THE RELATIVE EFFECTIVENESS OF FACILITATOR, PEER, AND SELF APPRAISALS FOR IMPROVING THE PERFORMANCE OF MBA STUDENTS

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy, Joseph L. Rotman School of Management, University of Toronto

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Abstract
The Relative Effectiveness of Facilitator, Peer, and Self Appraisals for Improving the Performance of MBA Students

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The present study investigated the relative effectiveness of facilitator, peer, and self appraisals for increasing the effective performance of 30 MBA students as defined by behaviour and grade point average (GPA). Behaviour was measured using a behavioural observation scale (BOS) derived from a job analysis. Repeated measures ANOVA revealed a main effect for source of appraisal on BOS and appraisal source credibility. Planned comparisons indicated that facilitator appraisals resulted in a higher BOS score than peer appraisals, and a marginally higher BOS score than self appraisals. Facilitators had higher credibility than peer or self appraisers. Appraisal source credibility, self-efficacy, outcome expectancy, and outcome valence, however, did not mediate the appraisal - performance relationship. There were no significant differences among the appraisal conditions on GPA.
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Chapter 1

Introduction

The primary purpose of performance appraisal is to coach and develop appraisees so as to enable them to continuously improve their performance (Latham & Wexley, 1994). Performance appraisals can provide feedback to appraisees about what they must continue doing, stop doing, and start doing to perform effectively. Goal setting theory (Locke & Latham, 1990) states, however, that feedback affects performance only to the extent that it leads to the setting of and commitment to specific difficult goals. Empirical support for this assertion can be found in a field study by Latham, Mitchell, and Dossett (1978). In brief, engineers/scientists who were given feedback in the absence of goal setting performed no better than those in the control condition. Those engineers/scientists who, in addition to feedback, set goals performed significantly higher than did those in the feedback only or control conditions. Therefore, goal setting appears to be at the core of effective performance appraisals (Dossett, Latham, & Mitchell, 1979; Latham et al., 1978; Latham & Wexley, 1994; Maier, 1976).

Traditionally, performance appraisals have been conducted by the appraisee’s supervisor. In fact, the only known training programs for appraisers were developed specifically for supervisors by N. R. F. Maier (1958) with the help of his graduate student research assistant, Victor Vroom. Behavioural scientists, however, have begun to question the accuracy and effectiveness of appraisals conducted by supervisors because supervisors are often unable to observe the appraisee’s performance in all performance contexts (Komaki & Desselles, 1994;
Smith, 1983). Appraisals from peers as well as oneself provide information that is often not otherwise available to the supervisor (Ashford, 1993; Hanser & Muchinsky, 1978).

The optimum source of a performance appraisal for improving subsequent performance is unknown. The answer is becoming increasingly important since practitioners and researchers alike have noted the decreasing appropriateness of traditional supervisor appraisals in organizations that have adopted the use of teams and facilitators rather than a traditional top-down supervisor-employee-dominated hierarchy. Facilitators differ from traditional supervisors in their emphasis on the development of people especially with regard to the acquisition of interpersonal and team-playing skills (cf. Gerwin & Kolodny, 1992; Hackett & Martin, 1993).

In addition to the use of facilitators, there is the increasing adoption by organizations of peer and self appraisals (Bracken, 1994; Brajkovich, 1995; London & Beatty, 1993). Many behavioural scientists favour peer appraisals (e.g., Cardy, Dobbins, & Carson, 1995; Farh, Canella, & Bedeian, 1991) based largely on psychometric criteria for making predictions of subsequent performance (Harris & Schaubroeck, 1988). Conversely, because of relatively low criterion-related validity (Mabe & West, 1982), the scientific literature does not favour self evaluations when pay and promotion are outcomes linked to appraisals. Relatively little is known, however, with regard to the effect of these three sources of appraisal in bringing about subsequent changes in performance (London & Smither, 1995).

The present study investigated the relative effectiveness of facilitator, peer, and self appraisals on subsequent performance. The facilitators and peers who
conducted performance appraisals were trained in coaching and goal setting skills. This training procedure was based on the procedures suggested by Maier’s (1976) and Latham and Wexley’s (1994) problem-solving method. The self appraisers were trained in self-management and verbal self-guidance (self-talk) skills. This training procedure was adapted from procedures used by Frayne and Latham (1987) and Millman and Latham (in press).

These training procedures were chosen because training interventions based on theory are likely to be effective in improving performance (Latham & Crandall, 1991). This is because theory provides a basis for explaining why a training program succeeded or failed, and suggests appropriate methodology or training content. The training procedures used in this study were based on principles of goal setting (Locke & Latham, 1990) and social cognitive (Bandura, 1986) theories. Social cognitive theory was used as a basis for training because self-efficacy and outcome expectancy affect commitment to goal setting (e.g., Bandura, 1986, 1997; Frayne & Latham, 1987; Latham & Frayne, 1989).

Behavioural and results criteria were used to assess the effectiveness of the appraisal interventions. Specifically, performance was defined as the students’ score on a behavioural observation scale (BOS) (Latham & Wexley, 1977, 1994) and grade point average (GPA). Appraisal source credibility as well as the participant’s self-efficacy, outcome expectancy, and outcome valence were investigated as mediators of the appraisal - performance relationship. The performance appraisal literature and the hypotheses that are derived from it are discussed in Chapter 2.
Chapter 2

Literature Review

In this chapter the scientific literature on performance appraisal is reviewed, as are goal setting and social cognitive theories that provide a theoretical framework for increasing the effectiveness of an appraisal in bringing about a positive change in behaviour. The chapter concludes with a listing of the hypotheses derived from this literature review.

The Criterion Problem

The criterion problem refers to the difficulty in finding a reliable performance measure for assessing a person’s effectiveness (Ronan & Prien, 1971). Reliability in measurement is necessary for avoiding a type II error, namely concluding erroneously than an intervention is ineffective. Early investigators eschewed the use of supervisory ratings of a person’s effectiveness because of poor reliability. Instead, they favored the use of hard criteria, namely, performance outcomes (e.g., Merrihue & Katzell, 1955; Turner, 1960). However, Campbell, Dunnette, Lawler, and Weick (1970) argued that outcome measures are also problematic. Specifically, they stated that outcome measures are often deficient in that they fail to take into account all the factors for which a person should be held accountable. Conversely, outcome measures are often excessive in that they are affected by factors that are beyond the control of the person whose performance is being appraised. Finally, a primary focus on an outcome measure can encourage a “results at all costs mentality” (Pringle & Longnecker, 1982).
The solution advocated by Campbell et al. (1970) was to use behavioural measures that, through job analysis, have been identified as critical to attaining performance outcomes. Latham and Wexley (1977, 1994) developed behavioural observation scales (BOS) to measure a person’s behaviour. Previous studies have demonstrated the test-retest and interobserver reliability of the BOS (e.g., Latham & Wexley, 1977; Latham, Wexley, & Rand, 1975; Ronan & Latham, 1974). In a double-cross validation study involving loggers, Latham and Wexley (1977) found that behavioural (score on the BOS) and outcome (amount of wood cut) criteria correlated positively and significantly. In the present study, both behavioural and outcome criteria were used as defined by BOS and the student’s grade point average. This permitted multiple operationalization of performance effectiveness.

**Goal Setting Theory**

This theory states that setting a specific difficult goal increases performance significantly over that of people for whom a "do best" goal has been set. Extensive empirical evidence indicates that feedback is a moderator of the goal - performance relationship (Erez, 1977; Latham & Locke, 1991; Locke & Latham, 1990).

Using BOS, Latham et al. (1978) investigated the performance of engineers / scientists in the Research and Development division of the Weyerhaeuser Company. In the "do your best" goal plus feedback condition the appraisees were “neither given specific goals nor encouraged to set them” (p. 168) but were aware of what constituted excellent performance, as defined by the behaviours on the
BOS. There was a main effect for goal setting. But, no difference was found in the performance of appraisees in the “do-your-best” plus feedback condition versus appraisees in the control condition. In short, feedback in the absence of goal setting had no effect on behaviour.

Dossett et al. (1979) examined the performance of clerical personnel as measured by BOS. They too obtained a main effect for goal setting.

Tziner and Kopelman (1988) investigated the effect of appraisal format, namely, BOS versus graphic rating scales (GRS) on the goal commitment of employees at the Israel Airports Company. Employees who were appraised by managers using BOS reported significantly higher levels of goal commitment than employees who were appraised using GRS.

Tziner and Latham (1989) examined the effect of feedback and goal setting in performance appraisal on the work satisfaction and organizational commitment of employees at the Israel Airport Authority. The performance appraisals were conducted by the employees’ supervisors using either BOS or GRS. They found that feedback combined with goals resulted in significantly higher improvement in work satisfaction and organizational commitment than feedback alone only when BOS were used.

These studies demonstrate that performance appraisal that incorporates goal setting is effective for changing behaviour and attitudes. For these reasons, the training procedures, as described in Chapter 3, emphasized goal setting and feedback using BOS.
Social Cognitive Theory

Social cognitive theory states that there is a triadic reciprocal causal relationship among behaviour, cognitions, and environmental events (Bandura, 1986). Three primary cognitive variables in this theory are goals, self-efficacy, and outcome expectancy. A goal is not a goal unless there is commitment to it (Locke, Latham, & Erez, 1988). Goal commitment refers to “one’s attachment to or determination to reach a goal, regardless of where the goal came from” (Locke & Latham, 1990, p. 125). Empirical evidence indicates that goal commitment is easily achieved in field as well as laboratory settings (Locke, Shaw, Saari, & Latham, 1981; Locke & Latham, 1990). Moreover, when variability in goal commitment is found, it is often insufficient to affect performance (e.g., Yukl & Latham, 1978). Thus the act of goal commitment, rather than its amount, is the factor critical to the effectiveness of goal setting since goal commitment is a necessary condition for the goal difficulty effect to emerge (Bandura, 1997; Locke, 1968). Two cognitive variables that influence goal commitment are self-efficacy and outcome expectancy (Bandura, 1997; Locke et al. 1988). A third variable, outcome valence, may also affect goal commitment (Schunk, 1989).

Self-efficacy. Self-efficacy refers to “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). A primary source of efficacy information is verbal persuasion about one’s capabilities for task performance (Bandura, 1997). Verbal persuasion can create lasting increases in perceived efficacy if the persuasion is perceived to be realistic (Bandura, 1997). Persuasory efficacy information is often communicated in
the evaluative feedback given to appraisees (Bandura, 1986, 1997). Providing the participant with verbal feedback on how well he or she is doing in comparison with another is often sufficient to increase or decrease the participant’s self-efficacy (e.g., Gist, 1989; Bandura & Wood, 1989; Latham, Winters, & Locke, 1994; Maddux, Norton, & Stoltenberg, 1986; Redmond, Mumford, & Teach, 1993). Feedback about either ability for task performance or effort put into task performance enhances self-efficacy (Schunk, 1982; Schunk & Cox, 1986). Feedback in the early stages of skill development has a greater impact on the development of self-efficacy than feedback given later (Schunk, 1984).

Enactive mastery experience (i.e., actual performance) and behavioural modelling also influence self-efficacy (Bandura, 1986; 1997). In general, successful task performance increases self-efficacy while unsuccessful task performance decreases self-efficacy. Behavioural modelling or vicarious experience influences self-efficacy because it conveys information about the competencies required for and comparative information about task performance (Bandura, 1997).

Locke (1991) and Locke et al. (1988) stated that goals to which people commit are affected by task specific self-efficacy. Locke et al. (1988) argued that there is a linear relationship between self-efficacy beliefs and commitment to difficult goals with individuals high in self-efficacy more likely to commit to difficult goals than individuals low in self-efficacy. This hypothesis has been supported by empirical research (Earley, 1985; Huber & Neale, 1986; Klein, 1991; Locke, Frederick, Lee, & Bobko, 1984; Mento, Cartledge, & Locke, 1980).
**Outcome expectancy.** Outcome expectancy refers to a judgment of the likely consequences of performance (Bandura, 1986). Riggs, Warka, Babasa, Betancourt, and Hooker (1994) developed and validated self-efficacy and outcome expectancy scales using employees from a variety of work settings including academia, retail, banking, and community service. In support of Bandura’s (1986) conception of self-efficacy and outcome expectancy beliefs, they found that the factor structure of self-efficacy and outcome expectancy beliefs indicated that self-efficacy and outcome expectancy are discrete constructs.

In empirical studies examining the work attendance of unionized state government employees, Frayne and Latham (1987) and Latham and Frayne (1989) found that self-efficacy is distinct from outcome expectancy. More specifically, they found that low perceived self-efficacy regarding the job attendance of employees negated the motivating potential of high outcome expectancies. In a study examining disciplinary fairness, Cole and Latham (1997) found that both self-efficacy and outcome expectancy with regard to disciplinary action were significant predictors of the fairness of supervisor’s disciplinary actions as perceived by subject matter experts and employees. Maddux et al. (1986) examined the relationships among self-efficacy, outcome expectancy and behavioural intentions regarding interpersonal effectiveness training among university students. They found that both self-efficacy and outcome expectancy beliefs were roughly equivalent, independent and non-redundant predictors of behavioural intentions that were not significantly correlated with each other. Moreover, of the constructs that were
hypothesized to predict behavioural intentions, outcome expectancies contributed the largest independent increment in variance.

Empirical evidence indirectly indicates that outcome expectancy beliefs also affect goal commitment (Locke et al., 1981; 1991). Oldham (1975), in a laboratory experiment, found that instrumentality, defined as "the extent to which the subordinate perceives that the supervisor has the ability to reward him for goal completion" (p. 463), was significantly related to undergraduate students' intent to complete an assigned number of time sheets, a measure of goal commitment. Similarly, Yukl and Latham (1978) found that the instrumentality perceptions of female typists were significantly correlated with acceptance of an assigned goal. Earley (1985) found that the outcome expectancy beliefs of undergraduate students who had to perform a booklet assembly task significantly correlated with goal commitment.

Outcome valence. Outcome valence refers to the anticipated satisfaction associated with performance (Vroom, 1964), or the value of the perceived outcome that is contingent on performance (Locke et al., 1988). Schunk (1989) suggested that, assuming requisite ability for performance, outcome valence, as well as outcome expectations and self-efficacy influence choice and direction of behaviour. To the author's knowledge, this variable has not been empirically investigated within the framework of social cognitive theory. Empirical evidence from goal setting research indicates, however, that outcome valence can influence goal commitment.
Mento et al. (1980), in a laboratory experiment involving performance on a perceptual speed task by undergraduate students, found that goal valence was positively and linearly related to goal acceptance. Using the same task and type of participants, Locke and Shaw (1984) found that the valence of winning was significantly related to commitment to winning, the outcome of goal attainment. Maddux et al. (1986) also found that outcome value (i.e., valence) correlated positively with undergraduate students' intention to use an interpersonal effectiveness technique. Klein (1991) reported the results of a meta-analysis and an empirical study using college students in which he found that attractiveness or valence correlated positively with goal commitment. Dossett et al. (1979) and Oldham (1975) also found similar positive relationships between goal valence and goal commitment. Thus, the valence associated with performance goals and the outcomes of performance have positive relationships with goal commitment.

That self-efficacy, outcome expectancy and outcome valence may be mediators in the present study is an important research question to investigate because there is already evidence that self-efficacy affects the level of performance attained during (Saks, 1995) and after training (e.g., Frayne & Latham, 1987; Gist, 1989; Latham & Frayne, 1989). These empirical findings are consistent with social cognitive theory which states that a person must believe that he or she is capable of performing the task in order to perform it effectively. Although studies have examined the relationship between outcome expectancy beliefs and behavioural intentions (e.g., Earley, 1985; Oldham, 1975; Yukl & Latham, 1978), only three studies (Cole & Latham, 1997; Frayne & Latham, 1987; Latham & Frayne, 1989),
have investigated the influence of outcome expectancy beliefs on the effects of training to improve a work related behaviour. An empirical finding of the effect of outcome expectancy on performance would be consistent with social cognitive theory which states that a person must obtain favourable outcomes for task performance in order for there to be commitment to performance improvement goals. An empirical finding of the effect of outcome valence on performance would be consistent with Teasdale's (1978) and Schunk’s (1989) argument that the motivational potential of outcome expectancy beliefs is related to outcome valence. Thus, one hypothesis in the present study is that self-efficacy, outcome expectancy, and outcome valence mediate the effect of appraisal on performance.

**Source Credibility**

A limitation of the studies reviewed earlier in this chapter is that the appraisals were always conducted by the appraisee’s supervisor. Investigation of the importance of who observes and evaluates performance dates back to Wherry and Fryer’s (1949) work on peer ratings of leadership. Unexamined thus far, however, are the effects of appraisals from different sources, namely, facilitators, peers, and self on subsequent performance.

Ilgen, Fisher, and Taylor (1979) suggested that the self and other individuals who are in a position to evaluate performance are two distinct sources of feedback that people rely on to assess their performance. They suggested that the higher the perceived source credibility, the more likely is the appraisal to be accepted, and to bring about subsequent changes in behaviour.
In an enumerative review of the source credibility literature, Giffin (1967) concluded that the important dimensions of this construct are expertise and trustworthiness. Expertise is defined as the extent to which the appraiser is perceived to be a source of valid assertions (Hovland, Janis, & Kelley, 1953). A necessary condition for making valid assertions is the source’s familiarity with the task and the appraisee’s performance on the task (Ilgen et al., 1979). Trustworthiness relates to the appraisee’s beliefs about the intentions of the appraiser regarding the communication of accurate information about the appraisee’s performance, and the motives or reasons for doing so (Hovland et al., 1953; Ilgen et al., 1979).

Source credibility is a characteristic of the appraiser rather than of the appraisal process. Earley (1988) found that trustworthiness, a component of credibility, does not moderate the appraisal source - performance relationship. However, subsequent research indicated that the performance of the appraisee is related to the credibility of the appraisal source (Northcraft & Earley, 1989). Thus another hypothesis of this study is that appraisal source credibility mediates the appraisal - performance relationship.

**Self appraisals.** Boud (1989) argued that appraisees are aware of their strengths and weaknesses, and found that self appraisal ratings have criterion-related validity with hard criteria (cf. Fox & Dinur, 1988; Lane & Herriot, 1990). Mabe and West (1982) in a meta-analysis, found that the mean corrected validity of self appraisal ratings is .29 when validated against external performance criteria such as objective tests as well as supervisory and peer
ratings of performance. Moreover, the validity of self appraisal ratings was .38 when validated against scholastic indicators of performance.

Lane and Herriot (1990) suggested that self appraisals are, in essence, self-efficacy judgments. Nielsen and Campbell (1993) elaborated on this argument by suggesting that self appraisals require individuals to make judgments about their abilities, skills and knowledge for task performance.

Self appraisals can be an effective means of self development because of the feedback individuals give themselves during task performance (Nielsen & Campbell, 1993). Individuals who accurately assess their own performance can monitor their progress toward goal attainment and take corrective action if necessary. Self appraisal is the sine qua non of self regulation. Bandura (1986) argued that behaviour is motivated and regulated by people's internal standards and self appraisal of their own actions.

**Facilitator appraisals.** The supervisor is traditionally the source of appraisal information (Smith, 1983; Latham & Wexley, 1994). Supervisory appraisals are so institutionalized in Euro-American human resource management practice that the acceptability and credibility of other sources of appraisal ratings are often determined by comparing them with supervisor ratings (e.g., Harris & Schaubroeck, 1988; Mabe & West, 1982; Thornton, 1980). Nevertheless, they often lack validity against hard criteria. Heneman (1986), in a meta-analysis, found that the mean corrected correlation between supervisory ratings and results oriented measures (i.e., hard criteria) was only .27. It is interesting to note, therefore, that in the studies of loggers cited
earlier in this chapter, the observers were not the logging supervisors, but rather company employed foresters and independent pulpwood dealers who served in the role of facilitators or advisors to these independent entrepreneurs. None of the logging crews worked for, let alone reported to, these observers.

The traditional reporting hierarchy between supervisors and subordinates with the accompanying ability of supervisors to dispense rewards and punishers is gradually disappearing as this century comes to a close (e.g., Cohen, 1993; Galbraith & Lawler, 1993). In its place are team-based work groups in which former supervisors facilitate the work performed by their former subordinates (e.g., Floyd & Wooldridge, 1994; Lawler, Mohrman, & Ledford, 1992). The role of the supervisor has changed to that of a facilitator (e.g., Cannon-Bowers, Tannenbaum, Salas, & Volpe, 1995; McIntyre & Salas, 1995; Tjosvold, 1995). The role of a facilitator is to guide others to discover the causes of and solutions to their performance deficiencies in order to improve their performance without relying on dispensing extrinsic rewards and punishers (Darling, 1994; Hutcheson, 1996; Shaughnessy, 1993). Thus far, no empirical study has examined the effectiveness of facilitators relative to other sources of appraisal in improving the performance of appraisees, despite the prevalence of teams in Europe and North America (e.g., Lawler et al., 1992; Shipper & Manz, 1992; Wimmer, McDonald, & Sorensen, 1992). Thus this study included facilitators as a source of appraisal.

The subsequent hypotheses of this study were that appraisals from facilitators lead to higher performance than self appraisals, and facilitators have higher credibility than self appraisers. While Ilgen et al. (1979) argued that the self
can be the most credible source of appraisal because it can be the most trustworthy source of appraisal information, empirical evidence indicates that external sources of appraisal who have expertise are perceived to be more credible appraisers than oneself on tasks that are novel for the individual (Hillery & Wexley, 1974). This may be because the self is trustworthy but, nevertheless, lacks expertise. Accurate assessment of task requirements and performance capabilities in novel situations requires comparative information from others experienced with the task (Bandura, 1997). The opposite hypothesis would have been plausible if the study had been done with second-year MBA students, because they are presumably familiar with the behaviours required for graduate student performance effectiveness. Empirical evidence indicates that people who are familiar with task requirements rely on self appraisals more than external sources to evaluate whether they are meeting the criteria for effective performance (Greller & Herold, 1975). In such a situation, the self may be the most credible appraisal source because of high expertise as well as trustworthiness.

Peer appraisals. Peer appraisals have been shown to be both reliable and valid measures of performance (Kane & Lawler, 1978; Lewin & Zwany, 1976; Reilly & Chao, 1982). Peers and supervisors can assess dimensions of performance not readily observable by each other (Borman, 1974; Landy, Farr, Saal, & Freytag, 1976; Zammuto, London, & Rowland, 1982). Moreover, peers are more likely than supervisors to focus on performance and results rather than effort (Klimoski & London, 1974; Tucker, Cline, & Schmitt, 1967), and they provide evaluations that are stable over time (Gordon & Medlund, 1965).
Wexley and Klimoski (1984) concluded that peer evaluations are “potentially the most accurate judgments of employee behavior” (p. 60). A meta-analysis by Harris and Schaubroeck (1988) indicated the mean correlation, correcting for measurement error and range restriction, between peer and supervisor ratings was .62.

User acceptance of peer appraisals appears to be high when peer appraisals are used for developmental purposes (Farh, Canella, & Bedeian, 1991; McEvoy & Buller, 1987). Maurer and Tarulli (1996) found that for appraisees, a focus on development capabilities is in essence a focus on self-efficacy beliefs regarding the ability to develop skills following the feedback. Latham and Seijts (in press) found that appraisees were satisfied with and perceived peer appraisals to be fair when behavioural scales, namely, BOS or behaviourally anchored ratings scales (BARS) were used. This is because peers perceived the use of behavioural criteria to be objective and clear for receiving feedback on ways to improve performance. This was not the case when trait scales were used.

A question that has yet to be examined is whether appraisals from peers are effective in improving the performance of appraisees. For this reason peers were included as a source of appraisal in this study. Thus it was hypothesized that peer appraisals lead to higher performance than facilitator appraisals, and peers have higher credibility than facilitators. These hypotheses are based, in part, on the reasons advanced for the psychometric superiority of peer appraisals. More importantly, because peer appraisals are perceived to be
acceptable for developmental purposes, peers may be perceived to be more trustworthy than facilitators in wanting to help the appraisee to improve performance. Moreover, they may be more credible than oneself in making judgments of one’s performance. As noted earlier, people develop their self-efficacy by comparing their performance with models (Bandura, 1986), and it is the performance of others who are most like themselves that is most informative for comparative purposes (Bandura, 1997). Thus, it was also hypothesized that peer appraisals lead to higher performance than self appraisals, and peers have higher credibility than self appraisers.

**Training of Appraisers**

Contributing to the criterion problem discussed at the outset of this chapter is the lack of objectivity in observing behaviour (Ronan & Prien, 1971). Consequently, Latham, Wexley, and Pursell (1975) developed a training program on ways to increase objectivity when evaluating performance.

**Training to increase objectivity.** In brief, this training involves a four-hour, five step procedure in which trainees (1) observe a job incumbent on videotape, (2) evaluate the incumbent’s performance relative to a job description, (3) discuss their ratings with their training group, (4) receive feedback as to the accuracy of their ratings, and (5) brainstorm with the training group ways to minimize rating errors such as halo, central tendency, contrast, similar-to-me, first impressions, and leniency. The training program adheres to Dunnette and Borman’s (1979) recommendation that training be based on behaviourally derived definitions of job performance. The effectiveness of this training program for increasing the
objectivity of raters has been demonstrated empirically (Latham, Wexley, & Pursell, 1975; Pursell, Dossett, & Latham, 1980; Fay & Latham, 1982). Combined with BOS, the training communicates what constitutes effective and ineffective performance to raters. Thus it is similar to frame-of-reference (FOR) training (Bernardin & Buckley, 1981) since raters are provided with a common set of standards for evaluating performance. It is, however, more effective than FOR in reducing rating errors, namely halo and leniency (Woehr & Huffcutt, 1994).

**Problem-solving performance appraisals.** This approach to conducting performance appraisals (Latham & Wexley, 1994; Maier, 1976) was selected for use in this study because it incorporates characteristics that have been shown to be related to appraisee development and motivation to improve performance, namely, recognition of effective performance, assistance in identifying and solving performance problems, appraisee participation in the appraisal process, goal setting, and follow-up to discuss progress toward goal attainment (Burke & Wilcox, 1969; Burke, Weitzel, & Weir, 1978; Nemeroff & Wexley, 1979).

**Self-management / verbal self-guidance.** Bandura (1986) stated that behaviour is regulated by one’s internal standards (i.e., goals) and self appraisal of actions against goals. This, in essence, is self-management. Self management has been shown to be effective in changing behaviour in organizational settings. For example, Frayne and Latham (1987) trained experienced, unionized employees who had absenteeism problems to increase their work attendance. In this training, conducted over an eight week period, the employees (1) were introduced to the principles of self-management, (2)
discussed the reasons for their absenteeism, (3) self-assessed the conditions that generated the absenteeism, (4) set attendance goals, (5) learned to self-monitor their behaviour, (6) developed self-reinforcers, punishers, and reward contingencies for succeeding or failing to attain their attendance goals, (7) developed written contracts with themselves that specified the attendance goals to be achieved and the behaviours necessary for achieving them, and (8) developed coping strategies for dealing with situations that might cause a relapse to absenteeism. The employees who received the self-management training had significantly higher attendance than employees who did not receive the training.

In a follow-up study, Latham and Frayne (1989) found that the attendance of employees who were taught how to self manage continued to be significantly higher than those who were not trained even nine months after the training. When the control group was trained, their attendance reached the level of the initially trained participants.

Verbal persuasion directed at the self has been found to be effective in improving the job search behaviours of executives who had given up searching for jobs (Millman & Latham, in press). In a field study, unemployed executives were trained in verbal self-guidance. In the training, conducted over a two and one-half week period, the trainees (1) were introduced to the principles of verbal self-guidance and recorded their self-talk regarding job search, (2) learned to transform negative to positive self-talk, (3) observed the trainer self-talking through a job search task, (4) practiced the job search task accompanied with
self-talk, (5) learned to self-monitor their behaviour, and (6) developed coping strategies for dealing with obstacles to performing job search tasks. The managers who received training in verbal self-guidance achieved a significantly higher rate of reemployment than managers who were not trained. Thus, the present study incorporated principles of self-management and verbal self-guidance to provide the self-appraisers with knowledge and skill to improve their performance.

Hypotheses

In summary, based on this literature review, the following hypotheses were tested:

H1: There is a main effect for source of appraisal on performance.

H2: Peer appraisals lead to higher performance than facilitator appraisal or self appraisals.

H3: Facilitator appraisals lead to higher performance than self appraisals.

H4: There is a main effect for source of appraisal on source credibility.

H5: Peer appraisers have higher credibility than facilitator or self appraisers.

H6: Facilitators have higher credibility than self appraisers.

H7: Appraisal source credibility, self-efficacy, outcome expectancy, and outcome valence mediate the effect of an appraisal on performance.
Chapter 3

Method

Sample

The sample consisted of first-year students enrolled in a Master of Business Administration (MBA) program in a large Canadian university. This sample was selected for four reasons. First, grades provide a hard criterion for assessing the effect of an appraisal intervention. Second, the administrators of, and faculty who teach in the MBA program have emphasized to students that in order to be both effective as MBA students and as managers after graduation, they must learn to collaborate with others as members of a team while attending to their own individual performance. Team-playing skills are important competencies that managers must possess in order to have successful careers in the 21st century (Allred, Snow, & Miles, 1996). A performance appraisal system that focused on the critical behaviours necessary for effective performance was beneficial to both the students and the reputation of a business school that enhances them. Thus the intervention was based on a needs analysis of this population. Third, students in previous years had expressed problems with their ability to manage their interactions with their study group members. Fourth, students take the same courses together making peer appraisals possible.

The author asked for volunteers to participate in this study. She explained that the results of this study would enable the MBA Director’s office to improve the MBA program by helping students acquire an important managerial competency.
Thirty first-year MBA students volunteered to participate in the study. This number represents 25% of the first-year MBA class. Sixty percent (n = 18) of the participants were males. The participants in the study had a mean age of 27.1 (SD = 3.27) with a mean of 3.9 years of full-time work experience (SD = 2.51). The participants did not differ significantly from the non-participants (n = 88) on gender ($\chi^2 = .42, \text{ns}$), age ($t = .63, \text{ns}$), GMAT score ($t = .52, \text{ns}$), incoming GPA ($t = 1.50, \text{ns}$), end-of-term GPA ($t = .22, \text{ns}$) or work experience ($t = 1.31, \text{ns}$).

No previous study has compared the relative effectiveness of different appraisal sources in bringing about a change in performance. A post-hoc analysis indicated that the actual observed power to detect any effects of the source of appraisal on performance ranged from 19% (GPA criterion) to 62% (BOS score criterion).

**Design**

The design consisted of a single, between-subjects factor, source of appraisal. An equal number of participants were randomly assigned to each of the three appraisal conditions, namely, facilitator, peer, and self appraisals.

**Procedure**

The procedure consisted of three steps. First, BOS were developed. Second, appraisers were taught how to use it to set goals and provide feedback. Third, appraisers were taught ways to increase objectivity in the observation of behaviour.
**Development of BOS.** A performance appraisal instrument that was content valid and internally consistent (reliable) was developed for the study. BOS (Latham & Wexley, 1977) were used because, as discussed in Chapter 2, previous studies have shown that they are content valid, they correlate positively with hard criteria, and they have high inter-observer reliability (e.g., Latham, Fay, & Saari, 1979; Latham & Skarlicki, 1995; Latham & Wexley, 1977). Moreover, they have been found to be effective in increasing rating objectivity once the appraiser has been trained (Fay & Latham, 1982). In addition, BOS have been empirically demonstrated to be effective in facilitating feedback and goal setting with appraisees (Tziner & Latham, 1989), and facilitate high levels of goal commitment (Tziner & Kopelman, 1988).

A job analysis using the critical incident technique (Flanagan, 1954) was conducted to generate critical incidents of effective and ineffective MBA student performance. Consistent with Latham and Wexley (1994), effective was defined as “behaviour that when you saw it occur, you wished all students would do the same thing under similar circumstances”, whereas ineffective was defined as “behaviour that, if it occurred repeatedly or even once under certain circumstances, would make you doubt the competency of the student”.

Thirty randomly selected MBA students who were at the end of their second-year were interviewed for this purpose. They were asked to recall their experience during their first-year in this MBA program. Faculty who had taught in the first-year of the MBA program was also contacted to participate in interviews to generate critical incidents of effective and ineffective behaviour. Four agreed to
be interviewed. Behavioural items that were generated were re-sorted into behavioural dimensions by six job analysts, namely, doctoral students who had either served as teaching assistants to MBA courses and/or had earned a MBA. Once the items were sorted into behavioural dimensions, four second-year MBA students who were on the Dean’s list in their first-year were asked to indicate on a 5-point scale how frequently they saw their peers exhibit the behaviours. Behaviours rated as being rarely performed or performed all the time were dropped. This process reduced the number of behavioural dimensions to four and the number of behavioural items from 271 to 39.

The BOS was then administered to 78 full-time students who were members of the second-year MBA class, and who were former members of the first-year class. The latter criterion excluded transfer students. They were instructed to self-appraise their first-year MBA program performance. Thirty-one or 40% of the BOS were returned. Due to the small pre-test sample (n = 31), factor analyses could not be performed since the reliability of the correlation coefficients is poor (Comrey & Lee, 1992). Consequently, an item analysis with the total score on the BOS as the internal criterion was conducted in accordance with the recommendations of Latham and Wexley (1994).

This analysis resulted in a final BOS consisting of 14 items. Each of the 14 items was accompanied by a 5-point scale (0 = almost never or 0 to 64 percent of the time, 4 = almost always or 95 to 100 percent of the time). Cronbach’s alpha coefficients for the 14-item scale was .73. The correlation between the pre-test
students' self appraisals on the BOS and GPA from their first-term in the MBA program was .61 (p < .001). The BOS appears in Appendix A.

Training of facilitators. One facilitator was the Associate Director of the MBA program. Her function is primarily administrative in nature. She had no influence on the assignment of grades to the students. The second facilitator was an assistant professor of Organizational Behaviour with five years of teaching experience in a business school who was enrolled in the Ph.D. program. She, too, did not have any influence on the assignment of grades to the students.

The two facilitators received a half-day of training on how to conduct a problem-solving performance appraisal (Latham & Wexley, 1994; Maier, 1976). The training consisted of a combination of lectures, discussion, and role plays. Lectures were used to disseminate information regarding the objectives to be achieved by a problem-solving performance appraisal, the role of the problem-solving appraiser, the skill requirements of an effective problem-solving appraiser, and how to conduct a problem-solving performance appraisal. Lectures were used because they are effective for helping trainees to acquire knowledge and are acceptable to participants (Carroll, Paine, & Ivancevich, 1972). Moreover, lectures are effective when assessed in terms of learning, behaviour, and results criteria (Burke & Day, 1986).

After the completion of the introductory lecture, the two facilitators were shown a videotape, developed by the author, of a problem-solving appraisal. The videotaped actors modelled effective and ineffective problem-solving appraiser behaviour. Behavioural modelling (Bandura, 1986) training was used because it has
been shown to be effective for bringing about behaviour change (e.g., Burke & Day, 1986; Latham & Saari, 1979; Mann & Decker, 1984).

The videotape presented two actors role playing a problem-solving appraisal. The procedure for developing the roles for the actors was adapted from Maier (1976). The three behaviours that were the focus of the role play were randomly chosen from the 14 behaviours contained in the BOS. Written descriptions of the seven key problem-solving performance appraisal behaviours were interspersed as learning points on the videotape to make them distinctive. Mann and Decker (1984) suggested that learning points enhance learning by making key behaviours distinct. The videotape was approximately 13 minutes in duration. The tape was played twice. During the second playing of the tape, the facilitators discussed what the appraiser was doing well and doing poorly. Discussion was used because it aids knowledge acquisition and retention (Carroll et al., 1972) and is more effective than lectures alone for bringing about behaviour change (Levine & Butler, 1952; Lewin, 1958).

After the videotape had been presented, the two facilitators role played appraisal interviews. Role plays were used since they incorporate four principles that facilitate learning: active participation, modelling, knowledge of results or feedback, and practice (Shaw, 1967). The principles correspond to Bandura’s (1986) suggested determinants of self-efficacy, namely, enactive mastery, vicarious learning, and verbal persuasion. Thus, the role playing experience was designed to increase the facilitator’s self-efficacy for conducting the problem-solving appraisal. That role plays increase self-efficacy has been demonstrated
empirically (e.g., Latham & Saari, 1979; Cole & Latham, 1997). Moreover, in a meta-analysis conducted by Burke and Day (1986), a role play in combination with lecture and/or discussion was found to be effective in terms of two of Kirkpatrick’s (1987) criteria for assessing the effectiveness of a training program, namely, learning and behaviour.

Four role play scenarios were developed for the study. They described an appraisee who had been evaluated on the behaviours identified on the BOS that was used in the study. The role play scenarios appear in Appendix B.

Role playing was followed by discussion on what the facilitator did well and poorly. After this discussion, the roles were reversed. Thus, each facilitator had the opportunity to play both the role of the appraiser and of the appraisee twice.

The reaction of the two facilitators to the training program was assessed using a 11-item measure adapted from Wexley and Latham (1991) (see Appendix C-1). Participant reactions were assessed because motivation to participate in a training program is increased if it has high participant acceptance (Wexley & Latham, 1991).

Learning was assessed using a 10-item paper-and-pencil test developed for this study. Knowledge of training program content is typically measured by such tests (Wexley & Latham, 1991). The items are designed to test knowledge of the steps in conducting a problem-solving performance appraisal and the interpersonal skills required to conduct such an appraisal. The knowledge test appears in Appendix D.
The self-efficacy of the two facilitators with regard to conducting a problem-solving performance appraisal was assessed using a 8-item measure developed according to the recommendations of Lee and Bobko (1994). This was done because self-efficacy affects how well the trained behaviour is performed after the completion of training (e.g., Frayne & Latham, 1987). This measure appears in Appendix E.

Training of peers. The participants in the peer appraisal condition (n = 10) were divided into groups of three or four to facilitate training and the performance appraisals during the first-term. While the peers belonged to the same class section, they did not belong to the same study groups.

The training of the peers was identical to the training given to the facilitators. The same reaction, learning, and self-efficacy measures that were administered to the facilitators were administered to the peers.

Training of self appraisers. The participants in the self appraisal condition (n = 10) were trained to use self-management (Frayne & Latham, 1987; Kanfer, 1975) and verbal self-guidance (Millman & Latham, in press). This training occurred in a day-long session. As with the training of the facilitator and peer appraisers, the training of the self appraisers included a combination of lectures, videotape presentation, discussion, and role plays.

The training began with a lecture to disseminate information regarding the usefulness of self-management / verbal self-guidance for developing skills such as creativity (Meichenbaum, 1975), coping with test anxiety (Meichenbaum, 1972), job search (Millman & Latham, in press), and improving behavioural problems, such
as absenteeism (Frayne & Latham, 1987; Latham & Frayne, 1989). A brief description of self-management and verbal self-guidance and the training objectives was included in the orientation lecture.

After the lecture, the self-appraiser-trainees were shown a videotape, developed by the author, of two actors demonstrating self-management and verbal self-guidance. One actor played the role of a trainer who taught the second actor, who played the role of a MBA student, how to manage and improve his ability to "motivate team-mates to produce extremely high standards of work" using self-management and verbal self-guidance.

Learning points that were highlighted on the videotape corresponded with the following seven steps of the self-management and verbal self-guidance training program: (a) self-assessment of the role self-talk plays in hindering and improving behaviour; (b) self-goal setting; (c) self-monitoring of the ways in which self-talk may act as barriers to goal attainment; (d) self-evaluation of progress towards goal achievement; (e) self-reinforcing distribution of rewards or punishers; (f) written contracts that specify goals and reinforcement contingencies for the behaviour to be improved; and (g) strategies to ensure the continued usage of self-management and verbal self-guidance. The videotape was approximately 28 minutes in duration.

After the videotape had been presented, each step of the self-management and verbal self-guidance program was discussed with the trainees. The trainees then practised the seven steps of the self-management and verbal self-guidance program. Worksheets that were used to help the trainees work through each of these steps appear in appendices F to K.
As with the facilitators and peers, the self appraisers' reaction to the training program, learning of skills taught in the training program, and self-efficacy to perform the skills were assessed. These measures appear in Appendices C-2, L, and M, respectively.

**Training to increase objectivity in the evaluation of performance.** All the appraisers were trained to minimize subjectivity in the evaluation of performance using the procedure developed by Latham, Wexley, and Pursell (1975). The 10-item scale, adapted from Wexley and Latham (1991), was used to assess the participants' reaction to the training to increase objectivity in the evaluation of performance. The scale appears in Appendix C-3.

**Performance Appraisal Intervention**

Each participant was appraised two times during the first-term. The first performance appraisal for all participants was conducted around the midpoint of the first-term. The second performance appraisal was conducted just prior to the end of the first-term. Moreover, the students performed self evaluations using the BOS at the beginning of the term. After doing so, those in the facilitator and peer conditions met with their appraisers to discuss their self ratings and ways to improve specific behaviours. These students then participatively set performance goals with their appraisers in terms of a BOS score and GPA to be achieved by the first appraisal. Participants in the self appraisal condition set their own performance improvement goals after completing their initial self evaluations.

**Facilitator appraisal condition.** The two facilitators observed the in-class and in-group performance of participants in the facilitator appraisal condition. Classes
were attended by them with the permission of the course instructors. The facilitators also contacted the participants to arrange time periods when they would attend study group meetings. To facilitate observation, the participants arranged for these meetings to occur in the business school. These meetings usually occurred after class, during lunch breaks, and in the evening. A mean of 5 observation episodes for each student was reported by the first facilitator. As an administrator in the MBA program, the Associate Director also met individually with students on an on-going basis. The second facilitator reported a mean of 8 observation episodes per student.

The facilitators reached consensus regarding the evaluation of and the goals to be set by each of these participants prior to the appraisal interview. Participants in the facilitator appraisal conditions were informed ahead of time to self-appraise their own performance and to self-set behavioural (BOS score) and GPA goals prior to their appraisal interviews. The purpose of the interview was to help the appraisee identify exemplary and problem behaviours, to participatively set goals for performance improvement in terms of BOS score and GPA to be achieved by the next appraisal, and to agree on a revised, final evaluation to be given to the appraisee by the appraiser (Maier, 1976).

**Peer appraisal condition.** Two peer appraisers observed the in-class and in-group performance of their appraisees. They independently evaluated the appraisee before meeting to reach consensus on the evaluation. One of the peer appraisers, nominated by the appraisee, then interviewed and set performance improvement
goals with the appraisee, and agreed on a revised, final evaluation to be given to the appraisee.

**Self appraisal condition.** The participant appraised him or herself and self-set performance improvement goals. After the beginning-of-term self evaluation, the self appraisers each met separately with the author to discuss their written contracts. These contracts outlined the behaviours that the appraisees wanted to change, behavioural goals, self-monitoring strategies, reward and punishment contingencies, and maintenance strategies. After the first appraisal at mid-term, the participants each met separately with the author to discuss maintenance strategies. The purpose of this meeting was to discuss reasons why the self appraisers may not have been using self-management and verbal self-guidance and how to increase their self-efficacy for using self-management and verbal self-guidance to improve their behaviour.

**Intervening Variables**

Measures of the participants’ self-efficacy beliefs, outcome expectancy beliefs, outcome valence, goal commitment, and appraisal source credibility were taken before the first and second appraisals. Since there are no standardized measures of task specific self-efficacy, the two measures of self-efficacy beliefs were developed in accordance with the procedures used by Gist (1989), and the recommendations of Lee and Bobko (1994). This was done to ensure that the scales had high internal consistency and were comprehensive measures of the participants’ self-efficacy. In their review of studies in which self-efficacy is measured, Lee and Bobko (1994) reported that the Cronbach’s alpha coefficient for
self-efficacy scales is typically in the .80 range. The self-efficacy scales were worded in terms of confidence in the appraisee's ability to achieve a specific (1) score on the BOS and (2) GPA. The self-efficacy scales appear in Appendices N-1 and N-2.

The outcome expectancy scale was developed specifically for this study. The measure is consistent with the recommendations of Ilgen, Nebeker, and Pritchard (1981) and Riggs et al. (1994). It was developed with the input of the students in the second-year, and was tested on members of that class. Eleven members of that class returned usable questionnaires. Cronbach's alpha coefficient for the scale on the pre-test was .86. The 14-item scale appears in Appendix O.

The outcome valence scale is consistent with the recommendations of Ilgen et al. (1981). The items are worded in the form of the attractiveness of achieving the outcomes that are contingent on effective performance in the MBA program. It, too, was developed with the input of the students in the second-year. The measure was pre-tested on members of that class. Nine members of that class returned usable questionnaires. Cronbach's alpha coefficient for the scale on the pre-test was .89. The 14-item scale appears in Appendix P.

Consistent with the suggestions of Yukl and Latham (1978), goal difficulty was objectively measured. The behavioural goal was measured as total score on the BOS. The range of BOS scores is 0 to 56. The grade goal was measured as GPA. The range was from 3 (C+) to 9 (A+).

The two 5-item measures of goal commitment were adapted from Hollenbeck, Williams, & Klein (1989). They reported a Cronbach's alpha coefficient
of .88. One measure assessed the participants' commitment towards a goal expressed as a BOS score while the other assessed their commitment towards a GPA goal. They appear in Appendix Q-1 and Q-2.

A questionnaire was developed to assess whether the appraisers were perceived to be credible. This measure was developed using items adapted from previous studies that have examined source credibility and fairness (e.g., Albright & Levy, 1995; Giffin, 1967; Latham & Seijts, in press; Stone, Gueutal, & McIntosh, 1984).

The pre-test sample consisted of students enrolled in a senior undergraduate course in human resource management. They were asked to use the questionnaire to appraise the performance of the teaching assistant for the course. Twenty students completed this 6-item measure. Cronbach’s alpha coefficient for the scale on the pre-test was .83. The appraisal source credibility scale appears in Appendix R. The time frame for the development and pre-testing of the measures is shown in Appendix S. In addition, the timing of the training, appraisal intervention, and completion of measures by the participants in the study is presented.

**Dependent Variables**

Performance effectiveness was measured using BOS and GPA. Behaviour across conditions was assessed by the facilitators. This is because unlike the peer and self appraisers, only the facilitators were able to observe all the participants. The facilitators were blind to the hypotheses of the study so as to minimize experimenter bias. In addition, as described earlier in this
chapter, the facilitators were trained to minimize rating errors when evaluating performance.

Performance was also measured using a hard criterion measure, namely, grades received at mid-term and at the end of the first-term of the MBA program. This allowed for multiple operationalization of the dependent variable, namely, performance effectiveness.
Chapter 4

Results

Training of Trainer Reaction Measures

As shown in Table 1, the responses of the facilitator and peer appraisers to the reaction, learning, and self-efficacy measures indicate that they were satisfied with the problem-solving performance training, they had learned how to conduct a problem-solving appraisal, and they had high self-efficacy with regard to conducting performance appraisals. The responses of self appraisers to the reaction, learning, and self-efficacy measures were similarly positive. Analyses of variance indicated no significant differences between the two training conditions on reaction, learning, or self-efficacy.

Table 1

Reaction, Learning, Self-Efficacy Measures of Conducting Problem-Solving Performance and Self Appraisals

<table>
<thead>
<tr>
<th></th>
<th>Problem-Solving Performance Appraisal Training</th>
<th>Self Appraisal Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>α</td>
<td>M</td>
</tr>
<tr>
<td>Reaction (5-point Likert scale)</td>
<td>.72</td>
<td>4.39</td>
</tr>
<tr>
<td>Learning (10 items)</td>
<td>.72</td>
<td>8.08</td>
</tr>
<tr>
<td>Self-Efficacy (10-point scale)</td>
<td>.88</td>
<td>7.97</td>
</tr>
</tbody>
</table>
Table 2 shows the reaction measure to the training on ways to minimize subjectivity in the evaluation of performance. The participants perceived it to be worthwhile.

Table 2

<table>
<thead>
<tr>
<th>Evaluation of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction (5-point Likert scale)</td>
</tr>
<tr>
<td>------------------------------</td>
</tr>
<tr>
<td>Reaction (5-point Likert scale)</td>
</tr>
</tbody>
</table>

Goal Difficulty

The test-retest reliabilities of the BOS and GPA goals were .68 and .67, respectively. Repeated measures ANOVA indicated that there was a main effect of source of appraisal on BOS goals ($F(2,27) = 5.01, p < .01$). Planned comparisons using two-tailed $t$ tests indicated that students who received peer appraisals set significantly higher behavioural goals ($M = 47.75, SD = 4.12$) than students who received facilitator appraisals ($M = 40.60, SD = 6.51$) ($t = 2.94, p < .01$). Students who conducted self appraisals set marginally higher behavioural goals ($M = 45.55, SD = 4.58$) than students who received facilitator appraisals ($t = 1.97, p < .10$). There was no significant difference in goal difficulty levels between those in the peer and self appraisal conditions.

There was no main effect of source of appraisal on GPA goals. The overall means and standard deviations are listed in Table 3 (the maximum possible BOS score is 56; the highest possible GPA is 9.0 (A+)).
Table 3

Goal Difficulty

<table>
<thead>
<tr>
<th>Source of Appraisal</th>
<th>Behavioural Goal</th>
<th>Grade Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Facilitator</td>
<td>40.60</td>
<td>6.51</td>
</tr>
<tr>
<td>Peer</td>
<td>47.75</td>
<td>4.12</td>
</tr>
<tr>
<td>Self</td>
<td>45.55</td>
<td>4.58</td>
</tr>
</tbody>
</table>

Goal Commitment

Cronbach’s alpha coefficients for commitment to the behavioural goals prior to the first and second appraisals were .64 and .70, respectively.

Cronbach’s alpha coefficients for commitment to grade goals prior to the first and second appraisals were .52 and .43, respectively. The test-retest reliabilities of commitment to behavioural and grade goals were .52 and .59, respectively.

Repeated measures ANOVA revealed no significant differences among the appraisal groups on commitment to either the behavioural or grade goal (1 = Completely Disagree, 5 = Completely Agree). The overall means and standard deviations are listed in Table 4.
Table 4

<table>
<thead>
<tr>
<th>Goal Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source of Appraisal</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Facilitator</td>
</tr>
<tr>
<td>Peer</td>
</tr>
<tr>
<td>Self</td>
</tr>
</tbody>
</table>

Reliabilities of and Inter-Correlations Between BOS and GPA

Cronbach’s alpha coefficients for the BOS on the first and second appraisals were .82 and .82, respectively. The test-retest reliability of the two behavioural measures was .59. Similarly, the test-retest reliability for GPA was .57.

The correlation between the behavioural and hard criteria was not significant ($r = .17$, ns, $n = 25$). The 95% confidence interval around the correlation coefficient did not exclude zero. Twenty-three percent of the course grades were given on the basis of team assignments. Thus a post-hoc hypothesis was that the BOS did not correlate with GPA because of the confounding effect of team grades with the individual’s GPA.

The small sample size precluded a factor analysis of the BOS. But casual observation suggested two types of items despite the high internal consistency of the scale. Two observers working independently identified 5 individual-oriented items, namely, items 3, 9, 10, 12, and 14 (see Appendix A). The
interobserver reliability was 1.0. The correlation between the summated score of these 5 BOS items and GPA was highly significant ($r = .48, p < .01, n = 28$). BOS (0 = almost never or 0 to 64 percent of the time, 4 = almost always or 95 to 100 percent of the time) and GPA (3 to 9) overall means and standard deviations are shown in Table 5.

**Effect of Source of Appraisal on Performance**

Table 5

<table>
<thead>
<tr>
<th>Source of Appraisal</th>
<th>BOS</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Facilitator</td>
<td>2.42</td>
<td>.37</td>
</tr>
<tr>
<td>Peer</td>
<td>1.94</td>
<td>.34</td>
</tr>
<tr>
<td>Self</td>
<td>2.11</td>
<td>.40</td>
</tr>
</tbody>
</table>

Repeated measures ANOVA revealed a main effect for source of appraisal on the overall BOS ($F(2,22) = 3.52, p < .05$). Thus the first hypothesis was accepted with regard to source of appraisal on student behaviour. Planned comparisons were used to test the second and third hypotheses. Contrary to hypothesis 2, facilitator appraisals ($M = 2.42, SD = .37$) resulted in higher BOS scores than did peer appraisals ($M = 1.94, SD = .34$) ($t = 2.42, p < .05$). Peer appraisals resulted in BOS scores that were not significantly different from self appraisals ($M = 2.11, SD = .40$) ($t = .78, ns$). With regard to hypothesis 3, facilitator appraisals resulted in marginally higher BOS scores than did self appraisals ($t = 1.91, p < .10$). No significant
differences were found among conditions regarding GPA. Thus the second hypothesis was rejected, while marginal support was obtained for the third hypothesis.

Because of these non-significant findings, a post-hoc hypothesis was that there were gender differences in performance. This hypothesis was based on Eagly’s (1987) suggestion that women are superior to men in socially-oriented (i.e., communal) behaviour.

A two-tailed t-test revealed that female participants (M = 34.17, SD = 3.57) had a significantly higher BOS score than males (M = 28.44, SD = 6.28) (t = 2.51, p < .05). Further post-hoc tests to identify the apparent source of this effect were not conducted due to the small and unequal number of female and male participants in the three appraisal conditions.

**Appraisal Source Credibility**

Repeated measures ANOVA indicated a main effect of source of appraisal on appraisal source credibility (F(2,23) = 4.78, p < .05). Thus hypothesis 4 was supported. Planned comparisons indicated, contrary to hypothesis 5, that facilitators (M = 4.35, SD = .27) were perceived to be more credible than peer appraisers (M = 3.82, SD = .24) (t = 2.80, p < .01), but peer appraisers were perceived to be no more credible than self appraisers (M = 3.73, SD = .48) (t = .34, ns). In support of hypothesis 6, however, facilitator appraisers were perceived to be more credible than self appraisers (t = 2.85, p < .01).
Mediators of the Source of Appraisal - Performance Relationship

Cronbach’s alpha coefficients for appraisal source credibility, self-efficacy, outcome expectancy, outcome valence, and appraisal source credibility, listed in Appendix T, ranged from .54 (self-efficacy magnitude - grade assessed before the second appraisal to .84 (self-efficacy strength - behaviour assessed before the first appraisal). The test-retest reliabilities for appraisal source credibility, self-efficacy (behaviour), self-efficacy (grade), outcome expectancy, and outcome valence were .64 (n = 26), .64 (n = 28), .68 (n = 30), .65 (n = 29), and .71 (n = 30), respectively.

Because there were significant differences among the appraisal groups, the mediating effects of self-efficacy, outcome expectancy, outcome valence, and appraisal source credibility (H7) were examined. Three regression equations were estimated in order to determine if four conditions for mediation are satisfied (Baron & Kenny, 1986).

First, the independent variable, source of appraisal, must be related to the mediating variable. Second, the independent variable must be related to the dependent variable, namely BOS score. Third, the dependent variable must be regressed on both the mediating and independent variables. If the mediator mediates the source of appraisal - performance relationship, the variance explained by the mediator must be significant in this third equation. Finally, for complete mediation to occur, the variance explained by source of appraisal after the mediator has been held constant must be lower than the variance explained
by source of appraisal alone. None of the hypothesized mediators satisfied all four conditions. Thus hypothesis 7 was rejected.

**Qualitative Data**

After the quantitative data collection, the participants in the study were asked for verbal feedback on the appraisal intervention. Eight of the participants (27%) volunteered information. The format of the feedback session was informal.

Feedback from three students in the self-appraisal condition included the following statements:

"the behaviours enhanced the learning experience"; "the positive self-talk worked but I made the mistake of giving myself a self-reward and punishment that involved time"; "self-monitoring was very time consuming"; "it was hardest to identify what behaviours to improve"; "what was lacking was feedback from other peers and people outside"; "I couldn’t really gauge how well I was performing the behaviours"; "it would have been helpful to have someone help with the self-monitoring - someone to regularly probe, someone from outside to give feedback".

Feedback from one student in the peer appraisal condition included the following statements:

"my appraisers got me to take action; the feedback I did get was helpful"; "I was surprised by how honest the feedback was"; "my
appraisers were not knowledgeable”; “the appraisals took a long
time to complete”.

Feedback from four students in the facilitator appraisal condition included the following statements:

“I had good one-on-one discussions with my appraiser”; “there was a lot of encouragement, openness”; “the appraisal kept me conscious of my performance habits and made me accountable”; “my appraiser gave me excellent focus”; “my first meeting was extremely productive - my appraiser gave me simple techniques to help with studying and group meetings”; “more criticism would have been helpful”.

Chapter 5

Discussion

The present chapter discusses the theoretical and practical significance of this research. Limitations of the study are explained, and suggestions for future research are provided.

Theoretical Significance

The performance appraisal intervention used in this study was based on principles of goal setting (Locke & Latham, 1990) and social cognitive (Bandura, 1986; 1997) theories. Latham and Crandall (1991) stated that interventions based on theory are likely to be effective in improving performance because theory can be used to identify why an intervention succeeded or failed.

Goal setting theory states that the higher the goal, the higher the performance. Yet, the present study showed that students who set the lowest behavioural goals had the highest BOS scores. Winters and Latham (1996) found that performance on a novel, complex task was highest when goals were not focused on outcomes, but on the development of strategies for attaining them. Effective MBA student behaviour was a novel and complex task for the incoming first-year students. This is because the majority of participants (80%) did not have undergraduate commerce or business degrees, none had previously enrolled in a MBA program, and none had been formally evaluated on behavioural measures of effectiveness. Thus, a plausible explanation for the high performance, despite a low behavioural outcome goal, is that the facilitators were able to coach their appraisees on ways to develop solutions to
performance problems, whereas this was more difficult to accomplish for peer and self coaches.

Social cognitive theory states that persuasion from a significant other increases performance. The finding that facilitator appraisals resulted in the highest BOS scores is consistent with the finding that they were perceived to be more credible than the alternative sources of appraisal. Peer appraisers were viewed as lacking the knowledge and expertise to be persuasive or to be viewed as models of effective MBA student behaviour. The self appraisers, who were taught self-management and verbal self-guidance skills to help themselves improve their performance appeared to be unable to benefit from these newly acquired skills because they had yet to gain proficiency in the appropriate behaviours necessary for effective MBA student performance.

Anecdotal evidence supports a social cognitive theory explanation for why facilitator appraisals resulted in the highest BOS scores. As noted in Chapter 4, a student who had been assigned to the facilitator appraisal condition stated that his facilitator gave him “excellent focus”. A student in the peer appraisal condition noted that he was surprised by the honesty of the feedback but that he did not perceive his peer to be knowledgeable to give him useful feedback. A participant in the self appraisal condition stated that he did not know how well he was performing the behaviours because he lacked feedback from other people, while another reported that it was difficult for her to identify which behaviours to improve on in the future.
Practical Implications

The practical implications of this study are as follows. First, the results indicate that on a novel, complex task, facilitators are relatively more effective in bringing about a change in behaviour than are peer or self appraisers. This finding is consistent with Hillery and Wexley (1974) who found that student teachers preferred to be appraised by experienced teachers who were supervising them rather than participate in their own appraisal. Moreover, student teachers appraised by an experienced teacher had higher performance than those who participated in their own appraisal.

A second implication is that self-management and verbal self-guidance training may be effective in improving performance only when the appraisee is knowledgeable regarding the appraised task. Frayne and Latham (1987) and Latham and Frayne (1989) found that self-management training was effective in improving the job attendance of employees. Similarly, Millman and Latham (in press) found that verbal self-guidance training increased the re-employment of executives who had previously been taught the job search skills. In the present study the BOS scores of the inexperienced self-appraisers, trained in self-management and verbal self-guidance, were marginally lower than those who were appraised by facilitators.

A final implication is that non-faculty personnel who are knowledgeable about how to perform effectively in the MBA program can be an effective source of help to MBA students in finding ways to improve student behaviour.
These facilitators may be an important adjunct to faculty in North American business schools that are striving to provide the “best” education for students.

Currently, MBA programs such as those at Queens (K. Wong, personal communication, October 31, 1997) and Case Western Reserve (F. Cort, personal communication, October 31, 1997) universities employ Organizational Behaviour faculty and Ph.D. students as facilitators for MBA study groups. The University of Pennsylvania’s Wharton School also experimented with the use of second-year MBA students as team process consultants for the learning team project that was a component of a mandatory first-year course in the 1993-1994 academic year (Friedman, 1996).

In the Queens and Case Western Reserve programs, each student group is assigned one facilitator whose function is to help them develop group process and interaction skills. Each facilitator is assigned to one or two teams that remain together throughout the academic year. While the facilitators are trained prior to the start of the academic year, they define the agenda for what they want to accomplish with their student groups. In the Wharton School, each peer consultant was drawn from students enrolled in a second-year elective course in process consulting. They received training prior to being assigned to three learning teams. This experiment was discontinued, however, when the Wharton students expressed their dissatisfaction with having to complete team projects that were not graded. Wharton has now added the learning team requirement as a graded component of another first-year course, and both faculty and second-year students are now used as coaches for the
first-year teams (Friedman, 1996). The present study is the first, to the
author's knowledge, that provides evidence in support of these interventions.

Limitations and Future Research

A limitation of this study is the small sample size. No pressure was
placed on the students to participate in this study. Many of them may not have
believed that they could respond effectively to another activity in an already
demanding first-term curriculum (cf. Robinson, 1994). The low participation
rate in this study, however, is within the norm for social science research
conducted in field settings (Sudman & Bradburn, 1982).

The small sample size reduced the power to detect significant
differences. Thus adequate tests for mediation effects were not possible.
Nevertheless, Hunter and Schmidt (1990) argued that even studies with small
sample sizes are useful as input for subsequent meta-analyses.

The null finding regarding GPA may also be due to lack of power. A
post-hoc power analysis indicated that the power to detect a significant
difference in grades among conditions was as low as 19%.

A second explanation for the absence of significant differences across
the appraisal conditions on GPA may be restriction of range. This rival
hypothesis was rejected because only 27% of the participants and 44% of the
non-participants entered the MBA program with a grade between A- and A + (χ²
= 2.24, ns). Moreover, 20% of the participants and 25% of the non-
participants received a first-term GPA between A- and A + (χ² = .31, ns).
A third explanation for the null finding regarding GPA may be the duration of the study. Likert (1967) found that there is sometimes a time lag between changes in behaviour and changes in outcomes reflecting behaviour.

The most parsimonious explanation for the non-significant findings is that GPA was an inappropriate or contaminated criterion for evaluating the effects of the independent variable manipulated in this study. Each student's GPA was contaminated by team grades where the contribution of any one individual to the team's grade was not measured and hence not reflected in the person's GPA. Moreover, the intervention focused on the individual's behaviour as a team-player. BOS were developed specifically to measure this behaviour. Thus it appears that there was only one rather than two dependent variables to assess the effectiveness of the three appraisal-coaching interventions.

A second limitation of this study is its external validity beyond educational settings. The facilitators were not members of the study groups to which the students belonged. This limitation reflects the relatively unique nature of business schools as opposed to manufacturing organizations where, historically, there has been an emphasis on the use of self-managing work groups, and high technology organizations where there is an ongoing use of project teams. In the present study, the facilitators helped their appraisees to devise solutions to performance problems and set goals for performance improvement. In industry, facilitators are integral members of their work groups who not only facilitate problem-solving and goal setting by other team members but also contribute toward task completion.
A third limitation is that while the peers in this study were members of the same class section, only one of the three peer appraisal groupings had more than one participant assigned to the same study group. Thus it was not possible to perform a statistical analysis to determine whether students who were appraised by study group members received higher ratings than those who were appraised by peers who were not members of their study group. This is because not all study group members volunteered to participate in this experiment. Thus the context of the study is dissimilar to organizational settings where members of intact work teams provide feedback to one another.

A fourth limitation of this study is the rival hypothesis that the conclusion regarding the relative effectiveness of facilitator appraisals is due to the self-serving bias of the facilitators (Greenberg, 1991). Self-serving bias, as well as halo, negative and positive leniency, similar-to-me, contrast, and first impression are types of rating errors. This rival hypothesis may be rejected because ways recommended by Wherry and Bartlett (1983) and Nieva and Gutek (1980) to reduce observer bias were followed in this study. Bias in evaluation is minimized by using multiple raters using rating scales with clear and objective behavioural referents thus minimizing the need to infer performance, and training raters on which behaviours to observe, and how to minimize rating errors. These recommendations were adopted in this study through the use of BOS, training the facilitators to minimize rating errors, and by having two facilitators evaluate each participant. Moreover, evidence suggestive of convergent validity was provided by the significant correlation between the
facilitators' evaluation of the students' performance on the 5 individual-oriented BOS items and GPA. Nevertheless, the conclusion of this study regarding the use of facilitators must be viewed with caution until it can be replicated using observers who do not serve as coaches.

A final rival hypothesis in most field experiments is that information or communication among participants across conditions diffused the variance necessary to obtain significant findings. This hypothesis would appear dubious, however, because a plethora of studies (cf. Locke & Latham, 1990) have shown that information or feedback alone is insufficient to change behaviour. Moreover, empirical studies on feedback that included goal setting in field studies where the participants were aware of who was in what conditions, and the implications of being in those conditions have found significant effects for the goal setting interventions in the hypothesized direction (e.g., Dossett et al., 1979; Latham et al., 1978). Moreover, significant differences were obtained in the present study among conditions on the behavioural criteria.

Future studies with larger samples sizes should be conducted so that goal type and task type can be varied. Studies, such as those conducted by Winters and Latham (1996) and Zimmerman and Kitsantas (1997), need to be conducted in a field setting. Those authors examined the effects of learning and outcome goals on performance. The results of those studies indicate that the type of goal that is optimal for motivating performance depends on which stage of skill acquisition the person has attained, and the complexity of the skill that is being learned.
Further research needs to be conducted to identify mediators and moderators of the source of appraisal-performance relationship. Plausible mediators and moderators of this relationship include appraisal source credibility, self-efficacy, outcome expectancy, outcome valence, appraiser and appraisee gender, and task novelty and complexity. Such data would provide further insights into the cognitive and motivational mechanisms underlying the effectiveness of performance appraisals for improving performance.

Future research is needed to examine the relative effectiveness of facilitator, peer, and self appraisals in organizational contexts where facilitators and peers are part of the appraisee's work group. Since the facilitators also contribute toward task completion, facilitators in such work groups also serve in the role of peers. This research would provide insight into the relative effectiveness of facilitator, peer, and self appraisals for improving performance when the facilitator is also a peer, and when peers are members of the appraisee’s work group.

The current study used non-teaching and non-faculty personnel as facilitators. Future research should examine whether teaching faculty can serve effectively as facilitators. Additional, related research should also examine whether individuals who are at the same organizational level or status as the appraisee but who are more experienced or senior (e.g., second-year MBA students; employees with seniority) can serve effectively as coach-appraisers.

The present study was designed solely to compare the relative influence of facilitator, peer, and self appraisals on appraisee performance. In contrast,
360-degree appraisal systems that have been implemented in many organizations (e.g., London & Smither, 1995; Sulksy & Keown, in press) require multiple sources (i.e., facilitator, peer, self, subordinate, customer) to appraise the appraisee. Future research that compares the relative effectiveness of multiple sources of appraisal versus only one source is needed to provide insight on how to use appraisals to maximize an individual’s performance.

The dependent variables of interest in the present study were behaviour and grades. Future research needs to examine the effect of different sources of appraisal on affect or reactions. In organizations, such as those that have been downsized, organizational decision-makers may be as concerned with employee job satisfaction and regaining organizational commitment as they are with maximizing performance (e.g., Korsgaard & Roberson, 1995).
References


_The Academy of Management Review, 7_, 305-312.


APPENDIX A

**Behavioural Observation Scale for MBA Students at the University of Toronto**

**Appraisee:**

**Appraiser:**

**Date of Appraisal:**

This checklist contains key behaviours that previous MBA students have reported as critical for improving performance in the first-year of the MBA program.

Please consider the named individual's behaviour in the MBA program during the appraisal period. Read each statement carefully. Circle the number that indicates the extent to which you believe this person has demonstrated this behaviour. For each behaviour a 4 represents almost always, or 95 to 100 percent of the time; a 3 represents frequently, or 85 to 94 percent of the time; a 2 represents sometimes, or 75 to 84 percent of the time; a 1 represents seldom, or 65 to 74 percent of the time and a 0 represents almost never, or 0 to 64 percent of the time.

An example of an item is shown below. The circled “2” indicates that the appraisee sometimes meets deadlines (i.e., meets deadlines 75% to 84% of the time).

**Example:**

<table>
<thead>
<tr>
<th>Meets deadlines.</th>
<th>Almost Never</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Almost Always</th>
</tr>
</thead>
</table>

1. Motivates teammates to produce extremely high standards of work.
   Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

2. Pays attention during group meetings.
   Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

3. Perseveres to understand concepts regardless of their difficulty.
   Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

4. Is prepared for group meetings.
   Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

5. Distributes group work to capitalize on strengths and interests of others.
   Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

6. Keeps group members accurately informed of progress on projects.
   Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

7. Knows content of group projects completed by other group members.
   Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

8. Co-ordinates upcoming work with group members who are involved in it.
   Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

   Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

10. Meets deadlines.
    Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

11. Clearly communicates when available for group work.
    Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

12. Expresses ideas clearly in written assignments.
    Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

13. Acts as mediator to resolve conflicts among group members.
    Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

14. Reads additional material to comprehend concepts not initially understood.
    Almost Never | 0 | 1 | 2 | 3 | 4 | Almost Always

BOS Score: _________
Summary Comments:

1. What is____________________doing that you believe is effective and you would like to see him/her continue doing?

_________________________________________________________________
_________________________________________________________________

2. What would you like to see_________________________start doing, stop doing, or do differently?

_________________________________________________________________
_________________________________________________________________

3. Please record observations of critical incidents to support your ratings.

_________________________________________________________________

4. What performance improvement goal(s) would you like to see _____
_________________________set for himself/herself?

_________________________________________________________________

5. What goal for overall, first-term grade point average (GPA) would you like to see __________________________set for himself/herself?
APPENDIX B

Role Play #1

Role Sheet for Appraiser

Today you have arranged to interview the appraisee. Prior to this meeting, the appraisee was informed of the need to specify what she/he believes she/he has been doing well that deserves recognition and what she/he has not been doing well and therefore needs to stop doing or consider doing differently.

This is the background information you have on the appraisee:

Appraisee: She/he is a typical University of Toronto MBA student: 26 years-old with three years of work experience in branch management at one of the 6 major chartered banks. After graduating from Queen’s University with a degree in Economics, she/he travelled around Europe for half-a-year before following her/his father into a banking career as a branch manager trainee in Toronto. She/he was told by her/his supervisor that if she/he wanted to be more than just a branch manager, she/he had to get a MBA. So, she/he decided to return to school. She/he is specializing in Finance while in the Toronto MBA program.

Your evaluation of your appraisee is as follows:

She/he is being evaluated on her/his ability to perform behaviours critical to effective performance in the MBA program. For the most part, you have given her/him an evaluation of 2 or 3 on a 5-point scale for most of the behaviours. On the appraisal form, the numbers indicate the frequency with which the behaviour is performed: 0 = almost never; 1 = seldom; 2 = sometimes; 3 = frequently; and, 4 = almost always.

There are three behaviours on which you have given the appraisee a rating of 0 and for which you want her/him to set performance improvements goals: PAYS ATTENTION DURING GROUP MEETINGS, PERSEVERES TO UNDERSTAND CONCEPTS REGARDLESS OF THEIR DIFFICULTY, CO-ORDINATES UPCOMING WORK WITH GROUP MEMBERS WHO ARE INVOLVED IN IT.
Role Play #1

Role Sheet for Appraisee

You were warned by co-workers and friends who had completed the University of Toronto MBA program that you were more likely to succeed in the University of Windsor MBA program because of the amount of work involved and the need to work well with your team-mates to succeed in the Toronto program. So, you are not sure you can perform effectively in the program because you scored in the 75th percentile on the Graduate Management Admission Test (GMAT) and had a B average at Queen's University in your last year. You are still wondering if the admissions committee made a mistake about letting you into the Toronto MBA program. You are concerned about your performance in the program because, compared to you, most of your classmates had higher GMAT scores and higher averages in their undergraduate programs.

On the appraisal form, the numbers indicate the frequency with which the behaviour is performed: 0 = almost never; 1 = seldom; 2 = sometimes; 3 = frequently; and, 4 = almost always. You have performed your self-appraisal and are about to meet with your appraiser and do not feel at all confident that you will receive good ratings on most of the behaviours. In fact, you have rated yourself with a 1 on most of the behaviours except for CO-ORDINATES UPCOMING WORK WITH GROUP MEMBERS WHO ARE INVOLVED IN IT. On this behaviour, you have given yourself a rating of 0. You plan to ask your appraiser for advice on how to improve this behaviour.
Role Play #2

Role Sheet for Appraiser

Today you have arranged to interview the appraisee. Prior to this meeting, the appraisee was informed of the need to specify what she/he believes she/he has been doing well that deserves recognition and what she/he has not been doing well and therefore needs to stop doing or consider doing differently.

This is the background information you have on the appraisee:

Appraisee: She/he is an atypical University of Toronto MBA student: a 45 year-old, single parent of two teenagers who is also responsible for caring for an ageing parent. She/he graduated from the University of Waterloo with a degree in mechanical engineering and has 22 years of work experience with her/his only employer, the Province of Ontario. Rather than remain with an uncertain future in the Provincial Government, she/he opted for the severance package which included a generous education stipend. She/he is not sure what she/he wants to do after she/he obtains her/his MBA. All she/he knows is that acquiring a MBA will make her/him more marketable when she/he is ready to return to the workforce.

Your evaluation of your appraisee is as follows:

She/he is being evaluated on her/his ability to perform behaviours critical to effective performance in the MBA program. For the most part, you have given her/him an evaluation of 2 or 3 on a 5-point scale for most of the behaviours. On the appraisal form, the numbers indicate the frequency with which the behaviour is performed: 0 = almost never; 1 = seldom; 2 = sometimes; 3 = frequently; and, 4 = almost always.

There are three behaviours on which you have given the appraisee a rating of 0 and for which you want her/him to set performance improvements goals: READS ADDITIONAL MATERIAL TO COMPREHEND CONCEPTS NOT INITIALLY UNDERSTOOD, KNOWS HOW TO USE SOFTWARE NECESSARY FOR COMPLETING ASSIGNMENTS, CLEARLY COMMUNICATES WHEN AVAILABLE FOR GROUP WORK.
Role Play #2

Role Sheet for Appraisee

You were a superior performer in every Ministry in which you worked in your 22 years with the Province of Ontario. You began in the Ministry of Transportation as a junior engineer when you graduated from the University of Waterloo in 1974 and steadily rose through the ranks to the level of Senior Project Manager in the Ministry of Natural Resources, which has been the object of recent, heavy government cutbacks. Earlier this year, you opted to accept the government’s severance package. You are unsure about your next career move but are certain that your marketability will be enhanced by a MBA. Since the Government’s severance package included a generous education stipend, you applied for entrance to 8 of the province’s MBA programs. To your surprise and delight, you were accepted by your first choice, the University of Toronto.

You are concerned about your performance in the program because, compared to you, most of your classmates are younger, have less work experience, are not as removed from an academic environment, and have fewer personal obligations.

On the appraisal form, the numbers indicate the frequency with which the behaviour is performed: 0 = almost never; 1 = seldom; 2 = sometimes; 3 = frequently; and, 4 = almost always. You have performed your self-appraisal and are about to meet with your appraiser and do not feel at all confident that you will receive good ratings on most of the behaviours. In fact, you have rated yourself with a 1 on most of the behaviours except for EXPRESSES IDEAS CLEARLY IN WRITTEN ASSIGNMENTS. On this behaviour, you have given yourself a rating of 0. You plan to ask your appraiser for advice on how to improve this behaviour.
Role Sheet for Appraiser

Today you have arranged to interview the appraisee. Prior to this meeting, the appraisee was informed of the need to specify what she/he believes she/he has been doing well that deserves recognition and what she/he has not been doing well and therefore needs to stop doing or consider doing differently.

This is the background information you have on the appraisee:

Appraisee: She/he is an atypical University of Toronto MBA student: a 45 year-old, single parent of two teenagers who is also responsible for caring for an ageing parent. She/he graduated from the University of Waterloo with a degree in mechanical engineering and has 22 years of work experience with her/his only employer, the Province of Ontario. Rather than remain with an uncertain future in the Government, she/he opted for the severance package which included a generous education stipend. She/he is obtaining a MBA to increase her marketability prior to re-entry into the workforce.

Your evaluation of your appraisee is as follows:

She/he is being evaluated on her/his ability to perform behaviours critical to effective performance in the MBA program. For the most part, you have given her/him an evaluation of 2 or 3 on a 5-point scale for most of the behaviours. On the appraisal form, the numbers indicate the frequency with which the behaviour is performed: 0 = almost never; 1 = seldom; 2 = sometimes; 3 = frequently; and, 4 = almost always.

There are three behaviours on which you have given the appraisee a rating of 0 and for which you want her/him to set performance improvements goals: ACTS AS MEDIATOR TO RESOLVE CONFLICTS AMONG GROUP MEMBERS, MEETS DEADLINES, KNOWS CONTENT OF GROUP PROJECTS COMPLETED BY OTHER GROUP MEMBERS.
Role Play #3

**Role Sheet for Appraisee**

You were a superior performer in every Ministry in which you worked in your 22 years with the Province of Ontario. You began in the Ministry of Transportation as a junior engineer when you graduated from the University of Waterloo in 1974 and steadily rose through the ranks to the level of Senior Project Manager in the Ministry of Natural Resources, which has been the object of recent, heavy government cutbacks. Earlier this year, you opted to accept the government's severance package because it included a generous education stipend. You want to enhance your marketability before you make your next career move. So, you have decided to return to university to earn a MBA. You applied only to the Toronto MBA program, and as expected, you were accepted.

Although compared to you, most of your classmates are younger, have less work experience, are not as removed from an academic environment, and have fewer personal obligations, you are confident that you can perform effectively in the MBA program because you have always been a high performer.

On the appraisal form, the numbers indicate the frequency with which the behaviour is performed: 0 = almost never; 1 = seldom; 2 = sometimes; 3 = frequently; and, 4 = almost always. You have performed your self-appraisal and are about to meet with your appraiser and feel very confident that you will receive good ratings on most of the behaviours. In fact, you have rated yourself with a 4 on most of the behaviours except for ACTS AS MEDIATOR TO RESOLVE CONFLICTS AMONG GROUP MEMBERS. On this behaviour, you have given yourself a rating of 2, not because you are not a good mediator, but because you think that the members of your group should be mature enough to resolve their problems on their own.
Role Play # 4

Role Sheet for Appraiser

Today you have arranged to interview the appraisee. Prior to this meeting, the appraisee was informed of the need to specify what she/he believes she/he has been doing well that deserves recognition and what she/he has not been doing well and therefore needs to stop doing or consider doing differently.

This is the background information you have on the appraisee:

Appraisee: She/he is the typical University of Toronto MBA student: 26 years-old with three years of work experience in branch management at one of the 6 major chartered banks. After graduating from Queen's University with a degree in Economics, she/he travelled around Europe for half-a-year before following her/his father into a banking career as a branch manager trainee in Toronto. She/he was told by her/his supervisor that if she/he wanted to be more than just a branch manager, she/he had to get a MBA. So, she/he decided to return to school. She/he hopes to get into investment banking after she/he completes her/his MBA and is specializing in Finance while in the Toronto MBA program.

Your evaluation of your appraisee is as follows:

She/he is being evaluated on her/his ability to perform behaviours critical to effective performance in the MBA program. For the most part, you have given her/him an evaluation of 2 or 3 on a 5-point scale for most of the behaviours. On the appraisal form, the numbers indicate the frequency with which the behaviour is performed: 0 = almost never; 1 = seldom; 2 = sometimes; 3 = frequently; and, 4 = almost always.

There are three behaviours on which you have given the appraisee a rating of 0 and for which you want her/him to set performance improvements goals: MOTIVATES TEAM-MATES TO PRODUCE EXTREMELY HIGH STANDARDS OF WORK, KEEPS GROUP MEMBERS ACCURATELY INFORMED OF PROGRESS ON PROJECTS, DISTRIBUTES GROUP WORK TO CAPITALIZE ON STRENGTHS AND INTERESTS OF OTHERS.
Role Sheet for Appraisee

Although you were warned by co-workers and friends who had completed the University of Toronto MBA program about the amount of work involved and the need to work well with your team mates to succeed in the program, you were very confident that getting through the program would not be a problem because you had scored in the 95th percentile on the Graduate Management Admission Test (GMAT) and you had an A average at Queen’s University in your last year. You were also given a lot of support by your supervisors and co-workers when you told them of your decision to return to school to get a MBA.

What you did not realize was that many of your classmates also have extremely high GMAT scores and grade point averages, and were encouraged by their companies to get their MBAs. Although you have felt overwhelmed at times, you believe that you have managed to keep up with classes and are getting along well with your team mates.

One issue concerns you, however. Although you are working steadily and making much progress on your own work and your portion of group projects, it seems that, overall, your group is not very productive. You are constantly being asked for progress reports on your share of group work at each team meeting. Lately, your replies have been brief.

On the appraisal form, the numbers indicate the frequency with which the behaviour is performed: 0 = almost never; 1 = seldom; 2 = sometimes; 3 = frequently; and, 4 = almost always. You have performed your self-appraisal and are about to meet with your appraiser and feel very confident that you will receive good ratings on most of the behaviours. In fact, you have rated yourself with a 4 on most of the behaviours except for MOTIVATES TEAM-MATES TO PRODUCE EXTREMELY HIGH STANDARDS OF WORK. On this behaviour, you have given yourself a rating of 2. You plan to ask your appraiser for advice on how to improve this behaviour.
APPENDIX C-1

Reaction to Problem-Solving Performance Appraisal Training

This questionnaire is to be completed anonymously. Please do not identify yourself anywhere on this form. Circle the number that best represents your attitude.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Neither Nor Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Considering everything, I am satisfied with this training program.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. My expectations were met by this training program.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. I found the videotape to be valuable for learning how to conduct a problem-solving performance appraisal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. I found the role play exercises to be valuable for learning how to conduct a problem-solving performance appraisal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. I found the discussion to be valuable for learning how to conduct a problem-solving performance appraisal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I found the lecture to be valuable for learning how to conduct a problem-solving performance appraisal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. I found the handout material to be valuable for learning how to conduct a problem-solving performance appraisal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. The trainer was an effective communicator.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. The trainer effectively emphasized key points.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. The trainer’s use of visual aids was effective.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. The trainer’s use of handout materials was effective.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix C-2

Reaction to Self Appraisal (Self-Management / Verbal Self-Guidance) Training

This questionnaire is to be completed anonymously. Please do not identify yourself anywhere on this form. Circle the number that best represents your attitude.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

1. Considering everything, I am satisfied with this training program.
2. My expectations were met by this training program.
3. I found the videotape to be valuable for learning how to use self-management / verbal self-guidance to change my behaviour.
4. I found the discussion to be valuable for learning how to use self-management / verbal self-guidance to change my behaviour.
5. I found the lecture to be valuable for learning how to use self-management / verbal self-guidance to change my behaviour.
6. I found the handout material to be valuable for learning how to use self-management / verbal self-guidance to change my behaviour.
7. The trainer was an effective communicator.
8. The trainer effectively emphasized key points.
9. The trainer’s use of visual aids was effective.
10. The trainer’s use of handout materials was effective.
APPENDIX C-3

Reaction to Training to Increase Objectivity in the Evaluation of Performance

This questionnaire is to be completed anonymously. Please do not identify yourself anywhere on this form. Circle the number that best represents your attitude.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Considering everything, I am satisfied with this training program.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>My expectations were met by this training program.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>I found the videotape to be valuable for learning how to minimize rating errors.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>I found the discussion to be valuable for learning how to minimize rating errors.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>I found the lecture to be valuable for learning how to minimize rating errors.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>I found the handout material to be valuable for learning how to minimize rating errors.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>The trainer was an effective communicator.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>The trainer effectively emphasized key points.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>The trainer's use of visual aids was effective.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>The trainer's use of handout materials was effective.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
**Knowledge Assessment: Problem-Solving Performance Appraisal**

Please write your answers in the space provided.

1. What is the role of the appraiser when s/he conducts a problem-solving performance appraisal?
   - Judge ____  Coach ____  Evaluator ____  Administrator ____

2. List the 7 interpersonal skills that are critical to an effective problem-solving performance appraiser.
   - __________________________  __________________________  __________________________
   - __________________________  __________________________  __________________________
   - __________________________

3. Why is it important to forewarn the appraisee about the appraisal interview?

4. Who sets the performance improvement goals in a problem-solving performance appraisal?
   - Appraisee ____  Appraiser ____  Appraisee & appraiser ____  No one ____

5. What are the three actions that the appraiser must ask the appraisee to specify about the behaviour(s) the appraisee wants to improve?
   - __________________________  __________________________  __________________________

6. Why is goal setting important?

7. What is the essence of active listening?

8. Why is it important to set a follow-up date at the end of the appraisal interview?

9. What must accompany goal-setting for performance to improve?

10. When the rating scale used is a BOS, what kind of performance improvement goal should be set?
### Self-Efficacy for Conducting a Problem-Solving Performance Appraisal

Please indicate your beliefs about your ability to perform the essential skills required for conducting a problem-solving performance appraisal. In the second column, answer "YES" or "NO" to the statement by circling "Y" or "N". In the third column, indicate your confidence in performing the behaviour, not your confidence in your "Y/N" answer, by circling a number between 1 and 10. 1 means that you have no confidence at all, 5 means you have moderate confidence, and 10 means you have complete confidence.

For example, if you have complete confidence that you can actively listen to the appraisee, then circle "Y" in the second column and "10" in the third column. On the other hand, if you have no confidence that you actively listen to the appraisee, then circle "N" in the second column and "1" in the third column. Whenever you circle "N", you must circle 1 in the third column.

<table>
<thead>
<tr>
<th></th>
<th>Yes / No</th>
<th>No Confidence</th>
<th>Moderate Confidence</th>
<th>Complete Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I believe I can actively listen to the appraisee.</td>
<td>Y N</td>
<td>1 2 3</td>
<td>4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>2. I believe I can respect the pauses of the appraisee.</td>
<td>Y N</td>
<td>1 2 3</td>
<td>4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>3. I believe I can reflect the feelings of the appraisee.</td>
<td>Y N</td>
<td>1 2 3</td>
<td>4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>4. I believe I can restate the ideas of the appraisee.</td>
<td>Y N</td>
<td>1 2 3</td>
<td>4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>5. I believe I can pose general exploratory questions to the appraisee.</td>
<td>Y N</td>
<td>1 2 3</td>
<td>4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>6. I believe I can pose stimulating questions to the appraisee.</td>
<td>Y N</td>
<td>1 2 3</td>
<td>4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>7. I believe I can periodically summarize what the appraisee said.</td>
<td>Y N</td>
<td>1 2 3</td>
<td>4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>8. I believe I can be an effective problem-solving performance appraiser.</td>
<td>Y N</td>
<td>1 2 3</td>
<td>4 5 6 7 8 9 10</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX F

**Self-Assessment Worksheet**

**Behaviour:** Motivates team-mates to produce extremely high standards of work.

<table>
<thead>
<tr>
<th>NEGATIVE (-)</th>
<th>POSITIVE (+)</th>
<th>RESULT OF</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF-STATEMENT</td>
<td>SELF-STATEMENT</td>
<td>SELF-STATEMENT</td>
</tr>
</tbody>
</table>

### APPENDIX G

**Goal-Setting Worksheet**

<table>
<thead>
<tr>
<th>TIME FRAME</th>
<th>SITUATION</th>
<th>BEHAVIOUR</th>
<th>GOAL SET</th>
</tr>
</thead>
</table>

### APPENDIX H

**Self-Monitoring Log Book**

**Behaviour:** Motivates team-mates to produce extremely high standards of work.

<table>
<thead>
<tr>
<th>DAY</th>
<th>FREQUENCY</th>
<th>SITUATION</th>
<th>SELF-STATEMENT</th>
<th>RESULT</th>
</tr>
</thead>
</table>
APPENDIX I

Self-Reinforcement Worksheet

<table>
<thead>
<tr>
<th>TARGET BEHAVIOUR</th>
<th>REWARD</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNDESIRABLE BEHAVIOUR</th>
<th>PUNISHER</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX J

Troubleshooting Worksheet

<table>
<thead>
<tr>
<th>DATE</th>
<th>PROBLEM</th>
<th>ACTION TAKEN</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX K

Contract

Effective Dates:
The following behaviour and goal will be monitored by me:

Self-monitoring:

Rewards and Punishers:

Maintenance:

Signature: ____________________________

(Self Appraiser)
APPENDIX L

Knowledge Assessment: Self-Management / Verbal Self-Guidance

Please write your answers in the space provided.

1. What is self-talk and how does it affect behaviour?

2. List the 7 steps in the self-management / verbal self-guidance program of behavioural change.

3. How is self-monitoring different from self-evaluation?

4. Why is it necessary to develop a written contract?

5. Why is goal setting important?

6. What is the purpose of self-assessment?

7. Why is self-evaluation important?

8. Describe two characteristics of effective performance improvement goals.

9. What must accompany goal-setting for performance to improve?

10. When the rating scale used is a BOS, what kind of performance improvement goal should be set?
APPENDIX M


Please indicate your beliefs about your ability to use the 7-step self-management / verbal self-guidance program to change your behaviour. In the second column, answer "YES" or "NO" to the statement by circling "Y" or "N". In the third column, indicate your confidence in performing the behaviour, not your confidence in your "Y/N" answer, by circling a number between 1 and 10. 1 means that you have no confidence at all, 5 means you have moderate confidence, and 10 means you have complete confidence.

For example, if you have complete confidence that you can perform a self-assessment of your self-talk, then circle "Y" in the second column and "10" in the third column. On the other hand, if you have no confidence that you can perform a self-assessment of your self-talk, then circle "N" in the second column and "1" in the third column. Whenever you circle "N", you must circle 1 in the third column.

<table>
<thead>
<tr>
<th></th>
<th>No Confidence</th>
<th>Moderate Confidence</th>
<th>Complete Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes / No</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>1. I believe I can perform a self-assessment of my self-talk.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>2. I believe I can self-set difficult, specific, challenging, yet attainable performance improvement goals.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>3. I believe I can self-monitor my self-talk throughout the first-term of the MBA program.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>4. I believe I can self-evaluate my progress towards goal attainment.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>5. I believe I can identify meaningful rewards and punishers.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>6. I believe I can develop a written contract binding me to perform the 7 steps in self-management / verbal self-guidance throughout the first-term of the MBA program.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>7. I believe I can identify and overcome barriers to performing the 7 steps in self-management / verbal self-guidance throughout the first-term of the MBA program.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>8. I believe I can use self-management / verbal self-guidance throughout the first-term of the MBA program to change my behaviour.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX N-1

Self-Efficacy - Behaviour

Please indicate your beliefs about your ability to perform behaviours that previous MBA students have reported as critical for performing well in the first-year of the MBA program. In the second column, answer "YES" or "NO" to the statement by circling "Y" or "N". In the third column, indicate your confidence in performing the behaviour, not your confidence in your "Y/N" answer, by circling a number between 1 and 10. 1 means that you have no confidence at all, 5 means you have moderate confidence, and 10 means you have complete confidence.

For example, if you have complete confidence that you can achieve a score of 39 (70%) for performing behaviours related to effective performance in the MBA program, then circle "Y" in the second column and "10" in the third column. On the other hand, if you have no confidence in your ability to achieve a score of 39 (70%) for performing behaviours related to effective performance in the MBA program, then circle "N" in the second column and "1" in the third column. Whenever you circle "N" in the second column, you must circle 1 in the third column.

<table>
<thead>
<tr>
<th>When I am appraised on my ability to perform behaviours related to effective performance in the MBA program using a scale with a maximum score of 56 points,</th>
<th></th>
<th>No</th>
<th>Moderate Confidence</th>
<th>Complete Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I believe I can achieve a score of 28 (50%) or higher.</td>
<td>Yes / No</td>
<td>Y</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>2. I believe I can achieve a score of 34 (60%) or higher.</td>
<td></td>
<td>Y</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>3. I believe I can achieve a score of 39 (70%) or higher.</td>
<td></td>
<td>Y</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>4. I believe I can achieve a score of 45 (80%) or higher.</td>
<td></td>
<td>Y</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>5. I believe I can achieve a score of 50 (90%) or higher.</td>
<td></td>
<td>Y</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>6. I believe I can achieve a score of 56 (100%)</td>
<td></td>
<td>Y</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
</tbody>
</table>
**Self-Efficacy - Grade**

Please indicate your beliefs about the overall grade point average (GPA) you will achieve in your first-term of the MBA program. In the second column, answer "YES" or "NO" to the statement by circling "Y" or "N". In the third column, indicate your confidence in achieving that grade point average, not your confidence in your "Y/N" answer, by circling a number between 1 and 10. 1 means that you have no confidence at all, 5 means you have moderate confidence, and 10 means you have complete confidence.

For example, if you have complete confidence that you can achieve an overall GPA of 6 (B+) or higher in the first-term, then circle "Y" in the second column and "10" in the third column. On the other hand, if you have no confidence in your ability to achieve an overall GPA of 6 (B+) or higher in the first-term, then circle "N" in the second column and "1" in the third column. Whenever you circle "N" in the second column, you must circle 1 in the third column.

<table>
<thead>
<tr>
<th>Yes / No</th>
<th>No Confidence</th>
<th>Moderate Confidence</th>
<th>Complete Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I believe I can achieve a GPA of 3 (C+) or higher.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>2. I believe I can achieve a GPA of 4 (B-) or higher.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>3. I believe I can achieve a GPA of 5 (B) or higher.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>4. I believe I can achieve a GPA of 6 (B+) or higher.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>5. I believe I can achieve a GPA of 7 (A-) or higher.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>6. I believe I can achieve a GPA of 8 (A) or higher.</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
<tr>
<td>7. I believe I can achieve a GPA of 9 (A+).</td>
<td>Y N</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX O

Outcome Expectancy

Please circle the number that best describes your current expectations with regard to the following outcomes of your effective performance in the MBA program.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I will have less time to spend on other interests.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>I will develop a network of future business contacts.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>My group will produce high quality work.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>I will gain self-satisfaction from learning the material.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>I will gain valuable friendships.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>My confidence will increase.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>I will get high grades.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>I will be respected by my peers.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>I will learn from the other members of my group.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>My group members will expect me to carry the group.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>I will gain support from my group members.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>I will become less creative.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>My understanding of the course material will increase.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>I will have invested a lot of time on administrative details, such as setting times for meetings, co-ordinating the work of others, resolving conflicts among group members, etc.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
APPENDIX P

Outcome Valence

Please circle the number that best indicates whether the following outcomes of effective performance in the MBA program are attractive (i.e., valuable) to you.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Completely Unattractive</th>
<th>Neither Unattractive</th>
<th>Nor Attractive</th>
<th>Completely Attractive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Less time to spend on other interests.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>2. Network of future business contacts</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>3. High quality work from my group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>4. Self-satisfaction from learning the material.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>5. Valuable friendships.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>6. Increased confidence.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>7. High grades.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>8. Respect from my peers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>9. Learning from my group members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>10. Dependence on me by my group members to carry the group</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>11. Support from my group members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>12. Decreased creativity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>13. Understanding of the material.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
<tr>
<td>14. Time invested on administrative details, such as setting times for meetings, co-ordinating the work of others, resolving conflicts among group members, etc.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 5</td>
</tr>
</tbody>
</table>
APPENDIX Q-1

Behaviour (BOS Score) Goal

What is your goal for the score you hope to achieve on the behavioural observation scale? _______ (Minimum Score = 0, Maximum Score = 56).

Goal Commitment - Behaviour (BOS Score)

Please indicate your attitude towards the goal for performing key behaviours (overall total BOS score) that you have set for yourself by circling the number that best represents how you feel.

<table>
<thead>
<tr>
<th></th>
<th>Completely Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Completely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. It is quite likely that my behavioural goal may need to be revised.
2. It would require a lot to make me abandon my behavioural goal.
3. Quite frankly, I don’t care if I achieve my behavioural goal or not.
4. I think my behavioural goal is a good goal to shoot for.
5. I am strongly committed to pursuing my behavioural goal.
Grade Point Average Goal
What is your goal for the grade point average you hope to achieve in the first-term?

(3 = C+, 4 = B-, 5 = B, 6 = B+, 7 = A-, 8 = A, 9 = A+).

Goal Commitment - Grade Point Average
Please indicate your attitude towards the goal for the grade (overall, first-term grade point average) that you have set for yourself by circling the number that best represents how you feel.

<table>
<thead>
<tr>
<th>Completely Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Completely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

1. It is quite likely that my grade goal may need to be revised.
2. It would require a lot to make me abandon my grade goal.
3. Quite frankly, I don’t care if I achieve my grade goal or not.
4. I think my grade goal is a good goal to shoot for.
5. I am strongly committed to pursuing my grade goal.
**APPENDIX R**

**Appraisal Source Credibility**

Please circle the number that best describes your perception of your appraiser. (For students in the facilitator and peer appraisal groups, answer the following questions about the appraiser who conducted the appraisal interview. For students in the self-appraisal group, answer the questions about yourself.)

<table>
<thead>
<tr>
<th></th>
<th>Completely Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Completely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My appraiser has considerable expertise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. My appraiser is sincere in wanting to help me to perform effectively in the MBA program.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. My appraiser is fair.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. My appraiser is accurate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. My appraiser is able to give me a logic or rationale for her/his evaluations.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. My appraiser is knowledgeable.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: The MBA terminology is unique to the scales used in this study.
## APPENDIX S

### Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May, 1996</td>
<td>Development and pre-test of appraisal source credibility measure with senior undergraduate students.</td>
</tr>
<tr>
<td>August, 1996</td>
<td>Training of facilitators to conduct problem-solving performance appraisal; increase objectivity in the evaluation of performance.</td>
</tr>
<tr>
<td>September, 1996 (Week 1 &amp; 2</td>
<td>Training of participants to increase objectivity in the evaluation of performance.</td>
</tr>
<tr>
<td>of first-term)</td>
<td>Training of peer appraisers to conduct problem-solving performance appraisal.</td>
</tr>
<tr>
<td></td>
<td>Training of self appraisers to conduct self appraisals (self-management and verbal self-guidance).</td>
</tr>
<tr>
<td></td>
<td>Completion of reaction, learning, self-efficacy measures regarding training.</td>
</tr>
<tr>
<td>September, 1996</td>
<td>Initial self-ratings.</td>
</tr>
<tr>
<td></td>
<td>Meeting with appraisers to discuss self-ratings, behaviours and to set goals for performance improvement by the first appraisal for students in facilitator and peer appraisal conditions.</td>
</tr>
<tr>
<td></td>
<td>Meeting with author to discuss written contracts for students in the self appraisal condition.</td>
</tr>
<tr>
<td></td>
<td>Completion of time 1 source credibility, self-efficacy, outcome expectancy, outcome valence, goal commitment measures.</td>
</tr>
<tr>
<td>October, 1996</td>
<td>First appraisal. Meeting with appraisers to discuss ratings, behaviours and to set goals for performance improvement by the second appraisals for students in the facilitator and peer appraisal conditions.</td>
</tr>
<tr>
<td>Date</td>
<td>Activity Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>November, 1996</td>
<td>Meeting with author to discuss maintenance strategies for students in the self appraisal condition.</td>
</tr>
<tr>
<td>December, 1996</td>
<td>Completion of time 2 source credibility, self-efficacy, outcome expectancy, outcome valence, goal commitment measures.</td>
</tr>
<tr>
<td></td>
<td>Qualitative data collection.</td>
</tr>
</tbody>
</table>
APPENDIX T

Reliability Coefficients for the Mediating Variables

<table>
<thead>
<tr>
<th>Measure</th>
<th>α</th>
<th>n</th>
<th># of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome Expectancy - Before 1st Appraisal</td>
<td>.72</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td>Outcome Expectancy - Before 2nd Appraisal</td>
<td>.71</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>Outcome Valence - Before 1st Appraisal</td>
<td>.73</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>Outcome Valence - Before 2nd Appraisal</td>
<td>.80</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>Appraisal Source Credibility - Before 1st Appraisal</td>
<td>.68</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td>Appraisal Source Credibility - Before 2nd Appraisal</td>
<td>.82</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td>Self-Efficacy Magnitude - Behaviour - Before 1st Appraisal</td>
<td>.69</td>
<td>29</td>
<td>3*</td>
</tr>
<tr>
<td>Self-Efficacy Magnitude - Behaviour - Before 2nd Appraisal</td>
<td>.65</td>
<td>30</td>
<td>3*</td>
</tr>
<tr>
<td>Self-Efficacy Magnitude - Grade - Before 1st Appraisal</td>
<td>.63</td>
<td>30</td>
<td>3*</td>
</tr>
<tr>
<td>Self-Efficacy Magnitude - Grade - Before 2nd Appraisal</td>
<td>.54</td>
<td>30</td>
<td>3*</td>
</tr>
<tr>
<td>Self-Efficacy Strength - Behaviour - Before 1st Appraisal</td>
<td>.84</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>Self-Efficacy Strength - Behaviour - Before 2nd Appraisal</td>
<td>.84</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>Self-Efficacy Strength - Grade - Before 1st Appraisal</td>
<td>.82</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>Self-Efficacy Strength - Grade - Before 2nd Appraisal</td>
<td>.76</td>
<td>30</td>
<td>7</td>
</tr>
</tbody>
</table>

*Note: Self-efficacy magnitude - behaviour scale assess 6 levels of performance. The number of items fewer than 6 is due to lack of variance on lower levels of assessed performance. Self-efficacy magnitude - grade scale assesses 7 levels of performance. The number of items fewer than 7 is due to lack of variance on lower levels of assessed performance.*
IMAGE EVALUATION
TEST TARGET (QA-3)