences in the levels of effectiveness of teachers as mentors and explanations for such variations are of value to academics and mentor teachers as this information can form the basis for molding a team of resourceful teachers and trainers in management education. Jacobi (1991), however, is convinced of the lack of theoretical or conceptual and empirical bases to explain the proposed links between mentoring, academics and career success of graduates.

Review of literature

Mentoring is a means of individualizing a student's education by allowing or encouraging the student to connect with a college staff experienced in a particular field and having a particular set of skills. Lester and Johnson (1981) envelope the holistic nature of mentoring by saying that mentoring is a one-to-one learning relationship between an older person and a less experienced person based on a modeling of behavior and extended dialogue between them.

The relationship has formal and informal aspects, which give greater significance to the contact between the two persons involved (Lester and Johnson, 1981). It has been construed as a relationship-centered transaction between two people with learning and development as its purpose (Megginson and Garvey, 2004). It is an encouraging and empowering intervention, which has attracted the attention of trainers, educators and policy makers interested in initial preparation and continuing professional development. Within colleges and universities, planned mentoring is being used to improve retention and graduation rates among demographically underrepresented students, faculty and administrators (Redmond, 1990; Ross-Thomas and Bryant, 1994; Shultz *et al.*, 2001). Mentoring among undergraduates and graduate students is also being encouraged to improve student's levels of academic achievements, assist at-risk students and promote growth in graduate programs and the professoriate (Jaccobi, 1991; Waldeck *et al.*, 1997). According to Clutterbuck (1992), mentoring in higher education has become the subject of intense academic study and widespread experimentation.

Mentoring may assist the development of the mentor but is primarily meant for the mentee, and the mentee's aspiration is crucial to mentoring (Caruso, 1996). The mentor must also embody values, aspirations, wisdom and strength that the student respects

and perhaps wishes to attain (Kram and Isabella, 1985). Alleman (2002) defines a “mentor” as a person with greater rank, experience and/or expertise who teaches, counsels, inspires, guides and helps another person to develop both personally and professionally. Typically, mentors are experienced individuals committed to facilitating upward mobility and providing support for a protégé’s personal and professional development (Role, 1979; Klauss, 1981; Hunt and Michael, 1983; Kram, 1985; Noe, 1988). To succeed, the mentor and mentee must not be distanced by social difference. Through the mentoring relationship the mentee can achieve a modest targeted goal, already achieved by the mentor (Blackwell, 1989). Garrick and Alexander (1994) say a mentor is now defined as a person who takes, or is given the responsibility for another’s learning and general development. Kram and Isabella (1985) also claim that mentors must take enough care about the student to take time to teach, to show, to challenge and to support. In general, during mentoring, mentees identify with, or form a strong interpersonal attachment to their mentors; as a result, they become able to do for themselves what their mentors have done for them (Kram and Isabella, 1985).

Researchers have consistently found that the demographic characteristics of both mentor and protégé (i.e. age, gender, rank, experience and race) can affect perceptions of the mentoring relationship as well as its outcomes (Murray, 1991; Thomas, 1993; Turban and Dougherty, 1994; Mullen and Lick, 1999). Good mentoring is not accomplished easily. It depends on selection of mentors and how mentors and protégés are assigned and matched to each other, type of mentoring relationship and time allotted for mentoring (Little, 1990). While the value and quality of mentoring depends partly on the quality of the mentors, very few studies have examined personality predictors of the willingness to mentor (Niehoff, 2006). Allen and Eby (2003) found that a pro-social personality predicted the willingness to mentor others, and (Hunt and Michael, 1983) felt personality is a motivator of mentoring activity. The outcome of a mentoring relationship also depends on the relational quality of both participants. This relational quality encompasses the satisfaction with relationship, perceived benefits accrued to both individuals (i.e. mutuality) and relational depth (Hinde, 1981; Huston and Burgess, 1979; Kram, 1985). The extent to which the mentor and the protégé can communicate with one another is an important aspect of the relationship dimension as both mentors and protégés tend to use their relationship as a safe haven for gathering information (Hunt and Michael, 1983; Ostroff and Kozlowski, 1993; Mullen, 1994; Ensher and Murphy, 1997; Lankau and Scandura, 2002). Ambitious claims have been made of the actual or potential benefits of mentoring, such as the development of students or newly qualified staff into skilled professionals (Oliver and Aggleton, 2002).

Mentoring in higher education

Busch (1985) sampled a large number of professors working with graduate students in educational programs in state colleges and universities across the USA to study mentoring relationship from the mentor’s perspectives. Wilde and Schau (1991) explored the mentoring relationships in graduate schools of education from the perspectives of mentees. The results indicated that the students received both career and psychological aspects in their mentoring relationships. The mentees reported benefits, not only to themselves but also to their mentors in their relationships. The structure of mentoring was perceived differently by male and female students. Both the sexes reported strong occurrence of the psychological component of mutual support. There was age variation with regard to pervasiveness of career development. The older the student, the less professional development occurs in mentoring. Jadwick

(1997) measured the perceptions of effectiveness between faculty and protégés involved in formal mentoring relationships in higher education. The results revealed that faculty mentors and protégés' perception of effectiveness resulted in variety of findings for the six behavioral mentoring functions. Relationship emphasis and facilitative focus for faculty mentors and protégés resulted in effective mean scores; information emphasis and student vision mean scores of faculty mentors resulted in less effective mean scores while information emphasis and student vision mean scores of protégés resulted in effective mean scores. Faculty mentors and protégé mean score for confrontive focus resulted in less effective scores while the mentor-model mean score for faculty mentor and protégés revealed very effective scores.

Mentoring in management education

In business management and higher education literature, mentoring emerges as a highly promoted intervention (Kram, 1984). Mentoring programs attempt to bridge the gap between academic training and students' successful entry into the business world. It reflects an increased interest in the professional preparation of students (Cunningham, 1995) and training of managerial skills such as communication, conflict management, group management, motivation, self-awareness, career management and goal setting (Bigelow, 1995). Business schools have focussed more on the development of specific skills and competencies in the classroom rather than on the supervision of skills in an applied setting or the development of social skills and professional character through mentoring. In contrast to other professional schools, schools of business have traditionally focussed on the academic rather than the professional preparation of the students (Cunningham, 1995).

Significance of mentors' personal profile

The influence of relational demography, especially with respect to gender and ethnicity, on mentoring relationship has repeatedly been recognized but there has been little investigation of its effect on indirect mentoring relationships (Ensher and Murphy, 1997; Godshalk and Sosik, 2000). Mentors are more experienced in the organization than protégés, resulting in tenure differences between mentors and protégés (Levinson *et al.*, 1978). Studies exploring the effect of tenure diversity within intact groups have generally found that heterogeneity with respect to tenure has resulted in compromised functioning and higher level of turnover (Wagner *et al.*, 1984; O'Reilly *et al.*, 1989; Zenger and Lawrence, 1989; Jackson *et al.*, 1991; Wiersema and Bird, 1993). While tenure differences are expected between parties in a mentoring dyad, it is likely that as differences in tenure grow larger, and as age differences grow, there is likely to be less agreement between the mentoring partners about mentoring activities within the relationship (Fagenson-Eland *et al.*, 2005). It is suggested that the mentor should be eight to 15 years older than the protégé, or the relationship might become more peer like (Levinson *et al.*, 1978). Gender has been studied as an important factor which influences groups and dyadic functioning (Shaw and Barret-Power, 1998; Ostroff and Atwater, 2003; Chatman and Reilly, 2004). The effects of gender are moderated by the relative proportion of men and women within groups, but in general, heterogeneity with respect to gender has a negative effect on group functioning (Pelled, 1996).

Mentor's personality

Allen (2003) and Allen *et al.* (1997a) found that pro-social personality features like empathy and readiness to help others predicted the willingness to mentor others.

Other researchers supported locus of control (Allen *et al.*, 1997b; Turban and Dougherty, 1994) and upward striving (Allen *et al.* 1997b; Hunt and Michael, 1983) as personality-based motivators of mentoring activities. Waters (2004) found that the personality characteristics of mentor and protégé, specifically agreeableness, openness and extraversion were significant predictors of protégé-mentor agreement about the provision of psycho-social support.

Mentoring activities

Sanghi and Robins (2006) opine that the mentoring role includes, coaching, counseling and sponsorship. As a coach, mentors help to develop their protégés skills. As counselor, mentors provide support and help strengthen their protégés self-confidence. As sponsor, mentors actively intervene on behalf of their protégés, lobby to get their protégé's visible assignment and politic to get their protégé's reward such as promotions and salary increases. Mentoring for one pair is different from the way mentoring occurs for others (Mary Ann and Nancy, 1992). Daloz (1986) suggests that mentors offer their protégés support, challenge and vision. They support their protégé through listening, providing structure, expressing positive expectations, serving as advocate, sharing with their protégés and making it special. Successful mentors are good teachers. They can present ideas clearly, listen well and empathize with the problems of their protégés. They also share experiences with the protégés, act as role models and provide guidance through the political labyrinth of the organization and act as a sign board of ideas. Beardwell and Holden (1995) say that a mentor stimulates, encourages, guides, supports, cautions and gives. These activities contribute to the development of the higher order skills needed in life and careers.

Alleman and Clarke (2002a) found that mentors use and initiate a set of specific mentoring activities that are multi-faceted, and contain items assessing nine activity categories characteristic of typical mentors; teaching the job, counseling, endorsing activities, sponsoring, protecting, teaching organizational politics, career helping, challenging tasks, friendship and demonstrating trust. These activity categories are further collated into three broader categories of guiding activities – that subsumes subscales on “teach the job,” “provide challenge” and “teach politics” that reflects the mentor's task of developing the protégés' competences; helping activities – the practical help provided by the mentor to enable career advancement and showcasing of the protégé, measured using the statements that relate to the subscales of “career help,” “protect” and “sponsor”; and encouraging activities – the scales that cover “career counseling,” “friendship” and “trust” which deal with the mentor's role in developing the protégé's confidence in themselves and in colleagues. Mentoring relationships require mentor and mentee to engage in challenging activities, utilizing new skills and exhibiting hitherto unfamiliar behaviors (Pittenger and Heimann, 2000).

Effectiveness of mentoring

Redmond (1990) says that effective mentoring involves not only the transfer of academic skills, attitude and behavior but a level of interaction, trust and communication which results in a psycho-social comfort that empowers a student with the knowledge and confidence to grow academically and socially, regardless of the environment. However, Cohen (1993) is of the opinion that assessing the effectiveness of mentor behavior would assist in determining the behavior necessary to create and maintain more effective mentoring relationships in higher education. “Effectiveness” of mentoring, for the purposes of this study, has been measured using

the Principles of Adult Mentoring Scale (PAMS) (Cohen, 1993), incorporating the two strands (faculty and student version) of evaluation namely, self-evaluation by the teachers and protégé (student) evaluation of the teacher. Cohen's scale has been used to measure the six behavioral facets of a mentor's role; relationship emphasis; information emphasis; facilitative focus, confrontive focus, mentor model; and student vision:

- (1) the relationship facet involves active empathetic listening, genuine understanding and acceptance of protégés' feelings;
- (2) the information facet involves collecting detailed information from the protégé and also helps them plan and progress in achieving personal and career goals;
- (3) the facilitative facet explores the interest, abilities, ideas and beliefs of the protégés in-order to assist protégé to consider alternative views and options;
- (4) the confrontive facet respectfully challenges actions, decisions or avoidance, to help understand the need to change – challenge;
- (5) the mentor model involves sharing life experiences so as to enrich the relationship and motivate protégé to take risk and overcome difficulties; and
- (6) the student vision instils responsibility in the protégé to take initiative to bring about change in their personal initiatives.

An important aspect of mentoring effectiveness is the relationship quality. Relational quality encompasses satisfaction with the relationship, perceived benefits accrued to both individuals (i.e. mutuality) and relational depth (Huston and Burgess, 1979; Hinde, 1981; Kram, 1985). Cohen (1993) is of the opinion that while the benefits of mentor protégé programs in higher education have been evaluated, a gap between the professional obligation of faculty mentors to evaluate their own adult psychological competencies with responses from faculty colleagues and protégés needs to be studied to reveal faculty mentor effectiveness in mentoring relationships in higher education.

Protégé maturity

Among the various developmental tasks occurring in the transition from adolescence to adulthood are the acquisition of adaptive, social values and psychological capacities, skills and habits which serve to establish the individual in a culturally appropriate autonomous role (Rosenthal, 1987; Taylor *et al.*, 1979; Keefe and Padilla, 1987). A study of this developmental phase provides a base line assessment of previous experience, as well as possible insights into the adaptive psychological and social capacities involved in the transition to adult status (Clausen, 1991). Four characteristics seem likely to play a significant part in facilitating the ability for competent and effective performance as an adult. The qualities identified were efficacy, perseverance, planfulness and responsibility. Two additional qualities, individualism and cooperativeness also appeared to be important characteristics manifested by some of the adolescents who seemed to be managing better than the average in their respective environments and who were more likely to assume and perform effectively in adult roles (Inkles, 1990/1991).

Objectives of the research

- To validate a model explaining the effectiveness of mentoring in terms of socio-demographic factors, personality profile of teachers and mentoring activities as applicable to B-schools (institutions offering MBA program) in Kerala, India.

- To describe the faculty environment in B-schools as borne out in terms of formalization of mentoring and personal profile of teachers.
- To depict protégé maturity acquired by students in B-schools as the illustrative effect of mentoring process.

Hypotheses (H1 and H2)

H1. Personal profile attributes of teacher mentors correlate with and influence significantly the extent of mentoring activities carried out in B-schools.

H2. The mentoring activities, severally and collectively, correlate positively and significantly with the effectiveness of mentoring.

Research methodology

The population of the study comprised all the permanent teachers and regular students enrolled in nineteen B-schools in Kerala state (south India) offering MBA program. These B-schools comprised of the University (Cochin University, Calicut University, Kannur University and Mahatma Gandhi University) departments in Kerala and the colleges affiliated to the universities in the state offering full-time programs including the lone national-level institute (IIM-K). The sampling approach adopted consisted a two-phase sampling. In the first phase, B-schools that had a minimum of five years existence were selected into the sample basket. In the second phase of sampling, separate samples were drawn from among teachers of each eligible institution to constitute the respondents for the study. The sample sizes for the respondent group (141) were decided using Yamane's (1970) formula for determining sample size n by confidence interval ($p = 0.05$). Simple random samples were drawn from among the teachers available in the institutions identified in the first phase of sampling. Separate and exhaustive sampling frames were drawn for the teachers and students, the final sample elements were arrived at through lottery procedure with replacement to ensure equal probability to all the sample elements. The respondent groups of the study comprised 141 permanent teachers, which roughly accounts for 65 percent of teachers. It was observed that the teaching population of B-schools in Kerala is dominated by male teachers. The sample comprised 109 male respondents (77.3 percent) and 32 female respondents. The respondent group of the study covered 141 permanent teachers (83 respondents belonging to nine management institutions which had mentoring as part of their pedagogy, and 58 belonging to non-mentoring institutions (ten)); 327 first-semester students (167 students from mentoring institutions and 160 from non-mentoring institutions) and 318 second-year (fourth semester) students (groups of 172 and 146 students, respectively, from mentoring and non-mentoring institutions in that order). The sample constitutes lecturers and senior lecturers, associate professors, readers, professors, directors, heads of the departments and principals. Designations of faculty in educational institutions may differ significantly among categories of educational institutions. In total, 41.13 percent (58) of the teacher respondents included in this study belonged to institutions that were five years old, 14 respondents were from six to ten-year-old institutions, 48 were from institutions 11-15 years old and 21 respondents were from institutions that were in existence for more than 15 years.

As the model validation relates to the situation relating to and factors active in a mentoring context, the primary data pertaining to only the 83 teacher respondents,

167 first-semester and 172 fourth-semester students were considered valid, against the proposed model using structural equation modeling with a software Visual PLS.

Tools for data collection

Standardized scales used in the field of education and in psychology were adopted and used to gather information on the designated variables, alongside the socio-demographic details of the respondents. Separate inventory booklets were administered for gathering primary data from teachers and students of management institutes. Inventory 1 (personality) NEO five factor inventory (NEO-FFI) Form "S" (Adult Version) was used to obtain the personality profile of teachers as mentors. The instrument was developed by Paul T Costa, Jr., PhD. and Robert Mc Crae., PhD. The NEO (NEO-FFI) is a brief, 60-items assessment of the five major dimensions of personality namely, neuroticism (N), extraversion (E), openness to experience (O), agreeableness (A) and conscientiousness (C). The instrument used was a shortened version of the 240-item personality inventory-revised (NEO PI-R).

The Mentoring Activities Questionnaire (AMAQ) originally developed by Alleman and Clarke (2002a, b) was employed to measure the frequency and quality of mentoring activities initiated. The questionnaire comprises of 72 items structured with five-point Likert scale items specifying individual mentor actions that reflect the mentor practices such as teach the job, counseling, endorse activities, sponsor, protect, teach politics, career help, challenging tasks, friendship and demonstrate trust.

To measure the effectiveness of mentoring, the investigator has used the PAMS (teacher version) developed by Dr. Norman Cohen (1993). It is an ideal tool that evaluates the relationship between mentors such as faculty, counselor and administrator and their protégés. The PAMS is a 55 statement questionnaire developed for the purpose of assessing behavioral mentoring functions. The PAMS is a self-assessment instrument which is a forced choice five-point Likert scale with ratings scale used to measure the frequency of response patterns never, infrequently, sometimes, frequently and always from faculty mentors. The responses are then converted into five categories: not effective; less effective; effective; very effective; and highly effective, that determine the effectiveness of faculty mentors with respect to the behavioral mentoring functions subscale: relationship emphasis; information emphasis; facilitative focus; confrontive focus; mentor model; and student vision.

The tools employed in the present study were pretested to identify if there were any flaws in the instruments and to ensure it is culture fit. Data were systematically collected and analyzed to measure the reliability and validity of the tools used in the context of the present study using Statistical Packages for Social Sciences (SPSS). The Cronbach α value for the PI was 0.72, mentoring activities was 0.87, effectiveness of mentoring (PAMS), was 0.94 and the assessed protégé maturity was 0.72. Since the reliability coefficients is around 0.7 and 0.94. The scale adopted was considered to be fairly reliable.

Validation of the conceptual framework adopted for the study

The data gathered from the sample of teachers were processed and analyzed using the SPSS and Visual PLS. Over three decades ago, the concept of partial least squares (PLS) was introduced by Hermann Wold in his paper Principal Component Analysis in 1979 (Wold, 1979). PLS path modeling is a soft modeling technique with no assumptions about the distribution of the data variables and requires relatively small samples to carry out (Chin, 1998; Chin and Newstead, 1999). Several authors (Chin,

1998; Fornell and Bookstein, 1982) argue that PLS presents several advantages when compared to covariance-based methods. It is a convenient and powerful technique that is appropriate for many research situations, such as complex research models with sample sizes that would be too small for covariance-based SEM techniques (Goodhue *et al.*, 2006).

For the purpose of this research “mentoring” has been defined as the systematic, continuous, graduated and progressive interactions of a B-school teacher with a chosen student or a group of students, over and above the requisite academic exchanges. The mentor is taken to be a regular teacher in a management institute/B-school where mentoring has been formally acknowledged as an integral part of the pedagogy followed. The protégé is defined as a student in B-school who willingly participates in all initiatives provided by the mentor, for his personal and professional development. In this context, protégé is a student belonging to first- or fourth-semester batches in a B-school.

“Faculty environment” for the purpose of this study is construed to be enveloping the dual aspects of formalization of mentoring efforts in the school and the personal profile of its teachers. Formalization refers to the institutionalization of mentoring efforts as an essential element of pedagogy through consistent efforts for implementation, legitimized by rules and procedures put in place and norms of behavior adopted as appropriate between the teachers and students. The personal profile of teachers comprises the socio-demographic backgrounds and their predominant personality traits (openness, conscientiousness, agreeableness, extraversion and neuroticism) for these can unquestionably affect the rigorousness of the mentoring culture intended to be brought into operation through the school’s systemic and formal components.

The mentoring activity specifies individual mentor actions that reflect the mentor practices. It has been operationalized for this study in terms of the nine subscales on teach the job, provide challenge, teach politics, career help, protect, sponsor, career counseling, friendship and trust. These activities are further re-grouped into three broader categories of guiding activities, helping activities and encouraging activities. The nature and extent of mentoring activities initiated by teachers have been measured with the scores reflected obtained on the AMAQ (Alleman and Clarke, 2002a, b).

“Effectiveness of mentoring,” for the purposes of this study, has been measured using the PAMS (faculty and student versions) incorporating the two strands of evaluation namely, self-evaluation by the teachers and protégé (student) evaluation of the teacher. It measures six facets of a mentor’s role; relationship emphasis, information emphasis, facilitative focus, confrontive focus, mentor model and student vision.

“Protégé maturity” has been operationalized to measure the psycho-social qualities of efficacy, perseverance, planfulness, responsibility, individualism and cooperativeness that help individuals to adopt roles which later in life would facilitate competency and effective performance as an adult. This is measured using the Stanford scale of transition from adolescents to adulthood (Inkles, 1990/1991).

The conceptual model used for evaluation and subsequent validation on “effectiveness of mentoring” as envisaged in this research is depicted in the Figure 1. This research has employed four latent variables and their formative indicators, socio-demographic background subsuming the formative indicators of

A model for student mentoring

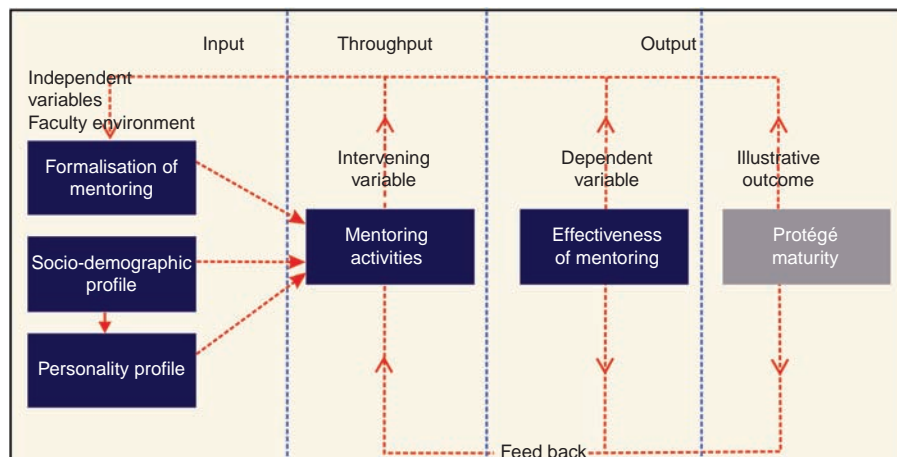


Figure 1.
The conceptual model of mentoring in B-schools in Kerala

age, gender, designation, educational qualification, teaching experience and industrial experience; personality profile of teachers having openness, conscientiousness, extraversion, agreeableness and neuroticism within its fold; mentoring activities with teach the job, provide challenge, teach politics career help, protect, sponsor, career counseling, friendship and trust as its components; and effectiveness of mentoring covering relationship emphasis, informative emphasis, facilitative focus, confrontive focus, mentor model and student vision. The framework identifies faculty environment as the system’s input, mentoring activities as its throughput and the effective mentoring as the output. Protégé maturity is incorporated for its appropriateness as the outcome or a demonstrable effect of the system in the lives of the B-school students.

The proposed operational model was estimated and validated using structural equation modeling with PLS technique. Figure 2 depicts the validated model of effectiveness of mentoring. Validation of the model resulted in the refinement of the

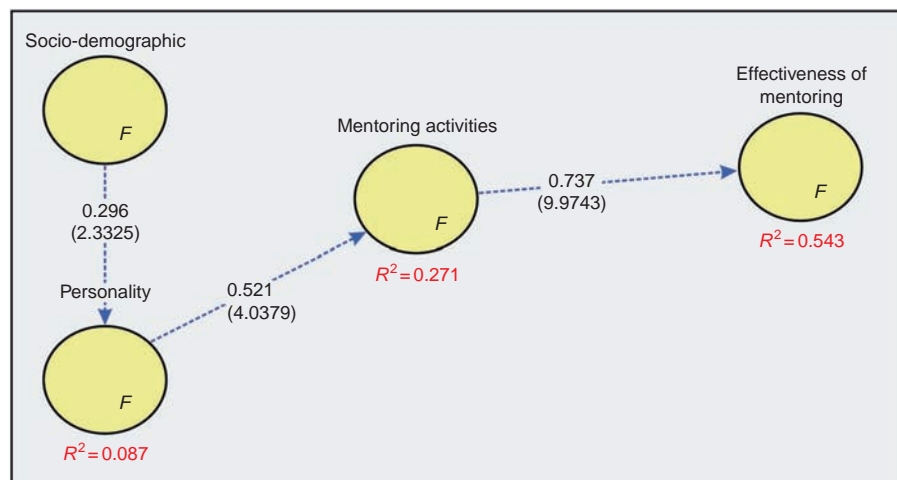


Figure 2.
Validated model of mentoring effectiveness

latent variables. From among the formative indicators of age, designation, educational qualification, teaching experience and industrial experience, only age and teaching experience were retained as the defining elements of socio-demographic background of the teacher mentors. As regards the personality profile, only three facets of extraversion, agreeableness and conscientiousness were accepted by the model as important. Among the indicators of mentoring activities, validation procedure retained teaching the job, providing challenge, teaching politics, career help, sponsoring, career counseling and trust thereby rejecting protect and friendship. Unlike in the cases of other latent variables, the validation procedure retained all the indicators included in the original set under the dependent variable of the effectiveness of mentoring namely, relationship emphasis, informative emphasis, facilitative focus, confrontive focus, mentor model and student vision. The validated model in Figure 2 also explains the indirect influence of the latent variables on the effectiveness of mentoring and can be stated as follows. The socio-demographic attributes of age and teaching experience of the teachers influence the personality properties they exude in their official role as mentors which in turn influence the mentoring activities they initiate in the B-school, which ultimately affect the effectiveness of their mentoring initiatives.

Average variance extracted (AVE) and reliability

The composite reliability, AVE and Cronbach's α values of socio-demographic background, personality profile mentoring activities and effectiveness of mentoring are depicted in the Table I and it reveals that all the four latent variables employed in the estimation are reliable and valid. Composite reliability calculated by PLS is similar to Cronbach's α without the assumption that all indicators are equally weighed. Chin (1998) recommends that the composite reliability should be more than 0.7 (Table I).

The composite reliability values of the latent variables in the validated model vary between 0.77 and 0.95. Socio-demographic background has a composite reliability value of 0.90 inclusive of that of age and teaching experience of the mentors; personality profile has a reliability value of 0.77 covering that of extraversion, agreeableness and conscientiousness; mentoring activities has a reliability of 0.90 enveloping teach the job, provide challenge, teach politics, career help, sponsor, career counseling and trust; and effectiveness of mentoring has a composite reliability of 0.95 comprising the facets of relationship emphasis, informative emphasis, facilitative focus, confrontive focus, mentor model and student vision. The findings reveal that the constructs are all reliable. The AVEs of the latent variables are socio-demographic background (0.81); personality profile (0.54); mentoring activities (0.59) and effectiveness of mentoring (0.76) showing acceptable levels of convergent validities for these constructs. Cronbach's α values show the internal consistency of the constructs that varies between 0.6 and 0.96 in the validated model. Thus the present

Construct	AVE and reliability		
	Composite reliability	AVE	Cronbach's α
Socio-demographic	0.897958	0.815143	0.766836
Personality	0.775561	0.538367	0.592722
Mentoring activity	0.906389	0.589480	0.925834
Effectiveness of mentoring	0.951494	0.766221	0.963893

Table I.
AVE and reliability of
latent variables in the
validated model

validated model exhibits acceptable levels of reliability and validity measures for the constructs. AVE, as already indicated, may also be used to infer on the discriminant validity among the latent variables or constructs. A measure of discriminant validity sheds light on the potential problem of one construct overlapping another in a conceptual model. Fornell and Larcker (1981) suggested that this can be evaluated by comparing the AVEs of the latent variables and the correlations that exist between any two latent variables. In the present study AVE of the latent variables (socio-demographic, personality profile, mentoring activities and effectiveness of mentoring) should be greater than the square of the correlations between a pair of any two latent variables or the square root of AVE for every latent variable should be greater than the correlations between any two latent variables compared. Table II displays the discriminant validities for each the four constructs namely, socio-demographic background, personality profile, mentoring activities and effectiveness of mentoring employed in the study (Table II).

Table I reveals that as the AVE of the socio-demographic background of the teacher mentors is greater than the square of the correlation of the socio-demographic background with their personality, mentoring activities and the effectiveness of mentoring (Table III). Similarly the AVE of the personality profile is greater than the square of the correlation of that latent variable with mentoring activities and the effectiveness of mentoring (Table III).

Same is the case with the AVE of the mentoring activities. AVE of the mentoring activities is greater than the square of its correlation with the effectiveness of

Constructs	AVE	AVE (2)	R	R ²	(AVE > R ²)	Discriminant validity
Socio-demographic and personality	0.815143	0.538367	-0.296	0.087616	*	**
Socio-demographic and mentoring activity	0.815143	0.589480	-0.140	0.0196	*	**
Socio-demographic and effectiveness of mentoring	0.815143	0.766221	-0.029	0.000841	*	**
Personality and mentoring activity	0.538367	0.589480	0.521	0.271441	*	**
Personality and effectiveness of mentoring	0.538367	0.766221	0.316	0.099856	*	**
Mentoring activities and effectiveness of mentoring	0.589480	0.766221	0.737	0.543169	*	**

Table II.

Discriminant validity of the latent variables

Notes: *AVE of the latent variable (construct) is greater than the square of the correlation of any two latent variables compared; **there is discriminant validity among the constructs

	Correlation of latent variables			Effectiveness of mentoring
	Socio-demographic	Personality	Mentoring activities	
Socio-demographic	1.000			
Personality	-0.296	1.000		
Mentoring activities	-0.140	0.521	1.000	
Effectiveness of mentoring	-0.029	0.316	0.737	1.000

Table III.

Correlation between latent variables

mentoring. These values establish the discriminant validity among the latent variables in that they do not statistically overlap each other and are free from the problem of multi-collinearity.

Direct and indirect effects

The direct and indirect effects of independent constructs (socio-demographic background, personality profile and mentoring activities) on the dependant construct (effectiveness of mentoring) were also explored. PLS did not validate any direct effects of socio-demographic and personality dimensions on effectiveness of mentoring. The indirect effects of socio-demographic constructs on effectiveness of mentoring could be estimated by multiplying the path co-efficients of socio-demographic vs personality, personality vs mentoring activities and mentoring activities vs effectiveness of mentoring. These indirect effects indicate that mentoring activities and personality constructs have more indirect effect on effectiveness of mentoring than the socio-demographic variables. The predictiveness of the above model is assessed by the R^2 values for the dependant variables. From the above figure it is seen that the constructs socio-demographic variable and personality profile have an R^2 value of 0.087, personality and mentoring activities have an R^2 of 0.271, whereas effectiveness of mentoring as explained by the socio-demographic variables, personality profile of teachers along with mentoring activities is attested by an R^2 value of 0.543 that stands for a 54.3 percent variation.

Construct paths in the validated model

Table IV gives the path co-efficient values and the related t statistics which test the significance of the path co-efficients and the extent of relationships between constructs. The inferences under the table have been indicated by $t > 1.65$; $p < 0.05$ and if $t > 2$; $p < 0.01$. Results indicate that the path co-efficients of socio-demographic variables on personality is ($\beta = 0.296$, $t = 2.3325$, $p < 0.01$ and R^2 value is 0.087) implicating that the requisite mentor-personality properties of extraversion, agreeableness and conscientiousness are considerably influenced by selected socio-demographic variables of age, and teaching experience (Table IV).

The path co-efficients between personality profile of teachers and mentoring activities are $\beta = 0.521$, $t = 4.0379$, $p < 0.01$ and the R^2 value is 0.271. This indicates that there is significant correlation between personality constructs (extraversion, agreeableness and conscientiousness) and mentoring activities. The path co-efficients between mentoring activities initiated and effectiveness of mentoring ($\beta = 0.737$, $t = 9.9743$, $p < 0.01$ and the R^2 value is 0.543), are sufficiently high indicating

	Correlation of latent variables			t -statistic	R^2	Result
	Entire sample estimate	Mean of subsamples	SE			
Socio-demographic personality	0.2960	0.3259	0.1269	2.3325	0.087	**
Personality > mentoring activity	0.5210	0.5553	0.1290	4.0379	0.271	**
Mentoring activities effectiveness of mentoring	0.7370	0.7562	0.0739	9,9743	0.543	**

Note: ** $p < 0.01$

Table IV.
Structural model-bootstrap

significant correlation between mentoring activities (teach the job, provide challenge, teach politics, career help, sponsor, career counseling and trust) and the effectiveness of mentoring (borne out by relationship emphasis, informative emphasis, facilitative focus, confrontive focus, mentor model and student vision) at $p < 0.01$. This validated model sufficiently explains effectiveness of formal teacher initiated student mentoring in B-schools and confirms a general fact that teachers have a crucial role in making an intervention successful and in building up the society at large. Hence while selecting the teacher mentors due consideration should be given to the identified latent variables and its formative indicators that may lead to enhanced effectiveness of mentoring.

Protégé maturity of students

Generally, management education focusses its attention on a holistic development of the students. They claim that they are generally successful in bringing about personal and professional development of the students. The American Assembly of Collegiate Schools of Business (AACSB) adopted a philosophy requiring business schools to measure the outcomes of their curriculum (AACSB, 1996). Very few schools of business in India have conducted outcome studies which compare their outgoing graduates to the newly admitted students. Kram (1983) differentiated mentoring outcomes into career related and psycho-social in content. Psycho-social mentoring function operates at an interpersonal level and can assist protégés in developing healthy self-images of their academic and non-academic selves. Hence, data were collected from the students in the B-schools to portray the psycho-social differences between the fourth-semester students and the fresh MBA students who were not exposed to any of the activities at the schools. Protégé maturity as the outcome was ascertained by measuring the psycho-social qualities of efficacy, perseverance, planfulness, responsibility, individualism and cooperativeness that help individuals adopt roles which later in life would facilitate competency and effective performance as an adult (Inkles, 1990/1991).

t-test was applied to see whether the mean scores of the protégé maturity dimensions vary significantly between first-year and second-year students in mentoring institutions. Table V depicts comparison of mean scores of students in mentoring institutions between the fresher's and the final semesters. The results indicated that the mean score of responsibility ($t = 13.322$, $p = 0.000$), individualism ($t = 13.898$, $p = 0.000$), planfulness ($t = 4.502$, $p = 0.000$), efficacy ($t = 7.034$, $p = 0.000$)

	Year						<i>t</i>	df	<i>p</i> -value	Significance
	I year			II year						
	Mean	SD	No.	Mean	SD	No.				
Responsibility	11.87	1.76	167	14.87	2.33	172	13.322	337	0.000	**
Individualism	43.81	6.20	167	51.85	4.33	172	13.898	337	0.000	**
Planfulness	25.40	2.84	167	27.04	3.80	172	4.502	337	0.000	**
Efficacy	34.28	3.53	167	37.32	4.37	172	7.034	337	0.000	**
Cooperativeness	47.88	4.44	167	46.99	6.99	172	1.398	337	0.163	ns
Perseverance	39.30	3.63	167	40.83	5.09	172	3.172	337	0.002	**
Overall score	202.54	11.47	167	218.90	19.28	172	9.458	337	0.000	**

Note: **Significance at $p < 0.01$ (mean scores of the protégé maturity dimensions vary significantly between first year and second year students in mentoring institutions)

Table V.
Mean scores of students in mentoring institution

and perseverance ($t = 3.172$, $p = 0.002$) vary significantly among the first-year and second-year students. But these comparative groups do not differ significantly *vis-à-vis* their mean scores of cooperativeness ($t = 1.398$, $p > 0.05$). To summarize, it was observed that the overall mean scores of protégé maturity vary significantly between first-year and second-year students ($t = 9.458$, $p = 0.000$) in institutions with formal mentoring.

Conclusion: implications for B-schools

It has been observed that significant improvement is achieved by the second-year students in institutions where mentoring has been formalized by the time they complete their tenure. They tend to improve on certain qualities like taking responsibility, individualism, capacity to plan, perseverance and efficacy, which is essential for their future transition into the work place. Faculty members involved in mentoring endeavors are more likely to have opportunities to develop professionally (in career orientation) and personally (psycho-socially) over time. Management institutions should be able to create a learning environment rather than a tutoring environment. Business schools should bring forth changes in the curriculum to ensure that students are provided with adequate knowledge, attitudes, skills and abilities to succeed in this turbulent social environment. The various benefits that the institutions stand to accrue as a result of implementing a mentoring program are improved students quality, reduced absenteeism and improved student retention, academic excellence, effective student placements, satisfaction of parents, their goodwill and reputation for the B-schools.

Suggestions for future research

The theoretical positions and empirical analyses focussed in this study provide insight into the effectiveness of formal and teacher initiated student mentoring in B-schools. Future research could develop a training module aimed at developing and enhancing the capabilities of a mentor. According to Wynn (2003) nine categories of life skills have been identified as crucial to effective life transition and the dimensions of student learning are emotional intelligence, healthy lifestyles, effective communication, intuition, creativity, conflict resolution, critical thinking, managing change, self-responsibility, self-management and teamwork. A good mentor (teacher) and protégé (student) relationship is sure to enhance all these qualities. Research covering the notions and concepts of emotional intelligence, lifestyles, communication, intuition, creativity, conflict resolution, critical thinking, self-responsibility and self-management and teamwork would be rewarding and worthwhile and identifying if the mentees youth from management institutions can better meet the expectations of industry.

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