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STUDENT TASK RELEVANT MATURITY LEVEL AND INSTRUCTOR LEADERSHIP STYLE AS FACTORS OF PERCEIVED EFFECTIVENESS OF CLINICAL INSTRUCTION IN NURSING EDUCATION: A TEST OF SITUATIONAL LEADERSHIP THEORY

by

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Thesis presented to the School of Graduate Studies
of the University of Ottawa
as partial fulfillment of the requirements
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ABSTRACT

Hersey and Blanchard (1982) include two types of leader behaviours in their model for leadership. The theory is based on the premise that effective leaders balance task and relationship behaviours according to the needs (task relevant maturity levels) of the individual or group of followers. Effectiveness relates not only to successful goal achievement but also to how the individual follower or group feels about the process by which the leader influenced the accomplishment of the goal.

It is argued that the elements of the clinical nursing teaching process are similar to the elements of Situational Leadership Theory. The clinical instructor acts as a leader as s/he influences the behaviours of the individual students and the student group toward the achievement of the learning goals in the clinical laboratory setting. It has been demonstrated that effective instructional behaviours relate to the facilitation of task achievement by students as well as to interpersonal relationships between student and teacher. These instructional behaviours vary with the needs of the learner and the characteristics of the environment.

There is a paucity of research relating Situational Leadership Theory to the teaching-learning process. A descriptive study was conducted to investigate the theory in a nursing education context.

From the theory it was hypothesized that first year nursing students whose clinical instructor's leadership style is congruent with the student's task relevant maturity level perceive their clinical instructor as more effective when compared to students whose clinical instructor's leadership style does not match the student's task relevant maturity level.

The research subjects were 19 clinical instructors of nursing, and their students (N=143) from two community colleges in a large urban area. Students were in the first year of three-year English language nursing programs. Three instruments were used to collect data with respect to each of the variables: Student Profile: Clinical Experience to

measure the maturity level of the student, Leadership Scale-Staff Member Form to determine the student nurse's perception of the leadership style utilized by the instructor, and Clinical Evaluation Scale to determine the perceived effectiveness of clinical instruction. Additional demographic detail was also collected which was related to maturity level.

Data analysis did not support the hypothesis. While there was one significant ($p=.05$) difference between the groups of partially matched and unmatched instructor-student pairs with respect to perceived effectiveness (achievement and satisfaction) of clinical instruction, it was not in the direction predicted. It was suggested that either the students were a very mature group, or the instrument measuring maturity level was not powerful enough to discriminate between the students. On the other hand, first year nursing students may not be able to view their task relevant maturity realistically because of lack of experience in the clinical learning setting and with self-evaluation.

On a post hoc basis, leadership styles were examined for effectiveness. High task leadership styles were perceived by the student nurses to be most effective for achievement, while high relationship styles were perceived by the student nurses to be most effective for satisfaction.

It was suggested that future research on Situational Leadership Theory is required with respect to the instrument designed to measure maturity and the degree to which individual leaders are capable of adapting their leadership styles.

It would be interesting to research the ability of students who are further advanced in their course of studies to perform self-evaluations. A comparison of leadership styles perceived as most effective for students at all levels of the nursing program would be of interest to nurse educators.

The power bases of clinical instructors and the effect of this power on clinical achievement and satisfaction could provide questions for further research.

ACKNOWLEDGEMENTS

This thesis would not have been possible without the faculty and students who agreed to participate. Their willingness to share themselves and their time in the interest of this research project is testimony to their commitment to clinical teaching.

This thesis was prepared under the supervision of Marvin Boss, PhD, Faculty of Education, University of Ottawa, who contributed generously in terms of time, advice, support and encouragement, and to whom the author is profoundly grateful.

A special word of gratitude is also owed to H. W. (Hal) Willis, Ed.D., Faculty of Education, and to Marie des Anges Loyer, PhD, School of Nursing, Faculty of Health Sciences, University of Ottawa, for their assistance and encouragement.

This thesis could not have been completed without the love, assistance, and support of three important people: my husband, Ken, and my children, Michael and Robert. It is to them that this thesis is dedicated.

CURRICULUM STUDIORUM

Ardene Louise Robinson Vollman was born January 5, 1948 in Kenora, Ontario. She received her diploma in nursing in 1970 from the University of Saskatchewan, Saskatoon, Saskatchewan, and her Bachelor of Science in Nursing degree from the same university in 1978.

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INTRODUCTION

The process of clinical instruction in nursing education has received little attention in the literature of education or nursing. In recent years, with the shift of nursing education from hospitals to community colleges, more interest has been generated with respect to the clinical component of nursing education. The process of clinical teaching and learning, however, has not been satisfactorily elucidated, and in an effort to begin to explain how the key elements might be conceptualized, Situational Leadership Theory was tested in a clinical nursing education context.

Situational Leadership Theory, proposed by Hersey and Blanchard (1982), is based on the premise that effective leaders adapt their leadership style (which is a combination of two dimensions of leader behaviours: task and relationship) to the task relevant maturity levels of the followers.

Since the elements of the clinical teaching process were perceived to be similar to the elements of Situational Leadership Theory, the author suggested that the theory could be tested in the clinical context of nursing education. The purpose of the study was to test the validity of Situational Leadership Theory in this context and to contribute to an understanding of the process of effective clinical teaching and learning.

In the first chapter, Hersey and Blanchard's Situational Leadership Theory is presented and discussed. Special note is made of its applicability to education in general and to the clinical component of nursing education in particular. In chapter two, the research design is presented, including sample selection, data collection procedures, measuring instruments, and the planned data analysis. The results of the research are presented and discussed in the final chapter.

1. REVIEW OF THE LITERATURE

This chapter comprises the review of the literature and is arranged in four sections. In the first section Situational Leadership Theory is described. In section two, research relevant to the application of Situational Leadership Theory to education is reviewed. In the third section, the implications of the theory for clinical teaching in nursing education are considered. The final section includes a summary and the research hypothesis.

Situational Leadership Theory

In this section Situational Leadership Theory proposed by Hersey and Blanchard (1982) will be outlined, including definitions and explanations of the dimensions of the model. The concept of power is also presented and defined. It is followed by a discussion of how the elements of the model interrelate, and the section concludes with a brief critique of Situational Leadership Theory.

Leadership is a subject that has intrigued many over the centuries. Aristotle commented that "from the hour of birth, some are marked out for subjection, others for rule" (Hoy and Miskel, 1982, p. 221). This trait approach, as it became known, was generally accepted until the 1950s. Proponents of this approach attempted to identify unique characteristics of leaders that distinguished them from the ordinary person. Attempts to isolate personality traits that were unique to leaders were unsuccessful and, in reaction, researchers began to study factors or characteristics in the setting to which leadership behaviour could be attributed. This approach became known as situational, emphasizing how the situation influenced leadership. With the merging of the trait and situational approaches, a social role approach evolved, in which leadership was viewed as a skill that could be learned. Leaders and followers were 'actors' in social transactions, and any person who acquired leadership skills was considered capable of assuming a role as a

leader. Reaction to the opposite positions that "leaders are born" and "leaders are made" indicated that an either/or approach to leadership is restrictive. Investigators found that personality, role, and situational factors are all important to leadership. The contingency approach then evolved and since the 1960's has continued to influenee leadership research. Theorists using the contingency approach address the conditions, or situational variables, that influence the relationship between leadership and performance. This approach emphasizes that under one set of circumstances certain leadership behaviour is effective, but, under different circumstances, a different type of leadership behaviour is required.

One such contingency approach has been labelled by Hersey and Blanchard (1982) as Situational Leadership Theory. This theory was first introduced as the Life Cycle Theory in 1969. According to the authors (Hersey and Blanchard, 1982) the theory developed out of insights from the work of Fiedler (Contingency Model), Reddin (3-D Management Style), and the Ohio State Leadership Studies.

Prior to discussing Situational Leadership Theory, several terms should be defined. Hersey and Blanchard (1982) define attitudes, behaviour, goals, and motives as follows:

Attitudes refer to how individuals feel about certain issues, what they believe in, and what they value. Knowing what an individual's attitude is with respect to an issue (e.g., poverty in the ghetto) may be useful for predicting what that individual will do about it. Observing behaviour (e.g., avoiding the ghetto, talking about the problem, becoming involved in relief programs) will provide more information about the individual's attitude with respect to the issue in question. Hersey and Blanchard (1982) state that Situational Leadership Theory is based upon observable leader behaviours, not reported attitudes.

Behaviour is motivated by a desire to attain some goal. The specific goal is not always consciously known by the individual. Activity is the basic unit of behaviour. To predict behaviour, the needs or motives of the individual which evoke a certain action at a particular time must be known.

Motives are needs, wants, drives, or impulses within the individual. They are directed toward goals, which may be conscious or subconscious. Motives prompt and maintain activity and determine the general behaviour of the individual.

Goals are the rewards to which motives are directed. Hersey and Blanchard (1982) view goals as external to the individual. These rewards may be tangible or intangible. Motivation is encouraged when appropriate goals are available for need satifaction. Goals, when met, are not necessarily discarded. They may continue to influence the individual.

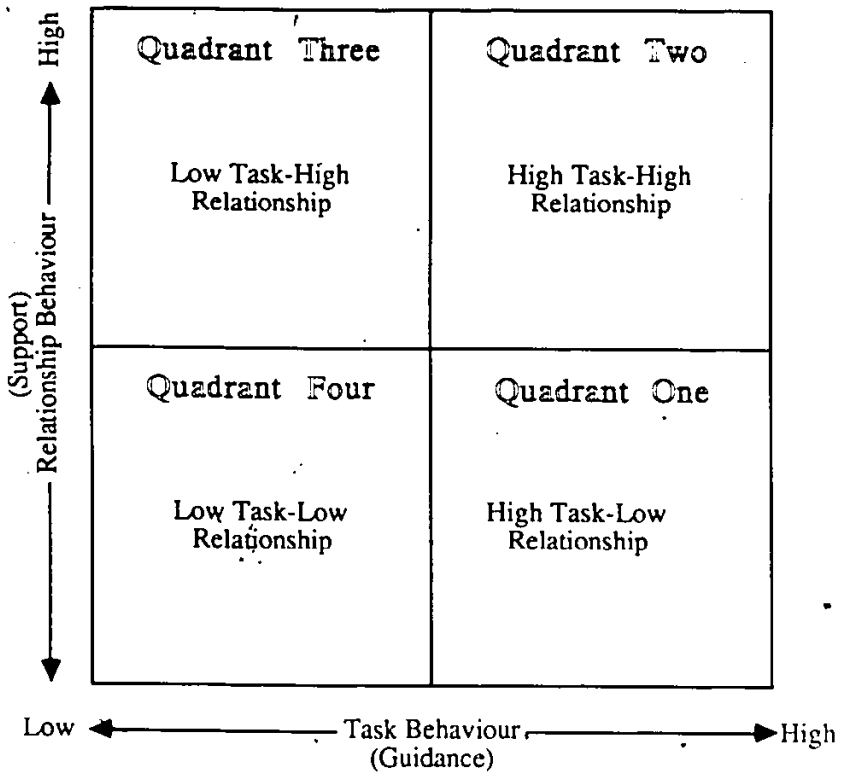
Leadership is defined by Hersey and Blanchard (1982) as "the process of influencing the activities of an individual or group in efforts toward goal achievement in a given situation" (p. 83). The goal may be a leader's personal goal or an organizational goal; it may be mutually defined, or set by the leader alone. During any interaction when one person is influencing the behaviour of any other individual or group, that person is, in effect, the leader. The follower is the individual or group whose behaviour the leader is attempting to influence.

Leadership, then, requires a leader and a follower in a situational context, whether that is at work, at home, or in social activities. The leader selects her/his behaviours to ensure that goals are achieved by the follower or group of followers. The actions a leader takes to ensure goal attainment are influenced by the needs and/or behaviours of the followers and the characteristics of the situation. Hersey and Blanchard (1982) view leadership as based upon an interplay between leader activities (behaviours) and behaviours that followers exhibit.

In Situational Leadership Theory (Hersey and Blanchard, 1982) it is suggested that there are two types of behaviours in which leaders engage: those which relate to interpersonal relationships and those which relate to the task at hand (See Figure 1). *Relationship behaviours*, shown on the vertical axis of Figure 1, refer to the extent to which a leader provides psychological, social, and emotional support to the follower(s), engages in dialogue, and becomes personally involved. These behaviours indicate

Figure 1

Four Leadership Styles



Note: Hersey, P., & Blanchard, K., (1982). *Management of organizational behavior: Utilizing human resources* (4th ed.). Englewood Cliffs: Prentice Hall, p.96. By permission.

friendship, trust, warmth, interest, and respect in the relationships between a leader and the members of the group. The leader provides positive reinforcement to people, actively listens to them, and supports their attempts to perform a defined function or job. There is two-way communication between the leader and follower(s). *Task behaviours*, shown on the horizontal axis of Figure 1, refer to the extent to which a leader directs followers, defines their roles, sets their goals, and selects and sequences their activities. These leader behaviours delineate relationships based upon position and status. They also define organizational patterns, methods of communication, and procedures for performance. Communication is primarily one-way, from the leader to the followers. Both types of leader behaviours relate to the attempt to achieve a specified goal with and through the followers. Followers are influenced by a supportive relationship with the leader and the guidance provided.

According to Hersey and Blanchard (1982), leadership style refers to the consistent pattern of task and relationship behaviours used by leaders when they are working with people. These styles evolve over time from experience and education and are influenced by expectations of the leader, colleagues, and superiors, as well as by responses from subordinates. Personal feelings of security, the climate of an organization, position within a hierarchial structure, characteristics of the individual follower or the group of followers, and the complexity of the task to be achieved affect the style and the amount of style flexibility a leader develops over time. Flexibility of style is necessary for the effective leader because different situations require varying combinations of task and relationship behaviours.

Figure 1 provides a representation of Situational Leadership Theory (Hersey and Blanchard, 1982), depicting the four leadership styles which result from the combinations of high and low task and relationship behaviours.

Quadrant One represents a high task-low relationship combination of leader behaviours. The leader provides specific instructions and closely supervises the activities of the followers, telling them what is expected and how to carry out the planned actions.

Quadrant Two represents a high task-high relationship combination of leader behaviours. The leader not only continues to provide guidance but also provides explanations and support to the followers, selling them, in effect, on decisions taken and strategies to be implemented in order to elicit their cooperation and to enhance their motivation.

In Quadrant Three, the combination of leader behaviours shifts to low task-high relationship. The leader assumes a less directive and more participative style, sharing ideas and decision-making, and providing support, encouragement, and consideration for the followers.

In Quadrant Four, leader behaviours reflect a combination of low task-low relationship. The leader delegates responsibilities to the followers and does not provide much psychosocial support (Hersey and Blanchard, 1982).

In order to be effective, the leader must adapt her/his style (a combination of guidance or task behaviour and support or relationship behaviour) to the relative level(s) of maturity of the followers as related to performing a particular function. *Maturity* is defined by Hersey and Blanchard (1982) as "the ability and willingness of people to take responsibility for directing their own behaviour" (p.151). Maturity refers to the capacity to set high but attainable goals, the willingness and ability to take responsibility, and the educational level and work experience of an individual or group of people. Maturity consists of two dimensions: one dimension relates to ability, knowledge, skill, and experience (job maturity) and the second relates to willingness, motivation, confidence, and commitment (psychological maturity). Job maturity is related to the ability of an individual to do a particular task. Psychological maturity is related to the individual's willingness or motivation to do that task.

The two components of maturity are to be considered relevant only in relation to the certain specified task being performed. In this respect, maturity is referred to as "task relevant", implying that a task or function has been specified. An individual or group is not considered, in the overall sense, to be mature or immature, but will have a varying degree of psychological or job maturity depending on the task or function being attempted. For example, a nurse may be a person with a great deal of experience caring for patients, demonstrating high job maturity. On the other hand, however, this same person may lack confidence in developing and writing plans of care for these ill patients even though s/he has the knowledge to perform the task. S/he would be considered to have a low psychological maturity with respect to writing care plans. The nurse is not considered to be mature or immature in the total sense, but only with regard to that specified task. Accordingly, in Situational Leadership Theory, maturity refers to task relevant maturity whether it is determined by job and/or psychological components.

For any given task, a person would be considered at a high maturity level if both psychological and job maturity were high. Conversely, the individual with low maturity on both job and psychological dimensions would be considered to be at a low maturity level. Where a combination of high and low maturity exists with respect to the two dimensions, the person is designated at a moderate task relevant maturity level, with the lowest dimension having the most influence on the individual's performance.

In the following discussion of task relevant maturity with respect to the four leadership styles mentioned earlier, the diagnosis of the type of maturity/immaturity exhibited by the follower is of less concern than the degree of either job or psychological maturity that is shown. Maturity is discussed only in terms of degree along a continuum, from low to moderate to high, and encompasses four steps on the maturity scale as well as the two components (job and psychological) included in the steps. Situational Leadership Theory is based upon the premise that leaders, in order to be effective, must adapt their style (combinations of task and relationship behaviours) to the level(s) of task relevant

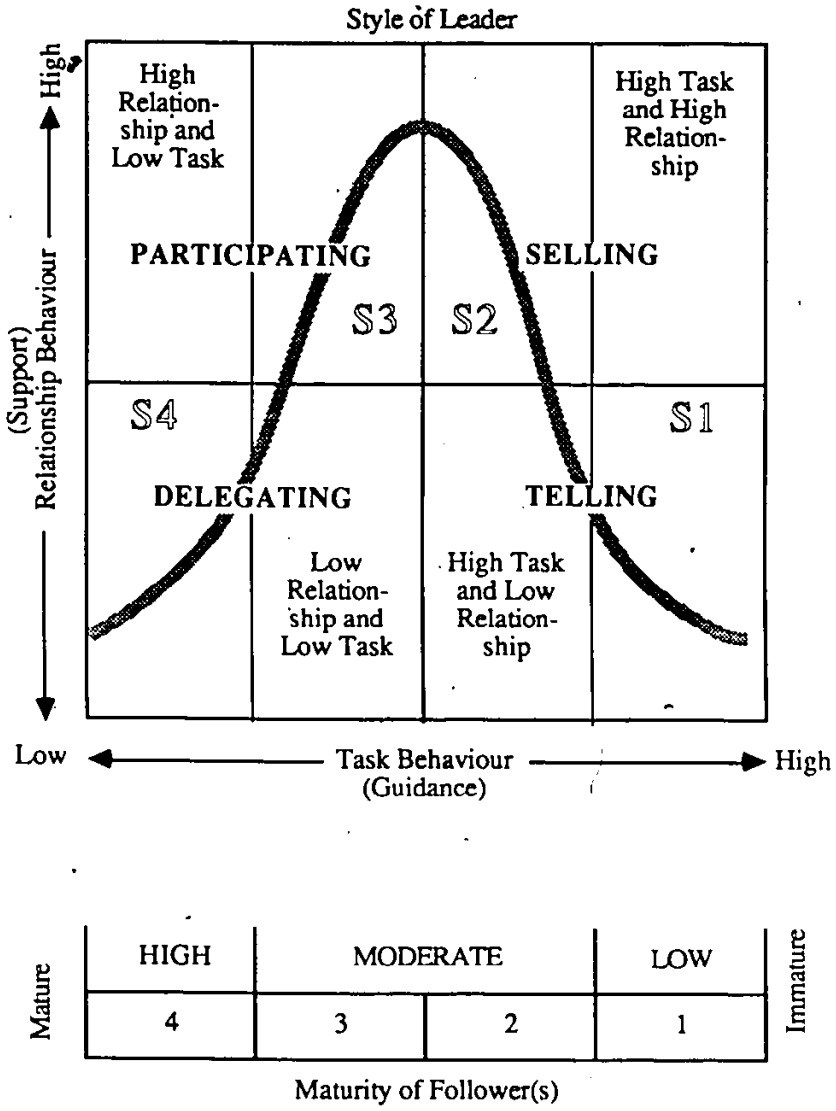
maturity of the follower(s). Figure 2 portrays the relationship between task relevant maturity and appropriate leadership style to be used to promote goal achievement. It is the position of Hersey and Blanchard (1982) that the "best" (most effective) leadership style is situation-specific. A style used effectively in one situation may be ineffective under a different set of circumstances; that is, a different follower or group of followers, and/or a different environment or context will change the situation.

Effectiveness relates not only to successful achievement of a goal but also to how the individual feels about the process by which the goal was achieved (Hersey and Blanchard, 1982, p.97). A leader can attempt to influence the behaviour of a follower. Successful goal achievement may result. If, however, the follower does not have a positive attitude about the way in which the leader acted, the leadership style will be ineffective in that it will likely have a short-lived effect. The willingness of the follower to perform this task will diminish, and her/his maturity level will regress to the low end of the maturity scale. Should, on the other hand, the follower feel positive, then feedback and reinforcement can be used to promote greater motivation, confidence, and commitment. Increased motivation on the part of the follower will cause her/him to progress to a higher level on the maturity scale. There is an interrelationship between effective leadership style and the maturity of the followers. Hersey and Blanchard (1982) state that effectiveness is a matter of degree from extremely effective to extremely ineffective. They represent effectiveness as a continuum and the perception of any given leadership style could fall anywhere on the scale depending on the maturity of the followers and the context. No single leadership style is appropriate in all situations. As the task relevant maturity level (psychological and/or job) changes, so should the style of the leader.

As the maturity level of the follower increases in terms of accomplishing a particular task, the amount of task (directive) behaviour of the leader should decrease and relationship behaviour should increase accordingly (See Figure 2). The follower's job maturity increases as s/he becomes more able, and the leader should begin to support work efforts in

Figure 2

Key Elements of Situational Leadership Theory



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order to bolster confidence and commitment, thus promoting psychological maturity. As the follower advances into an above average level of maturity, the leader may reduce both task and relationship behaviours since the follower is now more able and more confident to assume responsibility on an independent basis.

In order to select the leadership style that would be most appropriate in a given situation, the maturity level of the follower is assessed and a right angle is drawn from this point on the maturity scale to a point where it intersects the bell-shaped curve on the model (See Figure 2). The quadrant where the intersection occurs suggests the most appropriate leadership style. Hersey and Blanchard (1982) report that the scores on their leadership instruments which are reported to be most effective occur in a small area of the model surrounding the point in the quadrant at which this line intersects the curve. The bell-shaped curve illustrates that, as the maturity level develops along the scale from immature to mature, the leadership style prescribed by the model also shifts along the curve to the left, to another, more appropriate style of leadership. Combinations of leadership behaviours with respect to task and relationship would be adjusted accordingly. Thus, four styles of situational leadership are seen as appropriate.

Style One (S1), representing high task-low relationship behaviours on the part of the leader, is matched to level one on the maturity scale. This style is effective for followers who exhibit low maturity with respect to a given task. The leader would use S1, "telling", to assist the individual at level one who is unable and unmotivated to perform the specified task. The leader, using one-way communication, would define the role of the follower and explain what, how, where, and when to perfom the various functions that comprise the task. The leader would supervise and monitor the follower closely. Too little direction and supervision would reward poor performance and be seen as permissive. The leader who uses S1, when effective, is perceived as being helpful and as having well defined methods for accomplishing goals. When S1 is used inappropriately, this leader is seen as imposing methods on others.

As adequate performance ensues and the follower moves to maturity level two, the leader would increase the amount of relationship behaviour, providing support, praise, and initiating two-way communication. *Style Two* (S2) corresponds to the increasing ability and confidence of the follower with respect to the performance of the specific task. The leader would continue to provide direction, guidance, and supervision, but would also attempt to "sell" the follower on the task in order to elicit cooperation. The follower would "buy in", recognizing personal benefits, and becoming commited to the plan. S2 leaders provide needed direction to develop competence and the interpersonal support required to encourage enthusiasm. The leader who uses S2, when effective, is viewed as satisfying the needs of the follower for setting goals and organizing activities and also as providing needed emotional support and encouragement. When S2 is used inappropriately, the leader is viewed as providing too much structure, while relationship behaviours are seen as "phoney", not genuine.

With maturity progressing to level three, the leader would move to *Style Three* (S3) which represents low task-high relationship behaviour. The leader, "participating" with the follower, would share dialogue and encourage the follower in decision-making. The relationship between leader and follower would become collaborative; the follower now has the knowledge and ability to perform that task, but, lacking some confidence, requires reassurance from time to time that the work is progressing satisfactorily. S3 leaders support the follower's ability and promote willingness to proceed with the task. When effective, the leader using S3 builds trust in people and shows interest in facilitating their goal achievement. When S3 is used inappropriately, the leader using this style is perceived as primarily interested in harmony, unwilling to accomplish a task if it disrupts relationships or tarnishes a "nice guy" image.

The leader, to work effectively with followers at maturity level four, would use a low task-low relationship leadership style, *Style Four* (S4), "delegating" tasks and allowing the follower to work on her/his own to plan and perform the task. The follower is

knowledgeable, willing, and self-directed with respect to this task. Too much support or direction will seem to imply a lack of trust on the part of the leader and may contribute to the building of resentment. When effective, the leader using S4 is perceived as appropriately delegating the task to capable people. Little support is given because little is needed by the individual or group. When S4 is used inappropriately, the leader is perceived as supplying less support and direction than is required by the follower.

Regardless of the leader's initial diagnosis of the maturity levels of the followers, changes may occur which will affect the placement of the follower or group along the maturity scale. The aim of the leader is to facilitate growth in maturity to the greatest extent that the followers are able or willing. This is accomplished by adopting a flexible leadership style, reinforcing positive growth, and providing appropriate amounts of guidance, direction, and psychosocial support. Follower regression, in terms of moving to a lower level on the task relevant maturity continuum is also possible. The leader will then be required to change the relative amounts of task and relationship behaviours necessary in order to maintain effectiveness. Referring to the bell-shaped curve in Figure 2, the movement of leader behaviours can be to the left along the curve from Quadrant One and progressing through the quadrants as far as Quadrant Four. The movement along the curve can also be to the right from Quadrant Four and moving quadrant by quadrant as far as necessary to match a lower follower task relevant maturity. For example, the follower, who has been functioning for some time at a high maturity level with respect to a particular task, may regress to a lower level when the employer introduces a new piece of equipment the follower is required to use. The leader must adapt her/his behaviours, reverting to a style which matches the corresponding lower level of job maturity in terms of the follower's ability to use the equipment and psychological maturity to cope with the innovation. As the follower progresses, gaining maturity, the leader changes style once again.

Implicit in Hersey and Blanchard's (1982) model of leadership is the concept of power and how it relates to leader influence on followers and to leadership effectiveness (See Figure 3). While leadership is an attempt to influence behaviours of others, power describes the likelihood or potential for that leader to influence others and induce compliance, cooperation, and collaboration.

Seven bases of power are defined by Hersey and Blanchard (1982) as follows:

Coercive power, which is based on fear, is used by the leader who utilizes punishment to induce compliance. Failure of the follower to cooperate with the leader using coercive power will result in negative consequences such as reprimands, undesirable work assignments, or dismissal. The leader's coercive power may motivate the follower to obey.

Connection power, based on the leader's connections with influential others, allows the leader to use these connections to induce compliance and cooperation from others who wish to gain the favour or avoid the disfavour of these powerful connections. Followers are likely to acquiesce to the demands of leaders with powerful connections in an attempt to avoid sanctions from the more powerful person in the hierarchy, or to gain recognition and praise from this influential connection.

Reward power, based on the ability of the leader to provide positive incentives, is effective for those people who believe the leader will reward compliance and cooperative behaviour. Followers wish to be viewed favourably by the leader in order to gain recognition or promotion. The leader is able to reinforce growth in the desired direction by the ability to supply rewards.

Legitimate power, which is based upon the position held by the leader, provides the leader with the right to expect compliance and cooperation from subordinates. Usually, the higher the position of the leader in the organizational hierarchy, the higher the legitimate power tends to be.

Referent power is based on the leader's personal traits. This leader has charisma and influences others because they like, admire, and wish to be identified with this individual. This leader has good personal relations with the follower, thus encouraging and influencing follower behaviour.

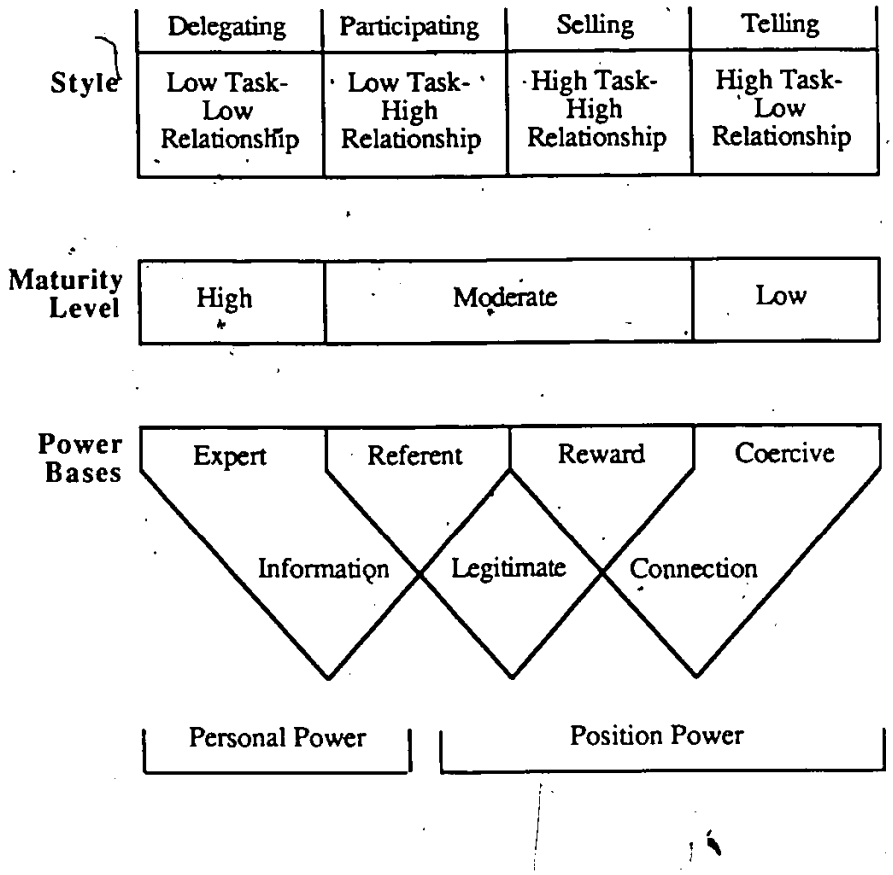
Information power is linked to the leader's possession of, or access to, information. Others who have need of this information are influenced by the leader with this power base and will accept his/her advice and guidance in order to accomplish the task.

Expert power, which is based on the possession of knowledge, expertise, and skill, allows the leader to exert influence through respect from others and through the capability to facilitate the work of others. The leader's reputation is an important factor to the follower, encouraging cooperation and collaboration with the leader. Power has been broadly classified into two types: position power which relates to the leader's place in an organization, and personal power which is held by an individual irrespective of position in an organization. Position power refers to power *over* others to induce compliance, such as coercive, connection, reward, and legitimate power. Personal power refers to power bases which imply power *with* others to exert influence, such as referent, information, and expert power.

Hersey and Blanchard (1982) suggest that there is a direct relationship between a leader's power bases and effective leadership styles with respect to influencing others at differing task relevant maturity levels. Figure 3 portrays this relationship. The coercive and connection power bases are most likely to be effective with followers of below-average (low) maturity where the leader's emphasis is on compliance. The leader, or someone more powerful, is in a position to impose sanctions for poor performance. For those with average (moderate) task relevant maturity, the leader's emphasis begins to include influence (power with the individual) as well as compliance (power over the individual) as s/he coordinates job activities and collaborates with subordinates. The most effective power bases are likely to be reward, legitimate, and referent, relating to the position and

Figure 3

Style, Maturity and Bases of Power



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personality of the leader. In the case of above-average (high) maturity followers who have knowledge, ability, and confidence, the leader's most effective power bases are likely to be those of expert and information. Task achievement by the follower can be facilitated by the leader with information and with professional credibility.

In summary, the concept of leadership has interested many writers and philosophers over the centuries (Aristotle, Machiavelli, Marx). In the last several decades management and administration theorists have searched for a "best" style of leadership. Leaders, to be successful, are not simply endowed with certain traits, but are able to adapt their behaviours to accommodate the demands of individual situations. There is no single all-purpose leadership style that will fit all situations (Hersey and Blanchard, 1982).

Hersey and Blanchard (1982) proposed Situational Leadership Theory. This theory is based on an interplay among the amount of guidance and direction (task behaviour) and the amount of psychological, social and emotional support (relationship behaviour) a leader must provide in a given situation. This depends on the level of task relevant maturity of the people s/he is attempting to lead, and the power bases held and/or utilized by the leader. While Situational Leadership Theory is reported to have been applied successfully in many contexts, it has also been subject to criticism.

Graeff (1983) stated that Hersey and Blanchard focus on the truly situational nature of leadership, note the need for flexibility of leader behaviours, and recognize that the most important situational determinant of appropriate leader behaviour is the follower. He suggested that the prescriptive model that attempts to link all the elements together is weak because the conceptualization of maturity and how the two components of maturity combine is ambiguous. He proposed that Situational Leadership Theory does not recognize a possible multiplicative effect of the combination of the maturity components.

Mouton and Blake (1982), proponents of Managerial Grid and a "one-best-way" orientation to leadership, have criticized Hersey and Blanchard's Situational Leadership Theory. They argued that since the theory does not involve interaction of the two variables

(task and relationship behaviours) but views them separately, it does not accurately portray reality. With respect to how each theory combines the variables, they described Situational Leadership Theory as additive and the Managerial Grid as interactive. Relationship behaviour, they stated, dictates what the leader does to the follower, and does not recognize a two-way relationship. This, they contended, mitigates against teamwork, mutual goal-setting, and effective communication, all of which are necessary for effective leadership. High task-high relationship (Style Two) behaviour is described as maternalistic/paternalistic and not sound leadership practice. Leaders, they argued, must lead by constant principles, not by prescriptive tactics; leaders must be consistent, while situations can be manipulated and changed.

Although Mouton and Blake (1982) argued against Situational Leadership Theory in order to support the Managerial Grid, their comments about what is missing from Situational Leadership Theory and what needs to be more fully addressed provide cogent criticism. In particular, they singled out for discussion issues relating to open communication, involvement and commitment, conflict resolution, consensus, and learning, which are either not mentioned or not fully explicated by Hersey and Blanchard in Situational Leadership Theory.

While Situational Leadership Theory is logically coherent with respect to leader behaviours, leadership style, flexibility, and adaptability, the concept of maturity is conceptually ambiguous, especially at levels two and three. At level two the follower is seen as willing but unable to take responsibility, while at level three the follower is able but unwilling. What part does motivation play in overcoming lack of ability or willingness? At what maturity level is the person who is highly motivated and has the job skills, but lacks confidence and self esteem? How will the leader treat this individual? Some questions remain with respect to the elements of each component of maturity (job and psychological), their actions on, and interactions with, each of the other elements. Does the follower with low job maturity require task behaviours on the part of the leader? Does the follower who

lacks confidence need relationship behaviours? Situational Leadership Theory (Hersey and Blanchard, 1982) emphasizes that the follower is the most important situational determinant in the exercise of leadership. The leader not only provides direction and guidance but also personally relates to followers. The exercise of leadership occurs in any context where one person is attempting to influence another. There might be potential application of this theory to the teaching and learning context.

In the following section, a review of research relating to Situational Leadership Theory and applications to education will be discussed.

Situational Leadership Theory: Research with Emphasis on Educational Applications

In this section, selected literature relating to Situational Leadership Theory will be reviewed. The validity of the theory in the administrative setting will be briefly discussed, but the focus of the review will be on teaching-learning applications.

Hambleton and Gumpert (1982) examined the use and validity of Situational Leadership Theory, using 65 randomly selected managers, 189 of their subordinates, and 56 of their supervisors. Questionnaires were used to determine the type and effectiveness of each manager's leadership style (as perceived by self and others), the professional maturity of subordinates, and related demographic data. Personnel directors categorized the managers into two groups, based on performance appraisal. High performing managers were rated higher by their subordinates than low performers on leader effectiveness and style flexibility. High performing managers showed greater knowledge and use of Situational Leadership Theory and rated the job performance of their subordinates more highly than did low performers. The results supported the validity of the theory. The gain in subordinate job performance when managers implemented Situational Leadership Theory was found to be practically and statistically significant.

In recent years, investigations have been conducted with respect to the validity and applicability of Situational Leadership Theory to the educational setting, in particular, administrator-teacher relationships. Several research methods have been utilized, including ethnographic studies, field observation, case studies, surveys, and experimental designs. Reported results, in general, support Situational Leadership Theory.

LaDrew (1984) employed ethnographic methods to investigate the teacher-principal relationship in a junior high school that had been designated as more effective than other junior high schools in the district for educating children from low socio-economic families. The researcher reported that the principal was perceived to be more effective by teachers when group needs and maturity levels were considered and leadership style adapted accordingly.

Boucher (1980) conducted a study to determine whether the perception of leadership effectiveness of intramural recreational sports directors co-varied with the congruence of leadership style and task relevant ability of followers. The data from questionnaires of a sample of 174 leader-follower dyads were analysed. It was found that the variables of Situational Leadership Theory supported the relationships predicted by the model, suggesting that the leader was most effective when leadership style was congruent with follower maturity level. The study contributed a Sports Ability Questionnaire for the measurement of task relevant maturity, and a Leadership Style Analysis for leaders in a sport-related environment.

Goldenberg (1980) studied the leadership style of 35 heads of diploma nursing programs in Ontario colleges and the maturity levels of 106 of their senior faculty. The results of the study were consistent with Situational Leadership Theory, suggesting that effectiveness was related to congruence between follower maturity and leadership style.

Snyder (1979) studied the effects of training in the use of Situational Leadership Theory on teacher-principal rapport. It was found that rapport was greater in schools where

principals had participated in Situational Leadership Theory workshops than in schools where principals had not attended the workshops.

Clark (1981) examined leadership in an entire school district with respect to a specific evaluation project. The findings were not conclusive that style-maturity matches were associated with high leader effectiveness. It was found that subordinates and superiors differed in their perception of effective leadership. Subordinates reported the high relationship styles to be most effective while superiors reported the opposite, viewing Styles One and Four as most effective.

While the studies cited above support Situational Leadership Theory, two researchers noted difficulties with the measurement of follower maturity (Thomas, 1983; Clark, 1981). Clark (1981) reported that either the Maturity Scale does not discriminate levels of maturity or that, in the situation where it was used, all the followers were at the same level. Thomas (1983) suggested that the leaders may have difficulty accurately assessing follower maturity. It was suggested that the ability of leaders to judge maturity levels needs to be researched. Further, it was recommended that the Maturity Scale be revised so that more accurate and dependable assessments can be made.

Hersey, Angelini, and Carakushansky (1982) extended Situational Leadership Theory to the educational process, using the theory to design and conduct two training courses for executives (N=60). The research design provided for two experimental and two control groups. Both groups received the same course content, but the teachers for the experimental groups used the principles of Situational Leadership Theory in the classroom. Leadership styles and classroom structure were varied during the workshops according to the participants' levels of task maturity. On an identical examination, those executives in the experimental groups scored higher than those in the control groups on both qualitative measures of satisfaction with the workshop and quantitative measures with respect to the achievement of the workshop objectives and scores on a test measuring acquisition of the course content.

Echols (1984) discussed the teacher-facilitator role of administrators of clinical nursing units, and suggested a model for adult education developed from Situational Leadership Theory. Several teaching strategies appropriate to low, moderate, and high maturity learners and/or groups of learners were suggested. These strategies were intended to reflect combinations of task and relationship behaviours delineated in the four quadrants of the Situational Leadership Theory model.

Low maturity individuals, as learners, were described as facing a totally new area of inquiry, having little or no previous experience with the area of study, and needing to acquire the information quickly. They were depicted as being motivated by external pressure and as perceiving the teacher as possessing coercive or connective power. Echols (1984) suggested that teachers should choose from among several "telling" strategies of instruction, such as lectures, demonstrations, and programmed instruction in order to ensure the maximum acquisition of knowledge in the most efficient manner.

Moderate maturity learners were described as having some experiential knowledge about the subject area, being reasonably self-directed, and wanting input into learning situations. They were depicted as being motivated and responding to both internal and external incentives and as perceiving the teacher as possessing reward, legitimate, and referent power. Echol's (1984) suggested that teachers should choose from among the "selling" and "participating" strategies of teaching-learning, such as discussion, role play, and debate.

High maturity individuals were described as learners who were self-directed with an experiential knowledge base in the area of inquiry. They were depicted as internally motivated and as perceiving the teacher as a facilitator with information and expert power bases. The teacher, Echols (1984) suggested, should serve as a participant in, and a resource for, the learning and use "delegating" instructional strategies which place the learner in control. These strategies could include self-directed library research, seminars, and brainstorming sessions.

Morris (1978) conducted an experimental study to determine the effect of the interaction between task relevant maturity and leadership style in a professional nursing setting. Seventy randomly selected students from a baccalaureate nursing program were divided into four groups based on a pretest consisting of a first aid content examination and a maturity measurement. Each group represented one of four maturity levels described by Situational Leadership Theory. A first aid course was presented to each group. While the content was identical for each group, the teaching style was manipulated so that each group experienced the four leadership styles of Situational Leadership Theory. Using behaviours described in the LBDQ checklist, the researcher varied the teaching style in each group, assessing student achievement before changing to another style. Using a performance checklist to measure the frequency of student errors, the researcher found that student achievement was greater when the teacher used the appropriate teaching style that matched the maturity level of the group, than with teaching styles that were not appropriate to the maturity level.

Situational Leadership Theory has been reported to be widely used in management training in many countries. Research evaluating the effects of this type of training has only recently begun to appear in the literature. There has been little research with respect to the application of Situational Leadership Theory to the teaching-learning process. Implications for nursing education, in particular the clinical component of a nursing program, will be discussed in the following section.

Situational Leadership Theory: Implications for Nursing Education

An outline of the relevance of the clinical component to nursing education, including definitions and explanations of the components of the clinical teaching process, is included in this section.

Considering the fact that the clinical component consumes a major portion (approximately 65 per cent) of the hours devoted to nursing courses, nurse educators have made the continued improvement of clinical teaching a priority. National and provincial nursing associations in Canada have nursing education interest groups and committees which take ongoing interest in, and action on, issues relating to or affecting the education of nurses. Nursing and related theory are taught in the classroom, but it is in the clinical laboratory that the nursing process is animated, patient contact is made, and role socialization is achieved. It has been suggested that effective teaching strategies which meet the needs of the individual student promote higher achievement outcomes and consequently elevate the profile of nursing as a profession.

Several definitions relating to the clinical teaching of nursing are summarized in the following paragraph:

Clinical experience is that component of nursing education that takes place in a patient care setting and provides planned opportunities for practice under supervision. *Clinical instruction* is the teaching which is implemented in the patient care setting. The *clinical laboratory* is another term applied to the patient care setting, as opposed to the *nursing laboratory* where nursing care is simulated in the absence of patients. *Instructional behaviours* are those strategies designed to teach students and to manipulate the clinical milieu utilized by the clinical instructor when planning experiences and supervising and evaluating students in the clinical laboratory.

Clinical experiences for student nurses take place in health care agencies, primarily hospitals. These experiences are guided by clinical instructors who teach and supervise small groups of students. The primary responsibility of the clinical teacher is to facilitate the transfer of learning from the classroom and nursing laboratory to patient care settings. The need for an understanding of the process of clinical teaching can best be illustrated by outlining the activities included in the clinical experience from the point of view of the clinical instructor.

A clinical experience begins well ahead of the arrival of a student group to a hospital or agency. The instructor must become oriented to the hospital and the nursing unit, become acquainted with the staff and clients, and become familiar with new routines and procedures. As well, the instructor must be aware of the philosophy of nursing and nursing education held by the educational institution, the learning objectives appropriate to the level of student, the evaluation measures used to determine the achievement of the objectives, and the teaching methods which can be implemented to assist the student to attain the clinical learning objectives. While all students have the same clinical learning objectives, they might be progressing at different rates, requiring different types of learning experiences and teaching methods.

The actual clinical day might begin with the assignment of a client (patient) or task to the student. In some instances, students may have received their respective assignments some time in advance of the clinical day. A preconference follows, either with the group or with individual students, for discussion of each client care plan. Although the type of clients assigned to each student may be similar, the instructor may use this discusssion period as a teaching session to point out differences between individual clients and to promote the acquisition of problem-solving skills on the part of the students. The bulk of the day is dedicated to learning and practicing actual client care; the instructor uses this time to assess individual student achievement, assist in learning activities, and develop a rapport with the student group. The day may conclude with a post-conference at which the instructor generally concentrates on evaluation of client care and elucidation of the problem-solving skills used by the students to meet the needs of the client and the learning objectives.

Nursing education researchers have, for the most part, investigated discrete aspects of the clinical teaching process (i.e., instructional behaviours, roles, and relationships) rather than the entire complex and multifaceted operation. The importance of the student as learner, not care-giver, was emphasized by Infante (1975). Pugh (1980) and Mannion

(1968) analyzed the clinical teaching process. Mannion (1968), on the basis of her research, contributed a taxonomy of instructional behaviours relating to the clinical instruction of nursing. Pugh (1980) found that the level of the learner as well as the clinical context affected what instructional behaviours students perceived as effective. Wang and Blumberg (1983), focusing on teacher-student relationships, found that interactions were of short duration, with faculty using low-level techniques (leading/direct questions or information giving). Further, Karns and Schwab (1982) found that students responded positively to relationships with faculty based on empathy, honesty, and respect.

Several factors impinge upon the behaviours of the clinical instructor: the environment or clinical situation (e.g., the clinical subject area, the acuteness of the client's illness), the level of student (i.e., how far advanced in the program of nursing studies), and teacher preparation and experience. The teacher balances personal relationships with the students with the task at hand (meeting the learning objectives) as s/he selects the teaching strategies which are appropriate.

Situational Leadership Theory (Hersey and Blanchard, 1982) includes the elements which describe the clinical teaching process: the teacher (leader) behaviours relating to guidance and direction and also to personal support and relationships, the maturity levels of the students (followers), the situation in which the interaction takes place, and the power bases the leader possesses as s/he attempts to influence others. The application of Situational Leadership Theory to clinical instruction in nursing education raises several interesting questions for research. The next section will include a summary and the research hypothesis.

Summary and Hypothesis

Situational Leadership Theory is based on the premise that effective leaders adapt their leadership style (which is a combination of two dimensions of leader behaviours, task

and relationship) to the task relevant maturity levels of followers. There is some research support for the validity of applying Situational Leadership Theory to educational settings. Situational Leadership Theory has also been used successfully in management training and development programs in many organizations around the world.

It was found in a review of the nursing literature that the elements of the clinical teaching process are congruent with the elements of Situational Leadership Theory. The clinical instructor acts as leader as s/he influences the behaviours of the individual students and the student group toward the achievement of the learning goals in the clinical laboratory setting. Researchers have demonstrated that effective instructional behaviours relate to the facilitation of task achievement by students as well as to interpersonal relationships between student and teacher. These instructional behaviours vary with the needs of the learner and the characteristics of the environment.

If one assumes the clinical instructor is a leader of a group of students who are attempting to achieve a goal, represented by the set of learning objectives, Situational Leadership Theory can provide a model for the description of effective leadership style, which is reflected in the selection of instructional behaviours. An instructor, using the model, can assess the task relevant maturity level(s) of the student(s) and select the most appropriate leadership style and corresponding instructional strategies.

It was noted in a review of the literature that there was a paucity of research relating Situational Leadership Theory to the teaching-learning process. It is proposed to conduct a descriptive study to investigate the adequacy of Situational Leadership Theory in a nursing education environment. From the theory, as proposed by Hersey and Blanchard (1982), it can be predicted that leadership will be more effective when the style of leader is congruent with the task relevant maturity of the followers. The question raised for research is: Does the student nurse's perception of the effectiveness of clinical instruction vary with an instructor's leadership style and the task relevant maturity of the student nurse?

It is hypothesized that Year One students in a program of nursing studies perceive their clinical nursing instructors as more effective if the teacher's leadership style is congruent with their task relevant maturity level.

2. RESEARCH DESIGN

In this chapter the research subjects are specified and described. The measuring instruments are described and the procedures used for data collection are outlined. The chapter concludes with an outline of the methods used for data analysis.

Research Subjects

The research subjects were clinical instructors of nursing and their first year students from two community colleges in a large urban area. Both colleges included in the study offer three-year programs of nursing in English. Curricula in the two colleges were quite comparable.

Volunteers were solicited from among clinical instructors teaching in semester two. A letter (Appendix A) was sent to the nursing department directors at the two community colleges. The researcher requested permission to survey, for volunteers, those teachers from their faculties who had clinical teaching assignments with first year students. Both directors replied in the affirmative, with a list of faculty who would be eligible for the study. These instructors were then contacted by the researcher and requested to participate in the study. All nineteen of the eligible faculty members agreed to participate and to arrange a time and place for the researcher to meet with their respective student groups. The clinical teachers then asked for volunteers from their student groups (7-8 students in each group) and arranged a time and place for the researcher to meet with the student volunteers for the purpose of administering the instruments. Nineteen clinical instructors and 143 students participated in the study.

The personal characteristics of the student nurse research subjects can be found in Table 1. Twenty-six students in the sample were assigned to the same instructor's classroom as well as clinical group. The high maturity levels of the students in the first

Table 1

Personal Characteristics of Student Nurse Research Subjects

Variable		Value	Frequency	Per cent
Number of days with teacher		3	14	9.8
		4	13	9.1
		5	48	33.6
		6	57	39.9
		7	6	4.2
		8	5	3.5
Clinical subject area		Geriatrics	86	60.1
		Obstetrics	57	39.9
Age		16-20	79	55.2
		21-25	35	24.5
		26-30	14	9.8
		> 30	15	10.5
Sex		Female	133	93.0
		Male	10	7.0
Post-secondary education		No	85	59.4
		Yes	58	40.6
		College: No	115	80.4
		Yes	28	19.6
		University: No	117	81.8
		Yes	26	18.2
		Other: No	130	90.9
		Allied Health	9	6.3
		Non-nursing	4	2.8
Work experience:	General	No experience	8	5.6
		< 2 years	42	29.4
		> 2 years	93	65.0
	Health	No experience	64	44.8
		< 2 years	59	41.2
		> 2 years	20	14.0
Nursing marks		< 70	28	19.6
		70-79	71	49.6
		> 80	44	30.8

Note: N=143. From Student Profile: Clinical Experience.

year of the nursing programs is illustrated by the number of students over 25 years of age (21 per cent of the sample). As well, few of the students report having no work experience, and 41 per cent have some post-secondary education.

Measuring Instruments

Three instruments were required to collect data with respect to each of the variables of Situational Leadership Theory: the Student Profile: Clinical Experience, the Leadership Scale-Staff Member Form, and the the Clinical Effectiveness Scale. Copies of the instruments are found in Appendices B to D. Descriptions and data relative to each instrument are presented in the next section.

(1) Student Profile: Clinical Experience (SP): The purpose of this 14-item questionnaire was to determine the maturity level of the student and to collect demographic data. Ten questions in the instrument were developed by the researcher using the dimensions of job and psychological maturity defined by Hersey and Blanchard. The items reflect the teacher-learner situation in the context of the clinical component of nursing education. A copy of the instrument is located in Appendix B.

Job maturity was measured by five forced-choice items using an eight-point Likert scale. The items related to past experience providing nursing care, knowledge of the theory of nursing, ability to use the nursing process, ability to assume responsibility for nursing care, and ability to meet deadlines for nursing care activities and submission of care plans. The sum of the five items represented the job maturity score, with a possible range of 5 to 40.

Psychological maturity was measured by five forced-choice items using an eight-point Likert scale. The items related to willingness to assume responsibility for patient care, motivation to achieve clinical learning objectives, persistence in completing learning activities, enjoyment of clinical experience, and the degree of independence desired in the

clinical area. The sum of the five items represented the psychological maturity score, with a possible range of 5 to 40.

In addition to the measurement of job and psychological maturity, four items of the SP were used to gather demographic data which might contribute to student maturity level: post-secondary educational preparation, age, and work experience (general and in health care settings). Knowledge of the nursing subject matter was assessed by examining the students' marks in nursing subjects.

The items of the SP have face validity; that is, they appear to measure the elements of the dimensions of maturity as defined in Situational Leadership Theory. Four judges, clinical instructors of nursing and not eligible for inclusion in the study, were consulted in order to establish the content validity of items comprising the scale. Each was given a questionnaire and requested to match the items with the dimensions of job and psychological maturity. The directions provided to the judges and the results that were obtained can be found in Appendix E. In brief, the judges were in agreement that items one to five were related to job maturity, and items six to ten were related to psychological maturity. The judges were further asked to critique the wording and style of the questions. This resulted in the researcher changing the questionnaire from a question-type format to a completion format. There was a concern expressed that students might be unable to objectively assess their own maturity level, and a recommendation was made that the clinical instructors also be asked to complete an assessment of the individual student's maturity level; they suggested that these assessments be compared. This suggestion was carried out during data collection. Each instructor agreed to complete an alternate form of the SP. Space was provided next to each of the ten maturity items for the instructor to indicate a score for each student in her/his group (using an eight-point Likert scale). When analysed, however, the results were not valuable to the intent of the study. While instructors generally rated students lower on each item, they also failed to discriminate between the two dimensions of maturity. In terms of assessment of individual student

maturity level, the results for both job and psychological maturity were very similar. This observation was also reported by Thomas (1983). It was found that principals experienced difficulty assessing maturity levels of teachers. It was decided, therefore, to proceed with the study using student self-assessment only. The instructor's form and relevant data can be found in Appendix F.

Since no reliability data were available, it was planned that, once data were collected, Cronbach's alpha coefficient would be calculated. It was also planned to assess the validity of the instrument using both factor analysis and item discrimination indices.

(2) Leadership Scale-Staff Member Form (LS): The purpose of this instrument was to determine the student nurses' perceptions of the leadership style utilized by the clinical instructor in her/his interactions with the student in the clinical area. Hersey and Blanchard (1982) state that the leadership style of an individual is the behaviour pattern that person exhibits when attempting to influence the activities of others - *as perceived by those others* (p.233). Since this may be different from the leader's perception of her/his own behaviour, it was decided that follower assessment of style would provide the most accurate portrayal of instructor behaviour while teaching in the clinical setting. The Leadership Scale-Staff Member Form (Hersey, Blanchard, & Hambleton, 1980) is a ten-item scale measuring the dimensions of leader behaviour as described by the theory, namely, task behaviours and relationship behaviours. A copy of the instrument is located in Appendix C.

The potential problem of students not understanding or becoming confused by the directions was overcome by using separate directions and examples for illustration. The students were advised, verbally, to substitute "clinical instructor" for the word "manager" in the items. The student was required to respond, on an eight-point Likert scale, to statements relating to the activities of the instructor (leader) in the clinical area.

Five forced-choice items measured task behaviours (goal-setting, organizing, setting time lines, directing, and controlling), using an eight-point Likert scale. The scores of these items were summed and represented the instructor's task behaviour level as perceived by the student. The possible range of scores was from 5 to 40.

Five forced-choice items measured relationship behaviours (giving support, communicating, facilitating interactions, actively listening, and providing feedback) using an eight-point Likert scale. The scores of these items were summed and represented the student's perception of the level of relationship behaviours of the instructor. The possible range of scores was from 5 to 40.

No reliability or validity data were located for the LS. The Leadership Style Analysis, the forerunner of the LS, was reported to have reliability (test-retest) coefficients of .76 and .79; .72 and .77 (Goldenberg, 1980).

It was planned, once data were collected, that Cronbach's alpha would be calculated, and the validity of the instrument would be assessed using factor analysis and item discrimination indices.

(3) Clinical Evaluation Scale (CE): The purpose of this questionnaire was to determine the perceived effectiveness of clinical instruction. Effectiveness is defined by Hersey and Blanchard (1982) as not only the achievement of the objectives or goals, but also a sense of satisfaction at the methods used to accomplish the task.

This eleven-item scale (See Appendix D) was adapted from an instrument used by the School of Nursing, University of Ottawa, for student evaluation of clinical teaching, from the literature with respect to teacher evaluation in general, and from statements relating to the perception of effectiveness/ineffectiveness made by the authors of Situational Leadership Theory.

For the first nine items, the student respondents rated, on a four-point Likert scale (from strongly disagree to strongly agree), how effective s/he perceived the clinical

instructor to be with respect to her/his learning in the clinical area. The tenth item measured the student's satisfaction with the nursing course in general. Since several instructors teaching in the clinical area may also have had a classroom teaching assignment, one item was included to identify students who may have had previous contact (classroom) with their clinical instructor.

Four clinical instructors of nursing not eligible to participate in the study were requested to analyse potential items for content validity. Several items were designed to measure perception of achievement and others to measure satisfaction with the clinical instruction provided by the instructor. The instructions to the judges and the resulting comments are documented in Appendix E. Based on comments from the judges, several items were not included in the final scale. Only those items on which at least three of the four judges were in agreement were included.

The CE was scored by summing the responses to the first nine items. Item 10 was deleted prior to the analysis because it did not appear to be valid. It measured the satisfaction of the student with the entire course, not with the clinical instructor and her/his teaching methods

No reliability data were available since this instrument was developed for the purposes of this study. It was planned, once data were collected, that the reliability of the instrument would be calculated, using Cronbach's alpha. It was also planned to assess the validity of the instrument using item discrimination indices and factor analysis.

The next section outlines the procedures followed for the collection of the data.

Data Collection Procedures

A pilot study was conducted prior to actual data collection, using teachers and students not eligible for inclusion in the sample. This was done in order to check the administration procedures planned for data collection as well as the clarity of the

questionnaires. As a result of the pilot study, the directions to the students were clarified, the format of some items was amended, and a clearer statement with respect to anonymity was prepared. As well, it was decided that the colleges would be asked to release the marks because students expressed difficulty in remembering what their final grades had been for the previous semester. On the basis of the pilot study, it was determined that a period of thirty minutes would be sufficient for all students to complete the instruments.

Each clinical instructor who volunteered to participate in the study was contacted by the researcher in order to arrange a convenient date and time to meet the students in the clinical area for the purpose of administering the questionnaires. The instructor was asked to provide 30 minutes of time during a clinical day and to arrange for a room at the clinical agency in which the group could meet. Since not all agencies were able to provide adequate space, arrangements were made to meet the groups affected by these space restrictions at their respective college campuses on the day following their clinical experience. Once the researcher had been presented to the students, the clinical instructor left the room until all data had been collected from the students.

The researcher then introduced the study, indicating to the students that participation was voluntary and there would be no penalty for any student not wishing to participate. (All students agreed to participate). Once verbal consent was indicated, the researcher distributed a questionnaire package to each of the students. Each group received precoded forms that corresponded to the code assigned to the clinical instructor responsible for that group. A code was also assigned which served to identify the individual student for data analysis. No identifying names were placed on the instruments, and the researcher assured the students that anonymity and confidentiality would be maintained. Each student in the group received, from the researcher, the package of coded instruments and an envelope in which to seal the completed forms.

Instructions for completing the questionnaires were reviewed verbally at the outset of the session; students were asked to maintain silence until all members of the group had

completed the questionnaires and had sealed them in the envelope provided. The students then proceeded through the instruments at their own pace. Thirty minutes was allotted for the completion of the questionnaires. At no session did any student require a longer time period.

Consent forms for the release of marks to the researcher by the college were completed by the student, detached from the package of instruments, and placed in a separate envelope which was sealed at the end of the collection period. This envelope was received by a research assistant who also received the marks from the colleges and replaced the student names with the research code prior to scoring the instruments. The research assistant also received the completed forms from the clinical teachers, who had completed them at their convenience during the data collection period. The research assistant identified these by student codes. These precautions preserved anonymity and assured confidentiality.

In order to ensure that all the groups were at essentially the same point in their nursing studies, data collection took place over a two to three week period of time. Data were collected during the clinical day, or as close to the clinical day as possible, while events were still fresh in the minds of the participants. Data collection in the middle of the semester ensured student familiarity with the clinical instructor and the clinical setting.

Data Analysis

It was proposed, once data were collected, to use Cronbach's alpha coefficient to calculate the reliability coefficient of each instrument. Further, it was proposed to perform factor analysis on all instruments to determine if the items would load on the factors as predicted. It was also proposed to calculate item discrimination indices as another method of assessing the validity of the instruments.

In order to test the research hypothesis, the following procedure was used: the scores from the SP were analysed to determine the task relevant maturity level of the student nurse. The two scores were applied to a matrix (See Appendix G) with the job maturity score on the horizontal axis, and the psychological maturity score on the vertical axis. The task relevant maturity level was determined by the cell in which they intersected.

The maturity level prescribes the appropriate leadership style for that individual, as specified by Situational Leadership Theory. Any other style is predicted to be ineffective. Each student's maturity level was associated with the instructor's perceived leadership style (determined by the LS).

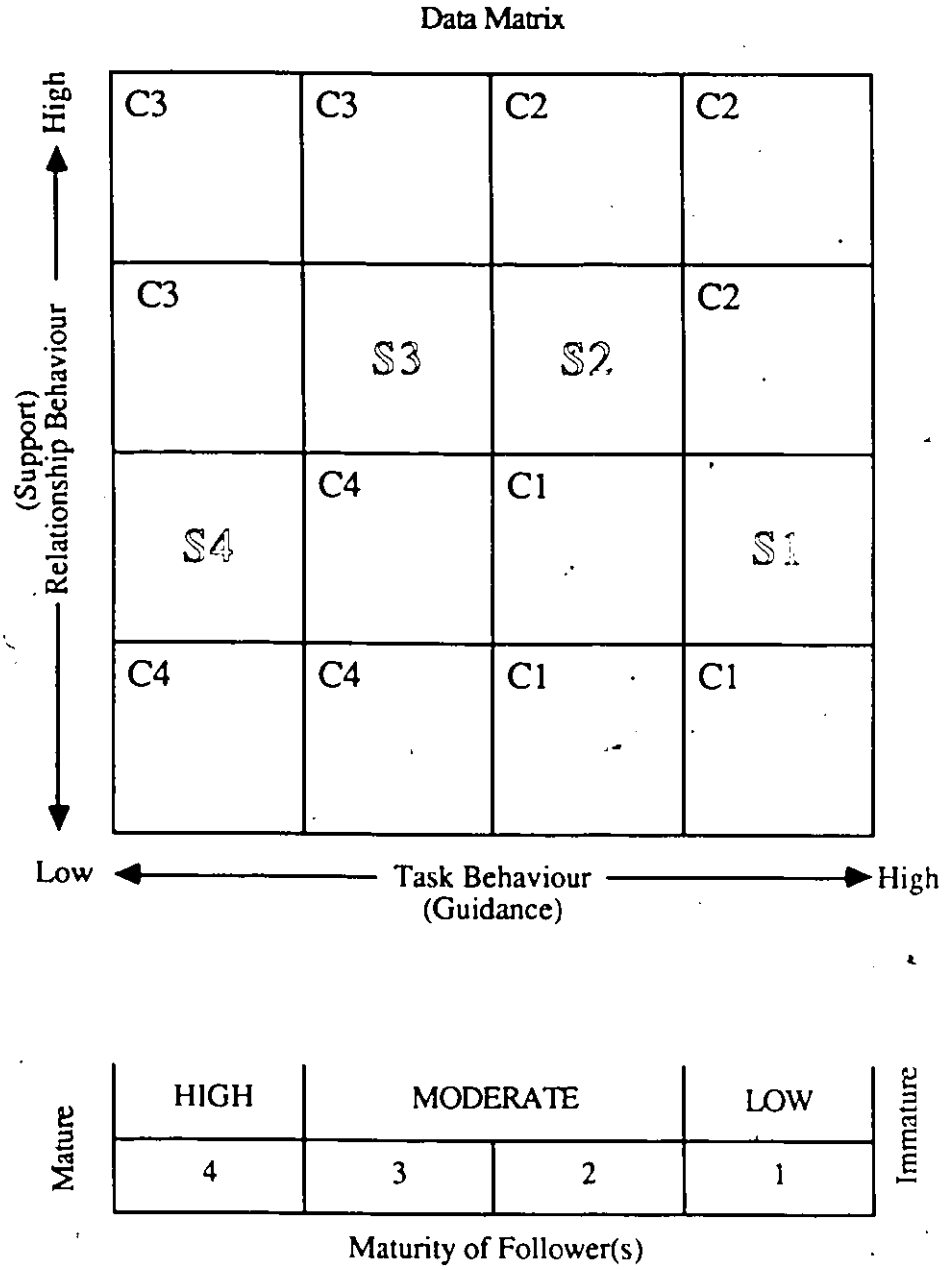
A determination was then made, based on student maturity level and instructor leadership style, about the degree to which each of the student-teacher pairs were matched, as specified by Situational Leadership Theory. In Figure 4, the model used for the determination of match between the student and her/his teacher is illustrated. The leadership behaviours are represented on the model; task behaviours are on the horizontal axis and relationship behaviours on the vertical axis. The cell in which the scores intersect indicates the leadership style of the instructor. Each quadrant (representing high and low dimensions of leader behaviours) has only one cell (S1, S2, S3, S4) that has been designated by the authors of Situational Leadership Theory as most appropriate for each maturity level. Therefore, the three remaining cells (C1, C2, C3, C4) in each quadrant are viewed as less appropriate.

The definitions used for the determination of degree of match (as illustrated in Figure 4) are as follows:

Match: The scores for task and relationship behaviours (as determined by the LS) meet*within the designated cell* (S1, S2, S3, or S4) in the appropriate quadrant prescribed by Situational Leadership Theory as being the most effective for the maturity level (as determined by the SP) of the student.

Figure 4

Model for Determination of Degree of Match



1° Mismatch: The scores for task and relationship behaviours (as determined by the LS) meet in a cell (C1, C2, C3, or C4) within the appropriate quadrant for the maturity level (as determined by the SP) of the student, but *outside of the cell* designated as most effective.

Nonmatch: The scores for task and relationship behaviours (as determined by the LS) meet in a quadrant other than that recommended by Situational Leadership Theory for the maturity level (as determined by the SP) of the student.

It was proposed to analyze the data by using an analysis of variance with the degree of match between the student's maturity level and instructor leadership style being the independent variable, and effectiveness, as determined by scores on the Clinical Evaluation Scale, the dependent variable.

The .05 level of significance was specified.

In the next chapter, the research findings are presented and discussed.

3. PRESENTATION AND DISCUSSION OF RESULTS

In this chapter, validity and reliability data with respect to each of the instruments used for the study are presented and discussed. Data is then analysed to see if the hypothesis is supported, and the results are discussed. The chapter concludes with a summary and some suggestions for future research.

Validity and Reliability of the Measuring Instruments

In this section, the validity and reliability of the three instruments used are presented and discussed.

(1) Student Profile: Clinical Experience (SP): Based on the fact that the instrument was designed to measure two dimensions of maturity, it was determined that the SP could be considered to be comprised of two tests, one measuring job maturity and the other measuring psychological maturity. For the five items measuring job maturity, the reliability coefficient (Cronbach's alpha) was found to be .64. For the five items measuring psychological maturity, the reliability coefficient (Cronbach's alpha) was computed to be .67. The correlation of job maturity with psychological maturity was .64.

The validity of the SP was assessed by computing a correlation coefficient for each of the test items with the total scores for the appropriate dimension of maturity (minus the item) and with the total score for the other dimension of maturity (See Table 2). Most items were found to have an acceptable correlation coeffficient, but there was failure to clearly distinguish between the two dimensions of maturity. Items 1, 4, 5, 8, and 10 appeared to be more highly correlated with the opposite maturity dimension than they were with the dimension they were intended to measure.

Table 2

Item Correlation with Total Score (minus item) for the Task Relevant Maturity Dimension Measured and with the Total Score of the Other Task Relevant Maturity Dimension

	Item	Total - item (Job maturity scale)	Total - item (Psych maturity scale)
Job maturity items	1	.36	.42
	2	.54	.33
	3	.48	.46
	4	.44	.47
	5	.24	.39
Psych maturity items	6	.50	.55
	7	.50	.56
	8	.41	.38
	9	.40	.42
	10	.35	.30

Note: N=143.

The SP was designed to measure two factors: job maturity and psychological maturity. Factor analysis, using principal factor extraction and varimax rotation, was performed, suggesting thepresence of two factors based on the eigenvalues. The two factors accounted for 49 per cent of the total variance. The rotated factor loadings are found in Table 3. The results do not appear to confirm the loadings on the two factors as predicted. Items 1, 2, 3, 4, 6, 9, and 10 loaded on the first factor, while items 5, 7, and 8 loaded on the second factor. Items 1 to 5 were designed to measure job maturity, and items 6 to 10 were designed to measure psychological maturity.

The scores for job and psychological maturity were correlated with the demographic variables which could be alternate measures of maturity (See Table 4). It was found that job maturity was correlated significantly, as expected, with age, marks, post-secondary education, general work experience, and work experience in health care. Psychological maturity was correlated significantly with age, general work experience, and work

Table 3

Rotated Factor Loadings for Student Profile: Clinical Experience

	Item	Factor 1	Factor 2
Job maturity items	1	.43	--
	2	.60	--
	3	.55	--
	4	.62	--
	5	--	.46
Psych maturity items	6	.55	.36
	7	.33	.73
	8	--	.77
	9	.47	--
	10	.43	--
Eigenvalue		3.649	1.248
Per cent of Variance		36.5	12.5

Note: Only loadings of .30 or greater are included.

Table 4

Correlation of Demographic Variables with Job and Psychological Maturity Scores

	Job Maturity	Psychological Maturity
Age	.38**	.25**
Marks	.21*	.02
Post-secondary education	.24*	.13
Work experience (general)	.35**	.35**
Work experience (health)	.42**	.32**

Note: * $p<.01$ ** $p<.001$

experience in health care settings, while correlations with marks and post-secondary education were not significant. These results provide data for the validity of the instrument; generally, the demographic variables correlate with the items of the SP as predicted by Situational Leadership Theory.

Although it was not conclusive that the instrument was indeed comprised of two measures of maturity, it was decided, based on Situational Leadership Theory, to proceed with data analysis based on the initial assumption that both job and psychological maturity were measured by the SP.

(2) Leadership Scale-Staff Member Form (LS): According to the authors, the LS should measure the two dimensions of leader behaviour, task and relationship behaviours. For the five items measuring task behaviours, the reliability coefficient (Cronbach's alpha) was found to be .63. For the five items measuring relationship behaviours, the reliability coefficient (Cronbach's alpha) was computed to be .69. The correlation of task with relationship behaviours was calculated to be .18. This correlation is in keeping with Situational Leadership Theory.

It was decided to assess the validity of the instrument using correlations between each of the test items with both the total score for leadership behaviour dimension (minus the item) it was purported to measure and with the total score of the other dimension of leadership behaviour. The results of the correlation procedure are found in Table 5.

Most items were found to have an acceptable correlation coeffficient with the dimension which they were purported to measure. Item 4, however, was more highly correlated with relationship behaviours although it was intended to measure task behaviours of the clinical instructor.

It was reported by the authors (Hersey, Blanchard, and Hambleton, 1980) that the LS measured two factors: task behaviours and relationship behaviours of leaders. Factor analysis, using principal factor extraction with varimax rotation, was performed, confirming the presence of two factors based on the eigenvalues. The two factors account

Table 5

Item Correlation with Total Score (minus item) for the Leadership Behaviour Dimension Measured and with the Total Score for the Other Dimension of Leadership Behaviour

	Item	Test - item (Task behaviour scale)	Test - item (Relationship behaviour scale)
Task behaviour items	1	.40	.04
	2	.49	-.05
	3	.44	-.14
	4	.26	.54
	5	.37	.15
Relationship behaviour items	6	.08	.73
	7	.06	.60
	8	.15	.61
	9	.23	.61
	10	.18	.59

Note: N=143.

for 54.9 per cent of the total variance. The rotated factor loadings are found in Table 6. It was noted that item 4 loads more heavily on factor 1 (relationship behaviours) than on factor 2 (task behaviours), which it was purported to measure. This tendency was also reported above in the discussion of the results of correlations. However, it was decided to proceed with the analysis based on the initial assumption that item 4 measured task behaviours; thus the instrument was used and scored as directed by the authors.

(3) Clinical Evaluation Scale (CE): Because the CE was developed by the researcher for the purposes of this study, no reliability data were available for the instrument. It had been planned to calculate the reliability coefficient (Cronbach's alpha) once data had been collected.

Table 6

Rotated Factor Loadings for Leadership Scale-Staff Member Form

	Item	Factor 1	Factor 2
Task items	1	--	.54
	2	--	.65
	3	--	.66
	4	.60	.32
	5	--	.43
Relationship items	6	.84	--
	7	.64	--
	8	.68	--
	9	.69	--
	10	.67	--
Eigenvalue		3.415	2.073
Per cent of Variance		34.1	20.7

Note: Only loadings of .30 or greater are included.

Since little validity data were available, it was decided to assess the validity of the instrument by computing the correlation coefficients (Pearson Product Moment) for each of the test items with each of the other items and the total test score. The results of thecorrelation procedure are found in Table 7. Item 5 was found to be poorly correlated with each of the other items. It was correlated, however, at the .40 level with the total test score.

Correlations were also computed for each of the test items with the total score for the instrument (minus the item). The results are found in Table 8. It can be noted that item 5 was not as highly correlated relative to the other items. When examining the inter-item correlations (See Table 7) there appeared to be a clustering of items 1, 2, and 3 which were highly correlated among themselves, but not with other items. A second clustering of items

Table 7

Correlation of Each Item of the Clinical Evaluation Scale with Each Other Item and Total Effectiveness Score

	CE1	CE2	CE3	CE4	CE5	CE6	CE7	CE8	CE9	TOTAL
CE1	--	.50	.25	.20	-.07	.10	.27	.37	.29	.47
CE2		--	.39	.09	-.13	.07	.23	.29	.27	.43
CE3			--	.20	.06	.16	.18	.32	.15	.46
CE4				--	.25	.59	.71	.60	.58	.76
CE5					--	.15	.25	.20	.33	.40
CE6						--	.60	.60	.41	.68
CE7							--	.62	.71	.83
CE8								--	.50	.79
CE9									--	.78

Note: N=143.

Table 8

Item Correlation with Total Effectiveness Score (minus item), with the Dimension Measured (minus item), and with the Total Score for the Other Dimension of Effectiveness

	Item	Test - item (Total test)	Test - item (Achievement scale)	Test - item (Satisfaction scale)
Achievement items	1	.34	.43	.25
	2	.31	.55	.18
	3	.31	.37	.23
Satisfaction items	4	.68	.22	.74
	5	.22	-.05	.29
	6	.55	.15	.61
	7	.75	.29	.79
	8	.72	.43	.67
	9	.67	.30	.67

Note: N=143.

4, 6, 7, 8, and 9 was also noted. Based on item content it was assumed that the first cluster of items measured achievement; while the latter group reflected measures of satisfaction with instruction.

To confirm the assumption that the CE was comprised of two measures, achievement and satisfaction, correlations were computed with each item correlated with the partial test score (minus the item) and the other measure of effectiveness. The results of this procedure are presented in Table 8. The correlation coefficient (Pearson Product Moment) for the two scales was computed to be .29. It was assumed, based on the correlations computed, that the CE contained two factors measuring effectiveness of clinical instruction, achievement of the learning objectives and satisfaction with the clinical experience. Factor analysis, using principal factor extraction and varimax rotation, was performed. The presence of two factors was confirmed, based on the eigenvalues. The two factors accounted for 60.1 per cent of the total variance. The factor loadings are found in Table 9. Items 1, 2, and 3 loaded on factor one (achievement), and items 4, 6, 7, 8, 9, and to a lesser extent, item 5, loaded on factor two (satisfaction).

Based on the above, the CE was divided into two subtests. Items 1, 2, and 3 measuring one factor (achievement) and the remaining items (4 to 9) measuring the second factor (satisfaction). The administration of the CE resulted in scores ranging from 4 to 9 for achievement (possible range of 0 to 9), and from 2 to 18 (possible range of 0 to 18) for satisfaction. The mean of the achievement scale was 7.17 (SD=1.35), and the mean of the satisfaction scale was 13.22 (SD=3.20).

Reliability, based on the assumption that two tests were present in the CE, was calculated using Cronbach's alpha coefficient and found to be .64 for the achievement scale. For the satisfaction scale, Cronbach's alpha coefficient was calculated to be .84.

Table 9

Rotated Factor Loadings for Clinical Evaluation Scale

	Item	Factor 1	Factor 2
Achievement items	1	--	.59
	2	--	.88
	3	--	.42
Satisfaction items	4	.84	--
	5	.36	--
	6	.68	--
	7	.84	--
	8	.67	.39
	9	.67	--
Eigenvalue		3.805	1.606
Per cent of Variance		42.3	17.8

Note: Only loadings of .30 or greater are included.

Data Analysis and Discussion of Results

The administration of the SP resulted in scores ranging from 15 to 40 for job maturity (Mean=29.65, SD=4.57), and from 22 to 40 for psychological maturity (Mean=33.57, SD=4.12). The scores for each student were assessed, and a maturity level was assigned. It is notable that 90 per cent of the sample placed themselves in maturity levels three (N=97) and four (N=33). It had been anticipated that the majority of sample of first year students in nursing would in fact be at maturity levels one and two. In fact, no student was placed in maturity level one, and only 13 students were in level two. It had been assumed that, because this clinical experience is their first exposure to patients and because the content of the nursing curriculum would be new to them, the maturity levels would be relatively lower than reported.

Prior to testing the null hypothesis, clinical evaluation scores of those student exposed to the teacher in the classroom as well as the clinical setting (N=26) were compared to those who were not assigned to their clinical instructors theory group (N=117). Based on analysis of variance there was no perceived difference in effectiveness of instruction between those students who saw the instructor for theory classes and those who did not.

The scores of the students from the two colleges were also compared prior to testing the null hypothesis. Based on analysis of variance, no significant difference was found between the students from the two colleges in the study in terms of effectiveness.

Eighty-one student-instructor pairs were classified as not matched according to the definition proposed. There were 22 matched pairs, and 40 pairs which were partially matched. Descriptive statistics with respect to each group can be found in Table 10.

Surprisingly, for both achievement and satisfaction, the students in the student-instructor pairs which were partially matched perceived clinical instruction as more effective than the matched or unmatched groups. It had been anticipated that the matched pairs would score highest, followed by the partially matched, then the unmatched pairs.

Table 10

Mean Perceived Effectiveness of Instruction for each Group of Student-Instructor Pairs

Group	Frequency	Achievement Mean	Achievement SD	Satisfaction Mean	Satisfaction SD
Non match	81	7.23	1.48	12.83	3.44
1° mismatch	40	7.25	1.21	14.28	2.58
Match	22	6.77	1.02	12.73	2.98
Total	143	7.17	1.35	13.22	3.20

Univariate analyses of variance were performed to test the hypothesis, with degree of match as the independent variable and two dependent variables, achievement and satisfaction, as measured by the Clinical Evaluation Scale.

Significant differences were found for the satisfaction dimension of effectiveness, but not for achievement. The results of the analyses are reported in Tables 11 and 12. Since sample sizes were unequal, post hoc analyses were conducted using the Tukey-Kramer modification of Tukey's HSD test. For the satisfaction dimension it was found that the only significant difference was between the partially matched and the unmatched groups.

The research hypothesis was not supported on this basis. It had been argued that the clinical instructor acts as a leader, influencing the students toward the achievement of the clinical learning objectives. The instructor, using a teaching style comprised of task and relationship behaviours, was exercising leadership. Because the context of the clinical environment varies, as do the needs of the learner, it was proposed that the effective clinical instructor would adapt to this changing situation. The data do not support this claim. As reported earlier, other researchers have noted difficulty with the measurement of maturity (Thomas, 1983; Clark, 1981). Graeff (1983) also commented that the conceptualization of maturity and how job and psychological components combine was ambiguous and failed to recognize a possible multiplicative effect when the components are combined. The failure of the hypothesis to be supported might, in part, be due to the inability of the instruments to measure the dimensions of student task relevant maturity.

The expected distribution of maturity levels among the students was not achieved. It had been assumed that first year nursing students entering the program directly from high school with no work experience and with low marks would report low maturity levels, and older students entering the program with considerable work and life experience and good

Table 11

Analysis of Variance: Degree of Match with Achievement

Source	D.F.	Sum of Squares	Mean Squares	F ratio
Between Groups	2	4.0658	2.0329	1.121
Within Groups	140	253.9060	1.8136	
Total	142	257.9717		

Test for homogeneity of variance

Bartlett-Box F = 2.422 (Not significant)

Note: * Significant at .05 level.

Table 12

Analysis of Variance: Degree of Match with Satisfaction

Source	D.F.	Sum of Squares	Mean Squares	F ratio
Between Groups	2	62.3610	31.1805	3.136*
Within Groups	140	1391.9123	9.9422	
Total	142	1454.2732		

Test for homogeneity of variance

Bartlett-Box F = 2.043 (Not significant)

Note: * Significant at .05 level.

marks would report high maturity levels. Either the instrument was not powerful enough to discriminate, or the students were uniformly mature. This was not substantiated by the demographic data (See Table 1). It could be argued that if the instrument suggested by the authors had been used, the resulting distribution of maturity levels may have been closer to what had been expected. Due to the fact that the SP was based on Hersey and Blanchard's (1982) definition of maturity, and because of the criticisms by researchers of the Maturity Scale (Hambleton, Blanchard, & Hersey, 1977), it is not certain that the results would have been much different than those achieved. The content validity of the Student Profile was judged adequate to reflect the context of the task (achieving the clinical objectives of the program of nursing studies) as well as the definitions of the dimensions of task relevant maturity (See Appendix E). Boucher (1980) stressed the importance of context when determining maturity level and leadership style.

In future studies, the maturity levels of students could be measured by alternate means which would take into consideration, perhaps in more depth or detail, further dimensions of maturity (for example; internal-external locus of control, self-esteem, self-confidence, perception of powerlessness) as well as an exploration of the context in order to give a fuller profile of the student. The measurement of follower task relevant maturity using the Maturity Scale (Hambleton, Blanchard, & Hersey, 1977) along with other scales with known reliability and validity will provide information with respect to the validity of the Maturity Scale (1977) suggested to operationalize Situational Leadership Theory.

Perhaps the difficulty was not with the instrument at all, but with the inability of first year students to realistically assess themselves.

The theory itself may not be adequate to address such a complex subject as leadership. Several authors (Graeff, 1983; Blake and Mouton,1981; Thomas, 1983; Clark, 1981) expressed misgivings about the theory itself, and suggested some inadequacies which may have been responsible for the lack of significant results in the study. It is possible that the lack of support for the hypothesis is not merely a result of measurement or

methodology, but also a result of an inability of Situational Leadership Theory to explicate the concept of leadership.

Because maturity levels were higher than expected, it was decided to look at leadership styles alone to see if any one style was perceived to be more effective than others. Perhaps instructors were using task and relationship behaviours appropriate to the maturity levels of the students. In Table 13, the statistics with respect to each of the leadership styles are presented.

It is interesting to note that 85.3 per cent of the sample report leadership styles that reflect high relationship behaviours on the part of the clinical instructors of nursing. When leadership style was compared for effectiveness of clinical instruction, it was observed that Style One (high task-low relationship behaviours) was perceived as most effective for achievement, followed by Style Two (high task-high relationship), and Style Three (low task-high relationship). Style Four (low task-low relationship) was perceived as least effective. The fact that the mean perceived effectiveness for achievement for the four

Table 13

Frequencies, Means, and Standard Deviations of Achievement and Satisfaction Scores by Leadership Style

Style	Frequency	Achievement Mean	Achievement SD	Satisfaction Mean	Satisfaction SD
S1	8	7.75	1.04	8.25	3.99
S2	48	7.40	1.20	14.02	2.21
S3	74	7.14	1.40	13.97	2.64
S4	13	6.15	1.34	9.00	2.92

Note: N=143.

styles were ranked in order from S1 to S4 supports Situational Leadership Theory and the contention that the students were likely at a lower job maturity level than reported. In contrast, Style Two was perceived as most effective in terms of satisfaction with clinical instruction, followed closely by Style Three. Styles Four and One, in that order, were perceived as least effective in terms of satisfaction. The correlation (Pearson Product Moment) between effectiveness (satisfaction) and relationship behaviours of instructors was calculated to be .76. Correlation between relationship behaviours and the achievement dimension was .26. For task behaviours, correlations were .17 with achievement and .10 with satisfaction.

Based on analysis of variance, significant differences were found among the four leadership styles with respect to effectiveness of clinical instruction. Since sample sizes were unequal, post hoc analyses were conducted using the Tukey-Kramer modification of Tukey's HSD test. It was found that students exposed to high relationship leadership styles (S2 or S3) were significantly more satisfied with clinical instruction than students exposed to low relationship styles (S1 or S4). For achievement, students found high task styles (S1 and S2) to be more effective than low task-low relationship (S4).

In observing the leadership styles of the clincial instructors in the sample, it was noted that, for the most part, instructors used only two leadership styles. Mouton and Blake (1982) report that their studies show that leaders rarely use more than two styles, one dominant, and one supporting. The results of the present study would seem to support that position. Leadership styles were examined and it was found that most clinical instructors used one primary style and one secondary style. As the reliability and validity of the instrument (LS) were acceptable, this finding may be an indicator of homogeneity of personality styles or the result of professional training. However, since the students were able to select and report the presence of all four styles, the reported inflexibility of leadership styles used by instructors may not be the fault of the instrument or the personality of the instructors. It is suggested that Situational Leadership Theory requires

further testing with respect to the degree of style adaptability on the part of individual leaders.

The measurement of effectiveness of clinical instruction is a difficult task. More is known about what makes an instructor effective in the classroom than in the clinical setting, and the aspect of the clinical teaching process in nursing education certainly requires further study. There is also a question of the personality variables of the clinical instructor, and her/his reputation with the students, as a nurse as well as a teacher, potentially influencing the measures of effectiveness of instruction.

The question of sample size must also be addressed. Was, in fact, the sample comprised of nineteen groups (i.e., clinical instructors of nursing) and not 143 student-instructor pairs, as assumed? The results of the study indicated more variation between individual clinical groups than within groups of student-instructor pairs. Instructors differ from each other, but do not appear to adapt their styles to different students within their assigned groups.

Although the element of power was not addressed in the study, a question with respect to what degree power relationships between instructors and students exerted an influence on the results should be raised. Power may be one variable within the student-instructor relationship which might have been used to explain the results.

The next section contains a summary of the research findings, and the conclusions.

Summary and Conclusions

Based on Situational Leadership Theory proposed by Hersey and Blanchard (1982), it was predicted that first year students in a program of nursing studies would perceive their clinical instructors as more effective if the instructor's leadership style matched their task relevant maturity level. Effectiveness was defined as achievement of the learning objectives as well as satisfaction with the clinical instruction. This predicted

relationship was not supported by the data. There was no significant difference among the group of students whose maturity level was matched with the instructor's leadership style and those groups who were not matched when the achievement dimension of effectiveness was analysed. Although there were significant differences among the groups when the satisfaction dimension was analysed, these differences were not in the direction predicted.

Post hoc, it was found that for achievement the most effective leadership style was perceived to be one high in task behaviours. For satisfaction with clinical instruction, high relationship behaviours were perceived to be more effective. Perhaps the difficulties in measuring task relevant maturity levels of the students resulted in the reporting of higher than actual levels, accounting for the high proportion of unmatched student-instructor pairs. The relative perceived effectiveness of each leadership style indicates that perhaps the students were actually at a lower maturity level than reported.

Although one significant result was found with respect to degree of match and effectiveness of clinical instruction, it was not in the direction predicted. This may be partly a factor of the instruments used or the inexperience of the research subjects with self-assessment, not solely a lack of soundness with Situational Leadership Theory. The researcher feels there is validity for the application of a leadership theory to the clinical nursing instructional process and is not prepared to reject Situational Leadership Theory on the basis of the results achieved. It is evident, however, that further testing of Hersey and Blanchard's Situational Leadership Theory is required, particularly with respect to the two elements of task relevant maturity and how these elements interrelate, but also with respect to style adaptability on the part of the leader. In fairness, although Situational Leadership Theory is usually applied in on-the-job situations and perhaps a sample of first year students did not provide an adequate test, the authors state that it is, by definition, applicable to all contexts (Hersey and Blanchard, 1982, p. 83). Since the students whose levels of maturity were only partially matched with their instructors' leadership styles

perceived clinical instruction as most effective, the prescriptive curve suggested by the model might be inadequate for predicting the most effective leadership behaviours. In the next section several suggestions for future research are proposed.

Suggestions for Future Research

Based on the results of the study, it is suggested that, while Situational Leadership Theory may have validity for the study of the process of clinical teaching in nursing education, the instruments used for measuring the variables require refinement to address the context and complexities of the clinical teaching process. Future research could focus on the development of instruments to more accurately measure the maturity level of students. A cognitive style theory might be used, along with an assessment of maturity, to assess the impact of different teaching and leadership styles on the perceived effectiveness of clinical instruction.

The research subjects were in the early stages of their nursing education. It would be interesting to discover if student nurses in the latter part of their course would assess themselves differently in terms of maturity, and if they would perceive effectiveness differently from the first year students. As well, it would be interesting to note if clinical instructors' leadership styles changed from one year of a nursing program to another.

An important area for future research focuses on the delineation of effective and ineffective clinical instructional behaviours or strategies and the evaluation of effective clinical instruction. Further research into effectiveness of clinical instruction and the refinement of an evaluation instrument would make a considerable contribution to the field of nursing education.

The cause and effect relationship between perceived effectiveness of clinical instruction and relationship behaviours of clinical instructors of nursing requires further

study. As well, the power bases of clinical instructors and the effect of this power on clinical achievement and satisfaction could provide questions for future research.

The present research is but a starting point in the examination of effective instructional strategies for the clinical component of nursing education. The researcher hopes that the questions raised will encourage further research into the subject.

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APPENDIX A

CORRESPONDENCE WITH DIRECTORS OF NURSING DEPARTMENTS AND CLINICAL INSTRUCTORS AT COMMUNITY COLLEGES

I am a Master's candidate in Education at the University of Ottawa. My research applies Situational Leadership Theory to the clinical instructional process in nursing education.

Situational Leadership Theory is based upon an interplay among three factors; task behaviours and relationship behaviours on the part of the leader, and the maturity of the followers. A review of the nursing literature has revealed that these factors are congruent with the variables a clinical instructor must manipulate in order to teach effectively.

Data is to be collected by anonymous questionnaire from First Year students in Community Colleges offering three-year programs of nursing studies. I would like your permission to seek volunteers from among your faculty and students. It is expected that it will take approximately 20 minutes for the students to complete the questionnaire which will be administered in the clinical area by the researcher on a date and at a time that is convenient to the instructor. The instructor will be requested to provide time and arrange for a room for the researcher to meet with the students in the clinical area. There will be no other demands on the instructor's time. S/he will not be required to be present at the time of data collection. If there is more than one group in an agency, the instructors may find it convenient to arrange for the researcher to see them all at the same time. This arrangement is certainly agreeable to the researcher.

I have attached a summary of the research proposal, and a sample memorandum I would like to distribute to your faculty. I will plan to phone your office during the week of February 25 to discuss the project with you.

Thank you for considering my request. If you require further information, of if you have any questions, please call me at 521-3182. I sincerely hope that your faculty and students will consent to participate in this study. At the completion of data analysis I will be most happy to provide you with a report of the findings.

Sincerely,

Ardene Vollman, R.N., B.Sc.N.
M.A.(Ed.) Candidate

To: Faculty in Year One February 1985

From: Ardene Vollman
Master's Candidate,University of Ottawa

Re: Request for volunteers to participate in a research project on clinical instruction in nursing education

For my M. A. thesis in Education, I will be conducting a study using Situational Leadership Theory to answer the question:

Does the student nurse's perception of the effectiveness of clinical instruction vary with an instructor's leadership style and the task-relevant maturity of the student nurse?

Approximately 20 clinical instructors and their students in Year One from Community Colleges offering three-year English-language programs in nursing are required for the sample.

Instructors will be asked to arrange a room and provide about 30 minutes during the clinical day for the researcher to meet the student group and administer three brief questionnaires: a Student Profile, a Teaching Style Description, and a Clinical Evaluation Scale. Instructors need not be present during data collection.

Anonymity will be assured. Instructors will be assigned a letter, and each student in her/his group will be assigned the same letter and a number. There will be no names used.

Data will be analyzed based on teacher-student pairs, either matched in terms of leadership style and maturity level, or unmatched. Matched and unmatched pairs will be correlated with effectiveness in order to answer the research question.

If you agree to participate, please complete the form attached, and return it to _____. The researcher will contact you to arrange a convenient date and time, in March, to meet the students and administer the questionnaires. If you have any questions, or require further information, please call the researcher at 521-3182.

Thank you for considering my request.

I will participate in the study, outlined above, conducted by Ardene Vollman. I understand I will need to arrange a room for the researcher to meet with the students in the clinical area, and to provide 30 minutes of time during the clinical day for the students to complete the 3 questionnaires.

Name: _____ Telephone _____
(Home) _____

APPENDIX B

STUDENT PROFILE: CLINICAL EXPERIENCE

Student Code_____

Thank you for participating in this research project.

The purpose of this study is to describe clinical instruction in nursing education. Three questionnaires are attached; the first is about you, the student, the second is about how you see your clinical instructor's teaching style, the third relates to your evaluation of the clinical learning experience.

This questionnaire is anonymous. The letter and number on your sheets indicate only which group you are in. The results can **not** be identified with you. Information will be used for research purposes only.

Please answer all questions as accurately as possible. Take as much time as you need; 20 minutes will probably be sufficient.

While you are completing the questionnaires, please do not talk until everyone has finished and has sealed their envelopes.

STUDENT PROFILE: CLINICAL EXPERIENCE

The purpose of this questionnaire is to find out about you; in particular, how prepared you are for clinical experiences, and how you feel about clinical practice, in general.

DIRECTIONS

Respond to the items by **circling** the appropriate number which most closely describes your usual behaviour and feelings about your present clinical assignment.

The ratings range from 1 to 8, and refer to the descriptors at either end of the scale. Read the statement at the top of the page prior to each item, then read the descriptors, and circle the number that most accurately reflects your feelings or opinion. Circle only one number per item.

For example: The weather today is... If it is, in your opinion, beautiful, then circle the 8. If you think it is terrible, circle the 1. If it's O.K., circle the 4 or 5. The numbers 6 or 7 would reflect that you think its better than O.K.; 2 or 3 would mean its worse than O.K., in your opinion. Remember, some people like snow, others like rain, and still others feel that it's only a great day when the sun is shining. Your opinion is what matters. Circle the number that reflects your opinion, not how you think others feel, or how you would like to feel.

Beautiful 8 7 6 5 4 3 2 1 Terrible

Circle the response that most accurately completes the phrase:

"As a student, in the clinical area, I ..."

1.	Have a lot of previous experience giving care to people, ill or well. (e.g. child care, at home, at work).	8	7	6	5	4	3	2	1	Have no experience giving care to people, sick or well.
2.	Have the necessary theoretical knowledge to provide nursing care.	8	7	6	5	4	3	2	1	Lack the necessary theoretical knowledge to provide nursing care.
3.	Am able to use the nursing process independently to solve problems.	8	7	6	5	4	3	2	1	Always need a lot of help to use the nursing process for problem-solving.
4.	Am, to a large extent, capable of assuming responsibility for my assigned patient care.	8	7	6	5	4	3	2	1	Require supervision. I am not yet capable of assuming responsibility for patient care.
5.	Always meet deadlines for completion of nursing care and care plans.	8	7	6	5	4	3	2	1	Never finish on time.
6.	Am eager to assume as much responsibility for patient care as allowed.	8	7	6	5	4	3	2	1	Am reluctant to assume responsibility for more patient care, even if it is permitted.
7.	Am highly motivated to achieve the clinical learning objectives.	8	7	6	5	4	3	2	1	Am not very motivated to achieve the clinical learning objectives.
8.	Am very persistent about my assigned learning activities. I won't quit.	8	7	6	5	4	3	2	1	Am not very persistent. I give up easily when I run into difficulty.
9.	Find clinical experience very enjoyable.	8	7	6	5	4	3	2	1	Am glad when the day in the clinical area is over.
10.	Would like more independence in the clinical area. I want to be more on my own.	8	7	6	5	4	3	2	1	Don't want to be on my own in the clinical area.

11. How old are you? Check one (√):

__16-20
__21-25
__26-30
__31-35
__36-40
__over 40

12. What is the highest level of education you completed in...
Answer in the blank space(s):

High school_____

College_____

University_____

Other (specify)_____

13. How much work experience do you have? Check one (√):

__none
__up to 6 months
__6 months to 1 year
__1 to 2 years
__2 to 3 years
__3 to 4 years
__5 years or more

14. Approximately how much of your work experience has been in the health care field?

_____

»»Please go on to the next questionnaire««««

Please read and complete the form below, detach it from the questionnaires, and place it in the envelope labelled "Consent Forms".

CONSENT TO RELEASE MARKS

I, _____, student number _____, give permission for the College to release my Nursing marks to the researcher for the purposes of this study.

I understand the marks will be designated by the research code only, not by any identifying name or student number.

The researcher has agreed to protect my anonymity; the results of the questionnaires will be used for research purposes only.

_____
(Signature)

_____
(Date)

Research code number_____

»» Detach this form from the questionnaires, fold in half, and place in the envelope marked "Consent Forms". THANK YOU

APPENDIX C

LEADERSHIP SCALE: STAFF MEMBER FORM

Student_______

TEACHING STYLE DESCRIPTION

The purpose of this questionnaire is to determine your perception of the teaching style used by your clinical instructor in her/his relationship with you in the clinical area.

DIRECTIONS

With respect to clinical teaching only, describe your clinical instructor's behaviour on the eight-point scale provided. The numbers refer to the descriptors at either end of the scale. Read the statement, and circle the number that most accurately reflects the usual actions of your instructor as s/he relates to you, in the clinical area. Circle only one number per item.

For example, "My teacher, in the clinical area..."

Is always on time 1 2 3 4 5 6 7 8 Is always late

You would circle the number that represents what usually happens in the clinical area. If your teacher is late all the time, circle the 8. If your instructor is often late, you would circle a number close to the descriptor that reflects the frequency of tardiness, perhaps 6 or 7. Should your teacher be late slightly more often than on time, the 5 would be circled. Conversely, if s/he is on time slightly more often than late, circle the 4. The numbers 2 and 3 indicate that your instructor is usually on time for clinical. If s/he is always on time, you would circle the 1.

As you respond to the following items, the phrase **"My teacher, in the clinical area..."** should precede each statement.

- -

LEADERSHIP SCALE

Staff Member Form

Address inquiries to:

University Associates of Canada
4190 Fairview Street
BURLINGTON, Ontario
Canada
L7L 4Y8

Developed by Paul Hersey, Kenneth H. Blanchard, and Ronald K. Hambleton

APPENDIX D

CLINICAL EVALUATION SCALE

Student code_____

CLINICAL EVALUATION SCALE

The purpose of this questionnaire is to determine your perception or evaluation of the clinical learning experience.

DIRECTIONS

Respond to the questions by **checking** (√) the appropriate box which most closely describes your personal opinion and your feelings about your present clinical experience.

The ratings refer to the following descriptors:

SA: Strongly Agree **A**: Agree **D**: Disagree **SD**: Strongly Disagree

Read the statement and check the box that most accurately reflects your opinion. Check only one box per item. Please answer all items.

Check (√) your response:

1. I have become more competent during this clinical experience.	☐ SA	☐ A	☐ D	☐ SD
2. This clinical experience has facilitated my learning and achievement of the clinical objectives.	☐ SA	☐ A	☐ D	☐ SD
3. My interest in nursing has increased.	☐ SA	☐ A	☐ D	☐ SD
4. I find my clinical instructor actively helpful when I have difficulty.	☐ SA	☐ A	☐ D	☐ SD
5. My clinical instructor imposes her/his methods on me.	☐ SA	☐ A	☐ D	☐ SD
6. My clinical instructor does not give me enough support or guidance in the clinical area.	☐ SA	☐ A	☐ D	☐ SD
7. I find that this clinical instructor, as a teacher, is excellent.	☐ SA	☐ A	☐ D	☐ SD
8. In my clinical experience with this instructor, I am learning very little.	☐ SA	☐ A	☐ D	☐ SD

9. I would like to be assigned to this instructor's group for another clinical rotation.	☐ SA	☐ A	☐ D	☐ SD
10. Overall, I find this course excellent.	☐ SA	☐ A	☐ D	☐ SD

11. Does this clinical instructor teach you in the classroom?

☐Yes ☐No

When you have completed the questionnaires, please turn the page and fill out the attached form.

Detach the questionnaires, and place them in the envelope provided. Seal the envelope, and return it to the researcher. The consent form is returned to a separate envelope.

Thank you for your cooperation and participation in this research.

APPENDIX E

RESULTS OF VALIDATION PROCEDURES

INSTRUMENT VALIDATION

For the questionnaire attached, please note which of the following concepts is being measured by each of the items.

Each concept is considered to be a measure of task relevant maturity. Task relevant maturity is defined as the ability and willingness to perform a specific task. Maturity is comprised of two dimensions:

Job maturity: ability, knowledge, skill, experience

Psychological maturity: willingness, motivation, confidence, commitment.

Please note, on the questionnaire, "J" if you feel the item relates to job maturity, "P" if you feel it relates to psychological maturity, and "U" if you are unsure to which concept the item relates. Do the first ten items only. The remaining items are designed to collect demographic data.

On the back of the questionnaire, please write any comments or suggestions for improving the instrument.

Thank you for your assistance.

RESULTS OF INSTRUMENT VALIDATION

Item 1 Job maturity. All four judges in agreement.

Item 2 Job maturity. All four judges in agreement.

Item 3 Job maturity. All four judges in agreement.

Item 4 Job maturity. All four judges in agreement.

Item 5 Job maturity. Three judges in agreement.

Item 6 Psychological maturity. Three judges in agreement.

Item 7 Psychological maturity. All four judges in agreement.

Item 8 Psychological maturity. All four judges in agreement.

Item 9 Psychological maturity. All four judges in agreement.

Item 10 Psychological maturity. All four judges in agreement.

Suggestions:

Change wording in example to be consistent with the dialogue.

Emphasize anonymity and confidentiality.

Can the students accurately assess themselves? Maybe the teachers should complete one of these for each student, then they could be compared.

The question format is cumbersome. It would be better if the response scale was consistent.

Change the wording in the items as noted to clarify them.

Student_____ Today's Date:_____

Thank you for participating in this research project.

The purpose of this study is to describe clinical instruction in nursing education. Three questionnaires are attached; the first is about you, the student, the second is about how you see your clinical instructor's teaching style, the third relates to your evaluation of the clinical learning experience.

This questionnaire is anonymous. The letter and number on your sheets indicate only which group you are in. The results can not be identified with you. Information will be used for research purposes only.

Please answer all questions as accurately as possible. Take as much time as you need; 20 minutes will probably be sufficient.

While you are completing the questionnaires, please do not talk until everyone has finished and has sealed their envelopes.

STUDENT PROFILE: CLINICAL EXPERIENCE

The purpose of this questionnaire is to find out about you; in particular, how prepared you are for clinical experiences, and how you feel about clinical practice, in general.

DIRECTIONS

Please write today's date in the space indicated.

Respond to the questions by circling the appropriate number which most closely describes your usual behaviour and feelings about your present clinical assignment.

The ratings range from 1 to 8, and refer to the descriptors at either end of the scale. Read the question and circle the number that most accurately reflects your feelings. Circle only one number per item.

For example: How is the weather today? If it is, in your opinion, fantastic, then circle the 8. If you think it is terrible, circle the 1. If its O.K., circle the 4 or 5. The numbers 6 or 7 would reflect that you think it's better than O.K.; 2 or 3 would mean its worse than O.K., in your opinion. Remember, some people like snow, others like rain, and still others feel that it's only a great day when the sun is shining. Your opinion is what matters. Circle the number that reflects your opinion, not how you think others feel, or how you would like to feel.

Beautiful 8 7 6 5 4 3 2 1 Terrible

Circle the response that most closely describes yourself in the clinical area.

1. In the past, have you had any experience giving care to people?

A lot of experience 8 7 6 5 4 3 2 1 No experience

2. Do you have the necessary theoretical knowledge to provide nursing care to people?

Have necessary knowledge 8 7 6 5 4 3 2 1 Lack necessary knowledge

3. Are you able to use the nursing process to solve problems?

Independently 8 7 6 5 4 3 2 1 Need help

4. Are you capable of assuming responsibility for total care of your assigned patient(s)?

I can do it alone 8 7 6 5 4 3 2 1 Supervision is required

5. Are you able to complete your care plans and your nursing care within the allotted time?

Always meet deadlines 8 7 6 5 4 3 2 1 Never finish on time

6. How willing are you to assume responsibility for patient care?

Eager 8 7 6 5 4 3 2 1 Reluctant

7. How motivated are you to achieve the clinical learning objectives?

Highly 8 7 6 5 4 3 2 1 Little

8. How persistent are you about your assigned clinical learning activities?

Won't quit until done 8 7 6 5 4 3 2 1 Give up easily

9. How would you describe your feelings about clinical experience?

Very enjoyable 8 7 6 5 4 3 2 1 Glad when it is over

10. How much independence would you like to have in the clinical area?

I'd like to work on my own 8 7 6 5 4 3 2 1 I don't want to be on my own

11. How old are you? Check one:

__ 16-20
__ 21-25
__ 26-30
__ 31-35
__ 36-40
__ over 40

12. What is the higest level of education you completed in:
Answer in the blank space(s): High school _____
College _____
University _____
Other (specify) _____

13. How many years of work experience do you have? Check one:

__ 0-1
__ 1-2
__ 3-4
__ 5-6
__ 7-8
__ 9-10
__ 11+

14. How many years of your work experience has been in the health care field? Check one:

__ 0-1
__ 1-2
__ 3-4
__ 5-6
__ 7-8
__ 9-1
__ 11+

INSTRUMENT VALIDATION

For the questionnaire attached, please note which of the following concepts is being measured by each of the items.

Each concept is considered to be a measure of effectiveness of clinical instruction. Effectiveness is defined as achievement of a goal and satisfaction with the methods used in its accomplishment.

Please note, on the questionnaire, "A" if you feel the item relates to achievement, "S" if you feel it relates to satisfaction, and "U" if you are unsure to which concept the item relates.

On the back of the questionnaire, please write any comments or suggestions for improving the instrument.

Thank you for your assistance.

RESULTS OF INSTRUMENT VALIDATION

Item 1 Achievement. All four judges in agreement. Item too long.

Item 2 Achievement. Three judges in agreement. One is unsure.

Item 3 Achievement. Three judges in agreement. One judge would agree if interest had increased, but with no responsibility assigned for that increase.

Item 4 Satisfaction. All four judges in agreement.

Item 5 Satisfaction. Three judges in agreement.

Item 6 Satisfaction. Three judges in agreement.

Item 7 Satisfaction. All four judges in agreement.

Item 8 Satisfaction. Three judges in agreement.

Item 9 Satisfaction. All four judges in agreement.

Student code_____

CLINICAL EVALUATION SCALE

The purpose of this questionnaire is to determine your perception or evaluation of the clinical learning experience.

DIRECTIONS

Respond to the questions by **checking** (√) the appropriate box which most closely describes your personal opinion and your feelings about your present clinical experience.

The ratings refer to the following descriptors:

SA: Strongly Agree **A**: Agree **D**: Disagree **SD**: Strongly Disagree

Read the statement and check the box that most accurately reflects your opinion. Check only one box per item. Please answer all items.

Check (√) your response:

1. I have become more competent during this clinical experience. My skills have increased, and I am able to use the ideas and practical knowledge learned from my clinical instructor.	☐ SA	☐ A	☐ D	☐ SD
2. My clinical instructor has facilitated my learning and achievement of the clinical objectives.	☐ SA	☐ A	☐ D	☐ SD
3. My clinical instructor's enthusiasm has increased my interest in nursing.	☐ SA	☐ A	☐ D	☐ SD
4. I find my clinical instructor actively helpful when I have difficulty.	☐ SA	☐ A	☐ D	☐ SD
5. My clinical instructor imposes her/his methods on me.	☐ SA	☐ A	☐ D	☐ SD
6. My clinical instructor does not give me enough support or guidance in the clinical area.	☐ SA	☐ A	☐ D	☐ SD
7. I find that this clinical instructor, as a teacher, is excellent.	☐ SA	☐ A	☐ D	☐ SD
8. In my clinical experience with this instructor, I am learning very little.	☐ SA	☐ A	☐ D	☐ SD

9. I would like to be assigned to this instructor's group for another clinical rotation.	☐ SA	☐ A	☐ D	☐ SD
10. Overall, I find this course excellent.	☐ SA	☐ A	☐ D	☐ SD
11. Does this clinical instructor teach you in the classroom?	☐Yes	☐No		

When you have completed the questionnaires, please turn the page and fill out the attached form.

Detach the questionnaires, and place them in the envelope provided. Seal the envelope, and return it to the researcher. The consent form is returned to a separate envelope.

Thank you for your cooperation and participation in this research.

APPENDIX F

STUDENT CLINICAL EXPERIENCE PROFILE

INSTRUCTOR'S FORM

STUDENT CLINICAL EXPERIENCE PROFILE: INSTRUCTOR'S FORM

DIRECTIONS

Select the number from the 8-point scale that most closely describes your opinion of the usual behaviour of each student, and place that number into the corresponding space below each student code.

"This student, in the clinical area ..."										Student Code: 1 2 3 4 5 6 7 8 9
1. Seems to have a lot of experience caring for people, sick or well.	8	7	6	5	4	3	2	1	Seems to have no experience caring for people, sick or well.	___ ___ ___ ___ ___ ___ ___ ___ ___
2. Has the necessary theoretical knowledge to provide nursing care.	8	7	6	5	4	3	2	1	Lacks the necessary theoretical knowledge to provide nursing care.	___ ___ ___ ___ ___ ___ ___ ___ ___
3. Is able to use the nursing process independently to solve problems.	8	7	6	5	4	3	2	1	Always needs a lot of help to use the nursing process for problem-solving.	___ ___ ___ ___ ___ ___ ___ ___ ___
4. Is, to a large extent, capable of assuming responsibility for assigned patient care.	8	7	6	5	4	3	2	1	Requires supervision. Is not yet capable of assuming responsibility for patient care.	___ ___ ___ ___ ___ ___ ___ ___ ___
5. Always meets deadlines for completion of nursing care and care plans.	8	7	6	5	4	3	2	1	Never finishes on time.	___ ___ ___ ___ ___ ___ ___ ___ ___
6. Is eager to assume as much responsibility for patient care as allowed.	8	7	6	5	4	3	2	1	Is reluctant to assume responsibility for more patient care, even if it is permitted.	___ ___ ___ ___ ___ ___ ___ ___ ___
7. Is highly motivated to achieve the clinical learning objectives.	8	7	6	5	4	3	2	1	Is not very motivated to achieve the clinical learning objectives.	___ ___ ___ ___ ___ ___ ___ ___ ___
8. Is very persistent about his/her assigned learning activities. S/he won't quit.	8	7	6	5	4	3	2	1	Is not very persistent. Gives up easily when s/he runs into difficulty.	___ ___ ___ ___ ___ ___ ___ ___ ___
9. Seems to find clinical experience very enjoyable.	8	7	6	5	4	3	2	1	Seems to be glad when clinical day is over.	___ ___ ___ ___ ___ ___ ___ ___ ___
10. Would like more independence in the clinical area. Wants to be more on her/his own.	8	7	6	5	4	3	2	1	Does not want more independence in the clinical area. Does not want to be left on own.	___ ___ ___ ___ ___ ___ ___ ___ ___

Item correlation with total test score (minus item)

Student Clinical Experience Profile

	Item	Test - item (Job maturity)	Test - item (Psych maturity)
Job Maturity	SCEP1	.60	
	SCEP2	.79	
	SCEP3	.81	
	SCEP4	.85	
	SCEP5	.57	
Psych Maturity	SCEP1		.78
	SCEP2		.84
	SCEP3		.86
	SCEP4		.63
	SCEP5		.62

Note: N=143

Item correlation with score of other dimension of maturity

Student Clinical Experience Profile

	Item	Test - item (Job maturity)	Test - item (Psych maturity)
Job Maturity	SCEP1		.61
	SCEP2		.60
	SCEP3		.70
	SCEP4		.75
	SCEP5		.59
Psych Maturity	SCEP6	.73	
	SCEP7	.76	
	SCEP8	.74	
	SCEP9	.50	
	SCEP10	.55	

Note: N=143

Factor loadings for Student Clinical Experience Profile

	Item	Factor 1
Job Maturity	SCEP1	.67
	SCEP2	.75
	SCEP3	.83
	SCEP4	.88
	SCEP5	.64
Psych Maturity	SCEP6	.83
	SCEP7	.88
	SCEP8	.87
	SCEP9	.61
	SCEP10	.64
Eigenvalue 6.276		

Note: N=143

APPENDIX G

MATRIX FOR THE DETERMINATION OF DEGREE OF MATCH BETWEEN TASK RELEVANT MATURITY LEVEL AND LEADERSHIP STYLE

Student Code: _____

SCORING SHEET

PSYCHOLOGICAL MATURITY	5-12	13-22	23-32	33-40
33-40	M2	M2	M3	M4
23-32	M2	M2	M3	M3
13-22	M1	M2	M2	M2
5-12	M1	M1	M2	M2

JOB MATURITY

MATURITY SCORES:

JOB: _____

PSYCH: _____

LEVEL: M _____

APPROPRIATE LEADERSHIP STYLE:

S _____

RELATIONSHIP BEHAVIOURS	5-12	13-22	23-32	33-40
33-40	C3	C3	C2	C2
23-32	C3	**S3**	**S2**	C2
13-22	**S4**	C4	C1	**S1**
5-12	C4	C4	C1	C1

TASK BEHAVIOURS

LEADERSHIP SCORES:

TASK _____

R'SHIP _____

STYLE _____

(√)

MATCH (S) ☐

1° UNMATCH (C) ☐

NON MATCH (N) ☐

EFFECTIVENESS SCORE:

_____

APPENDIX H

LETTER OF PERMISSION

TO USE COPYRIGHT MATERIALS

CENTER FOR LEADERSHIP STUDIES

P.O. Box 1586, Escondido, California 92025-0313
230 West Third Avenue Escondido, California 92025-4180
(619) 741-6505 (619) 741-9504

March 12, 1985

Ardene Vollman, R.N., B.Sc.N.
1376 Chattaway Avenue
Ottawa, Ontario K1H 7S3
CANADA

Dear Ms. Vollman:

Thank you for your interest in our work.

Permission has been granted for you to copy the three figures as per your letter. However, we cannot grant you permission to alter, adapt, copy, or otherwise change any of our instruments. These are copyrighted materials.

If you wish to use the instruments as they are, they must be purchased through University Associates. Research discounts are available.

The reliability and validity data that you requested is enclosed.

Good luck with your study.

Sincerely,

Maureen Shriver

Maureen H. Shriver
Director of Administrative Services

MHS:sm

Enclosure: John Greene Summary

APPENDIX I

RAW DATA

Student	Group	Maturity		Teaching Style		Effectiveness	
		Job	Psych	Task	Relationship	Achievement	Satisfaction
01	1	31	32	27	37	7	16
02	1	29	23	24	37	5	11
03	1	27	31	18	33	6	14
04	1	29	31	18	39	7	15
05	1	40	38	10	30	5	15
06	1	15	37	21	38	9	17
07	1	31	33	20	36	9	16
08	1	21	22	24	28	6	15
09	2	35	37	26	36	9	13
10	2	23	32	26	38	8	14
11	2	22	25	14	39	8	16
12	2	21	32	25	28	7	12
13	2	31	36	34	39	9	17
14	2	35	40	30	40	9	17
15	3	24	26	19	34	6	13
16	3	29	33	23	39	9	15
17	3	27	32	29	28	6	14
18	3	30	38	15	20	7	15
19	3	24	32	31	33	6	13
20	3	35	34	30	36	9	15
21	3	20	23	26	32	7	12
22	4	22	36	25	23	7	10
23	4	24	34	27	14	8	5
24	4	36	34	36	28	9	12
25	4	30	34	18	34	9	12
26	4	33	40	30	40	6	12
27	4	31	33	19	25	9	8
28	4	30	30	28	21	9	11
29	4	21	33	30	21	6	10
30	5	35	38	16	34	8	16
31	5	37	35	23	29	8	14
32	5	31	36	22	35	6	15
33	5	35	37	28	36	8	16
34	5	24	31	34	35	8	15
35	5	33	36	18	24	7	9
36	5	30	34	33	32	6	14
37	6	37	38	6	29	6	13
38	6	36	37	26	40	8	17
39	6	36	40	37	37	6	16
40	6	31	32	38	38	6	11

Student	Group	Maturity		Teaching Style		Effectiveness	
		Job	Psych	Task	Relationship	Achievement	Satisfaction
41	6	34	36	20	27	9	13
42	6	39	39	18	37	9	15
43	6	31	34	29	37	7	14
44	7	31	39	20	24	7	15
45	7	30	36	28	24	7	9
46	7	27	36	11	23	6	12
47	7	25	34	22	34	7	12
48	7	30	38	23	19	9	14
49	7	40	40	12	40	9	18
50	7	33	37	15	29	8	15
51	8	26	33	14	29	7	15
52	8	31	35	16	36	9	17
53	8	34	38	5	24	8	12
54	8	23	32	20	36	6	11
55	8	34	36	25	39	7	14
56	8	33	30	15	23	5	9
57	8	22	23	28	28	6	13
58	8	32	37	11	26	7	12
59	8	27	30	25	39	7	17
60	9	28	33	6	12	6	7
61	9	32	35	9	23	8	12
62	9	29	32	17	35	6	14
63	9	32	31	14	34	8	17
64	9	24	27	16	22	6	10
65	9	34	35	16	36	8	12
66	9	25	31	11	30	6	13
67	9	30	34	24	17	8	11
68	10	24	29	14	33	8	13
69	10	24	30	21	27	6	11
70	10	26	30	17	36	6	17
71	10	19	26	28	32	6	14
72	10	32	37	12	36	8	16
73	10	29	30	9	23	6	10
74	10	30	31	18	33	7	12
75	10	23	23	19	39	5	12
76	11	31	35	13	27	6	11
77	11	31	35	20	14	7	13
78	11	34	38	27	32	7	13
79	11	31	34	13	18	5	10
80	11	31	30	15	27	7	9

Student	Group	Maturity		Teaching Style		Effectiveness	
		Job	Psych	Task	Relationship	Achievement	Satisfaction
81	11	32	37	27	26	9	15
82	11	31	37	11	29	6	12
83	11	30	38	25	35	8	12
84	12	27	35	19	32	9	16
85	12	34	33	29	32	8	13
86	12	22	30	33	29	7	13
87	12	24	35	23	34	7	14
88	12	30	38	19	35	8	17
89	12	30	32	20	28	7	12
90	12	23	33	24	33	8	14
91	13	32	38	26	33	7	16
92	13	21	25	12	27	4	12
93	13	28	31	17	12	5	12
94	13	32	36	16	35	9	17
95	13	31	30	19	34	6	12
96	13	31	34	28	32	5	15
97	13	36	39	20	40	9	16
98	14	29	37	23	40	8	18
99	14	35	33	16	21	8	7
100	14	23	25	24	25	6	11
101	14	33	33	19	38	8	16
102	14	30	31	13	26	7	13
103	14	35	38	21	39	9	17
104	14	28	36	21	34	8	14
105	14	33	31	18	32	8	17
106	15	22	26	19	18	5	8
107	15	25	28	26	19	7	8
108	15	29	39	15	20	9	5
109	15	34	38	11	29	6	12
110	15	30	29	29	9	8	5
111	15	23	33	16	28	6	7
112	15	26	35	29	8	7	2
113	15	28	34	24	26	9	9
114	16	39	40	13	34	9	15
115	16	39	39	16	38	9	17
116	16	33	33	20	25	6	12
117	16	30	35	17	34	8	17
118	16	29	23	12	26	9	11
119	16	32	33	19	37	8	16
120	16	25	27	21	32	6	17

Student	Group	Maturity		Teaching Style		Effectiveness	
		Job	Psych	Task	Rela-tionship	Achiev-ement	Satis-faction
121	17	32	40	35	34	9	17
122	17	26	31	17	19	7	9
123	17	32	35	14	34	7	15
124	17	31	39	16	31	8	15
125	17	33	39	13	26	5	16
126	17	27	36	21	38	9	16
127	17	22	32	25	40	8	17
128	17	31	39	6	33	8	16
129	18	31	34	16	16	5	8
130	18	35	34	15	29	4	14
131	18	31	32	26	23	9	14
132	18	34	36	21	31	5	11
133	18	33	32	18	32	6	12
134	18	33	30	15	15	5	7
135	18	31	32	9	12	5	6
136	18	32	38	29	32	6	12
137	19	32	35	18	40	8	18
138	19	27	33	16	33	7	18
139	19	27	33	20	32	6	17
140	19	30	34	24	37	9	15
141	19	28	32	17	37	6	16
142	19	30	39	11	38	5	17
143	19	26	29	26	33	8	17