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Managerial effectiveness : validation of the Goc Need Assessment Questionnaire

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**Managerial effectiveness: Validation of the Goc Need
Assessment Questionnaire**

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San Jose State University, 1994

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MANAGERIAL EFFECTIVENESS
VALIDATION OF THE GOC NEED ASSESSMENT QUESTIONNAIRE

A Thesis
Presented to
The Faculty of the Department of Psychology
San Jose State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Orni Goc
August, 1994

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ABSTRACT

MANAGERIAL EFFECTIVENESS VALIDATION OF THE GOC NEED ASSESSMENT QUESTIONNAIRE

by Orni Goc

The purpose of this study was to compare two managerial effectiveness questionnaires: the Zenger-Miller's Needs Assessment Questionnaire (ZNAQ) and the Goc Needs Assessment Questionnaire (GNAQ). The research hypothesis was that the GNAQ would measure manager's effectiveness more accurately than the ZNAQ. Data for this study were obtained from 55 employees of a big hotel in Israel. In order to test the hypothesis a criterion--related validity test was run using top manager ratings as a criterion. The results failed to prove the hypothesis: the ZNAQ was found have somewhat higher correlation to the criterion than the GNAQ. However, both instruments showed high reliability and validity. Methodological problems in the design of the study, such as the selection of the criterion, the size of the sample, the focus on one industry and one organization, suggest that further research using those instruments is warranted.

Managerial Effectiveness

Validation of The 'Goc Manager Effectiveness Questionnaire'

Orni Goc

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- Organizations need managers to be able to reach their objectives; they need competent managers to be able to reach their objectives efficiently and effectively (Boyatzis, 1982). Managers are the people in charge of a formal organization or one of its sub-units. Their jobs involve taking inputs in the form of people, money, materials and ideas and converting them into outputs in the form of products and services as efficiently as possible. The manager determines what has to be done and makes sure it is done.

Since the beginning of the twentieth century, research has focused on managerial and leadership nature. Past decades have seen many efforts to uncover the secrets of organizational and work group leadership. The organization's incentive for this research is the dream of early identification or development of the people who can have the largest positive impact on organizational strategy, productivity and quality from a leadership role (Daniel, 1992).

Clearly managing and leading are not equivalent concepts. A person can be a leader without being a manager or lead without managing, but there is some degree of overlap between those two concepts. Leading others is an important ability of the effective manager; therefore the managerial literature is based largely on leadership theory and studies. In this paper the terms "leader" and "manager" are used interchangeably (Boyatzis, 1982).

There are as many concepts of leadership effectiveness as there are writers. The major distinction between the different definitions of effective managerial behavior is the type of outcome used to determine how successful a leader is. These outcomes include group performance, attainment of group objectives,

- group survival, group capacity to deal with crises, subordinates' satisfaction with their leader, subordinates' commitment to the group objectives, the psychological well-being and personal growth of followers, and the leader's retention of his or her position of authority in the group. In this paper we chose to adopt the extent to which the leader's group or organizational unit performs its tasks and attains its objectives as the criterion for managerial effectiveness.

Many studies of managerial effectiveness attempt to identify critical factors that lead to effective managerial behavior. Some researchers focus on the "person" (the individual manager's competency area), others on the "process" (behavior and activities performed by the manager on the job), still others on the "situation" (how the organizational context determines what traits or behaviors are essential for managerial and leadership effectiveness), while the rest are trying to develop a comprehensive model to explain all aspects of managerial performance.

The next four sections of this paper will review the four approaches to managerial effectiveness: The person, the process, the situation and the integrative-model approaches. The last section will describe the objective of the proposed study and its procedures.

The Person Competency Approach

A job competency is an underlying characteristic of a person which contributes to effective performance of a job. A competency could be a motive, skill, self-image, social role or knowledge. Many studies focus on personal characteristics in order to identify which characteristics affect a managers'

performance. The assumption of this approach is that only a manager with specific competencies has the resources for successful management.

Ghiselli (1973), using a self-report adjective checklist, identified thirteen characteristics of a manager. The first three--supervisory ability, intelligence and initiative--were abilities; the next five--self awareness, decisiveness, masculinity, maturity and working class affinity--were personality traits; the last five--need for occupational status, need for self actualization, need for power, need for high financial rewards and need for security--were motivational traits. Stogdill (1974) reviewed the individual competency approach literature published between 1948 to 1970. He concluded that a leader possesses a number of intellectual, cognitive, administrative and interpersonal skills, in addition to a high level of energy, initiative and drive.

Miner (1985) focused on motivational characteristics of the manager. He identified six basic managerial motivational patterns: positive attitude toward authority figures, desire to compete with peers, desire to be actively assertive, desire to exercise power, desire to stand out from the group and willingness to carry out routine administrative work. Mann (1965) chose to focus on skills. He developed a three-skills managerial taxonomy which include technical skills, interpersonal skills and conceptual skills.

All the above theoreticians emphasized managers' characteristics as the key to understanding managerial effectiveness; however, each highlighted different aspects of the person. Ghiselli's (1973) perspective was the broader one, his 13 personality dimensions included personality traits, motivational skills and

abilities. The Miner and Mann theories were narrower - Miner (1985) focused on motivational traits while Mann (1965) concentrated on skills dimensions.

The person approach focused on the person in the job, but ignored the job and the situation, and this was its main weakness. According to this approach, there are individuals who would be effective managers, while others would be ineffective by nature, so that a particular person will be either an effective or an ineffective manager on all managerial jobs. Obviously this is false, in that a manager could be very effective in one job and ineffective in another. A manager's duties change according to the characteristics of the job and the situation, therefore specific traits could be crucial to perform a certain job and not important to perform another. The process approach, discussed in the next section, reflects an attempt to focus on the behaviors performed in a managerial jobs.

The Process - The Behavior Approach

This approach focuses on trying to understand the contents of managerial work in determining managers' effectiveness. Some studies have focused on trying to determine which responsibilities and duties must be carried out by the manager. Fayol (1949) determined five basic managerial tasks--planning, organizing, coordinating, commanding and controlling. Hemphile (1959), based on a comprehensive job analysis of executives' positions, determined ten dimensions of managerial jobs--providing a staff, supervising work, defining technical aspects of products and markets, providing internal business control, participating in community and social affairs, initiating long range planning,

- exercising broad power and authority, fostering business reputation, demanding respectable behavior and preserving assets.

Van and Hogan (1982) identified eight managerial dimensions: long range planning, staffing, technical consultation, budgeting, shared individual responsibility, operational/professional concern, technical/administrative activity and controlling. Penfield (1974) determined eight dimensions: planning, investigating, coordinating, evaluating, supervising, staffing, negotiating and representing.

Summarizing the literature on managerial tasks, six basic dimensions appear repeatedly--planning, organizing, supervising, coordinating, commanding and staffing. Some researchers view managerial work as more complicated and thus add to these basic dimensions others such as reporting, investigating, negotiating and fostering business reputation.

Another direction of behavior studies focus on describing patterns of managerial activities. Mintzberg 's taxonomy (1973) is a representative example of the descriptive approach. This taxonomy has ten managerial roles. The first three managerial roles--leader, figurehead and liaison--deal with interpersonal behavior. The next three roles--monitor, disseminator and spokesman--deal with information and processing behavior. The last four roles--entrepreneur, disturbance handler, resource assignor and negotiator--deal with decision making behavior.

Yukl (1989) claimed that most managerial activities could be described in terms of four basic processes--developing and maintaining relationships,

- exchanging of information, making decisions and influencing people. He asserts that the main disadvantage of the behavior approach was that it only educated us regarding common managerial activities, and increased our understanding of the managerial job, but did not offer useful tools for identifying and selecting effective managers. The fact that a manager performed a specific activity was not proof that this activity was an important managerial behavior. To determine whether or not a specific activity is important to effective management we need to compare between the activities performed by effective and ineffective managers. The activities performed mainly by effective managers are, therefore, the relevant activities for the determination of effective management.

The behavior approach, as discussed in this section, focused on the content of managerial tasks, but this approach completely ignores two important factors which affect managers' effectiveness--the individual competencies of the person in the job and the situational characteristics. The situational approach represents an attempt to focus on the situational variables which affect managers' effectiveness.

The Situational Approach

The situational approach is based on the assumption that situational variables have a particular role in determining effective managerial performance. According to this approach, different situations require different individual characteristics or patterns of behavior. The researcher's goal is to determine the ways situational variables influence the relationship between a leader's behavior or traits and his/her effectiveness. The dominant situational theories of effective leadership behavior are the Contingency Model (Fiedler,

1978) the Path Goal Theory (House, 1971) and the Normative Model (Vroom and Yelton, 1973). In the next paragraphs we will briefly review these theories.

In order to explain a leader's effectiveness, Fiedler's Contingency Model developed two basic terms: a leader's trait measure called LPC ("Least preferred co-worker") and the favorability of the situation. The LPC score is determined by asking a leader to select a past or present co-worker with whom he or she could work least well and to rate this co-worker on a series of bipolar adjective scales. According to Fiedler, the LPC score reflects the motivational hierarchy of the leader. A high-LPC leader is primarily motivated by interpersonal success, while a low-LPC leader is primarily motivated by task success. The favorability of the situation was the extent to which the situation gave the leader control. The favorability of the situation was measured in terms of three situational variables: leader-member relation, leader position power, and task structure.

Leader effectiveness, according to Fiedler, was a function of the interaction between the leader's motivation and the favorability of the situation. Fiedler claimed that a high LPC leader will be more effective than a low LPC leader in situations of intermediate favorability, but less effective than a low LPC leader in highly favorable or highly unfavorable situations.

Yukl (1989) in his review of the managerial effectiveness literature summarized nine different criticisms of the Contingency Model and LPC score. According to Yukl (1989, pp. 197-198) the major claims against the Contingency model were:

1. The empirical support for the model was weak, since it was based mainly on non-significant correlational results.
2. The model described the best leader for different situations, but failed to provide a satisfactory explanation of the correlation between LPC scores and leader effectiveness. We did not know why a high LPC leader was more effective than a low LPC leader in specific situations and less effective in others.
3. The LPC score was a "*measure in the search of meaning*" (Schriesheim & Kerr, 1977, p. 23), in that its interpretation was speculative. Furthermore, the data indicate that the LPC scores might not be stable over time.

Based upon revision of the data regarding the Contingency model we can conclude that it suffers from several major shortcomings and problems which decrease its importance and impair its usefulness.

The Path-Goal Theory of leadership evaluates leader effectiveness in terms of subordinates' motivation and satisfaction. According to House (1971) the effect of leader's behavior on subordinates' motivation and satisfaction depends on situational moderator variables. The theory identified three categories of situational variables--characteristics of the task, characteristics of the organization, and characteristics of the subordinates.

House and Dessler (1974) defined four types of leader behavior--supportive leadership, directing leadership, participant leadership and achievement--oriented leadership. Supportive leadership would be the most effective behavior when the task was stressful, tedious, boring or dangerous. Directing leadership

would be the most effective behavior when there was role ambiguity. Participant leadership would be the most effective behavior when the task was unstructured. Achievement-oriented leadership would be the best leading behavior when the goal was challenging.

Research conducted to test Path-Goal theory has yielded mixed results: some studies have supported the theory while others have not (Yukl, 1989). Furthermore, based on reviewing the literature, Yukl concluded that "methodological limitations for much of the validation research raise doubts about even the few hypotheses that have been supported" (p. 103). Path-goal theory also has several major deficiencies that limit its utility:

1. The Path-Goal theory is based on Expectancy theory, which is very complicated and has questionable validity (Schriesheim & Kerr, 1977).
2. The manner in which different situational variables interact with each other is not clear. The theory simplifies the reality, dealing only with one dimension of a situation at a time. A complete theory should cover complicated situations, such as which leadership behaviors would be the most effective when the task was unstructured, boring and the subordinates had high need for achievement.
3. The Path-Goal theory focuses upon a few aspects of leader's behavior and ignores other important aspects. It also tends to use abstract the concepts such as participant leader, instead of discussing different behaviors which create the participant leadership.

4. The theory focuses only on motivational functions of the leader behavior and ignores other ways a leader could affect subordinates behavior, such as training, obtaining necessary resources and organizing the work more efficiently.

In spite of its deficiencies the Path-Goal theory does contribute much to the study of management effectiveness: it increases our understanding of the motivational functions of leaders and it identifies potentially relevant situational moderator variables.

The Normative Model of Vroom and Yetton (1973) focuses on the decision making process. According to this model, leaders' performance is reflected by the effectiveness of their decisions. Vroom and Yetton view decision effectiveness as a function of two basic intervening variables affecting subordinates' behavior:

1. Decision acceptance - the degree of subordinates' commitment to implement a decision effectively. Decision acceptance is important whenever a decision must be implemented by subordinates or has implications for their work motivation.
2. Decision quality - the objective aspects of the decision that affect group performance. A high-quality decision is one that selects the best alternative. Decision quality is important whenever there are many alternatives and the decision has an important effect on the group performance.

Vroom and Yetton (1973) identified five decision procedures which leaders tend to use when making decisions involving their subordinates. The decision

procedure represents a continuum ranging from no participation to maximum subordinate influence over the decision. The effectiveness of a decision procedure depends on the following situational variables:

1. The amount of relevant information possessed by leader and subordinates.
When most of the information is possessed by the leader it would be effective to make an autocratic decision, but when the subordinates possess the relevant information the effective decision would be a group decision.
2. The likelihood that the subordinates would accept an autocratic decision. As the acceptance probability decreases an effective leader should make a consultation or group decision.
3. The likelihood that subordinates would cooperate if allowed to participate in the decision making process. If the probability of subordinates participation is low, it would be a waste of time to try to consult with them, and probably the most effective act would be to make an autocratic decision.
4. The amount of agreement among subordinates regarding the best alternative.
When the amount of agreement is high a group or consulted decision would be possible, but if there is broad disagreement between subordinates an autocratic decision would be more effective.
5. The extent to which the decision problem was unstructured and required creative problem solving. When the problem requires high creativity, solving it by using brain storm techniques would be the best decision.

Vroom and Yetton (1973, pp. 114-115) describe seven different situations and recommend the best decision for each situation according to the above rules.

Research results generally support the model. Yukl (1989) in his review of the literature claimed that "the Vroom-Yetton model is probably the best supported of the situational leadership theories. It focuses on specific aspects of behavior rather than broadly defined behaviors, it includes meaningful intervening variables, and it identifies important aspects of the situation moderating the relationship between behavior and outcomes" (p. 136). However it focused only on a small portion of leadership. The assumption that leader effectiveness could be measured by analyzing only the decision's process was an over simplification of the leadership phenomena. The Normative Model ignores important aspects of leadership, such as the leader traits and skills, job demands, organization nature, etc.

Summary of the situational approach - The situational theories have two major advantages in comparison to the Individual Competencies and the Behavior approaches: First, the situational theories brought to the study of leader effectiveness the awareness that different situations require different patterns of behavior or traits to be effective. Second, they are not as narrow as the prior approaches which focus only on one aspect of leadership--the leader competencies or responsibilities, duties and roles of the managerial job. The situational theories combine behavioral (Path-Goal Theory) or competencies variables (The Contingency theory and The Normative Model) with situational variables to explain leader effectiveness.

- In spite of those advantages, the situational approach suffers from some deficiencies which limit its usefulness. First, as we showed in our review, each of the situational theories has some conceptual weaknesses. We therefore suggest developing a new theory which combines the strengths of the different situational theories and tries to avoid their limitations. Second, the situational theories use some of the prior approaches' principles, but their focus is on the situational variables. According to this approach the situational variables are the most important elements in determining leader effectiveness. We cannot accept this perception. The situational variables are important but not more important than the person and the process variables. Only a model which combines all three aspects of leader effectiveness can fully explain leader effectiveness. The integrative-model approach offers a model which incorporates the person, process and situation variables.

The Integrative Model Approach

The integrative model approach perceives management effectiveness as a complicated issue which requires understanding and measuring a number of factors at the same time (Linker, 1967, Mintzberg, 1973, Boyatzis, 1982). Boyatzis' model is an example of the integrative approach. Boyatzis perceived manager effectiveness to be the result of consistency between three dimensions, each reflecting one of the three approaches to the study of managerial effectiveness: an organization demands dimension, which reflects the Situation approach, a job demands dimension (the Behavior Approach) and the Individual Competencies dimension (the Individual Competencies approach). Due to the

complicated relation between these three dimensions we will only discuss them briefly here (Boyatzis, 1982, pp.191-205).

1. Organizational Demand - every organization has an internal structure which is created by its procedures, policies, tradition, culture, objectives and it's physical, financial and technical resources. A manager will be effective only if his or her activities will "maintain or be consistent with policies, procedures and conditions of the organization" (Boyatzis, 1982. p. 13).
2. Job Demands - every job has a set of functional requirements that should be fulfilled by the person in the job. Management job demands may be described in terms of various roles. Each role has a set of activities and responsibilities. Manager's performance would be effective if he or she fulfills all the roles included in the job.
3. Individual Competencies - every individual has an underlying characteristic which can contribute or detract from effective performance. Boyatzis (1982) in a study which collected information from more than 2000 people in twelve organizations, identified nine competency dimensions in which effective managers scored higher than ineffective managers. Boyatzis' dimensions were: efficiency orientation, proactivity, concern with impact, self confidence, oral presentation skills, conceptualization, diagnostic use of concepts, use of socialized power and managing group processes.

The Integrative-Model approach offers a complete analysis of managerial effectiveness and this fact is its major advantage versus other leader effectiveness approaches. It is clear that managerial effectiveness is not a single

dimension phenomenon, and any approach which focuses on less than all three aspects of the managerial effectiveness is therefore narrow and incomplete.

However, the Integrative-Model approach due to its completeness is very complicated and includes many elements. The completeness of the integrative approach is an advantage mainly for research purposes. However, the study of managerial effectiveness has also practice objectives.

Lazer (1977) based on a study of almost 300 firms, claims that three out of four companies have an appraisal system to determine their managers effectiveness. Information regarding managers' effectiveness is needed for maintaining control of current operation and for planning for the future. Managerial effectiveness information is the basis for all managerial selection procedures: for making decisions about salaries and bonuses to be awarded, for decisions upon transfers, training and promotions, for developing manpower plans and determining future staffing requirements. Rarely does an organization, which copes with managerial selection decisions such as recruitment, have the time and resources to analyze all the person, process and situation variables. For employee selection procedures organizations need easy, fast and inexpensive techniques. The Integrative-Model Approach is too complicated and expensive to help organizations in their day-to-day decisions.

In order to fulfill managers' selection needs and other needs of organizations we would recommend simplifying the integrative models and ignoring situational factor. The situation is a very dynamic and hard to predict element; the same manager could be effective in one situation and ineffective in another. An

organization cannot take into consideration all possible situational variables and their different effects, while recruiting new managers.

In our view, an understanding of situational variables and their effects is a very important factor in every management training program but is not important for managerial selection decisions. In this study the emphasis will be on trying to identify the effective manager mainly for selection purposes, therefore the integrative-model is not the most suitable for us.

However, the other two approaches are too narrow: using the competencies approach loses all behavioral variables which affect managerial effectiveness. On the other hand, the behavior approach does not utilize all the "person" variables. According to our perception, the best model to identify effective or ineffective managers would be to combine the most relevant variables from both approaches--the individual competency and the behavior. Studies conducted by Russ-Eft (1984, 1985, 1986 (a), 1986 (b), 1987, 1988) reflect this perception.

Russ-Eft and her co-workers, in seven unpublished studies for Zenger-Miller (a training development company), identified twelve behavioral patterns and skills found to distinguish between effective and ineffective managers. The first four--the organization's goals, leading others, innovation change and results orientation/productivity--relate to leadership. The next five--relationships with upper managers, employee performance and development, team building/organization climate, peer relationships and customer orientation--relate to relationship orientation and ability. The remaining three--technical skills, cognitive ability and administrative skills--relate to personal skills.

Based upon the above findings, Russ-Eft et al. developed the Zenger-Miller Needs Assessment Questionnaire (the ZNAQ) to measure over-all managerial effectiveness as well as effectiveness in each of the twelve aspects of managerial effectiveness. In a follow-up to the Russ-Eft studies, Goc and Russ-Eft (1990) analyzed 2160 critical incidents collected from 1080 participants in thirteen different organizations all over the USA. In each case the participants were asked to describe an incident in which one of their managers showed effective or ineffective managerial behavior. Goc and Russ-Eft categorized the incidents into one of the Russ-Eft twelve categories, based on the conformance of each incident's content to a specific category. Incidents which could not fit any of the twelve categories were assigned to an "other" category. Further analysis of the "other" category leads to identification of two new categories: interpersonal skills and ethical standards.

The incidents in each category were further analyzed in term of similarity and were used to form sub-categories which summarize the incidents, the number of sub-categories were varied from dimension to dimension based on the diversity of the incident in each dimension. For example, "Lost control in dealing with employees' situation" was an incident assigned to the "interpersonal skills" category; within this category it was used to create the "maintain self-control" sub-category.

A comparison of the sub-categories showed some similarities but also many differences between Goc's results and Russ-Eft's results. For example, based on both results the Organization's Goals dimension includes five sub-categories;

however, the content of the sub-categories are different. The Goc's

Organization's Goal dimension includes the following sub-categories:

1. Identifies with the organization's goals, activities and standards.
2. Shares with employees the organization's goals.
3. Maintains organization's policies.
4. Tries to save organization's time, energy and money.
5. Ties issues to greater organizational goals

While the Russ-Eft's Organizational goal's dimension:

1. Conveys to employee the organization's goals.
2. Communicates to employees what is important for the organization.
3. Makes product quality a top priority.
4. Makes product quantity a top priority.
5. Makes service to customers or clients a top priority.

As can be seen by comparing the items, the sub-categories of the two dimensions are measures of manager recognition of the organization's goal and the contribution to those goals. However, they are different in the contents of the sub-categories, which reflect the different perspectives of the dimensions. Russ-Eft focuses on service to customer and the quality and quantity of the product to determine the manager's score on the Organization's Goal dimension. On the

other hand, Goc's perception of this dimension is broader; the score on this dimensions is a result of a variety of elements such as identification with the organization, maintain its policies, save its resources, etc.

According to our perception the differences between the studies are significant. Since Goc's research was conducted recently based on a very large and broad sample, we could claim that the results reflect the latest developments and changes in the managerial field. Taking into account the Goc's critical incidents study advantages it has been suggested that it serve as the basis for a new managerial effectiveness questionnaire, which we might assume to be a more accurate measure of managerial effectiveness.

Since the new questionnaire is assumed to reflect the current situation on the managerial field, our assumption is that the new questionnaire will be a more accurate measure of manager effectiveness than other managerial effectiveness questionnaires. The purpose of the present study will be to test the new questionnaire, the Goc Need Assessment Questionnaire's validity, in order to determine whether the Goc Need Assessment Questionnaire (the GNAQ) is an accurate measure of managerial effectiveness, which can enrich our understanding of managerial effectiveness and improve managerial selection decisions.

We are proposing to compare the GNAQ to the ZNAQ. Our hypothesis is that due to the GNAQ's advantages which were discussed above, it will measure managers' effectiveness more accurately than the ZNAQ.

METHOD

Subjects

Data for this study were obtained from 55 employees from a large hotel in Israel. Subjects were 16 women and 39 men, age 19 to 63. Contact with potential subjects was made by the hotel's human resource department. Participation was voluntary, and subjects were not given compensation for their involvement. Although all the hotel's employees were asked to participate, only those who agreed to participate received questionnaires. Subjects were randomly assigned to one of two subject groups; subjects in group number 1 were asked to fill the ZNAQ, while subjects in group number 2 were asked to respond to the GNAQ .

Materials

In this study 3 different questionnaires were used:

Goc Needs Assessment Questionnaire. As described in the last sections, Goc and Russ-Eft developed a questionnaire based on a broad critical incidents' research to assess managers' effectiveness (see Appendix A). This questionnaire consists of 125 items, each of which is a short description of a manager's behavior or attitude. The Goc Need Assessment Questionnaire's 125 items are distributed across fourteen managerial effectiveness dimensions. For example, on the Organization's Goals dimension there are five items, such as, 'Maintains organization's policies'. The fourteen managerial effectiveness

dimensions are: Organization's goals, Leading others, Innovation change, Results orientation/productivity, Ethics standards, Relationships with upper managers, Employee performance and development, Team building/organization climate, Peer relationships, Customer orientation, Technical skills, Cognitive ability, Administrative skills and Interpersonal skills (Table 1 describes and gives an example of each dimension). For each item, participants were asked to rate their manager's effectiveness on a one to seven scale (skills score). On the skills scale 1 means 'not at all skilled' while 7 means 'very skilled'. The mean of the items within each dimension was the dimension score. The mean of all 125 Goc Need Assessment Questionnaire's item was the total managerial effectiveness score.

Zenger-Miller Needs Assessment Questionnaire. Developed by Zenger Miller, the Need Assessment Questionnaire has twelve dimensions and 110 items. The twelve managerial effectiveness dimension are: Organization's goals, Leading others, Innovation change, Results orientation/productivity, Relationships with upper managers, Employee performance and development, Team building/organization climate, Peer relationships, Customer orientation, Technical skills, Cognitive ability, and Administrative skills (see Appendix B). The dimension and total scores were calculated in the same technique as in the New Questionnaire. The ZNAQ has been used by Zenger Miller for several years and has shown a reliability estimate of .96.

Top Managers Questionnaire. This questionnaire was developed as a criterion measure of the hotel's managers effectiveness (see Appendix C). The general manager of the hotel was asked to rate his managers' managerial effectiveness

- on a one-to seven-point scale on each of the fourteen dimensions measured by the New Questionnaire (skills score). The top managers' rating were used as a criterion for this study. The study's assumption is that the top manager's rating of the subordinate managers reflects the subordinate manager's actual degree of effectiveness.

Table 1
The Goc Needs Assessment Questionnaire Dimensions

Dimension	Description	Example
Organization's Goals	Degree of identification and contribution to organization's goals.	Maintains organization's policies.
Leading Others	Leadership ability.	Acts as a role model.
Innovation/change	Initiation, attitude and implementation of change.	Asks for input regarding change.
Results Orientation	Contribution toward improving the production processes.	Gives production problem a high priority.
Ethics standards	Fairness, honesty, confidentiality and positive attitude.	Exhibits honestly.
Relationships with Upper Managers	Performance as a link between his/her subordinates and the top-management.	Has upper management support.
Employee Performance & Development	Emphasis on subordinates' development and promotion, his/her ability to give them accurate feedback and to be sensitive to their problems.	Encourage employees to do their best
Team Building	Tendency to explores solutions with his/her subordinate and to encourage team work.	Encourages open discussions
Peer Relationships	Cooperation with other part of the organization.	Handles within his/her team
Customer Orientation	Quality of the service given by the manager to the organization's clients.	Acts to improve customer service
Technical Competence	Technical proficiency and his ability to use it to improve it's group function.	Abyl fixes failures within system
Cognitive Abilities	Intelligence, open mind, good judgment and expression ability.	Has decision-making ability
Administrative Abilities	Ability to organize resources and tasks, handling of paperwork and determine schedules.	Organizes resources and task
Interpersonal Skills	Communication skills, ability to listen to others, self control and concerned attitude.	Stay calm , maintains self control
Overall Score	The sum of all the questionnaire's items.	

Table 2

- The Zenger-Miller Needs Assessment Questionnaire Dimensions

Dimension	Description	Example
Organization's Goals	Degree of identification contribution to achieve the organization's goals.	Make product quality a top priority.
Leading Others	Leadership ability.	Stimulate pride in the organization.
Innovation/change	Initiation, attitude and implementation of change.	Get other to support changes.
Results Orientation	Contribution toward improving the production processes.	Make employee feel committed to tasks.
Relationships with Upper Managers	Performance as a link between his/her subordinates and the top-management.	Find out their manager's priorities.
Employee Performance & Development	Emphasis on subordinates' development and promotion, his/her ability to give them accurate feedback and to be sensitive to their problem .	Train employees in skills required on the job.
Team Building	Tendency to explores solutions with his/her subordinate and to encourage team work.	Ask others to present opposing points of view.
Peer Relationships	Cooperation with other part of the organization.	Resolve conflicts between their group and others.
Customer Orientation	Service given by the manager to the organization's clients.	Actively seek new product and services ideas from customers.
Technical Competence	Technical proficiency and his/her ability to use it to improve it's group function.	Apply appropriate technology to problems or opportunities.
Cognitive Abilities	Intelligence, open mind, good judgment and expression ability.	Get to the heart of problems quickly.
Administrative Abilities	Ability to organize resources and tasks, handling of paperwork and determine schedules.	Process paperwork quickly.
Overall Score	The sum of all the questionnaire's items.	

Procedure

- The general manager and the human resource manager of the hotel were contacted by phone to request the organization's participation in the study. Following their consent, multiple copies of the Top Manager Questionnaire were mailed to the general manager with a consent letter. The general manager was asked to return the completed questionnaires and the signed consent letter as soon as possible. After receiving the completed Top Manager Questionnaires, all of the subordinates of each manager were contacted by the human resource manager and asked to participate in the study. Each of the subordinates who agreed to participate received a questionnaire with instructions attached and a consent letter in a mailed envelope. Half had received the GNAQ while the rest received the ZNAQ (according to a random distribution).

A criterion-related validity was computed for both questionnaire. The validity coefficients of each dimensions and the total effectiveness score on both questionnaire were compared by using the Fisher's Z to check which questionnaire is more related to the criterion.

RESULTS

Descriptive statistics

Table 3 presents the means and standard deviations for each of the twelve ZNAQ dimensions, the fourteen GNAQ dimensions and for the overall score of the two questionnaires. The results show that the means of the GNAQ dimensions are higher than the means of the ZNAQ on all dimensions except Peer Relationships and Administrative Skills. Those findings imply that on most of the New Questionnaire items the respondents' tendency is to give higher scores.

Table 3 also shows the alpha reliability coefficients of the dimensions and the alpha of the overall score in the two questionnaires. The range of the alphas on the ZNAQ is .74 to .97, the reliability coefficients on the GNAQ range from .74 to .96. The alpha of the Overall Score reflect the reliability of the questionnaires as a whole, both of which are very high (ZNAQ'S alpha is .97 and GNAQ's alpha is .98). The alpha values on both questionnaires indicate acceptable levels of internal consistency.

Correlation Matrix

Table 4 reports the correlation between the ZNAQ dimensions. Significant positive correlation were found between the Overall Score and nine of the twelve dimensions. The highest correlation's were between the Overall Score and Peer Relationships ($r=.75$, $p<.01$) Customer Orientation ($r=.71$, $p<.01$), Relationships with Upper Managers ($r=.67$, $p<.01$), Results Orientation ($r=.59$, $p<.05$), Organization Goals ($r=.58$, $p<.05$) and Cognitive Abilities ($r=.58$, $p<.05$). No significant correlation between the Overall Score and the three dimensions of: Leading Others, Team Building and Technical Competence were found, which indicate that those dimensions are not measures of managerial effectiveness (as defined by this organization).

Pearson correlations for the GNAQ are reported in Table 5. As seen in Table 3 the highest correlation was between the Overall Score and Leading Others ($r=.90$, $p<.01$). High significant positive correlations were found between the Overall Score and all the dimensions, with one exception being the very low correlation with Relationships With Upper Managers ($r=.11$, ns). This is an interesting finding, especially when compared to the ZNAQ's matrix, which shows one of the highest correlation to be

between Relationship with Upper Managers and Overall ($r=.67$, $p<.01$), and low non-significant correlation with Leading Others ($r=.39$, $p>.05$).

These results reflect the main difference between the two questionnaires. The GNAQ has the employee's orientation: it perceives the manager mostly as a leader whose major goal is to create for the employees the best conditions to fulfill their abilities; in contrast the ZNAQ has the organization's orientation: the manager role is to serve the organization's goals. Therefore, the GNAQ is consistently more employee oriented, the ZNAQ is more upper-management oriented. These differences can be detected throughout many items in the two questionnaires. For example, on the ZNAQ the managers "convey to employees the organization's goals" while in the GNAQ they "share with employees the organization's goals." In the ZNAQ managers "give credit to employees for work success"; in the GNAQ managers "support his/her employees."

Ideally, there would be no overlap between dimensions within the same questionnaire. However, in both our questionnaires several significant positive correlations were found, which is not surprising since they all relate to the same theme: managerial effectiveness. In the ZNAQ, out of 66 inter-dimension correlations 22 (33%) were found significant; in GNAQ from 103 inter-dimensions correlations 52 (50%) were found significant. Therefore, in this aspect, the ZNAQ may be better. A factor analysis might help verify the fitness of the item distribution throughout the dimensions.

As mentioned before, in the GNAQ the dimension, Leading Others was found to be significantly correlated with all the other dimensions except with Relationships with Upper Managers. Those results, combined with the high relationship between

Leading Others and Overall Score ($r=.90, p<.01$), indicate that the issues brought up in the Leading Other's items are the most relevant for evaluating quality of management. On the other hand, Relationships with Upper Managers was not found to be related to Overall Score or any of the other dimensions. Those findings indicate that Relationships with Upper Managers' items are not a measure of managerial effectiveness.

Criterion-Related Validity

Table 6 presents the ZNAQ criterion-validity results. A significant positive correlation ($r=.66, p<.01$) was found between the questionnaire's Overall Score and the top manager's Overall Score. A positive significant correlation was also found between four of the questionnaire dimensions and the match criterion dimensions; Leading Others, Employee Performance and Development, Technical Competence and Cognitive abilities. Those findings indicate that the ZNAQ measure of managers' effectiveness is valid, though it's ability to provide a valid measure of effectiveness in specific dimensions is limited to the above four dimensions.

Table 7 presents the GNAQ criterion-validity results. A significant positive correlation was found between the questionnaire Overall Score and the criterion Overall Score. Six significant correlations between the questionnaire dimensions and the criterion Overall Score were found; however, only one correlation between the questionnaire's Technical Ability dimension and the match criterion dimension score were found to be significant ($r=.56, p<.05$). Assuming that top managers' evaluation of their managers is a valid criterion, these results point to the validity of both questionnaires as measures of general managerial effectiveness: however, the ZNAQ measures effectiveness in specific dimensions better than the GNAQ.

- Our hypothesis was that the GNAQ scores will be more valid than the ZNAQ. In order to test this hypothesis the Fisher's Z was calculated. As shown in Table 6, the findings failed to support this hypothesis. In fact, the ZNAQ's correlations were found to be higher than the GNAQ in the Overall Score and also in all the dimensions, except in Innovation/Change and Relationships with Upper Managers where the GNAQ's correlation was higher. Five of the relationships were found to be significantly different, so we can conclude that in assessing manager's Leading, Results orientation, Team Building / Organizational Climate building, Technical ability and Cognitive ability, the ZNAQ is significantly more valid than the GNAQ. These higher correlations probably stem from the more management orientation of the ZNAQ.

Table 3

Means, Standard Deviations and Alpha's of the Questionnaires

Dimension	NNAQ				ZNAQ			
	<u>N</u>	Mean	SD	α	<u>N</u>	Mean	SD	α
Organization's Goals	28	29.2	7.2	.745	26	26.9	6.8	.786
Leading Others	28	27.3	7.0	.871	27	24.8	7.4	.878
Innovation/ Change	27	24.2	7.3	.868	26	21.3	6.5	.787
Results Orientation	26	27.3	8.8	.855	26	22.6	8.0	.918
Ethics Standards	28	30.5	7.0	.800	--	---	---	---
Relationships with Upper Managers	27	28.5	7.8	.863	27	23.0	6.7	.890
Employee Performance & Development	28	24.2	6.3	.904	27	23.6	5.8	.863
Team Building	28	24.9	6.3	.860	27	21.3	5.4	.840
Peer Relationships	28	20.3	6.9	.816	26	22.6	9.0	.917
Customer Orientation	28	26.1	7.5	.898	24	24.7	7.8	.866
Technical Competence	28	35.2	12.6	.920	26	26.8	13.4	.967
Cognitive Abilities	27	34.3	8.8	.965	26	27.3	9.0	.934
Administrative Skills	27	27.5	7.6	.900	25	27.6	5.8	.741
Interpersonal Skills	27	28.9	8.6	.930	--	---	---	---
Overall Score	28	27.6	5.6	.983	27	24.1	5.7	.977

Table 4

ZNAQ Pearson Product Correlation Matrix

Dimensions	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Organization's Goals	---	.71	-.26	.44	.42	.23	.02	.36	.47	.47	.49	.58	.58
2. Leading Others			-.21	.59	.42	.50	-.13	.45	.54	.44	.35	.43	.39
3. Innovation/Change				.05	.15	.42	-.06	.32	.20	-.11	.05	-.13	.57
4. Results Orientation					.76	.58	-.60	.83	.82	.66	.51	.51	.59
5. Relationships with Upper Managers						.69	.15	.70	.68	.66	.50	.68	.67
6. Employee Performance							.14	.61	.54	.36	.46	.50	.53
7. Team Building								-.01	.05	-.26	.61	.28	.09
8. Peer Relationships									.83	.60	.50	.50	.75
9. Customer Orientation										.61	.48	.48	.71
10. Technical Competence											.10	.65	.44
11. Cognitive Abilities												.40	.58
12. Administrative Skills													.52
13. Overall score													---

Underlined correlations: $p < .05$ Bold faced Correlations: $p < .01$

Table 5

GNAQ Pearson Product Correlation Matrix

Dimensions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Organization's Goals	---	.63	.46	.60	.42	.17	.59	.61	.55	.50	.57	.72	.54	.52	.77
2.Learning Others			.79	.58	.76	-.05	.72	.73	.58	.51	.60	.60	.61	.83	.90
3.Innovation/Change				.44	.63	-.06	.71	.64	.56	.46	.44	.34	.56	.69	.75
4.Results Orientation					.31	.30	.69	.18	.52	.47	.74	.59	.72	.45	.74
5.Ethics Standards						-.19	.64	.68	.42	.40	.26	.49	.45	.81	.72
6.Relationships with Upper Managers							.14	-.24	-.06	-.02	.20	.26	.11	-.21	.11
7.Employee Performance								.53	.65	.60	.52	.50	.68	.66	.85
8.Team Building									.49	.60	.34	.37	.35	.71	.68
9.Peer Relationships										.65	.57	.30	.44	.55	.66
10.Customer Orientation											.50	.33	.44	.57	.67
11.Technical Competence												.73	.64	.47	.74
12.Cognitive Abilities													.63	.48	.75
13.Administrative Skills														.65	.78
14.interpersonal Skills															.84
15.Overall Score															---

Underlined correlations: $p < .05$ Bold faced correlations: $p < .01$

Table 6

Validity, ZNAQ dimension scores with top manager's evaluation

ZNAQ Dimensions

Top manager's evaluation	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Organization's Goals	<u>.30</u>	.26	.17	.48	-.24	.37	.25	.40	.18	.13	.07	.19	.30
2. Leading Others	.37	<u>.50</u>	.32	.54	.00	.47	.38	.53	.43	.50	.36	.29	<u>.54</u>
3. Innovation/Change	-.24	.29	<u>-.03</u>	.20	.44	-.08	-.26	-.08	.31	.31	.19	.07	.18
4. Results Orientation	.44	.61	.37	<u>.49</u>	-.22	.48	.41	.56	.31	.35	.46	.51	<u>.56</u>
5. Relationships with Upper Managers	.02	-.01	-.05	.35	<u>-.12</u>	.14	-.04	.10	.05	-.05	-.20	-.06	.03
6. Employee Performance	<u>.59</u>	<u>.53</u>	.46	.45	-.23	<u>.59</u>	.63	.69	.33	.44	.47	.41	<u>.59</u>
7. Team Building	.46	.42	.32	.51	-.30	<u>.51</u>	<u>.43</u>	<u>.57</u>	.24	.25	.25	.34	.46
8. Peer Relationships	.28	<u>.58</u>	.32	<u>.53</u>	.19	.41	.28	<u>.46</u>	<u>.52</u>	.61	.46	.31	<u>.58</u>
9. Customer Orientation	.35	-.03	.03	.31	<u>-.25</u>	.26	.17	.26	<u>-.13</u>	.27	-.21	.08	.01
10. Technical Competence	.08	<u>.62</u>	.33	.13	<u>.50</u>	.15	.15	.22	.50	<u>.70</u>	.67	.33	<u>.53</u>
11. Cognitive Abilities	.29	.67	.46	.20	.35	.32	.39	.43	<u>.53</u>	<u>.75</u>	<u>.74</u>	.40	.63
12. Administrative Skills	.12	.11	.16	-.25	.11	.01	.20	.05	.05	.19	.31	<u>.12</u>	.11
13. Overall score	.34	.66	.39	<u>.53</u>	.21	.46	.37	<u>.53</u>	<u>.57</u>	<u>.70</u>	<u>.57</u>	.37	<u>.66</u>

Underlined correlations: $p < .05$ Bold faced correlations: $p < .01$

*Above the diagonal are the correlations of the ZNAQ's dimensions and the criterion's dimensions.

*In the diagonal are the correlations of the same dimensions of both.

*Below the diagonal are the correlations of the criterion's dimensions and the ZNAQ's dimensions.

Table 7

Validity, GNAQ dimension score with top manager's evaluation

Top Manager's dimensions	NNAQ Dimension														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Organization's Goals	<u>.25</u>	-.03	-.01	.44	-.10	.02	.14	-.12	.06	.12	.20	-.01	.35	-.07	.10
2. Leading Others	.44	<u>.25</u>	.25	.71	-.01	.21	.40	.01	.27	.29	.61	.34	.64	.16	.44
3. Innovation/Change	.10	.08	<u>.06</u>	.09	-.07	.22	.00	.09	.20	.19	.32	.05	.01	-.02	.08
4. Results Orientation	.43	.35	.36	<u>.17</u>	.12	-.31	.20	.49	.33	.48	.23	.00	.12	.18	.28
5. Ethics Standards	.20	.39	.39	.07	<u>.26</u>	-.17	.29	.35	.17	.19	.14	-.29	.18	.38	.34
6. Relationships with Upper Managers	.02	-.27	-.26	.32	-.22	<u>.18</u>	-.04	-.39	-.11	-.11	.05	-.11	.22	-.25	.11
7. Employee Performance	<u>.51</u>	.44	.44	<u>.54</u>	.16	-.09	<u>.47</u>	.30	.32	.39	.47	.32	<u>.56</u>	.33	<u>.52</u>
8. Team Building	.40	.18	.19	.45	.01	-.11	.26	<u>.12</u>	.19	.29	.28	.07	.40	.08	.26
9. Peer Relationships	.47	.34	.32	<u>.72</u>	.02	.28	.42	.10	<u>.36</u>	.37	.73	.42	.62	.21	<u>.51</u>
10. Customer Orientation	.04	-.25	-.20	.09	-.13	-.20	-.10	-.17	-.14	<u>-.06</u>	-.24	-.30	.03	-.23	-.20
11. Technical Competence	.34	<u>.56</u>	<u>.52</u>	.16	.22	.07	.33	<u>.52</u>	.44	.45	<u>.56</u>	.40	.19	.40	.50
12. Cognitive Abilities	.44	<u>.65</u>	<u>.62</u>	.33	.27	.06	.48	<u>.53</u>	.47	.49	.66	<u>.52</u>	.39	<u>.51</u>	.63
13. Administrative Skills	.09	.38	.36	-.11	.25	-.11	.19	.38	.17	.17	.12	.27	<u>.01</u>	.35	.27
14. Interpersonal Skills	.20	-.01	.01	<u>.56</u>	-.06	.20	.26	-.27	.00	-.01	.29	.21	<u>.54</u>	<u>.03</u>	.21
15. Overall Score	<u>.53</u>	.46	.43	<u>.74</u>	.08	.26	<u>.51</u>	.20	.42	.44	.80	<u>.50</u>	.67	.31	<u>.61</u>

Underlined correlations: $p < .05$ Bold faced correlations: $p < .01$

*Above the diagonal are the correlations of the ZNAQ's dimensions and the criterion's dimensions.

*In the diagonal are the correlation of the same dimensions of both.

*Below the diagonal are the correlations of the criterion's dimensions and the ZNAQ's dimension

Table 8

Fisher Z Results: Comparison of GNAQ and ZNAQ Correlations

Dimension	ZNAQ's Correlations	GNAQ's Correlations	Fisher Z
Organization's goals	.30	.25	.65
Leading others	<u>.50</u>	.25	<u>3.59</u>
Innovation change	-.03	.06	- .38
Results / orientation	.49	.17	4.48
Relationships with upper managers	-.12	.18	-.75
Employee performance	<u>.59</u>	.47	1.87
Team building	.43	.12	<u>4.15</u>
Peer relationships	.46	.36	1.47
Customer orientation	-.13	-.06	.87
Technical competence	.70	<u>.56</u>	<u>2.86</u>
Cognitive abilities	.74	.52	4.67
Administrative skills	.12	.01	1.11
Total score	.66	.61	1.02

Underlined correlations: $p < .05$ Bold faced correlations: $p < .01$

DISCUSSION

The purpose of this study was to compare two managerial need assessment questionnaires, the ZNAQ and the GNAQ and to examine their reliability and validity. The study's primary hypothesis was that the GNAQ would be more valid than the ZNAQ. Our results had shown that both questionnaires were highly reliable in all dimensions, especially in the Overall Dimension. Significant correlations between most of the dimensions of both questionnaires and the total managerial scores were found. These findings support the research assumption that all the dimensions may be relevant to managerial effectiveness.

The results of the Pearson correlation between each Questionnaire's dimensions and its Overall Score are especially interesting, since they reveal which dimensions have the major influence in determining the total score. In the ZNAQ, significant positive correlations were found for all of the dimensions except three: Leading Others, Team Building and Technical Competence. The highest correlations were found to be with Peer Relationships, Customer Orientation, Relationships with Upper Managers, Organization Goals and Cognitive Abilities. Based on these findings it can be concluded that the ZNAQ has a production orientation: it perceives managerial effectiveness as a consequence of focus on the organization's goal, giving good client's service, effectively linking between the different parts of the organization, and having high cognitive abilities. Managerial effectiveness, according to the ZNAQ, is not related to the manager's leadership skills or to the ability to effectively create a team work environment in this setting. Therefore one's advantages such as high

- leadership abilities and genius to create a team work environment will not contribute to achieving a high managerial effectiveness score as measured by the ZNAQ in this setting.

On the GNAQ, significant positive correlations were found between the Overall Score and all the dimensions except Relationships With Upper Managers. Especially high correlations were found with Leading Others, Employee Performance and Development, and Interpersonal Skills. The conclusion derived from these results may be that the GNAQ has an employee orientation. According to this questionnaire, managers are tested by their leadership abilities and the emphasis they give to subordinate development and improvement, and not by the ability to link effectively between subordinates and top management or to have upper management approval.

Furthermore, the Pearson Correlations of the GNAQ reveal that Leading Others was significantly correlated with all the dimensions excluding one: Relationships with Upper Managers. It also correlated very highly with the Overall Score. This finding allows us to claim that the Leading Others dimension is measuring managerial effectiveness almost as accurately as the questionnaire as a whole.

However, the results failed to support the hypothesis that the GNAQ would be more valid than the ZNAQ. The ZNAQ correlations with the criterion were found to be higher in the Overall Score as well as all but two of the dimensions. Those findings may lead to the conclusion that contrary to the study's expectation, the ZNAQ is a more accurate measure of managerial effectiveness

than the GNAQ. However, prior to accepting this conclusion an evaluation of the research's implications and limitations should be done.

Evaluation of the study

The above research is an attempt to apply the results of a prior critical incidents technique as a ground for developing a new managerial effectiveness questionnaire. The underlying assumption of the research was that there is a need for further refinement of managerial effectiveness measures. The prior critical incidents research was chosen as the basis for the new instrument because it was based on a large new body of data that might reflect new attitudes that could not be found in the old questionnaire.

There are some limitations in the conduct of the study that could account for this study's unexpected results. The first significant problem of the above research is the size of its sample; 55 subjects split between two research groups. As a result of the small sample size a factor analysis could not be done. This is especially important for the GNAQ since it is the first study.

The selection of the participating organization was the second problem of the study. The hotel industry has some unique characteristics which may affect the results. Being a customer-oriented industry, the customers and their satisfaction are the main focus of the organization. Hotels' employees tend to move frequently from one position to another and between different competitors. The investment in employees' performance, development and satisfaction is limited, and employees' training is minimal. Focusing only on one organization was the

third limitation of the study. It may be that the results are unique for this specific hotel and do not represent global tendencies.

The fourth limitation relates to the selection of the top-manager's rating of their managers' effectiveness as the criterion. Prior to concluding that the GNAQ is a less reliable instrument, we should be confident that a top manager's rating is a valid criterion. A literature review of the efficacy of supervisors' ranking of their managers shown inconsistent findings.

Morse (1978) tested the concurrent validity of a new effective managerial performance instrument by comparing the data from the instrument to superiors' ranking of each manager's effectiveness and to objective end result criteria such as net profit, budgeting data, and customer billing volume. In all the comparisons he found a significant relationship. The Pearson correlation coefficient of the relationship between the superiors' ranking and the instrument data .83 ($p < .01$) was higher than the Pearson coefficient of the relationship between the objective data and the instrument data .68 ($p < .01$). Those findings support the conclusion that supervisors' rating are highly accurate.

The Morse (1978) results are in contrast to most other findings. Tsui (1988) based on her results, claimed that the agreement between supervisors and subordinate managerial effecting rating is low, especially, for managerial jobs, since these jobs tend to have ambiguous performance standards and unmeasured output.

Daniel (1992) reports the results of two studies that examined the critical leadership competencies of high-performing supervisors. The findings show that

a sample of high performing supervisors can be distinguished from a random group of supervisors by subordinate-completed questionnaires and not by manager- or self-completed questionnaires. Daniel suggest that part of the explanation of the findings could be due to organizational results that indicate "only what happened, not how it happened," subordinates, on the other hand are better able to relate specifically how the supervisor go about their job. Those results are consistent with prior studies (Wilson, O'Hara and Shipper 1990; Shipper and Neck 1990) which conclude that subordinate observation of managerial behavior is a better indicators for performance effectiveness than either superior assessments or self assessments.

Mount (1984) discussed the advantages of subordinate ratings of their managers' effectiveness. He claim that subordinates are in an excellent position to evaluate their managers' performance. In most job settings, subordinates are in frequent contact with their bosses and thus observe a large number of criterion-relevant behaviors. Further, many of these observed behaviors are somewhat different than those captured by the managers' bosses, thus providing unique information in the appraisal process. Also since there are typically several subordinates to each manager, the average subordinate rating is likely to be more reliable than the rating providing by one supervisor.

Reviewing the literature on the differences between supervisors' and subordinates' rating of managerial effectiveness shows that neither supervisors' nor subordinates' ratings independently are accurate measures of managerial performance. Furthermore since supervisor rating's validity may be less than

subordinate rating's validity, we should keep in mind that choosing top manager's rating as a criterion may account for the results.

Another limitation is related to the GNAQ's development; it was based on a critical incident study in which subordinates were asked to describe effective and ineffective managerial behaviors. Therefore, we would expect the GNAQ to reflect subordinates' perspective on effective management. As was seen in the Results section, the GNAQ indeed has an employee's orientation; it perceives the managers mostly as a leader whose major goal is to create for his employees the best conditions to fulfill their abilities; the manager's role is to serve the organization's goals. Hence, there is a methodological error in the design of the above study. It asked subordinates to rate their manager's effectiveness using one of two questionnaires, then it compares the results to the top manager's rating. It is not surprising that the top manager's rating were found to show higher correlations with the management orientation's questionnaire (the ZNAQ) than with the employees orientation questionnaire (the GNAQ).

The GNAQ adds two dimensions to the ZNAQ: Ethics Standards and Interpersonal skills. The findings show that both dimensions significantly correlated with the total effectiveness score; therefore, we can conclude that both are measures of managerial effectiveness. Yet, both dimensions are highly correlated with most of the other dimensions, findings which suggest that those new dimensions do not contribute much to the questionnaire's ability to evaluate managerial effectiveness and therefore they are redundant.

On the other hand, since the GNAQ was developed on the basis of the critical incident research, which asked subordinates to describe effective and ineffective managers behavior; hence it reflects employees' attitudes regarding managers' effectiveness. So even if the additional dimensions do not add much to the GNAQ's ability to measure managerial effectiveness, the fact that they were found to be independent dimensions by such a large sample of subordinates would indicate that these dimensions do have value regardless of the scope of the GNAQ.

Implication of the study

The GNAQ's correlation procedures' results indicate that the issues brought up in the Leading Others items are the most relevant for rating managerial effectiveness. The fact that the Leading Others dimension was found to be significantly correlated with the total score and with all the other dimensions (except one) suggest that this trait, in all its varied aspects is what indeed is being measured in this questionnaire.

Therefore, we could use the Leading Other's items as a short managerial effectiveness questionnaire which will replace the GNAQ. The suggested questionnaire will consist 11 items instead of 125, an obvious advantage over both questionnaires.

A managerial effectiveness instrument has two major functions. The first is to measure managerial effectiveness as a whole. In order to do that, the instrument should be as broad and general as possible to be able to describe and measure the different aspects of any manager's work. The second function is to measure

specific dimensions of managerial effectiveness, since different managers in different managerial jobs will place more or less attention on specific behavior associated with particular dimensions to perform effectively. It is very important to remember while using a managerial effectiveness questionnaire that effective managers would not have the same score in all the questionnaire items. They would be aware of their own job's responsibilities and focus on those appropriate to their circumstances. A sales manager, for example, may score higher on the Customer Orientation dimension and less on the Employee Performance and Development dimension than a human resource manager.

In order to gain the most from using a managerial effectiveness questionnaire, the dimensions which are more influential to the success in the specific managerial job should be identified and given more weight in the relevant dimensions than the scores on the less relevant dimensions. The GNAQ has an advantage over the ZNAQ, since it has two additional dimensions, which increase its ability to measure specific dimensions.

Future Research

Although the results failed to support the hypothesis, more research should be done prior to concluding that the GNAQ is a less valid instrument than the ZNAQ. One recommendation for future study involves repeating the above study using a large sample from multiple industries. This would permit a factor analytic procedure which would yield further understanding of the relationships between the dimensions.

Unfortunately the present study was based on the questionable assumption that supervisor ratings are an accurate measure of managerial effectiveness. In order to further investigate the question of accurate criterion of managerial effectiveness, a study comparing supervisor, subordinate, peer and self ratings of managerial effectiveness and also some objective criteria such as net profit, budgeting data, customer billing volume and contribution to productivity improvement should be conducted. The findings of the suggested study would contribute to our understanding of the valid criteria to measure managerial effectiveness and also will allow to conduct comparison of the ZNAQ and the GNAQ using a valid criterion.

Regarding the idea of using the Leading Others items as a short independent managerial effectiveness questionnaire, a test of its accuracy should be done. In order to test the Leading Others accuracy as a managerial effectiveness instrument, a new study is suggested which will compare the validity of the ZNAQ to the GNAQ as a whole as well as the items of Leading Others in particular.

Conclusion

The above study was conducted in order to compare two need assessment questionnaires; the ZNAQ and the GNAQ and to test their validity. The research hypothesis was that the GNAQ would be found to be a more accurate measure of managerial effectiveness. However the results failed to prove the hypothesis; contrary to expectation the GNAQ was found to be a less valid instrument. As has been argued above there were some limitations to this study, which could account for the results. Therefore, although the findings did not support the

- hypothesis, they did not demonstrate sufficient grounds for rejection either. In
- view of the recommendations given in the Discussion Section, further research should be done in order to further clarify the matter.

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Appendix A**I. LEADERSHIP**

A. ORGANIZATION'S GOALS	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
1. Identified with the organization 's goals, activities and standards.	① ② ③ ④ ⑤ ⑥ ⑦
2. Share with employees the organization's goals.	① ② ③ ④ ⑤ ⑥ ⑦
3. Maintains organization's policies.	① ② ③ ④ ⑤ ⑥ ⑦
4. Tries to save organization's time, energy and money.	① ② ③ ④ ⑤ ⑥ ⑦
5. Ties issues to greater organizational goals.	① ② ③ ④ ⑤ ⑥ ⑦

B. LEADING OTHERS	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
	① ② ③ ④ ⑤ ⑥ ⑦
1. Share information with employees.	① ② ③ ④ ⑤ ⑥ ⑦
2. Takes responsibility for his/her department.	① ② ③ ④ ⑤ ⑥ ⑦
3. Willing to help when needed.	① ② ③ ④ ⑤ ⑥ ⑦
4. Addresses important issues.	① ② ③ ④ ⑤ ⑥ ⑦
5. Has control over work situation.	① ② ③ ④ ⑤ ⑥ ⑦
6. Follows-up on important issues.	① ② ③ ④ ⑤ ⑥ ⑦
7. Tries to keep promises made.	① ② ③ ④ ⑤ ⑥ ⑦
8. Gains authority and respect of co-workers and employees.	① ② ③ ④ ⑤ ⑥ ⑦
9. Supports his employees.	① ② ③ ④ ⑤ ⑥ ⑦
10. Has constructive and positive attitude.	① ② ③ ④ ⑤ ⑥ ⑦
11. Acts as a role model.	① ② ③ ④ ⑤ ⑥ ⑦

C. INNOVATION/CHANGE	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
1. Encourages changes which could lead to better production or communication.	① ② ③ ④ ⑤ ⑥ ⑦
2. Takes an active part in implementation of changes.	① ② ③ ④ ⑤ ⑥ ⑦
3. Inform employees before implementing a change.	① ② ③ ④ ⑤ ⑥ ⑦
4. Explains reasons for change.	① ② ③ ④ ⑤ ⑥ ⑦
5. Sensitive to differences in moral following changes.	① ② ③ ④ ⑤ ⑥ ⑦
6. Asks for input regarding changes.	① ② ③ ④ ⑤ ⑥ ⑦
7. Allows reasonable time to implement a change.	① ② ③ ④ ⑤ ⑥ ⑦
8. Looks at the whole picture before deciding on a change, thus avoiding negative side-effects.	① ② ③ ④ ⑤ ⑥ ⑦

D. RESULTS ORIENTATION/PRODUCTION	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
1. Successfully meets needs, goals or deadlines..	① ② ③ ④ ⑤ ⑥ ⑦
2. Gives production problems a high priority.	① ② ③ ④ ⑤ ⑥ ⑦
3. Develops procedures to improve production.	① ② ③ ④ ⑤ ⑥ ⑦
4. Solves problems that slow production down.	① ② ③ ④ ⑤ ⑥ ⑦
5. Challenges and convinces employees to reach goals.	① ② ③ ④ ⑤ ⑥ ⑦
6. Recruit enough people to meet production goals.	① ② ③ ④ ⑤ ⑥ ⑦

E. ETHICS STANDARDS	CURRENT SKILL LEVEL OF THE GROUP
	not at all very skilled skilled
1. Exhibits honesty.	① ② ③ ④ ⑤ ⑥ ⑦
2. Considers employees as people - shows respect and dignity.	① ② ③ ④ ⑤ ⑥ ⑦
3. Keeps confidentiality.	① ② ③ ④ ⑤ ⑥ ⑦
4. Exhibits a fair attitude.	① ② ③ ④ ⑤ ⑥ ⑦
5. Motivates employees to complete task in a pleasant positive manner.	① ② ③ ④ ⑤ ⑥ ⑦
6. Speaks in a polite manner.	① ② ③ ④ ⑤ ⑥ ⑦
7. Takes disciplinary action in private; away from others.	① ② ③ ④ ⑤ ⑥ ⑦

II. RELATIONSHIP

A. RELATIONSHIPS WITH UPPER MANAGERS	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
1. Involves upper management in critical decisions and problems.	① ② ③ ④ ⑤ ⑥ ⑦
2. Keeps upper management appraised of current situations.	① ② ③ ④ ⑤ ⑥ ⑦
3. Acts according to upper management direction.	① ② ③ ④ ⑤ ⑥ ⑦
4. Supports upper management decisions regardless of his own ideas.	① ② ③ ④ ⑤ ⑥ ⑦
5. Has upper management support.	① ② ③ ④ ⑤ ⑥ ⑦
6. Represents his employees in their requests to upper management.	① ② ③ ④ ⑤ ⑥ ⑦

B. EMPLOYEE PERFORMANCE AND DEVELOPMENT	CURRENT SKILL LEVEL OF THE PERSON
	not at all skilled very skilled
1. Supports structured training and gives guidance on how to accomplish a task.	① ② ③ ④ ⑤ ⑥ ⑦
2. Clearly outlines expectations and duties.	① ② ③ ④ ⑤ ⑥ ⑦
3. Gives feedback to employees.	① ② ③ ④ ⑤ ⑥ ⑦
4. Gives suggestions to improve employees performance.	① ② ③ ④ ⑤ ⑥ ⑦
5. Gives accurate and detailed performance reviews on time.	① ② ③ ④ ⑤ ⑥ ⑦
6. Publicly gives credit to employees for their work.	① ② ③ ④ ⑤ ⑥ ⑦
7. Recognizes employees' strengths and weaknesses.	① ② ③ ④ ⑤ ⑥ ⑦
8. Promotes and transfers people according to their abilities, skills and overall contribution to the organization.	① ② ③ ④ ⑤ ⑥ ⑦
9. Keeps his/her promises regarding employees' future career.	① ② ③ ④ ⑤ ⑥ ⑦
10. Recognizes candidates talents and abilities and recruits the best person for the job.	① ② ③ ④ ⑤ ⑥ ⑦
11. Ably deals with disciplinary issues.	① ② ③ ④ ⑤ ⑥ ⑦
12. Sensitive to employees' personal problem and feelings, and is willing to help employees resolve them.	① ② ③ ④ ⑤ ⑥ ⑦
13. Encourages employees to feel pride in their work.	① ② ③ ④ ⑤ ⑥ ⑦
14. Works jointly with employee to draw employee's career path.	① ② ③ ④ ⑤ ⑥ ⑦
15. Encourages employees to do their best.	① ② ③ ④ ⑤ ⑥ ⑦
16. Delegates tasks.	① ② ③ ④ ⑤ ⑥ ⑦

C. TEAM BUILDING / ORGANIZATIONAL CLIMATE	CURRENT SKILL LEVEL OF THE PERSON
	not at all skilled very skilled
1. Encourages team spirit and team work.	① ② ③ ④ ⑤ ⑥ ⑦
2. Encourages open discussions.	① ② ③ ④ ⑤ ⑥ ⑦
3. Explores solutions with group (brainstorming.)	① ② ③ ④ ⑤ ⑥ ⑦
4. Open to suggestions.	① ② ③ ④ ⑤ ⑥ ⑦
5. Bases his decisions on input from employees.	① ② ③ ④ ⑤ ⑥ ⑦
6. Arranges staff meeting to share information, resolve problems, improve production and decide on direction.	① ② ③ ④ ⑤ ⑥ ⑦
7. Supports his team's decision.	① ② ③ ④ ⑤ ⑥ ⑦
8. Cooperate and communicates with other departments.	① ② ③ ④ ⑤ ⑥ ⑦
9. Keeps work meeting focused on his issues/problem.	① ② ③ ④ ⑤ ⑥ ⑦
10. Uses employees involvement to improve their performance.	① ② ③ ④ ⑤ ⑥ ⑦
11. Makes job fun.	① ② ③ ④ ⑤ ⑥ ⑦

D. PEER RELATIONSHIPS	CURRENT SKILL LEVEL OF THE PERSON
	not at all skilled very skilled
1. Willing to help to solve problems between employees.	① ② ③ ④ ⑤ ⑥ ⑦
2. Set up meeting to 'clear the air' between employees.	① ② ③ ④ ⑤ ⑥ ⑦
3. Helps employees to see each other's point of view.	① ② ③ ④ ⑤ ⑥ ⑦
4. Handles conflicts within his/her team.	① ② ③ ④ ⑤ ⑥ ⑦
5. Handles conflicts within his/her team fairly.	① ② ③ ④ ⑤ ⑥ ⑦

E. CUSTOMER ORIENTATION	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
1. Keeps obligations to customers, even under difficult circumstances.	① ② ③ ④ ⑤ ⑥ ⑦
2. Understands customers' needs.	① ② ③ ④ ⑤ ⑥ ⑦
3. Bases his promises to customers on objective, and reasonable scheduling.	① ② ③ ④ ⑤ ⑥ ⑦
4. Helps his employees to solve problems with clients.	① ② ③ ④ ⑤ ⑥ ⑦
5. Deals with customers' problems calmly and politely.	① ② ③ ④ ⑤ ⑥ ⑦
6. Set up a meeting to discuss clients' expectations.	① ② ③ ④ ⑤ ⑥ ⑦
7. Informs customers of changes which may affect them.	① ② ③ ④ ⑤ ⑥ ⑦
8. Acts to improve customer service.	① ② ③ ④ ⑤ ⑥ ⑦

III. PERSONAL SKILLS

A. TECHNICAL COMPETENCE	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
1. Knows his job and work area.	① ② ③ ④ ⑤ ⑥ ⑦
2. Able to fix failures within system.	① ② ③ ④ ⑤ ⑥ ⑦
3. Bases his expectations on the system technical abilities.	① ② ③ ④ ⑤ ⑥ ⑦
4. Has trouble-shooting skills.	① ② ③ ④ ⑤ ⑥ ⑦
5. Accurately answers technical questions.	① ② ③ ④ ⑤ ⑥ ⑦
6. Recognizes and buys quality equipment.	① ② ③ ④ ⑤ ⑥ ⑦
7. Learns new techniques and keeps himself updated within his professional area.	① ② ③ ④ ⑤ ⑥ ⑦

B. COGNITIVE ABILITIES	CURRENT SKILL LEVEL OF THE PERSON
	not at all skilled very skilled
1. Has decision-making ability.	① ② ③ ④ ⑤ ⑥ ⑦
2. Uses available data to reach decisions.	① ② ③ ④ ⑤ ⑥ ⑦
3. Analyzes problems by gathering input from all available sources.	① ② ③ ④ ⑤ ⑥ ⑦
4. Recognizes problems, both existing and potential.	① ② ③ ④ ⑤ ⑥ ⑦
5. Exercises good judgment.	① ② ③ ④ ⑤ ⑥ ⑦
6. Focuses on issues.	① ② ③ ④ ⑤ ⑥ ⑦
7. Finds solutions to problems.	① ② ③ ④ ⑤ ⑥ ⑦
8. Willingly accepts others' ideas when proven to be better.	① ② ③ ④ ⑤ ⑥ ⑦
9. Keeps an open mind.	① ② ③ ④ ⑤ ⑥ ⑦
10. Shows intelligence.	① ② ③ ④ ⑤ ⑥ ⑦
11. Is consistent in his ideas and practices.	① ② ③ ④ ⑤ ⑥ ⑦
12. Comes well-prepared to discussion.	① ② ③ ④ ⑤ ⑥ ⑦
13. Expresses himself clearly.	① ② ③ ④ ⑤ ⑥ ⑦
14. Has confidence in his own abilities.	① ② ③ ④ ⑤ ⑥ ⑦

C. ADMINISTRATIVE SKILLS	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
1. Organizes resources and tasks	① ② ③ ④ ⑤ ⑥ ⑦
2. Provides adequate resources and equipment	① ② ③ ④ ⑤ ⑥ ⑦
3. Maintain company procedure	① ② ③ ④ ⑤ ⑥ ⑦
4. Takes minutes, and writes reports, keeping both organized	① ② ③ ④ ⑤ ⑥ ⑦
5. Understands the importance of reporting system	① ② ③ ④ ⑤ ⑥ ⑦
6. Gives reasonable notice of meeting and deadlines	① ② ③ ④ ⑤ ⑥ ⑦
7. Determines reasonable schedules	① ② ③ ④ ⑤ ⑥ ⑦
8. Verifies information before acting	① ② ③ ④ ⑤ ⑥ ⑦
9. Plans are based on awareness of work load	① ② ③ ④ ⑤ ⑥ ⑦
10. Returns calls promptly	① ② ③ ④ ⑤ ⑥ ⑦
11. Shows concern for safety	① ② ③ ④ ⑤ ⑥ ⑦

D. INTERPERSONAL SKILLS	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
1. Utilizes good communication skills.	① ② ③ ④ ⑤ ⑥ ⑦
2. Employs open door policy - Listen to others.	① ② ③ ④ ⑤ ⑥ ⑦
3. Shows a concerned attitude.	① ② ③ ④ ⑤ ⑥ ⑦
4. Knows that work incidents will effect employees' motivation.	① ② ③ ④ ⑤ ⑥ ⑦
5. Shows kindness.	① ② ③ ④ ⑤ ⑥ ⑦
6. Stays calm, maintains self control.	① ② ③ ④ ⑤ ⑥ ⑦
7. Empathetic to employees' feeling.	① ② ③ ④ ⑤ ⑥ ⑦
8. Keeps an open-mind.	① ② ③ ④ ⑤ ⑥ ⑦
9. Demonstrates a supportive and encouraging attitude.	① ② ③ ④ ⑤ ⑥ ⑦
10. Displays high moral standards.	① ② ③ ④ ⑤ ⑥ ⑦

Appendix B

Zenger-Miller Need Assessment Questionnaire

Zenger-Miller, the company who owns the rights on the Zenger-Miller Need Assessment Questionnaire refused to allow it's publication in this paper.

In Table two there is a presentation of the Zenger-Miller Need Assment Questionnaire's 12 dimensions and an example of each dimension.

Appendix C
Top Manager Questionnaire

Dimensions	CURRENT SKILL LEVEL OF THE PERSON
	not at all very skilled skilled
1. Organization goals	① ② ③ ④ ⑤ ⑥ ⑦
2. Leading others	① ② ③ ④ ⑤ ⑥ ⑦
3. Innovation/Change	① ② ③ ④ ⑤ ⑥ ⑦
4. Results orientation/production	① ② ③ ④ ⑤ ⑥ ⑦
5. Ethics standards	① ② ③ ④ ⑤ ⑥ ⑦
6. Relationships with upper managers	① ② ③ ④ ⑤ ⑥ ⑦
7. Employee performance and development	① ② ③ ④ ⑤ ⑥ ⑦
8. Team building/Organizational climate	① ② ③ ④ ⑤ ⑥ ⑦
9. Peer relationships	① ② ③ ④ ⑤ ⑥ ⑦
10. Customer orientation	① ② ③ ④ ⑤ ⑥ ⑦
11. Technical competence	① ② ③ ④ ⑤ ⑥ ⑦
12. Cognitive abilities	① ② ③ ④ ⑤ ⑥ ⑦
13. Administrative skills	① ② ③ ④ ⑤ ⑥ ⑦
14. Interpersonal skills	① ② ③ ④ ⑤ ⑥ ⑦
15. Overall effectiveness	① ② ③ ④ ⑤ ⑥ ⑦

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TO: Orni Goc
1575 Tenaka Pl, #4
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FROM: Serena W. Stanford *Serena W. Stanford*
AAVP, Graduate Studies and Research

DATE: June 6, 1994

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"Managerial Effectiveness Validation of the New
Questionnaire"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research projects, and with regard to any and all data that may be collected from the subjects. The Board's approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Dr. Serena Stanford immediately. Injury includes but is not limited to bodily harm, psychological trauma and release of potentially damaging personal information.

Please also be advised that each subject needs to be fully informed and aware that their participation in your research projects is voluntary, and that he or she may withdraw from the project at anytime. Further, a subject's participation, refusal to participate or withdrawal will not affect any services the subject is receiving or will receive at the institution in which the research is being conducted. If you have questions, please contact me at (408) 924-2480.