

CURRICULUM IMPLEMENTATION IN  
GENERAL NURSING DIPLOMA PROGRAMS  
IN BRITISH COLUMBIA

by

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CURRICULUM IMPLEMENTATION IN GENERAL NURSING

DIPLOMA PROGRAMS IN BRITISH COLUMBIA

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## Abstract

A new curriculum has been adopted in nursing diploma programs in British Columbia. Nursing curricula are now based on certain selected concepts which have come to be called conceptual frameworks of nursing. The primary purpose of this study is to determine the extent to which nursing curricula, based on conceptual frameworks of nursing, are implemented by nursing instructors. A secondary purpose is to determine what factors affect curriculum implementation in nursing programs.

The nursing literature assumes that curricula based on conceptual frameworks of nursing are accepted and extensively used. However, the education literature on curriculum implementation reveals that many new curricula are not put into practice. Questions therefore arise as to whether or not the new nursing curricula are being implemented.

Data were collected through questionnaires distributed to nursing instructors in general nursing diploma programs in British Columbia. The Stages of Concern (SoC) Questionnaire, a previously developed instrument, was used to determine the concerns of the subjects regarding curriculum implementation. The SoC questionnaire was also used to indicate the degree to which the curriculum was being applied. The second questionnaire sought to identify the factors that have influenced curriculum implementation in nursing.

The study's findings indicate that the individual subjects had differing Stages of Concerns about curriculum implementation. Thus, it can be inferred that the degree of curriculum implementation also varies. Generally implementation is occurring to a greater extent than had been expected. The subjects identified several factors that affect curriculum implementation in nursing education. Although nursing instructors may have accepted

conceptual frameworks of nursing as an important innovation for nursing education, nurses in the clinical or practice setting have not. Furthermore, many subjects noted that nursing instructors have been poorly prepared to apply their conceptual framework of nursing in their teaching. Hindering factors such as these must be eliminated or reduced if curricula based on a conceptual framework of nursing are to have the intended positive effects.

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# Chapter 1

## The Problem

### I. Introduction

The educational preparation of the nurse has changed dramatically in recent years. One of the most significant changes has been the development and use of conceptual frameworks of nursing as the underlying design for the curriculum.

Tanner and Tanner have noted that the first step in curriculum design involves an analysis of certain concepts such as human nature, the individual and society, to determine the direction the curriculum should take.<sup>1</sup> Applying this to nursing education the first step in curriculum design would be an analysis of significant concepts. The analysis would result in a set of understanding about the concepts that are significant to nursing, such as health, illness, man, society and nursing care. These sets of understanding or concepts have come to be called conceptual frameworks of nursing. As there are different ways of viewing the world for establishing a framework for public education, so there are in nursing education. In consequence, a number of conceptual frameworks of nursing have evolved.

The curriculum for nursing students, then, is based on selected concepts which form the basis for further curriculum decisions. Learning objectives, which include the knowledge, skills and attitudes expected of a nursing graduate are derived from the conceptual framework of nursing. Subsequently, content and learning experiences are derived from the objectives.

## II Background

Nursing curricula have not always been based on conceptual frameworks of nursing. Previously, the medical model provided the basis for content selection. The medical model consists of the specialty areas of medicine, surgery, pediatrics (childhood diseases), obstetrics (pregnancy and birth), and psychiatry. This model provides the physician with a set of understandings or conceptions about patient care.

A nursing curriculum, designed on the medical model, was organized around the medical specialties. Stevens discusses a typical set of nursing courses derived from the medical model:

Take, for example, the usual model with components of fundamentals, medical-surgical nursing, pediatrics, obstetrics, psychiatric nursing, and public health nursing...Fundamentals arise from nursing acts: medical-surgical nursing from patients' disease/conditions; pediatrics from a life phase; obstetrics from a life event, psychiatric nursing from patients' behaviors; and public health nursing from the locus where health/illness takes place.

Because each specialty required different focus and approach, the result was a disjointed and confusing nursing program.

Dissatisfaction with the medical model approach to nursing curricula was an important factor leading to the search for better ways to organize the nursing program. One better way is argued to be a conceptual framework of nursing which focuses on the patient as a bio-psycho-social being, rather than on a medical diagnosis. This approach provides the nursing student with a consistent approach to learning about patients. The focus for nursing knowledge becomes the individual patient, not the disease.

The impetus for changing the nursing curriculum from the medical model approach was accelerated with the move of nursing schools from hospitals to educational institutions. With their transfer into post-secondary settings, nursing programs increased the emphasis on their educational component. As nursing instructors became more academically oriented they became receptive to new educational approaches, especially in the realm of curriculum development. They sought guidance from theories about curriculum design and development in general education. Hilda Taba, an influential thinker on curriculum, had a significant impact on nursing education.<sup>3</sup> Taba's proposal to use a conceptual framework to guide curriculum development was a precipitating factor leading to the development of conceptual frameworks of nursing. Curriculum development in nursing thus became inexorably linked to the development of a conceptual framework specific to nursing.

Developing a conceptual framework of nursing, while important in nursing education, was also of interest to practicing nurses who were trying to define their role on the health care team. They recognized the importance of defining the concepts significant to nursing as a way of defining the profession's unique role in patient care. Hence, conceptual frameworks of nursing were not developed solely as a way of organizing the curriculum but had far greater implications.

Although great significance has been attached to the development of one overall conceptual framework of nursing, consensus has not been achieved. Consequently, a variety

of conceptual frameworks are being used in all spheres of nursing. The development of conceptual frameworks of nursing is perceived as the first phase of developing a unique knowledge base for nursing and therein lies its true significance for nursing.

However, for the purpose of this study, the focus will be on the use of conceptual frameworks of nursing as the design component of curricula. Presently, many provinces in Canada including British Columbia<sup>4</sup>, and many American States<sup>5</sup>, include a conceptual framework of nursing as one criterion required for accreditation or approval of the education program.

In summary, a significant change has occurred in nursing education. Today many nursing curricula are based on a conceptual framework of nursing wherein the focus is on holistic patient care.

### III Purpose of the Study

Although schools of nursing may report that they have a conceptual framework of nursing as the basis of their curriculum, this does not necessarily mean that the conceptual framework is implemented or put into practice by the nursing instructors. That is to say, implementation of conceptual frameworks in nursing education may not be occurring as planned by nursing leaders. The question of whether or not nursing instructors do implement the conceptual framework of nursing in their teaching is the area of interest for this study. Obviously, if the anticipated effects of conceptual frameworks are to be realized, they must first be implemented.

A review of the nursing literature reveals that im-

plementation of conceptual frameworks in nursing education has not been verified. Little research on actual use of conceptual frameworks in nursing has been done. There are numerous papers discussing their worth, how to develop them, and the types used in different nursing schools.<sup>6</sup> Much time, effort and energy has been spent on developing nursing curricula based on conceptual frameworks of nursing. Currently, evaluation efforts have begun to assess the effectiveness of conceptual frameworks of nursing as the basis of curriculum design. However, no one has first assessed if implementation has occurred. Implementation is not questioned. Rather, it is assumed.

Therefore, it is the primary purpose of this study to determine the extent to which nursing curricula based on conceptual frameworks of nursing are implemented by nursing instructors. A secondary purpose is to determine which factors affect curriculum implementation in nursing programs.

#### IV Definitions

The terms to be used in this study are defined as follows:

Conceptual framework: A set of crucial components or understandings that are inter-related and are used as a guide for thinking about a particular topic or area of study.

Conceptual framework of nursing: A description based on a set of understandings about the crucial components of nursing, such as the patient, health, illness and nursing care. These components once inter-related provide direction for a holistic approach to nursing care. Although the terminology varies, the components or concepts that are most often cited and inter-related in a conceptual framework of nursing are:

<u>MAN</u>	<u>SOCIETY</u>	<u>HEALTH</u>	<u>NURSING</u>
Bio-psycho	Family	Illness	Problem-solving
social being	Community	Wellness	process
	Nation		Role
	Universe		Function

Curriculum design: Principles used in the planning of curriculum. The principles guide goal selection, content selection and organization, and learning selection and organization.

Nursing curriculum: The written plan for teaching and learning which is designed from a conceptual framework of nursing. It consists of objectives, content and learning experiences.

Curriculum implementation: A process that includes both planning for use of a curriculum as well as the actual putting into practice of the curriculum in daily instruction.

#### V Limitations of the Study

Limitations of this study relate to the small population and sample size, and the methodology.

To keep the study as homogenous as possible the study group was restricted to nursing instructors in diploma programs (leading to R.N.) These programs are guided by the criteria for approval which are established by the professional nursing association. The total population was 179 instructors. The questionnaire was distributed and responded to on a volunteer basis. Subsequently, a true representative sample was not obtained. In fact, the respondents may be biased towards curricular issues and the data may show higher implementation than would be found in the complete population under study. Therefore, generalizations can only be made in terms of the participants, not to the general population of nursing in-



structors.

The methodology chosen may create limitations for the study. In order to study a larger group and to get honest reporting, an anonymous questionnaire was used. While less threatening than a face to face interview, there is a possibility that the questionnaire would not be returned.

### VI Organization of the Study

Chapter one has presented the background and purpose of the study. Chapter two will review the literature on conceptual frameworks of nursing and curriculum implementation. The methodology, which involves the use of questionnaires, will be presented in Chapter three. Chapter four will present the findings. The final chapter will present discussion of the findings and present questions for further research.

## Footnotes

1. Tanner, D., and Tanner, L. (1975) Curriculum development. New York: MacMillian Publishing Co., Inc., 641.
2. Stevens, B. (1980) Nursing theory and curriculum development, in S. Kooperstein Merin (Ed.), Teaching tomorrow's nurse. Wakefield, Mass: Nursing Resources, Inc., p. 90.
3. Taba, Hilda. (1964) Curriculum development - Theory and practice, New York: Harcourt Brace Jovanovich, p. 413.
4. Registered Nursing Association of British Columbia, (1977) Criteria for the approval of schools of nursing leading to a diploma Vancouver, B.C. RNABC.
5. Riehl, J. and Roy, C. (1980) Conceptual models for nursing practice, (2nd ed.) New York: Appleton - Century Crofts, p. 396.
6. Riehl, J. and Roy, C. (1980), op. cit.

## The Literature Review

## I Conceptual Frameworks in Nursing

## Historical Perspective

The origins of conceptual frameworks in nursing are inexorably linked with the history and development of nursing. An interesting and intriguing analysis of the development of curriculum in nursing has been provided by Longway.<sup>1</sup> She outlines six major eras that have guided curricular (content) orientations, namely, the Folklore Era, The Nightingale Era, The Local Pathology Era, The Patient-Care Areas Approach, The Body Systems Approach and finally the Person-Centered Curriculum.<sup>2</sup>

Nursing originally evolved from simple folklore whereby remedies were passed on by word of mouth. The more sophisticated training program of Florence Nightingale replaced the practice of folklore. Nightingale's program systemized nursing content by organizing it around three focal points. First, a body of technical skills and procedures were outlined for the nursing student. Secondly, rules and principles related to hygiene and sanitation were outlined. Finally, the student was introduced to a philosophy of nursing and a code of ethics to guide her life.

As knowledge related to disease or pathology expanded, a disease-centred approach for nurses evolved (Local Pathology Era) in addition to Nightingale's three areas. Content, focusing on diseases, was organized by physicians around certain patient care areas or the medical specialties. Nursing

programs, which had come to be based in hospitals, adopted this approach (Patient-Care Areas approach). The so-called Body Systems approach further refined the curriculum content with a more extensive review of the physiological responses of the patient. At this point in the development of nursing education, all nursing students rotated through all of the medical specialties and subspecialties. Unfortunately, this type of compartmentalization led to much duplication of content.

The currently advocated Person-Centered curriculum seeks to focus on a more holistic approach to patient care. A variety of curricular forms are developing based on the person-centered approach. Their common denominator is a set of concepts which form the basis or structure of the curriculum.<sup>3</sup> A curriculum based on a conceptual framework of nursing is an important example of this approach.

#### Conceptual Frameworks of Nursing in Nursing Education

Many nursing leaders advocate the use of conceptual frameworks of nursing as a basis for both curriculum and nursing practice. Friesner<sup>4</sup> gives four reasons to justify their worth. First, she states that a conceptual framework of nursing gives nursing faculty and students a map of the world of nursing, which provides direction for practice. Second, she outlines and notes the organizational advantages of using curriculum design based on a conceptual framework of nursing. Third, she argues that the holistic orientation of this approach is regarded as an advance over the narrower, disease-oriented medical model. Finally, Friesner claims that conceptual frameworks

of nursing are significant because they are a beginning step for theory development in nursing.<sup>5</sup>

Dyer provides a similar justification for the use of a conceptual framework of nursing:

The conceptual framework is a clear and concise narrative or diagram that portrays the basic ideas or concepts of the faculty that gives form to the nursing curriculum. The conceptual framework not only names concepts, ideas, and notions - it further identifies specific subconcepts and definite theories that need to be articulated throughout the curriculum. Once the concepts, subconcepts, and theories have been identified, the conceptual framework gives direction to the development of course content and learning experiences.<sup>6</sup>

Stevens also clearly advocates the use of conceptual frameworks in nursing as the basis of curriculum design.

Faculty want basic students to learn a new ethos, a profession, a new environment, plus a massive amount of radically new information and technology. In the face of such complexity, the student benefits by being given a single framework into which the new materials may fit.<sup>7</sup>

The National League of Nursing in the United States<sup>8</sup> has also promoted the development and use of a conceptual framework of nursing. They encourage use of this approach through national conferences and in their publications. Furthermore, they have established a conceptual framework of nursing as one criterion of accreditation of nursing programs in the United States. In a similar fashion, in British Columbia, nursing curricula must be based on a conceptual framework of nursing.<sup>9</sup> The criteria related to using a conceptual framework must be met by the nursing school in order that graduates are eligible to be registered in their jurisdiction.

An example of a conceptual framework of nursing is described in the BCIT General Nursing Curriculum Report submitted

to the Registered Nurses' Association of British Columbia. In this framework, the patient is described as a unique individual having physical and psychosocial needs, who, through attempting to satisfy his needs, must interact with the environment which contains stressors. Successful adaptation to the environment leads to health, while the converse leads to health problems. The nurse uses a problem-solving approach, called the nursing process, to assist the patient in satisfying his needs when he is unable to do so himself.<sup>10</sup>

In this framework, the patient is considered the focus for nurses and becomes therefore, the most significant of the concepts requiring understanding by the nurse. The concepts outlined become the organizing principles of the curriculum and thus form the basis for curriculum design. The nursing instructor must be knowledgeable about the prescribed conceptual framework of nursing in order to translate it into her teaching.

If the nursing instructor has not assimilated the prescribed conceptual framework of nursing from the curriculum, her own personally held ideas will be the real source of her actions and teachings. As Stevens notes, students will adopt what is demonstrated rather than what is taught.<sup>11</sup>

For example, if the nursing instructor received her basic nursing education in a school that used the medical model as the basis of curriculum design, she will use that model as the source of her nursing actions and her teaching. Most nursing instructors who completed nursing programs previous to the last decade would have adopted a view of nursing based on the medical model.

To change firmly held concepts that have guided one's actions in the past is not a simple task. However, nursing instructors are now expected to use and teach the conceptual framework of nursing of the school that employs them.

In nursing education as in other areas of education, particularly public education, curriculum implementation was seen as a natural consequence of curriculum development. However, according to the curriculum implementation literature, the curriculum reform movement in public school education has not had the anticipated impact. In fact, channelling massive amounts of energy and funding into the development of curriculum does not seem to have been matched by grateful and knowledgeable teachers who put the curriculum into practice. The same problem may be occurring in nursing education. That is, much time, energy and effort have been channelled into curriculum development but little attention has been given to curriculum implementation.

## II Overview of Research on Curriculum Implementation in Education

Definitions of implementation abound in the education literature.<sup>12,13,14,15</sup> Essentially, implementation can be defined as a process that includes both planning for use of an innovation, as well as the interaction of the innovation and the users within their particular situation.

In this study, the innovation is the use of a selected conceptual framework of nursing as the basis for curriculum, the user is the nursing instructor, and the situation is the nursing school. The implementation process begins with the plan to adopt an innovation and ends with institutionalization of the innovation. Currently, research is being carried out to answer questions about the seeming failure of curriculum implementation.<sup>16,17</sup> A variety of methods and techniques such as case studies, questionnaires and interviews, and observational studies are being used to examine the implementation process and to determine the significant

variables or factors that affect the process.

### The Process of Curriculum Implementation

One approach to studying curriculum implementation focuses on the process component. Bolam uses two dimensions to studying the process of curriculum implementation.<sup>18</sup> In dimension one, the three major systems are:

- a. The change agent system which contains the person or persons responsible for advocating the change or innovation.
- b. The innovation system which can be simple seen as the change itself.
- c. Finally, the user system which is defined by Bolam as: "...the system which is either inventing or adopting an innovation or is being aimed at by a change agent."<sup>19</sup>

The second dimension of his framework involves the Process of Innovation Over Time. Three phases in time are included:

- a. The Antecedent Stage includes the time before the innovation;
- b. The Interactive Stage includes the time during the change process or implementation;
- c. The Consequent Stage includes the time after the change has occurred.

In order to use this approach to study implementation, Bolam has identified four sets of questions about the change agent, innovation and user systems:

- "1. What are their significant characteristics with respect to any particular innovation process?
2. What were they like before the process began?
3. What happened when they interacted with each other during the process?



4. What were they like at the end of the process?"<sup>20</sup>

Bolam's approach, which looks at both the systems affected by implementation as well as the time dimension, offers a complex yet fruitful approach for providing a detailed picture of the implementation process.

Common, in her model of curriculum implementation, also draws attention to the process component.<sup>21</sup> She views implementation as a change process involving four elements, namely the curriculum, the teacher, the manager and the organization. She also examines how these elements interact and change over time.

The literature on planned change has also been used as a source of theories to understand curriculum implementation. Chin and Benne present three typical strategies that are used to effect change.<sup>22</sup> First, the Rational Empirical approach to change is presented. As the name suggests change will occur as a rational or logical result of new data. Applied to education research and development, centers create new programs which will be disseminated to the schools.

The second approach relies on Power - Coercive strategies. Decisions for change are made at the top of a hierarchy or at the central office. The directives are then delivered to the smaller units of the organization, for example, in education, to the school.

The last major approach to change is called Normative - Reeducative. This strategy is used by counsellors and therapists to reeducate individuals by focusing on the value or affective component of the issue.

Applying these strategies to curriculum implementation, it is apparent that the first two strategies, the Rational - Empirical and the Power - Coercive are frequently used in education. Both strategies involve the development of a change external to the receiving unit or

school. For example, the ministry of education decides that a new curriculum is needed. A special research and development team is assigned. Once the new curriculum is complete it is delivered to the various districts for the schools to implement.

The development of new curricula is very expensive. In order to see if the money was properly spent, evaluation programs followed the dissemination of these new curricula. Initial research in curriculum implementation started with concerns about whether curricula were being used as expected.

Studying the sequence of events as presented by Bolam, or using the change literature to assess the change process, are two ways to study curriculum implementation. However, one must also attend to the components or elements that are significant in the process. A number of researchers have worked on categorizing these factors or elements. Although categories may vary, there are some that seem crucial and are commonly cited. First, the new curriculum or innovation will have characteristics that will enhance its potential use or detract from it. Second, the people who are expected to implement the curriculum will have a great impact on what happens to the new program. These people are usually divided into two categories - the manager or change agent and the actual user or teachers. Finally, the school setting or situation, must be assessed to understand its potential effects on the implementation process. These factors and how they may facilitate or hinder curriculum implementation will be discussed in the next section.

#### Factors Affecting Curriculum Implementation

A number of sources will be cited in discussing the factors that are significant in curriculum implementation. Each factor has come to have certain characteristics or qualities that are believed to faci-

litate or hinder implementation. Table I presents an overview of the four factors - the manager, the user, the innovation and the situation. Each factor has characteristics listed under it that either facilitate or hinder curriculum implementation. Each characteristic is cited with the source and date in brackets. A more detailed discussion of each factor, starting with the manager, follows.

### The Manager

The person responsible for managing curriculum implementation will be referred to as the manager. Thus, the manager may assume a change agent role as well as a concurrent role as an administrator or leader in the school organization. Although change agents may be external to the school organization someone in the school is usually responsible for implementation. Leadership roles should be clearly delineated for successful implementation.<sup>23</sup> Strong leadership skills<sup>24</sup> displayed by a respected and competent manager facilitate change efforts.<sup>25</sup> The manager must have a thorough understanding of the school - the people, climate, roles, expectations, and so on to support the implementation process.<sup>26</sup> The manager who uses a participatory management style<sup>27</sup> will have more success with implementation than one who uses an authoritarian approach. Clearly displayed commitment to the innovation<sup>28</sup> by the manager is seen as an essential element for successful curriculum implementation. If the manager is perceived as lacking commitment to the new curriculum, implementation will be hindered.

### The Situation

The situation or receiving agency of this innovation, ie., the school, can have positive or negative effects on implementation. A school with well established and effective communication networks<sup>29</sup> will tend to be

Table 1 Factors Affecting Implementation

Manager		User	Innovation		Situation	
Facilitate	Hinder	Facilitate	Hinder	Facilitate	Hinder	Facilitate
<p>1. Strong leadership skills (Goodlad '76)</p> <p>2. Highly participatory management style (Common '80)</p> <p>3. Highly respected, competent, etc. (Miles '64)</p> <p>4. Commitment (Shipman '74, Bolan '77, Holt '79, Kritek '76, Fullan '79, Berman &amp; McLaughlin '77)</p> <p>5. Support, planning, monitoring (Fullan &amp; Pomfret '77, Kritek '76, Shipman '74, Wood, '73, Finch '81)</p>	<p>1. Lack of leadership (Gross et al. '71)</p> <p>2. Ambiguity of leadership roles (Gizmek &amp; Holland '79)</p> <p>3. Lack of plans (Fullan &amp; Ponder '77, Kritek '76)</p> <p>4. Lack of monitoring (Charters &amp; Pellegrin '72)</p> <p>5. Lack of understanding of culture of the school (Sarason '71, Kritek '76)</p>	<p>1. Commitment (Kritek '76, Werner '79, Common '80)</p> <p>2. High morale, enthusiasm (Berman &amp; McLaughlin '76, Shipman '74, Fullan &amp; Pomfret '77, Miles '64)</p> <p>3. Recognition rewards (Shipman '74)</p> <p>4. Intrinsic ownership of the innovation (Zaltman et al '73)</p> <p>5. Critical Mass (Berman &amp; McLaughlin '76)</p> <p>6. Effective team building (Gizmek &amp; Holland '79)</p> <p>7. Effective frequent team planning mtgs. (Common '80, Kritek '76)</p> <p>8. Teacher participation in project decision-making (McLaughlin &amp; Marsh '78, Fullan &amp; Pomfret '77, Kritek '76)</p> <p>9. Normative planning first followed by strategic, operational planning (Holt '79)</p> <p>10. Adaptive planning and ongoing review (Berman &amp; McLaughlin '76, Miles '64, Chazmek &amp; Ulland '77, Common '80)</p> <p>11. Clearly defined role expectations (Bolan '77, Fullan '79)</p> <p>12. Ongoing training &amp; support (Fullan '79, Kritek '76, Common '80, Goodlad '74)</p> <p>13. Support by new constituency (Tyack, &amp; Hansot '80)</p> <p>14. Support of internal advocacy group (House '76)</p>	<p>1. Characteristics, such as dogmatism, authoritarianism etc. (Morrish '76)</p> <p>2. Passive behavior (Holt '79)</p> <p>3. Specialist orientation (Goodlad '74, Berman &amp; McLaughlin '76)</p> <p>4. External rewards e.g., pay (McLaughlin &amp; Marsh '78)</p> <p>5. Staff turnover</p> <p>6. Too large teams (Shipman '74)</p> <p>7. Focus on individual rather than on the team (Bolan '77, Holt '79, Gizmek &amp; Holland '79)</p> <p>8. Aimless inconclusive meetings (Charters &amp; Pellegrin '72)</p> <p>9. Lack of class skills (Miles '64)</p> <p>10. Lack of skills &amp; knowledge (Gross et al. '71, Fullan '79)</p> <p>11. Focus on practicalities rather than conceptualizing first (Shipman '74)</p> <p>12. Complex role change (Sarason '71, Fullan &amp; Pomfret '77, Kritek '76, Holt '79, Common '80)</p> <p>13. Role overload (Charters &amp; Pellegrin '72, Miles '64)</p> <p>14. Incompatible Learning styles (Morrish '76)</p> <p>15. High costs in energy and work (Shipman '74)</p>	<p>1. Mutual adaptation (Berman &amp; McLaughlin '76)</p> <p>2. Curriculum development &amp; renewal in the individual school (Goodlad '74)</p> <p>3. Teacher attitudes (Holt '79)</p> <p>4. Local materials development (Berman &amp; McLaughlin '76, Fullan '79)</p> <p>5. Goal congruence (McLaughlin &amp; March '78, Doyle &amp; Ponder '77, Gizmek &amp; Holland '79, Common '80)</p> <p>6. Severability (Zaltman '73)</p> <p>7. Divisibility (Zaltman '73, Hall et al. '75, Miles '64)</p> <p>8. Proven quality &amp; relative advantage (Common '80, Doyle &amp; Ponder '77, Common '80)</p> <p>9. Practicality (Doyle &amp; Ponder '77, Common '80)</p> <p>10. National coherent (Holt '79)</p> <p>11. Structural changes only (Charters &amp; Pellegrin '72, Fullan '79, Tyack &amp; Hansot '80, Brown &amp; MacIntyre '82)</p>	<p>1. Top down planning, RSD approaches power-cooperative approaches. (Holt '79, Berman &amp; McLaughlin '76, Sarason '71, Skilbeck '75)</p> <p>2. Complexity (Shipman '74, Fullan &amp; Pomfret '77, Kritek '76, Common '80)</p> <p>3. Ambiguities, lack of clarity (Shipman '74, Gross et al. '71)</p> <p>4. Wide degree of change (Common '80)</p> <p>5. Inadequate time-span reducing mechanisms (Sarason '71, Shipman '74, Fullan '79)</p> <p>6. Too early evaluation (Hall et al. '75, Charters &amp; Pellegrin '72)</p> <p>7. Allegiance to "old way" (Gizmek &amp; Holland '79)</p> <p>8. High costs (Zaltman '73, Doyle &amp; Ponder '77)</p> <p>9. Incompatible philosophic basis (Sarason '77)</p>	<p>1. Positive organizational climate (Miles '64, Shipman '74, Bolan '77, Common '80, Berman &amp; McLaughlin '76, Fullan &amp; Pomfret '77)</p> <p>2. Crisis or perception of crisis (Bolan '77, Gizmek &amp; Holland '79)</p> <p>3. Well established, effective communication networks (Bolan '77, Common '80)</p> <p>4. Problem-solving ability (Berman &amp; McLaughlin '76, Fullan &amp; Pomfret '77, Holt '79)</p> <p>5. Conflict reducing mechanisms (Zaltman '73)</p> <p>6. Temporary system and tolerance of change (Miles '64, Common '80)</p> <p>7. Organizational development techniques (Bolan '77)</p> <p>8. Collaboration with the community (Miles '64, Shipman '74)</p>

more supportive of the implementation of innovations that are seen as acceptable than a school with ineffective communication networks. Furthermore, an indifferent attitude to the innovation has been shown to have an equally negative effect on implementation<sup>30</sup> as a hostile attitude.

An organization that has proven problem-solving skills<sup>31</sup> and conflict reducing mechanisms<sup>32</sup> is more supportive of change efforts and capable of handling the stress associated with using a new curriculum. The situation must tolerate the temporary system<sup>33</sup> or mechanisms that are required to get the new curriculum started. The system that is geared for self-renewal and not just self-preservation is more supportive of implementation efforts.<sup>34</sup> On the other hand, a history of unsuccessful change efforts or an overload of changes in the school has a negative effect on implementation.<sup>35</sup> Certainly, an incapacitating crisis or excessive conflict in the receiving situation hinders implementation.<sup>36</sup> Not only must a supportive attitude prevail but adequate resources to carry out implementation are considered essential.<sup>37</sup>

### The Innovation

An effective manager and receptive situation set the stage for the successful implementation of an innovation. An innovation that is perceived as practical, congruent and advantageous<sup>38,39</sup> by those who are to teach it, is easier to implement. Simple innovations that require only structural<sup>40</sup> changes such as those related to a simple procedural change, are easier to implement than those that require a role change or other pedagogical change.

Innovations that are perceived as complex, ambiguous, expensive or far-reaching are less apt to be implemented. Furthermore, innovations that require a great expenditure of time and money tend towards

failure of implementation.<sup>41,42</sup> Innovations that are developed externally to the school and are presented as a directive from the top are less successful than those that are developed at the local school level and perceived as adaptable by the teacher.<sup>43</sup> Lastly, in terms of the innovation, too early evaluation of the effects of the innovation, before it has been fully implemented, is frequently detrimental because the innovation may be prematurely judged as ineffective.<sup>44</sup>

### The Users

For implementation to be successful, the users or teachers who are expected to implement the innovation must be supported in their efforts.<sup>45</sup> The teacher must perceive the innovation as having the characteristics of worth, practicality, and congruence. Support from the manager is important, but a sense of belonging to a team or a clearly identified internal advocacy group is crucial.<sup>46</sup> The more teachers are involved in developing, planning and decision-making, or in other words, the more they participate in curriculum issues, the more positive the outcomes of implementation tend to be.<sup>47</sup> A teachers' feelings of ownership, commitment and enthusiasm<sup>48</sup> as well as skill in dealing with the implementation process will facilitate implementation. Much of the support that the teacher needs comes in fact from colleagues or a peer group. The advocacy, commitment and enthusiasm of peers has a strong influence and can facilitate curriculum implementation. Teachers who tend to focus on practical application before taking the time to first conceptualize<sup>49</sup> the issues, tend not to implement innovations. Teachers with a specialist orientation<sup>50</sup> have been found to be less likely to implement an innovation than teachers who have a more generalist orientation. The generalist may be more open to different approaches when

compared to the specialist who may be insulated from new ideas.

Innovations that are perceived by teachers as requiring complex role changes<sup>51</sup> will be difficult to implement. Also, teachers experiencing role overload are not receptive to implementation efforts.<sup>52</sup>

Although all four factors affecting implementation - the manager, the situation, the innovation and the user - are important, in the final analysis it is the teacher or user who will or will not implement an innovation. Teachers have frequently been represented in the implementation process as recipients that simply put the innovation into practice. The Rational-Empirical and Power-Coercive approaches to change would perceive the teacher in such a fashion. However, top-down or authoritarian approaches to change are frequently unsuccessful.

On the other hand, when teachers perceive that they have the opportunity to participate in decision-making and planning, implementation efforts are more successful. Teachers have more control over what they implement than may initially be recognized. In many instances teachers have the power to implement or not to implement the curriculum.<sup>53</sup>

A teacher has the power to subvert or even sabotage a new curriculum. On the other hand, the teacher may have been poorly prepared, due to lack of either knowledge or skill, to implement the curriculum. Consequently, regardless of the reason, the teacher's role in curriculum implementation is crucial.

Implementation of a new curriculum by the teacher must also be viewed as a process that occurs over time. A new curriculum is not an innovation one day and an instituted change the next. Each teacher will go through stages, starting with simple awareness of the innovation and culminating in expert use of the curriculum in daily teaching activities. The significance of the teacher's role in innovation adoption and imple-

mentation is obvious in the work done by Hall and his associates at the University of Texas<sup>54</sup>. Their approach focuses on the stages teachers progress through when dealing with an innovation.<sup>55</sup> Their research uses a developmental perspective, to assess the concerns teachers have about using an innovation.

The stages of concern progress on a continuum from concerns about self to concerns about the teaching task to concerns about impact on students. Concerns about self revolve around the teacher's role and status. Concerns about task focus on teaching methods and, lastly, concerns about impact focus on the effect the innovation will have on the student.<sup>56</sup> A questionnaire, devised and tested by Hall, assesses these stages of concern for the individual teacher. The questionnaire will be discussed further in Chapter three.

The developmental approach to curriculum implementation, which focuses on the individual teacher, while significant, deals with only one of the four factors. Obviously, the teacher will be influenced by the other factors discussed in this section. In fact, the teacher who feels the support of a peer group and leader, in a healthy organizational climate should be able to implement a clearly outlined, flexible curriculum. Using the developmental perspective previously referred to, the teacher will progress through certain defined stages to institutionalization or full implementation of the curriculum. Once institutionalized, the curriculum is part of the every day life of the school and has been assimilated. Consequently, at this stage, it will no longer be perceived as a change and will not require special support.

To summarize at this point, curriculum implementation research in education cites many reasons why innovative programs may not have been put into practice. Implementation can be viewed from the perspective



of process or by studying the factors involved. Regardless of the approach taken, it is the interface between the teacher and student where the innovation is put into practice. Furthermore, the setting in which this interface occurs will also affect implementation.

The literature on curriculum implementation has implications for other educational programs such as nursing. In the next section curriculum implementation in nursing education will be reviewed.

### III Curriculum Implementation in Nursing Education

Curriculum implementation is a new area of study in nursing education. Consistent with the previous literature cited, most nursing curriculum efforts have focused on the curriculum development stage, with implementation simply an assumed consequence of this development. However, some researchers have examined the process of implementation of nursing curricula through change theory. Ketefian presents five case studies which were analyzed to determine which variables led to successful curriculum change.<sup>57</sup> From her investigation, she advocates a variety of strategies that would support successful change.<sup>58</sup> Once more, the role of teacher is perceived as very significant.

Cizmek and Holland analyze curriculum change efforts using a force field analysis approach. Initial and on-going planning and positive group dynamics were cited as very significant in their findings.<sup>59</sup> Once again, the significance of the teacher's role is emphasized.

Redman, in her studies, notes that integrated programs of nursing are having problems with implementation.<sup>60</sup> She deduces that this is due to the specialist orientation (medical model approach) of nursing instructors as well as limited preparation and training for teachers who are to use the new curriculum.

Cohen briefly alludes to problems with implementing a conceptual framework in the clinical area, but unfortunately, she does not explore this in any depth.<sup>61</sup>

Ellis, on the other hand, tried to develop solutions to the problem of implementing a conceptual framework of nursing.<sup>62</sup> Her work involves the development of level objectives by faculty to break down the abstract concepts of the conceptual framework of nursing.<sup>62</sup> Her work involves the development of level objectives by faculty to break down the abstract concepts of the conceptual framework of nursing for each nursing course. Ellis identifies the abstract nature of the conceptual framework as the problem and suggests the problem be resolved through total faculty involvement. Further interpretation of Ellis' work might focus on the significance of faculty involvement. Peer support through workshops and the like can be very supportive of change. Although not the central aspect of Ellis' work, the teachers' role once again is paramount.

Other studies of nursing education also illuminate problems regarding implementation. Debeck's study to determine the relationship between senior nursing students' ability to formulate nursing diagnosis and the curriculum model or conceptual framework of nursing, revealed no significant relationship.<sup>63</sup> Although she does not assess the level of implementation, she questions whether the nursing instructors understood the curriculum they were to teach. She clearly assumes that understanding is a prerequisite to curriculum implementation. She suggests that the nursing instructors in fact did not understand the curriculum model and, therefore, were unable to implement it.

Mallick also criticized the effectiveness of a conceptual framework of nursing as the basis of the nursing curriculum.<sup>64</sup> Noting that nursing

students do not use the nursing process (problem-solving approach applied to nursing), she claims that the move from the medical model to a conceptual framework of nursing has had limited effects.<sup>65</sup> She assumes that because students do not display the required behaviours, the approach of conceptual frameworks is the problem. She does not question whether or not the curriculum approach that she is criticizing is actually implemented. For her, implementation is assumed, and conceptual frameworks of nursing are consequently evaluated as ineffective.

Frequently, evaluation efforts have occurred before curriculum implementation has been ensured or even assessed. For instance, Hagemeyer and Hunt have studied the use of conceptual frameworks by new graduates.<sup>66</sup> They found that most new graduates, (85%), reported that they knew the conceptual framework that they had been taught, but only 66% reported that they practised it. Use of the conceptual framework by the nursing instructors was not reported or discussed. The nursing instructors use of the conceptual framework should be investigated in the light of implementation research.

Bailey, et. al. also report on their research regarding curriculum change. They compared their new integrated curriculum with the previous one to show that it produced a better graduate.<sup>67</sup> Their methodology used a built-in evaluation process starting with the first class completing the program. Research on curriculum implementation would warn against the error of such early evaluation. Implementation efforts had barely begun in the instance cited.

Styles, during a recent National League of Nursing conference studying university nursing curricula, questions the continued use of conceptual frameworks of nursing.<sup>68</sup> She notes confusion with the approach in terms of intent, content, form, purpose and scope. She points out the lack of

research regarding the effects of conceptual frameworks of nursing. Provocatively, she raised the issue of whether nurses are simply wasting time and energy on conceptual frameworks of nursing. However, in spite of all the alleged problems, she ultimately advocates the continued efforts surrounding conceptual frameworks, while encouraging research to evaluate their effectiveness.

In a timely paper by Greaves on curriculum implementation in nursing, the significance of understanding change theory and implementation is clearly outlined in relation to the new trends in nursing in Britain.

"The success (or lack of success of the implementation of the new paradigm will depend on the extent to which nurse educators (and others involved in nurse education), can develop the correct change-related values and competences and clear perception of the characteristics of the innovation and its effect upon the educational and organizational climate."<sup>59</sup>

Regardless of the type of change that is occurring in nursing education one can conclude from the literature that the teacher's role is paramount.

#### Chapter Summary

Conceptual frameworks of nursing are being advocated as the basis of nursing curricula. The conceptual framework of nursing is perceived as fundamental to curriculum design. Nursing leaders are calling for research to evaluate the effectiveness of conceptual frameworks in all spheres of nursing. Before evaluating the effectiveness of conceptual frameworks of nursing, however, one must first determine whether they are actually being implemented. The work on curriculum implementation in education should provide fruitful approaches to study parallel problems in nursing. Subsequently this study will use the findings of this chapter as justification to study the extent of implementation of

nursing curricula based on conceptual frameworks of nursing. This step must be taken before evaluation begins.

Many factors have been identified as significant in curriculum implementation. The teacher or user has been presented as having the central and paramount role in curriculum implementation. However, the teacher cannot be viewed in isolation but must be understood in the context of the other three factors; namely, the curriculum or innovation, the manager and the school or situation. If these three factors are supportive and the teachers are committed and willing, implementation should occur. If the teacher is not committed and not willing, curriculum implementation attempts will be futile.

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## Chapter 3

### Methodology

#### I Assessing the Extent of Curriculum Implementation

The primary purpose of this study was to examine nursing instructors' use or implementation of curricula based on conceptual frameworks of nursing. The literature review, presented in Chapter 2, argued that the most significant factor in the implementation process is the teacher or user. Examining nursing instructors' use of this curriculum could be done through direct observation of teaching, analysis of lesson plans, and other documents, or through assessment of student knowledge and performance. Unfortunately, the observational approach can be biased by the presence of the observer. The teacher who was being observed or supervised may use the curriculum concepts in a more zealous manner than normally. Furthermore, the investigator may observe primarily what is hoped for rather than what is actually occurring in the teaching session. The objectivity of the observer is very difficult to maintain.

Examining lesson plans, and other teaching materials can be similarly problematic. Materials submitted may not be what is actually taught. For example, elaborately written learning objectives may have been developed using the concepts of the curriculum, while in reality classes are taught as the teacher had taught under a preexisting curriculum. One could not assess that these written documents truly represent implementation of the curriculum.

Assessing students' learning to determine if the curriculum has been implemented is another way to determine whether the innovation is being used. However, the students' grasp of curriculum concepts may relate to other factors than what is taught. Implementation or non-implementation may relate to the student's ability and the teacher's ability as well as

the curriculum itself. Furthermore, this is an indirect approach to examining implementation. As teachers have been presented as the most significant factor in the process, the focus for study should center on them. The review of the literature identified a particular approach which focuses on the teacher's role in implementation. This approach will be discussed in the next section.

#### The Stages of Concern (SoC) Questionnaire

At the University of Texas, education researchers have developed the Concerns Based Adoption Model (CBAM) to examine innovation adoption and implementation. Their model uses two instruments to gather data, the Levels of Use (LoU) interview and the Stages of Concern (SoC) Questionnaire.<sup>1</sup> Both instruments will be discussed because of the significance of the relationship between them, even though only the SoC will be used in this study.

Briefly, the LoU structured interview assesses the teacher's level of use of an innovation. The instrument presumes that the teacher progresses from non-use to use to renewal or wanting to make major refinements to the innovation. While an interview approach can have the advantage of permitting depth and breadth for discussing an issue, the LoU interview has a structured format. As Isaac notes the structured interview tends to be factually oriented. General problems with interviews, besides the cost, are discussed by Isaac:

If the researcher takes advantage of the interview's adaptability, he introduces the problem of subjectivity and personal bias. Eagerness of the respondent to please the interviewer, a vague antagonism that sometimes arises between the interviewer and the respondent, and the tendency of the interviewer to seek out answers that support his preconceived notions all complicate this method.<sup>2</sup>

To prevent the possibility of interviewer bias and to prevent any antagonism that could be created through questioning the subject about

their use of their prescribed curriculum, another method of data collection was sought.

The same approach of using a developmental perspective for studying implementation is offered in the Stages of Concern (SoC) questionnaire. A concern is defined by the researchers as, "...the composite representation of the feelings, preoccupations, thoughts, and considerations, given to a particular issue or task."<sup>3</sup> The CBAM researchers have identified seven levels of concerns. The SoC questionnaire attempts to classify the individual teacher's concerns according to these seven stages. The data can be plotted on graphs, called profiles by the researchers. The relationship between Stages of Concern and Levels of Use is significant. The CBAM researchers have found the responses to the SoC questionnaire to relate closely to the LoU or actual use of the innovation. "Not only are concerns and use related; there appears to be a predictive relationship between them. The data indicate that change in use is anticipated by a change in concerns."<sup>4</sup> In summary, the SoC focuses on the concerns of the teacher which precede use while the LoU focuses on use of the innovation by the teacher.

The SoC questionnaire was chosen as an appropriate instrument to study the implementation of an innovative nursing curriculum both because it focused on the individual teacher and because it would provide data relevant to implementation. Furthermore, a greater number of subjects could be included in the study with the questionnaire approach than with the interview method. This technique also provided anonymity for the subjects which was advantageous as the topic could be perceived as sensitive. In an anonymous questionnaire, a nursing instructor could be frank about whether or not she used the conceptual framework of nursing of the curriculum. Furthermore, the questionnaire, which is brief, can be completed at the subject's convenience.

Finally, the SoC questionnaire has been extensively tested. Findings are reliable, and validity studies show it measures what it intends to measure. The CBAM researchers made the following statement regarding validity and reliability:

During the two and one half years of research related to measuring Stages of Concern about the innovation, the 35-item Stages of Concern questionnaire was developed. In a one-week test-retest study, stage score correlations ranged from .65 to .86 with four of the seven correlations being above .80. Estimates of internal consistency (alpha coefficients) range from .64 to .83 with six of the seven coefficients being above .70. A series of validity studies was conducted, all of which provided increased confidence that the SoC questionnaire measures the hypothesized Stages of Concern.<sup>5</sup>

The SoC questionnaire has been used to measure the concerns of teachers at one moment in time as well as longitudinally.

Two Canadians, Cresswell and Common both found the SoC questionnaire to be an effective technique to study curriculum implementation. Cresswell,<sup>6</sup> in his study of teachers implementing an Individual Education Program, used the SoC to compare implementation before and after inservice sessions. His findings indicated tentatively that the inservice program had addressed some concerns and the teachers were progressing towards a higher level of implementation. The SoC questionnaire was assessed to be a useful instrument in examining curriculum implementation.

R. Common used the SoC questionnaire as part of his data collection in his study of the relationship between school management patterns and the degree of implementation of an innovative curriculum.<sup>7</sup> Again the SoC was deemed a useful tool for assessing curriculum implementation.

The instrument: The seven stages of concern are labelled as follows:

- |                 |                           |
|-----------------|---------------------------|
| 0 Awareness     | 4 Consequence             |
| 1 Informational | 5 Collaboration           |
| 2 Personal      | 6 Refocusing <sup>8</sup> |
| 3 Management    |                           |

Each stage is described (called definitions by Hall) in Table 2. As noted in the Literature Review, the concerns of teachers regarding an innovation develop on a continuum from concerns about self, to concerns about the innovation or the task components, and finally to concerns about the impact of the innovation on students.

This continuum of concerns is reflected in the stages as:

Stage 0, 1 and 2 - reflecting concerns about self;

Stage 3 - reflecting concerns about the task and;

Stage 4, 5 and 6 - reflecting concerns about students.

As individuals move from unawareness and non-use of an innovation into beginning use and more highly sophisticated use, it is hypothesized that their concerns develop from being most intense at Stages 0, 1 and 2, to most intense at Stage 3, and ultimately to most intense at Stages 4, 5 and 6.

The results of the SoC questionnaire can be plotted as a graph or profile. The hypothesized or expected development of concerns is depicted in Figure 1 showing the typical or expected profile of a non-user, an inexperienced user, an experienced user and a renewing user. The peak or highest stage score identifies the highest stage of concern. The non-user has the highest scores in Stage 1, 2 and 3. On the other hand an experienced user has low scores in Stages 1, 2 and 3 and tends to peak at 5 and 6.

Interpretation of profiles are based on the descriptions of Table 2. Each level of concern is identified by five different items on the questionnaire from the total of thirty-five items. The items or statements on the SoC questionnaire are included in the Appendix.

The responses to the SoC questionnaire can be compiled by hand or alternatively by computer<sup>11</sup> as was done for this study. The individual scores for each subject were listed. Profiles for each nursing school and for the total group were plotted.

Table 2

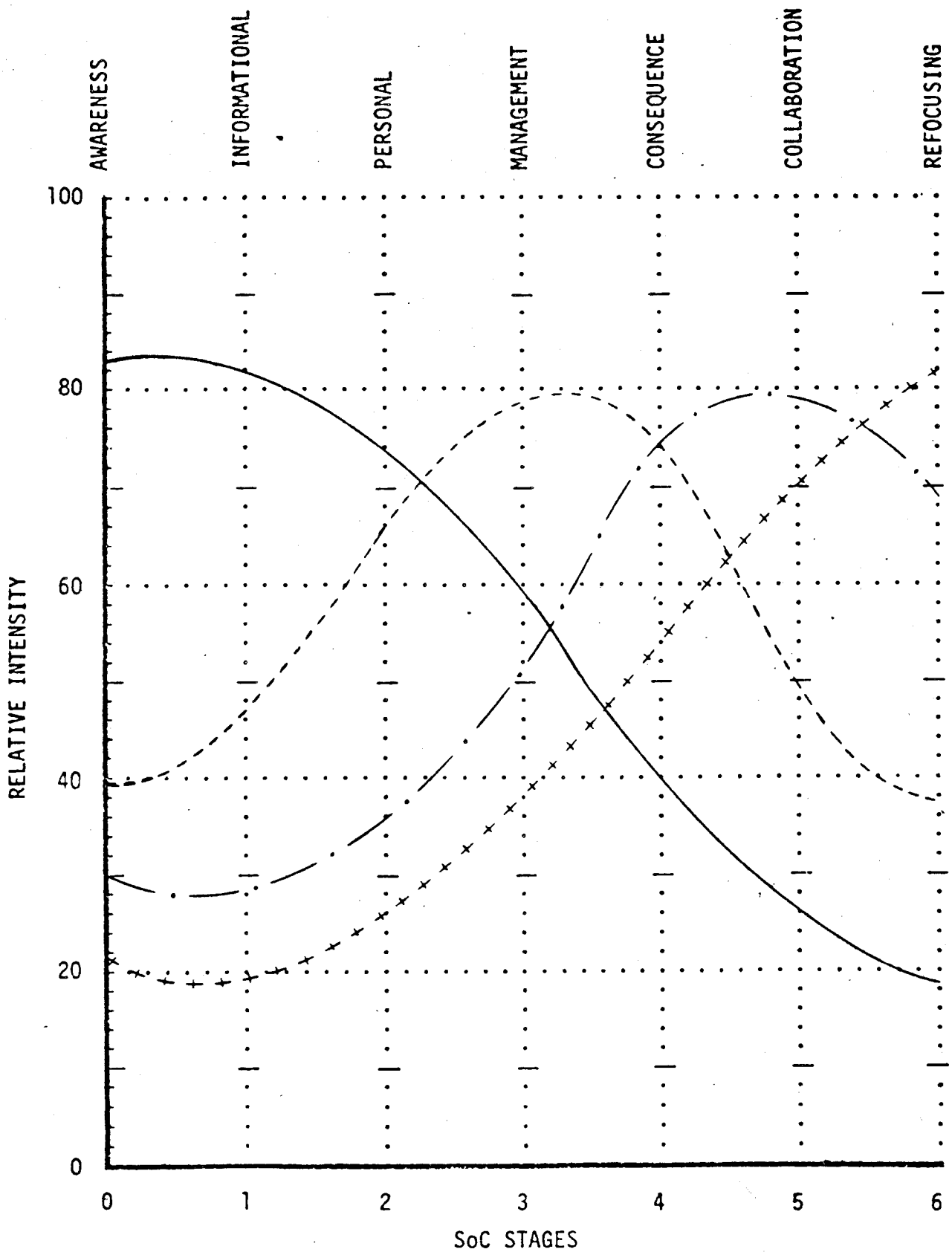
## DEFINITIONS: STAGES OF CONCERN ABOUT THE INNOVATION\*

- 6 **REFOCUSING:** The focus is on exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing form of the innovation.
- 5 **COLLABORATION:** The focus is on coordination and cooperation with others regarding use of the innovation.
- 4 **CONSEQUENCE:** Attention focuses on impact of the innovation on students in his/her immediate sphere of influence. The focus is on relevance of the innovation for students, evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes.
- 3 **MANAGEMENT:** Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.
- 2 **PERSONAL:** Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation. This includes analysis of his/her role in relation to the reward structure of the organization, decision-making and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.
- 1 **INFORMATIONAL:** A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about himself/herself in relation to the innovation. He/She is interested in substantive aspects of the innovation in a selfless manner such as general characteristics, effects, and requirements for use.
- 0 **AWARENESS:** Little concern about or involvement with the innovation is indicated.

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\*Original concept from Hall, G.E., Wallace, R.C., Jr., & Dossett, W.A. A developmental conceptualization of the adoption process within educational institutions. Austin: Research & Development Center for Teacher Education, The University of Texas, 1973.

Measurement described in Hall, G.E., George, A.A., & Rutherford, W.L. Measuring stages of concern about the innovation: A manual for use of the SoC Questionnaire. Austin: Research & Development Center for Teacher Education, The University of Texas, 1977.



— = Nonuser  
 - . - = Experienced User  
 - - - = Inexperienced User  
 x x x x = Renewing User



The SoC questionnaire while it has been shown valid and reliable, does have some inherent problems. First the guidelines are confusing in places. Second, the seven possible responses are not each individually defined. In other words, 7 meant very true of me now and 4 meant somewhat true of me now and 1 meant not at all true of me. On the other hand 2, 3, 5 and 6 on the scale were not specifically defined and were to be perceived as of an intermediate nature. It would seem preferable that all numbers on such a scale be defined so that it is clear to the subject. Furthermore, this approach essentially involves self-reporting of implementation rather than specifically focusing on implementation itself. However, the approach has been shown to be a valid and reliable one even though implementation is only inferred.

## II Identifying Factors that Affect Implementation

The SoC questionnaire focuses effectively on the instructor's concerns, about innovation. However, it does not attend to the other factors affecting implementation that were presented in the literature review. Clearly, the instructor must be understood within the context of the total setting. In order to explore this setting, which includes the factors of the manager, the nursing curriculum, and the situation, a second questionnaire was developed. This second questionnaire sought to identify the factors that affect curriculum implementation in nursing, the secondary purpose of this study. Although some research on curriculum implementation in nursing has been done, it has not been approached using the factors that have been identified from the curriculum implementation literature in education. Questionnaire two was an attempt to use this curriculum implementation data to explore curriculum implementation in nursing.

The Factors Affecting Implementation questionnaire was developed specifically for this study as no appropriate instrument could be found in the

literature. The format is based on Osgood's semantic differential scale and has three elements, namely:

- 1) the concept to be evaluated in terms of its semantic or attitudinal properties, 2) the polar adjective pair anchoring the scale, and 3) a series of undefined scale positions which for practical purposes, is not less than five or more than nine steps, with seven steps as the optimal number in the experience of Osgood, its originator.<sup>12</sup>

The concept in this study is one of the four factors e.g. the manager or nursing education leader. The polar adjective pairs are the characteristics associated with the factor, e.g. committed or not committed. The characteristic is presented as positive, or facilitating implementation, or negative, as hindering implementation. The positive end of the scale is seven with the negative end being one. As this type of scale is used to study attitudes or the affective domain, it was judged by the investigator as appropriate for the question being asked.

#### The Instrument

The subjects are asked to determine on a seven point scale their perception of characterists describing the four factors affecting implementation.

The four factors are categorized as:

1. The Nursing Curriculum based on a conceptual framework of Nursing (ie., the innovation)
2. The organizational climate (ie., the situation)
3. The nursing education leaders (ie., the manager)
4. The nursing faculty (ie., the users)

Each factor was assigned three characteristics. The characteristics influencing implementation for each category are listed in Table 3. For example, under the factor of conceptual framework of nursing, the subject was asked to rate the item as clear or confusing on a seven point scale.

e.g. clear \_ \_ \_ \_ \_ confusing

The characteristics were drawn from the literature review and were judged

as significant due to their consistent inclusion in the literature. Furthermore, characteristics were chosen that were broad and were perceived as being most reasonable and meaningful to the subjects. A pilot test gave feedback indicating that the characteristics were appropriate to the topic. The choice of characteristics was intentionally kept brief as it was meant to stimulate the subject to think about implementation and not necessarily to be all-inclusive. Immediately following the semantic differential scale, the subject was asked to list factors that facilitated or hindered implementation.

The questions asked were:

Are there other factors that have facilitated your use of the conceptual framework of nursing of your curriculum? (Please circle the appropriate number).

- 1. yes
- 2. no

If yes, please specify:

Are there other factors that have hindered your use of the conceptual framework of nursing of your curriculum? (Please circle the appropriate number).

- 1. yes
- 2. no

If yes, please specify:

### III Pilot Test

Before distribution of the questionnaire to nursing instructors, it was pilot tested on a group of ten subjects. (Eight nursing instructors, two general educators) Revisions were made following this testing to improve the wording of the guidelines of the questionnaire on Factors Affecting Implementation. The SoC questionnaire and general guidelines were not changed as per the directive of the researchers who developed it.

The subjects of the pilot test found the questionnaires to be simple and



straightforward. The questionnaire took approximately fifteen minutes to complete. It was anticipated that the four categories and selected characteristics would provoke some thinking which would result in significant comments to these two questions. Furthermore, the proceeding four categories focused primarily on teachers in general education and the aim was to elicit data specifically related to nursing instructors.

Finally, it seemed worthwhile to gather data on the priority that nursing instructors placed on the factors involved in implementation.

The following was asked of the respondents:

Rank order the following items in accordance with their degree of influence on curriculum implementation with 1 having the most influence and 4 having the least influence.

- \_\_\_ A. The Conceptual Framework of Nursing
- \_\_\_ B. The Organizational Climate
- \_\_\_ C. The Leadership
- \_\_\_ D. The Nursing Faculty

#### IV Demographic Data

The last section of the questionnaire requested demographic data. These data were collected to enhance interpretation of unusual profiles of concerns. The covering letter and three questionnaires with their guidelines appear in the Appendix.

All nursing instructors from the nine nursing diploma programs (leading to an R.N.) in British Columbia were invited to participate in the study. Eight general nursing diploma programs agreed to be included. One school declined as faculty were not available for distribution of the questionnaire. A total of 154 questionnaires were distributed.

#### VI Data Collection

The questionnaires were either mailed or delivered to the nursing schools. A contact person was assigned in each school to distribute the

questionnaires. One week following distribution the contact person distributed a reminder to all respondents. The subjects were requested to remain anonymous and to return the completed questionnaires in sealed envelopes to their contact person. The contact person returned the completed questionnaires in an addressed, stamped envelope provided by the investigator.

Ninety-three questionnaires were returned of the 154 distributed. The percentage of returned questionnaires varied in the schools from 37% to 84% with an over-all return rate of 60.4%.

All 93 questionnaires were included in the data analysis. For the total of 57 coded responses in each questionnaire, 25 subjects responded to all 57 questions. Twenty-two of the questions were not responded to by one or two subjects. Six of the 57 responses were not responded to by 6 to 8 of the subjects.

Demographic data of the subjects.

Initial preparation for practice

- 1. Diploma of Nursing (RN) Program 65.6%
- 2. Baccalaureate Program 33.3%
- 3. Other 1.1%

The number of years involved in teaching a curriculum

based on a conceptual framework of nursing:

- 1. Less than 2 years 9.7%
- 2. 2-5 years 39.8%
- 3. More than 5 years 50.5%

Present position is primarily:

- 1. Instructional 89.2%
- 2. Administrative 10.8%

The number of years employed full time (or equivalent) at present

nursing school:

- 1. Less than 2 years 15.1%
- 2. 2-5 years 45.2%
- 3. More than 5 years 39.8%

## V Data Analysis

As noted earlier, the SoC questionnaire was amenable to computer processing. The second and third questionnaire were also prepared to be processed by the computer. The peak stage scores for the individual SoC were listed. Profiles of the SoC are presented for each school and for the total group. A profile analysis was performed on the second questionnaire (Factors Affecting Implementation) and the respondents comments were transcribed and categorized. The findings from the questionnaire will be presented in the next chapter.

## VI Chapter Summary

This study used questionnaires to study curriculum implementation in nursing. The rationale for choosing the methodology and specific instruments was presented. The sample, data collection and planned data analysis were reviewed. Chapter four will present the findings.

## Footnotes

1. Hall, G., George, A. and Rutherford, W. (1979). Measuring Stages of concern about the innovation: A manual for use of the SoC questionnaire. (2nd ed.), Austin, Texas: The Research and Development Centre for Teachers Education, University of Texas.
2. Isaac, S. (1974). Handbook in research and evaluation. San Diego, Ca: Robert R. Knapp, Publisher, p. 58.
3. Hall, G., et al., 1979, op. cit.
4. Rutherford, W. and George, A. (1978). Affective and behavioral change in individuals involved in innovation implementation, University of Texas at Austin: R & D Centre for Teacher Education. Paper presented and the Annual Meeting of the American Educational Research Association. Toronto.
5. Hall, G., Et. al., (1979). op. cit.
6. Cresswell, J. (1981). Teachers and innovative practices: Some factors influencing adoption decisions. Unpublished M.A. (Education) thesis. Simon Fraser University.
7. Common, Ron (1979). An investigation of the relationship between school management patterns and the degree of implementation of an innovative curriculum. Unpublished PH.D. dissertation. Ottawa, University of Ottawa.
8. Hall, G. et. al., (1979). op. cit.
9. Hall, G. et. al., (1979). op. cit.
10. Hall, G. et. al., (1979). op. cit.
11. Hall, G. et. al., (1979). op. cit.
12. Isaac, S. (1974). Handbook in research and evaluation. San Diego, Ca: Robert R. Knapp, Publisher, 102.



## Chapter 4

### Findings

#### I. Introduction

The primary purpose of this study is to examine nursing instructors' implementation of curricula based on conceptual frameworks of nursing. The SoC questionnaire was used to gather data to attempt to determine the extent of implementation of the innovation.

The SoC data will be presented as percentile scores for the 93 subjects. Each subject will have 7 different scores. The percentile scores of each school and of the total group also will be presented in a graphic format called profiles. The SoC profiles will be interpreted, for each school and also for the total group, based on the guidelines in Measuring Stages of Concern about the Innovation: A Manual for Use of the SoC Questionnaire.<sup>1</sup>

The secondary purpose of the study involved identifying factors that affect curriculum implementation in nursing education. The Factors Affecting Implementation Questionnaire collected data from the subjects regarding their perceptions of what influences curriculum implementation in nursing.

The data from the Factors Affecting Implementation Questionnaire will be presented in tables as appropriate. Measures of central tendency will be presented in graphs to show the subjects' perceptions of the factors. A summary of comments made by the subjects regarding factors facilitating and hindering curriculum implementation will be presented.

#### II. The Extent of Curriculum Implementation

The Stages of Concern Percentile Scores for the 93 subjects are

listed in Table 4. The first column of figures represents the schools and the second column represents the individual subjects. The third through the seventh or last column represents the seven Stages of Concern. The seven Stages of Concern range from Stage 0 or Awareness to Stage 6 or Refocusing. Each subject has a separate score for each Stage of Concern. The stage score may range between 0 and 99. The higher the score the higher the concerns reported by the subject. The peak score or highest stage of concern is circled for each subject. All 93 subjects have been included in the table. (Due to an error in tabulation there are two subjects listed as 012 and two listed as 078 for a total of 93 subjects. This error does not affect the findings.) At the end of the table the grouped data is presented. The mean score for all 93 subjects for each stage is listed. The frequency of high or peak scores for each stage is also listed.

All seven stages of concern are represented as peak scores by the data in Table 4. Percentile scores are used because they are more easily compared than raw scores. Raw scores are available from the investigator. The SoC computer program which converts the raw scores to the percentile scores was checked by hand scoring four of the questionnaires using the method outlined in Measuring Stages of Concern about the Innovation: A Manual for Use of the SoC Questionnaire.<sup>2</sup> The Stages of Concern raw score - percentile conversion chart for the Stages of Concern questionnaire is based on the responses of 646 individuals selected from a stratified sample of individuals from elementary schools and higher education institutions with a range of experience with the innovation of teaming or modules.<sup>3</sup>

In analyzing the scores of the 93 subjects a wide range of scores can be identified. For example, the first subject 001 from school 01 had a peak score at Stage 5 which indicates that the subject's highest concerns were in the area of collaboration or working with others on the innovation.

Table 4 - The Stages of Concern Percentile Scores

School	Subject	Awareness	Informational	Personal	Management	Consequence	Collaboration	Refocusing
		0	1	2	3	4	5	6
01	001	60	16	35	15	92	95	73
01	002	37	0	0	60	48	25	34
01	003	84	84	92	83	76	68	95
01	004	37	37	59	15	43	28	42
01	005	53	12	0	43	66	19	20
01	006	66	16	25	34	38	52	60
01	007	37	19	28	15	24	72	73
01	008	53	37	55	34	66	48	34
01	009	37	63	52	56	59	68	87
01	010	60	51	63	34	11	52	57
01	012	91	84	91	88	30	52	69
01	011	53	23	28	65	33	36	69
01	012	0	12	12	23	13	48	90
01	013	84	12	12	56	33	59	26
01	014	23	12	0	7	24	31	81
01	015	37	19	12	39	54	48	73
01	016	91	90	87	52	43	31	52
01	017	81	63	63	15	38	76	77
01	018	53	27	25	15	8	52	34
01	019	46	57	63	60	71	80	84
01	020	77	83	76	43	43	44	38
02	021	23	30	45	47	54	84	34
02	022	53	80	83	60	71	95	42
02	023	53	12	0	15	27	76	26
02	024	66	12	21	77	90	72	92
02	025	53	57	70	90	71	80	77
02	026	46	12	39	11	76	93	69
03	027	53	34	52	60	54	76	92
03	028	66	51	41	23	21	36	52
03	029	77	34	0	15	7	91	73
03	030	91	72	72	83	5	48	69
03	031	86	80	87	73	63	44	73
03	032	53	54	87	30	54	25	34
03	033	46	96	95	60	82	98	81
03	034	66	91	89	56	38	76	81
03	035	46	12	17	5	5	5	22
03	036	46	23	28	39	66	48	81
03	037	60	91	91	56	95	72	84
03	038	66	75	85	56	54	64	69
03	039	81	37	63	43	43	28	34
03	040	0	0	0	39	64	36	30

School	Subject	0	1	2	3	4	5	6
03	041	53	16	0	73	43	80	52
03	042	23	16	12	1	66	28	22
03	043	94	66	59	69	9	44	30
03	044	89	99	99	27	96	91	60
03	045	85	45	45	15	48	68	20
03	046	77	60	31	27	43	31	38
03	047	66	80	83	47	54	68	84
03	048	0	0	0	11	2	0	0
04	049	84	75	67	52	59	72	26
04	050	86	88	76	34	33	55	47
04	051	85	16	17	7	7	55	30
04	052	81	96	83	18	59	98	52
04	053	23	12	0	7	19	0	0
04	054	57	27	28	30	30	36	30
04	055	91	40	25	15	5	12	20
04	056	29	19	0	9	8	3	14
04	057	95	12	12	11	63	19	26
04	058	29	16	21	27	1	0	6
05	059	37	43	52	27	59	44	60
05	060	60	51	67	90	54	55	73
05	061	46	12	0	7	38	19	17
05	062	37	16	12	11	5	25	26
05	063	23	37	25	0	27	52	6
05	064	29	16	35	11	54	68	47
05	065	66	43	28	18	8	72	34
05	066	53	93	85	34	86	98	94
05	067	84	72	41	15	71	72	47
05	068	0	12	21	27	90	31	92
05	069	98	88	92	9	82	64	82
06	070	91	93	99	98	71	80	77
06	071	84	30	21	60	54	34	42
06	072	37	27	45	39	30	68	47
06	073	72	80	76	60	76	64	52
06	074	60	99	97	99	63	64	81
07	075	53	91	95	80	63	76	88
07	076	81	45	31	18	21	55	69
07	077	60	75	72	56	21	55	42
07	078	66	84	48	39	66	72	87
07	078	53	40	59	30	66	49	89
07	079	72	45	52	52	33	52	65
07	080	85	75	83	43	54	64	69
07	081	0	84	83	30	82	68	77
08	082	37	34	0	52	33	95	81
08	083	60	16	41	92	59	64	87
08	084	72	12	0	11	21	48	20
08	085	77	19	12	18	27	64	14

School	Subject	0	1	2	3	4	5	6
08	086	37	12	17	27	30	44	52
08	087	95	88	76	47	63	64	22
08	088	84	72	63	47	30	40	42
08	089	53	12	25	23	24	93	22
08	090	37	37	35	11	33	76	6
08	091	84	54	78	77	90	88	60

Group of 93 Cases for schools 01-08

GROUP PROFILE N=93

	0	1	2	3	4	5	6
MEAN	58	46	46	39	46	56	53
HI SoC: FREQ	32	6	9	6	5	16	19
PERCENT	34	6	10	6	5	17	20

On the other hand, the low score at Stage 3 indicates that this subject had few concerns about actually managing the innovation. In the grouped data at the end of Table 4 peak scores are noted for all stages. The highest frequency of peak scores was in Stage 0 with 32 subjects. The second and third stages with peak scores were stages 5 and 6 with 16 and 19 subjects respectively. These data reveal that the subjects varied in their concerns about the innovation under study.

Following the review of the individual subject's scores, the data were grouped into eight schools for ease of interpretation and presentation. The schools were identified as O1 to O8.

Figures 2 to 10 present the profile SoC for the eight schools and also for the total group. The interpretation for each profile accompanies the graphs.

All of the seven stages of concern from 0 (informational) to 6 (refocusing) are represented as peak scores for the subjects in this study (Table 4). This representative finding is typical according to Hall and his associates. The SoC researchers note that within any one school there are frequently teachers at a number of stages, as was the case in this study. Stated another way, the subjects had different concerns about implementing a curriculum based on a conceptual framework of nursing. Because concerns precede implementation, it can be interpreted that there are varying levels of implementation of curricula based on a conceptual framework of nursing. For example, Subject O20 of school O1 had intense stage 1 or informational concerns, and therefore was gathering information in order to implement the innovation. In contrast, Subject O13 of school O1, had intense refocusing concerns and was ready to revise or change the curriculum. Both subjects were from the same school. Generally speaking therefore, each

Figure 2 - SoC Profile - School 01, N=21

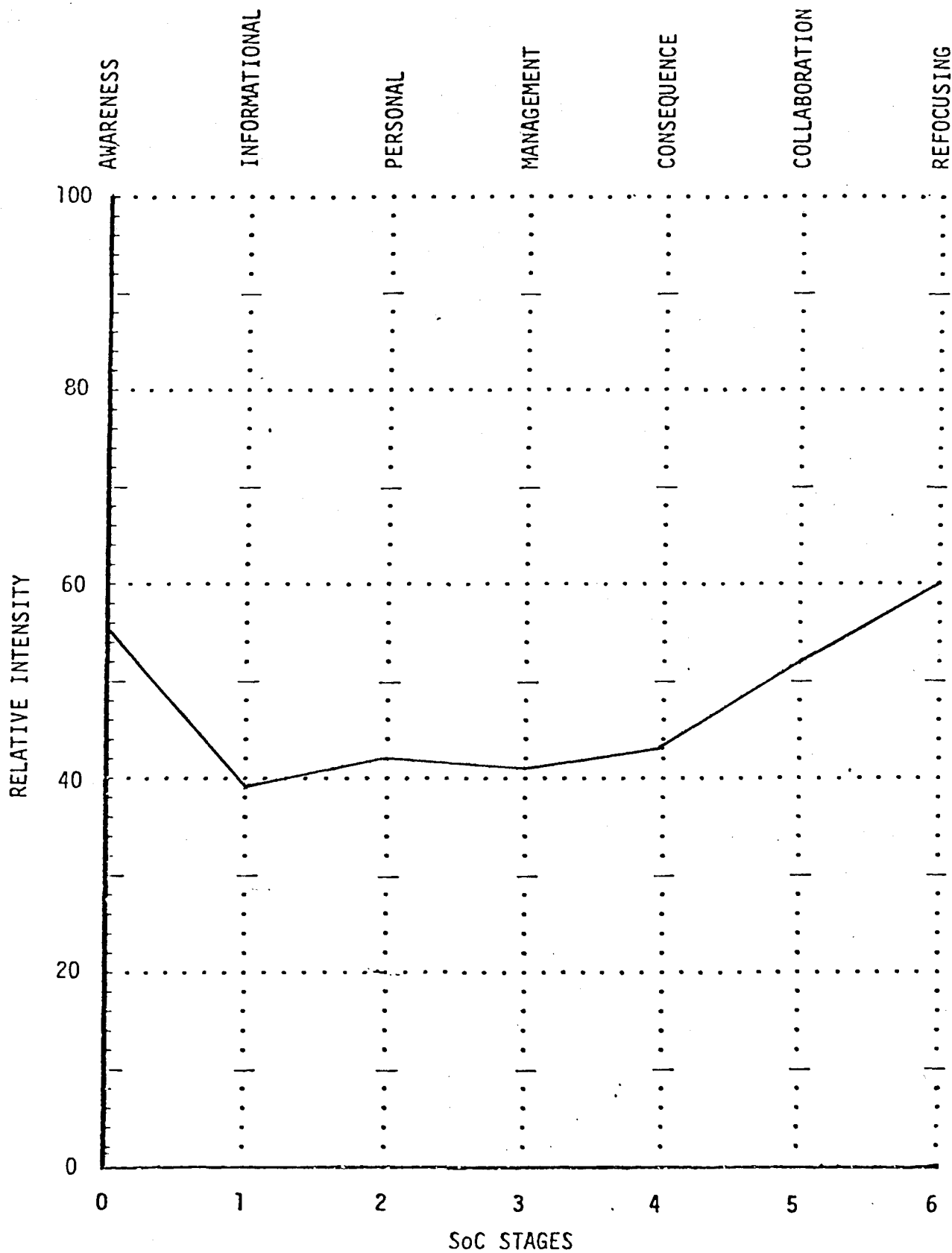
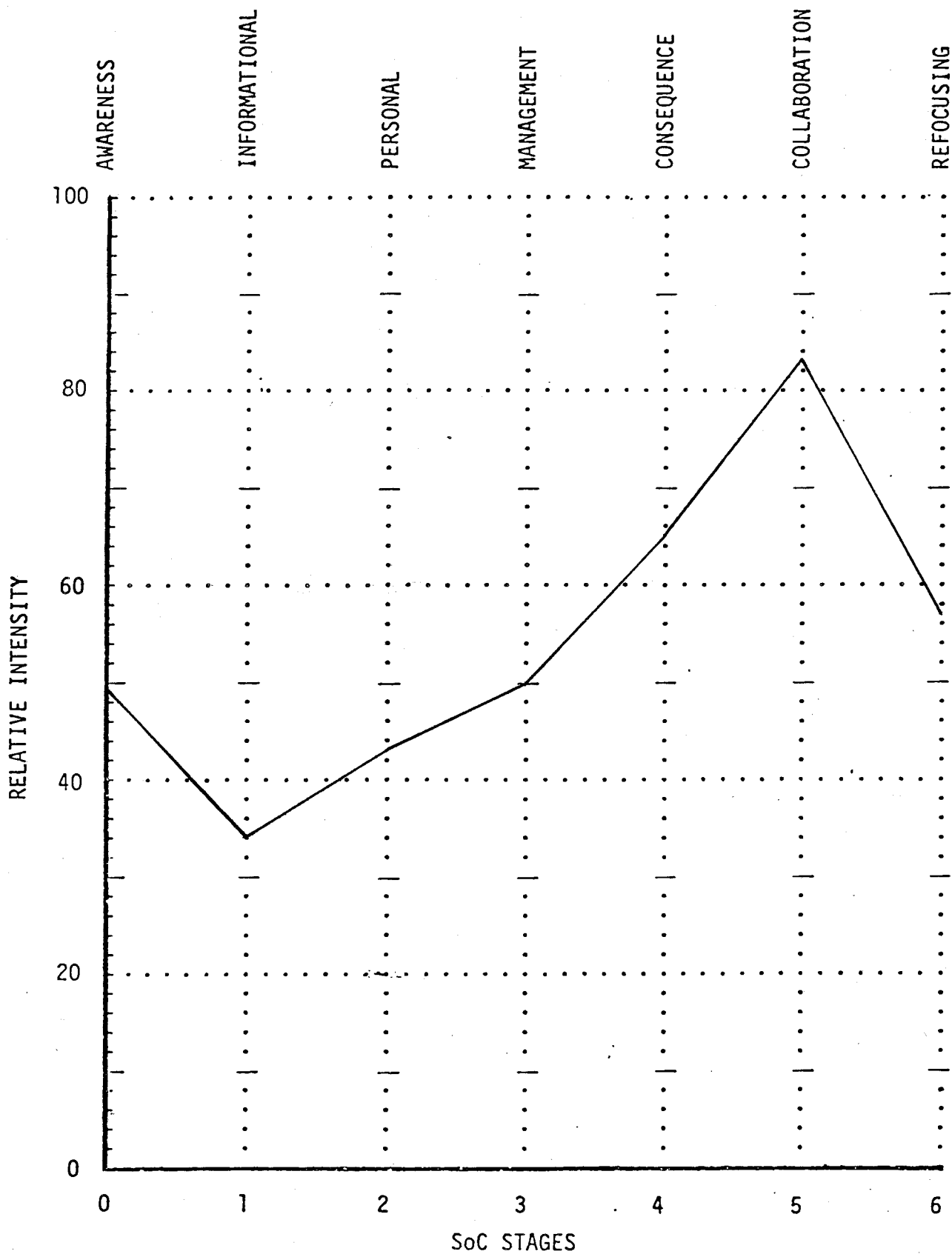
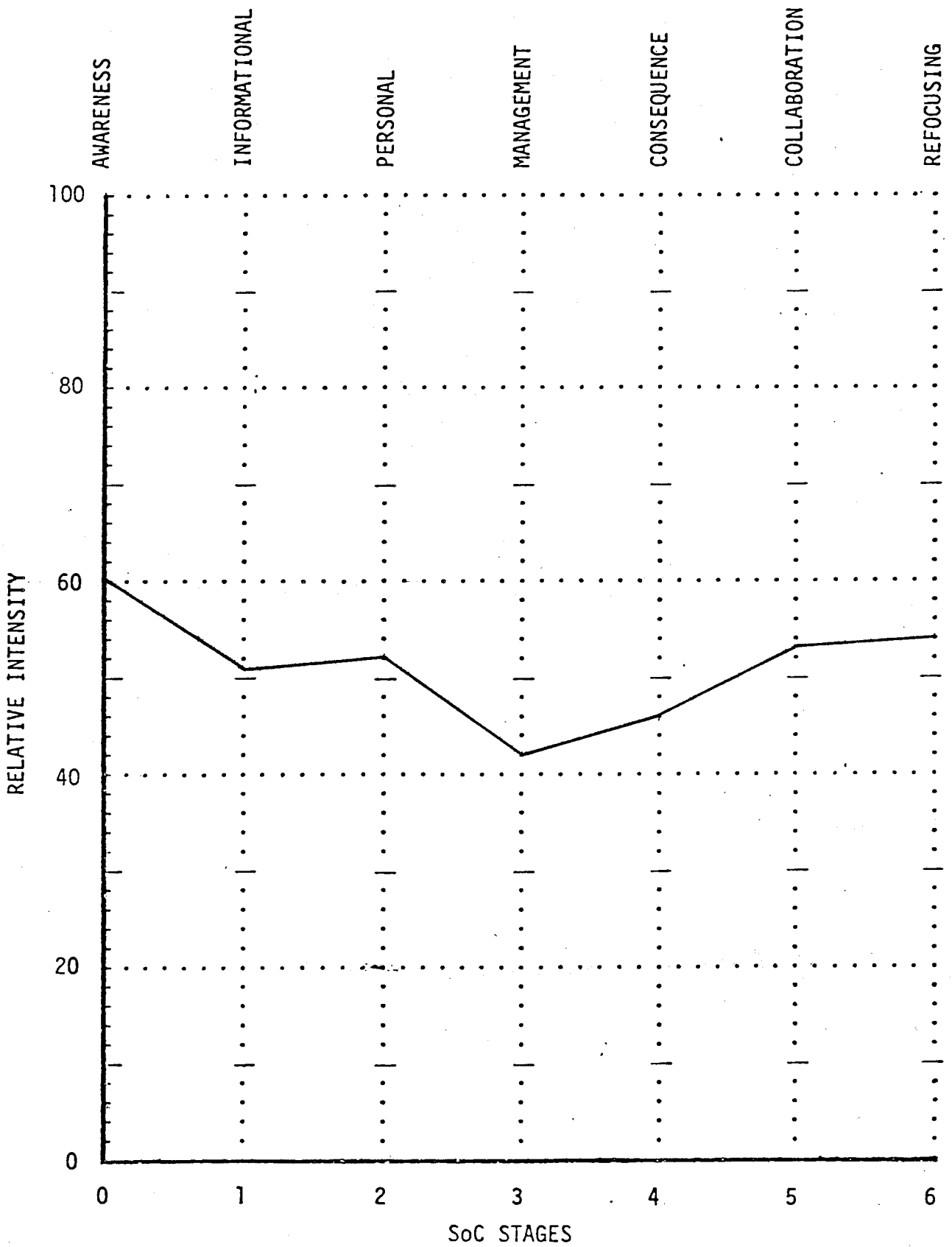
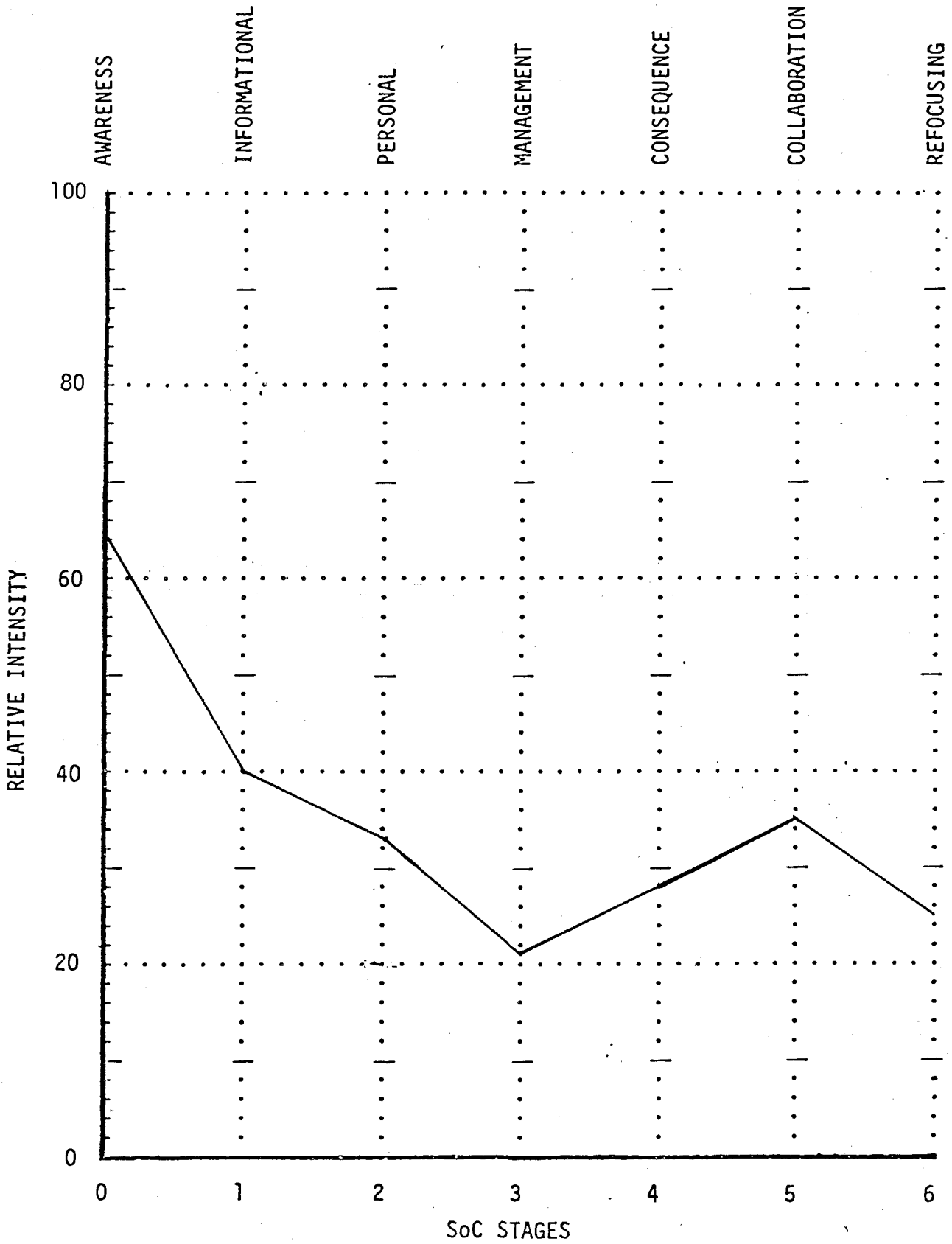


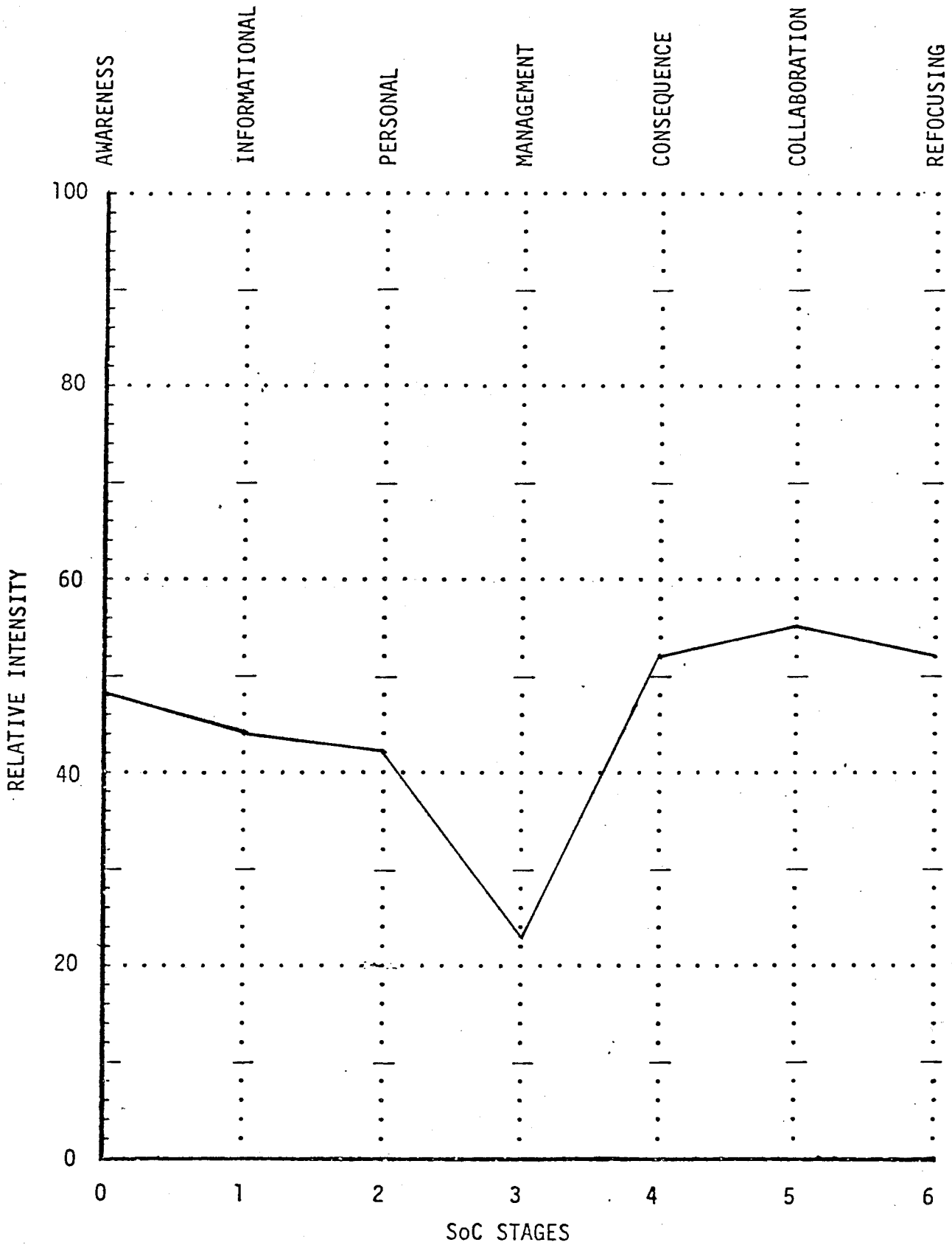
Figure 3 - SoC Profile - School 02, N=6

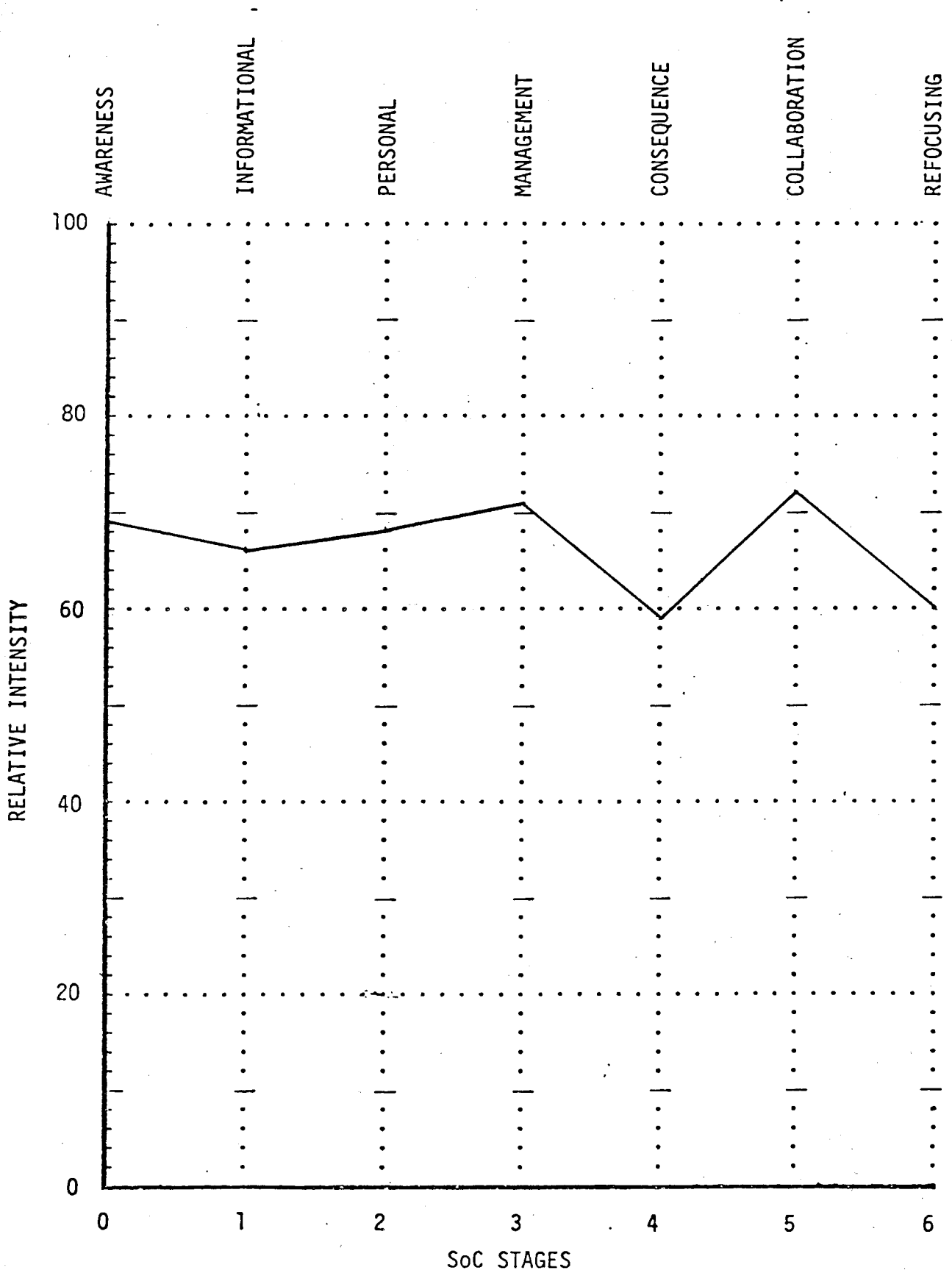


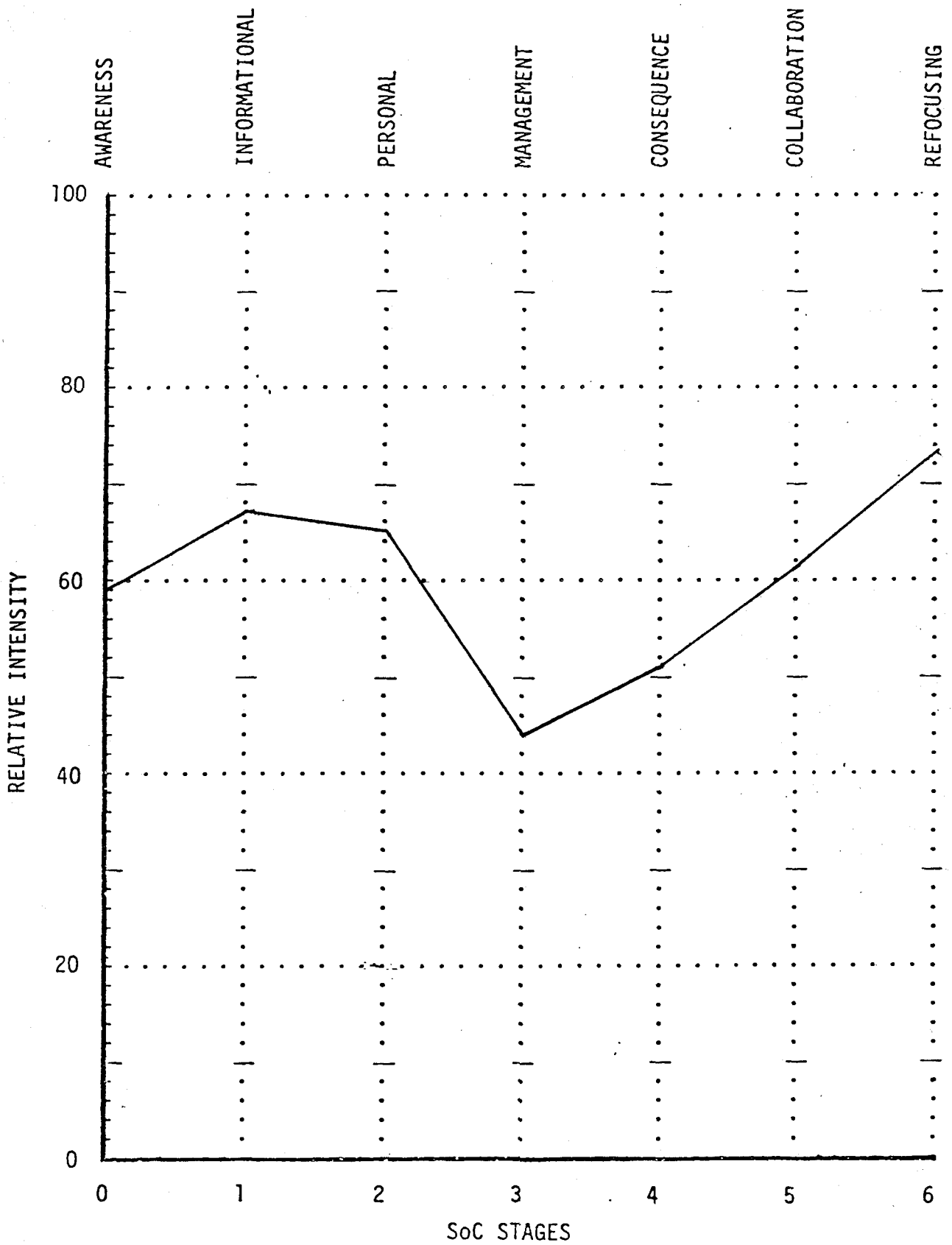












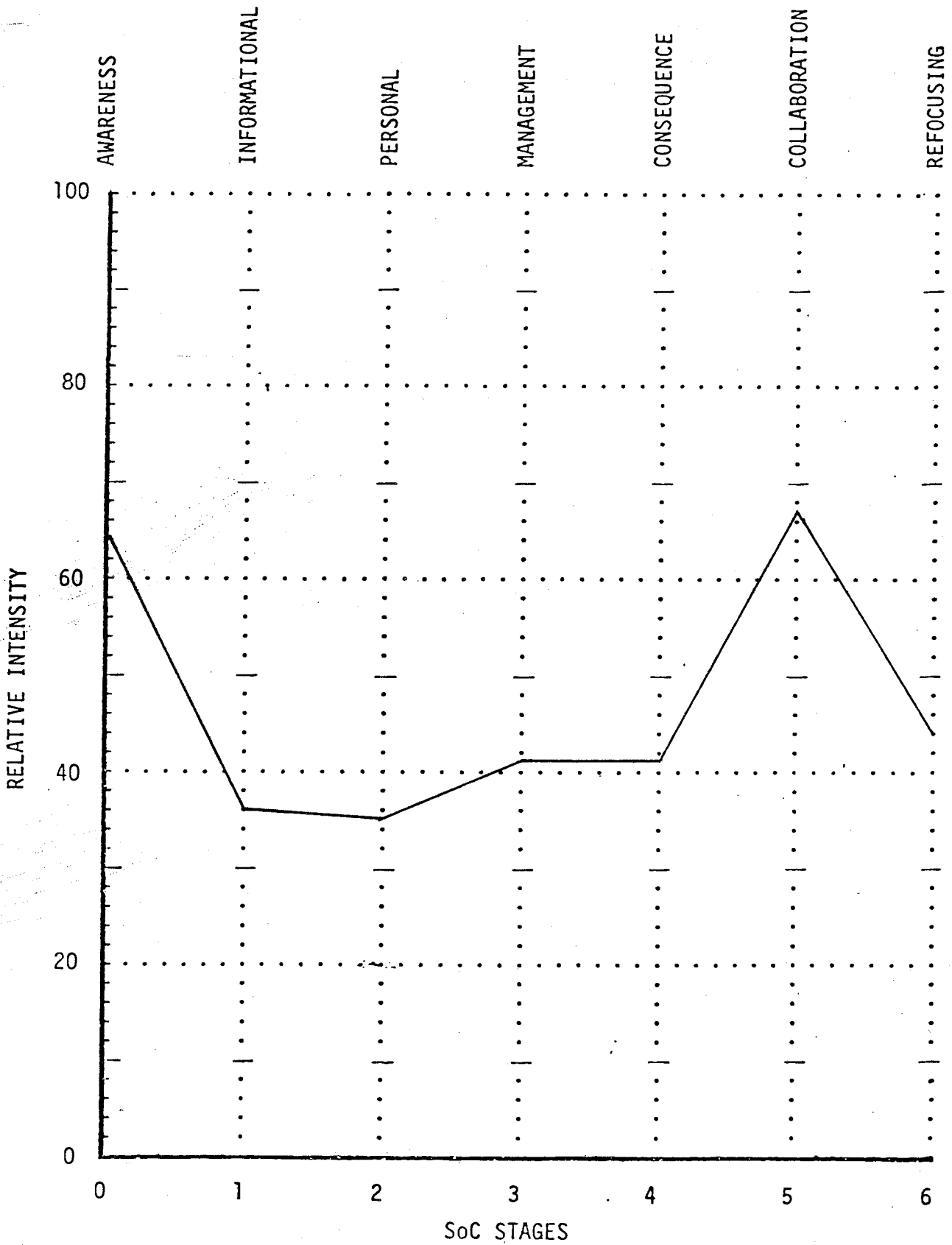
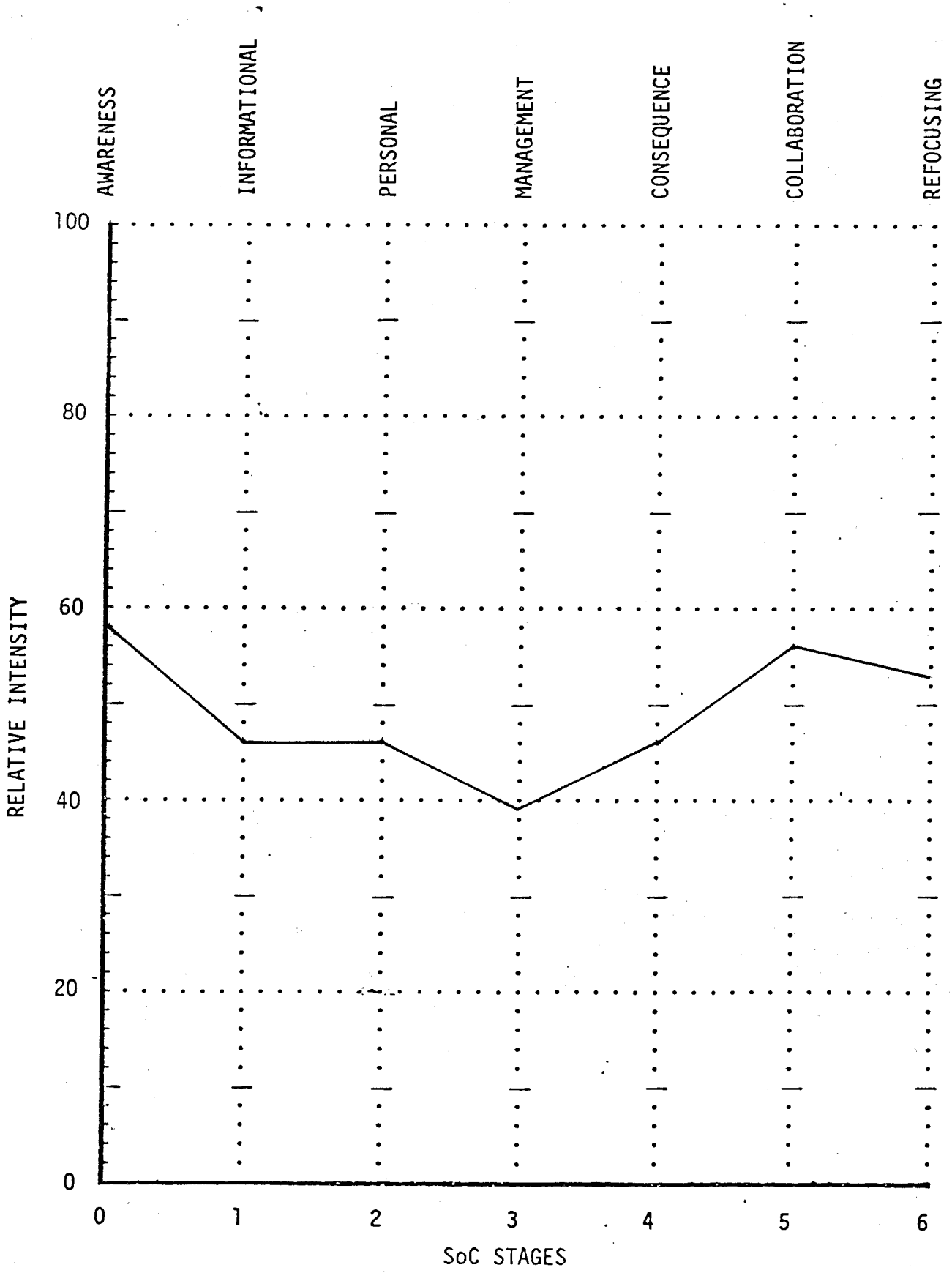


Figure 10 - SoC Profile - Total Group, N=93



school had subjects who had different stages of concern reflecting different levels of implementation.

### Profile Interpretation Guidelines

The Stages of Concern profile interpretation is based primarily on the highest or peak score. Hall notes that of the remaining six scores, those that are twenty percentile points below the peak score do not account for many concerns. Hall and his associates also note that the most frequently occurring peak scores are at stages 3, 4, 5 or 6.<sup>4</sup>

The concerns of individuals who appear not to be using the innovation are normally highest at Stage 0, 1 or 2 and lowest at Stages 4, 5 and 6. However, interpreting a high Stage 0 score is more complex than other scores. While generally the peak score indicates high concerns for that stage, this does not hold true for Stage 0. A high Stage 0 score can be interpreted to mean low concerns, knowledge, attention or interest regarding the innovation. A high Stage 0 score is considered to be above the 75th percentile. Stage 0 scores are considered low when they are below the 40th percentile. Low stage 0 scores indicate high concerns about the innovation. Hall notes that subjects who are experienced in using an innovation and who are no longer particularly concerned about it will have a high Stage 0 score (60-80%).<sup>5</sup> Associated with this higher stage 0 score is a low stage 1 and 2. Their second highest score is usually at 3, 4, 5 or 6.

Another profile, although less frequently found, is the multiple peak profile. A second high score within 20 percentile points of the peak score results in a multiple peak profile. Usually the multiple peaks occur in adjacent stages such as Stage 5 and Stage 6.

Interpretation of the profiles for this study focused on the peak



scores with special reference to a second peak within twenty percentile points. The Stage 0 score was interpreted separately in terms of whether the subjects had high or low concerns. The interpretation of the SoC profile for each of the eight schools and for the total group follows.

1. School 01 - (21 subjects) The first school had a peak score of 60 for Stage 6 with the second highest score of 55 at Stage 0. A high 6 (Refocusing) score indicates that the subjects had ideas about how to improve the use of the innovation. In fact, they may have ideas that would result in replacing or drastically altering the innovation from its present form. The second peak score at Stage 0 indicates low concerns, knowledge, attention or interest in the innovation, but not necessarily all of these. Usually this is because the subjects are concerned about other things.

In reviewing individual scores for school 01 there are subjects with widely different peak scores. Of the 21 subjects in this group, 9 had peak scores in Stages 5 and 6 indicating concerns about collaboration and refocusing. High concerns at Stage 5 and 6 generally would be interpreted to mean that the innovation is being used. On the other hand, seven subjects had peak scores at Stage 0 (Awareness) and Stage 1 (Informational) indicating only beginning use of the curriculum.

2. School 02 - (6 subjects) The peak score of 83 at Stage 5 (Collaboration) indicates that these subjects had concerns about working with others in relation to the innovation. The score of 49 at Stage 0 reflects a desire to learn from what others know and are doing rather than a true concern for collaboration. The peak score at Stage 5 could be interpreted to mean that the innovation was being used by the subjects.

3. School 03 - (22 subjects) The peak score of 60 for this school was Stage 0 or Awareness. The SoC researchers state that a high Stage 0 score

indicates low concerns, knowledge, attention or interest, but not necessarily all of these. The second highest score at 6 (Refocusing) with a high Stage 0 score might be interpreted to mean that these subjects are experienced in the use of the curriculum and they are concerned about other things. However, because all scores range from 42-60 with no clear peak stages, interpretation is difficult as there are no truly focused concerns. Reviewing the individual scores indicates that 15 subjects had high concerns for Stages 0, 1 and 2, while 8 had high concerns for Stages 3 through 6. The high concerns at 0, 1 and 2 would lead to the inference that there are a number of subjects that are not using or are only beginning to use the curriculum. On the other hand, the high scores at Stages 3 through 6 reveal a higher level of use of the innovation.

4. School 04 - (10 subjects) The peak score at Stage 0 (64%) indicates low concerns, knowledge, attention or interest regarding the innovation. This can be interpreted to mean that the subjects are not concerned about the innovation and are probably concerned with other things. The second highest score at Stage 1 is only at the 40th percentile which does not indicate many concerns at this stage either. Because of the generally low level of concerns it is not feasible to suggest the extent of implementation.

5. School 05 - (11 subjects) The peak score at Stage 5 (Collaboration) with a high Stage 4 (Consequence) and 6 (Refocusing) indicates that the subjects are highly involved and concerned about the broad range of impact of the innovation. These concerns relate to the impact of the innovation on students.

6. School 06 - (6 subjects) This profile has no clear peak stages which results in multiple stages of concern or no clearly focused concerns.

The highest score at Stage 5 (Collaboration) indicates that the subjects had concerns about a collaborative effort in relation to other high stage concerns. With Stage 1 also being high, the major concerns of the subjects may be in relation to looking for ideas from others, reflecting a desire to learn from others rather than to collaborate. In reviewing the individual scores, four of the subjects had peak scores at Stages 0, 1 and 2. This could be interpreted to mean that the subjects were still at the stage of collecting information about the innovation and thus only beginning to use it.

7. School 07 - (8 subjects) The peak score at Stage 6, (Refocusing) reveals that the subjects had ideas about how to improve use of the innovation. It may also mean that the subjects had other ideas about the innovation and were concerned about seeing them put into practice or at least tried. However, Stage 0, 1 and 2 should be low to support this interpretation which is not the case for this school.

A review of the individual group scores shows that only 3 of the 8 subjects are at the refocusing stage while the other five had peaks at Stages 0 and 1. Very different stages of concern are found at this school and consequently the extent of use of the innovation will also vary.

8. School 08 - (10 subjects) With a peak score at Stage 5 (Collaboration) these subjects had concerns about working with others in relation to the innovation. A second peak at Stage 0 (Awareness) indicates that there were low concerns, knowledge, attention or interest regarding the innovation. The peak at 5 with a second peak at 0 could be interpreted to mean that these subjects are experienced in using the innovation.

Interpretation for Total Group - (93 subjects) The peak score at Stage 0 (Awareness) with a second peak at Stage 5 (Collaboration) could be interpreted to mean that the subjects are experienced in using the innovation and are more concerned about other things not related to the innovation. Again, a high Stage 0 reveals low concerns. In order to interpret the subjects as experienced in using the curriculum, Stage 1 and 2 should be low, with the second highest stage score in Stages 3-6. This is the case for this profile.

The frequency of high SoC scores for the total group was presented in Table 4. Forty of the 93 subjects had peak scores at Stages 4 through 6 while 32 subjects had a peak score at Stage 0. Stages 1 through 3 had the fewest peak scores (21 subjects). This would support the interpretation that the majority of the subjects are sophisticated in their use of the curriculum. Their concerns do not relate to self or the task of using the innovation. Rather, they are concerned about the impact of the innovation on students as represented by the highest stages of concern, Stages 4, 5 and 6. Hall and his associates note that as teachers move from concerns about self and the task function they move from no use to beginning use of an innovation. As concerns develop and become more intense in regards to the impact on students teachers' use of the innovation becomes more sophisticated.

### III. The Identification of Factors that Affect Curriculum Implementation In Nursing

The second purpose of this study was to identify the factors that affect curriculum implementation in nursing. The questionnaire items were based on the curriculum implementation literature. The first part of the questionnaire dealt with the four items or categories of: the

innovation (the curriculum based on a conceptual framework of nursing), the situation (the organization and climate), the manager (the nursing leader) and the user (the nursing instructor).

For the four items - conceptual framework of nursing, organizational climate, nursing leadership and nursing faculty, a total of twelve characteristics were rated from 1 (negative) to 7 (positive) by the subjects. The characteristics are listed to the extreme left and right of Table 5. The schools are identified as O1 to O8 with the number of subjects noted as N for each school. The mean score for each of the characteristics of each school and for the total group are presented in the nine columns. Figure 11 presents a graphic representation of the mean responses of two schools (school O8, O3) and the mean of all schools. The subjects in school O8 perceived the factors in the most positive manner while school O3 perceived the characteristics in a negative manner. The most centrally located graph is the mean of all subjects.

Next, each subject was asked to rank the four factors that affect implementation from one to four, with one being the most influential. The ranking of the four factors by the subjects produced the following results:

	Mean	Rank*
Nursing Faculty	2.14	1
Leadership	2.26	2
Conceptual framework of nursing	2.35	3
Organizational climate	3.24	4

\*1 - most influential

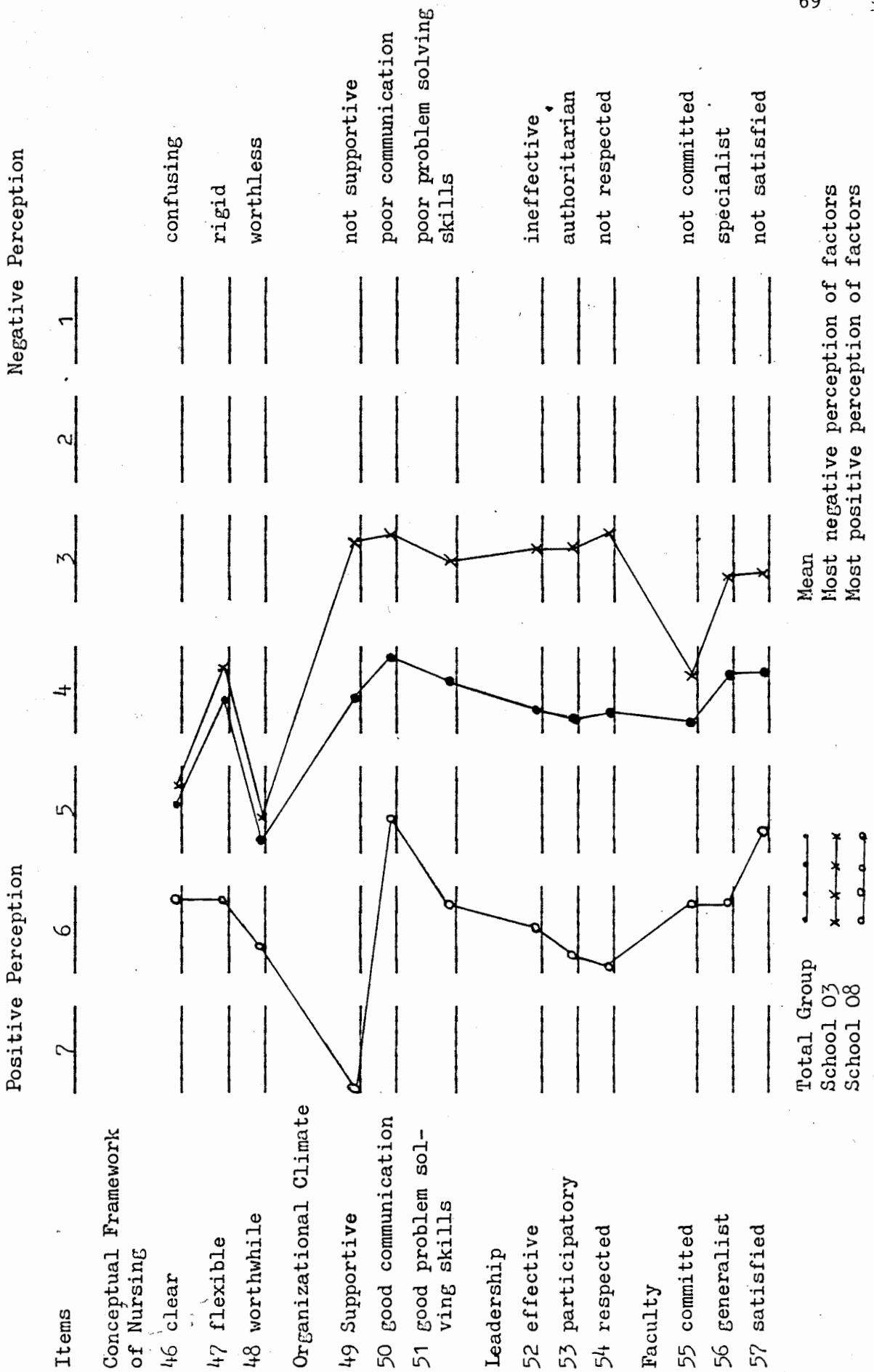
4 - least influential

The item that was regarded as having the most influence on implementation was the nursing faculty. That is, the subjects see their role and that of their peers, as having the most influence on curriculum

Table 5 - Mean rating per characteristic for Factors Affecting Implementation

Items	School - 01 Subjects - N=21	02 N=6	03 N=22	04 N=10	05 N=11	06 N=6	07 N=8	08 N=10	Total N=93
Conceptual framework of nursing									
46 clear	5.05	5.33	5.32	6.50	5.64	5.80	4.75	6.11	5.48 confusing
47 flexible	4.57	4.67	4.23	5.10	4.73	3.00	4.86	6.11	4.66 rigid
48 worthwhile	5.65	6.17	5.68	6.20	5.90	6.40	6.00	6.67	5.96 worthless
Organizational climate									
49 supportive	4.05	5.33	3.27	5.80	5.27	4.80	4.86	7.00	4.69 not supportive
50 good communication	3.10	4.67	3.19	5.60	4.82	3.20	4.50	5.67	4.08 poor communication
51 good problem solving	3.60	4.83	3.54	6.10	4.64	3.80	4.63	6.11	4.41 poor problem solving
Leadership									
52 effective	3.80	4.17	3.41	6.80	5.09	5.20	5.86	6.56	4.75 ineffective
53 participatory	4.05	6.50	3.46	6.50	5.18	2.80	6.63	6.78	4.89 authoritarian
54 respected	3.60	4.83	3.36	7.00	5.46	4.40	6.13	6.89	4.81 not respected
Faculty									
55 committed	4.05	5.67	4.46	5.70	4.82	5.60	5.25	6.11	4.92 not committed
56 generalist	3.55	5.50	3.91	4.60	4.46	3.00	5.25	6.11	4.36 specialist
57 satisfied	3.38	4.17	3.82	5.90	4.64	4.00	4.50	5.89	4.34 not satisfied
Kendal coefficient of Concordance									
	0.001	0.003	0.104	0.001	0.058	0.669	0.041	0.005	0.001

Figure 11 - Graph of Factors Affecting Implementation



implementation. The nursing leadership was perceived as the next most influential factor affecting implementation, with the curriculum ranked as third. Although the ranking order can be easily distinguished for the first three factors, it is important to note that there is little difference between rank 1 and 2 and rank 2 and 3. The organizational climate was regarded as the least influential of the four factors.

A Kendal Coefficient of concordance was performed to assess the consistency among the subjects in the ranking of these four factors.<sup>6</sup> Assessing a coefficient of less than 0.05 as significant, schools 01, 02, 04, 07, 08 and the total group showed a reliable consistency among the subjects in their ranking of the four items for their individual schools and within the total group. The Kendall coefficients of concordance are listed in Table 5.

The subjects were asked for their comments regarding factors that affect implementation in the following questions: Are there factors that facilitated use of the conceptual framework of nursing of the curriculum?

Yes - 51 subjects

No - 36 subjects

No response - 6 subjects

Are there factors that hindered use?

Yes - 51 subjects

No - 35 subjects

No response - 7 subjects

The majority of subjects (54.8%) documented factors that facilitated or hindered their use of the conceptual framework of nursing of their curriculum.

The original responses of the subjects regarding factors that either



facilitate or hinder curriculum implementation are included in the appendix. In the following section the responses will be summarized and discussed under the four categories presented in Chapter 2. These categories were extrapolated from the literature on curriculum implementation. The four categories are: the user - the nursing instructor; the innovation - the curriculum based on a conceptual framework of nursing; the situation - the nursing school; and the manager - the nursing school leader. Within each of the four categories, the frequency of the responses made by the subjects will be noted in brackets. Although most responses had a clear intent, occasionally comments were very brief and therefore could not be interpreted further. Many of the responses that were perceived as facilitating or hindering implementation have been previously cited in the literature review. However, a number of responses appear to be particular to nursing curriculum and will be noted as such.

#### a) The User - Facilitating and Hindering Aspects

The most frequently reported factor affecting the user or nursing instructor was knowledge of and experience with conceptual frameworks of nursing (27). Lack of academic preparation regarding these frameworks was cited in ten of these cases as hindering implementation. Tied closely with experience in using conceptual frameworks of nursing was actual practice of the profession. In the view of the subjects, the more years of experience the nursing instructor has, the more able she would be to implement a conceptual framework of nursing.

Orientation to the conceptual framework of nursing of the curriculum as well as conceptual framework were cited as significant by twenty subjects. Inservice training was frequently cited as significant in the curriculum implementation literature. However, the training aspect

may not need to be formal as ten subjects note that personal encounters and individual assistance from colleagues were perceived as very helpful.

Personal interest in the study of conceptual frameworks of nursing and commitment to using them in nursing education were perceived as facilitative (5). On the other hand, apathy and general resistance to change by the subjects (6) were noted as having a hindering effect. Allegiance to other nursing models, such as the medical model, was also cited by the subjects as hindering curriculum implementation (5).

Participation in developing the curriculum was noted by six subjects as facilitating implementation. This finding is consistent with the claim in the implementation literature that participation in decision making about the curriculum facilitates curriculum implementation. Having the opportunity to teach the curriculum to different levels of students was seen as being facilitative in one case.

#### b) The Manager - Facilitating and Hindering Aspects

The lack of an identified, knowledgeable leader to assist the implementation was cited most frequently by the subjects as hindering implementation (7). Rigid control of the nursing faculty by the nursing leader was also seen as a negative factor (1). A participatory management style in which decisions about the development and implementation of the innovation were shared, was seen as facilitative. The subjects cited experience in the management role (2) and commitment to the conceptual framework of nursing (2), as facilitative characteristics of the manager. Furthermore, a manager who ensured that there were good resource people to assist with implementation was seen as facilitating implementation. These facilitating and hindering characteristics identified by the subjects are consistent with those in the curriculum im-

plementation literature.

c) The Innovation - Facilitating and Hindering Aspects

If the conceptual framework of nursing was accepted and valued by instructors, implementation was facilitated (13). Also, a straight-forward and practical (5) conceptual framework was perceived by instructors as facilitating implementation. However, five subjects noted that problems with the structure of the conceptual framework hindered implementation. Furthermore, four subjects noted problems with interpreting the conceptual framework of nursing. In other words the complexity of the innovation, as perceived by instructors, hindered implementation. Once again, the comments of the subjects match the curriculum implementation literature. The characteristics of practicality, simplicity and commitment to the innovation have been cited as facilitating curriculum implementation in the literature review.

d) The Situation - Facilitating and Hindering Aspects

A number of characteristics of the situation were cited by the subjects as facilitating implementation. First, adequate resources such as time, budget, people and support systems such as curriculum committees were perceived as being important (4). The accreditation process of the professional association was documented as both facilitating and hindering curriculum implementation. This discrepancy is explained by the different perceptions of the purpose of accreditation. Some subjects view the nursing association as supporting high standards in education and facilitating curriculum implementation. On the other hand, others perceive the association as overly involved, resulting in a long, tedious and costly accreditation process which hinders implementation. Significantly, in nursing education, each school is responsible for developing its own

curriculum while the professional association is responsible for ensuring that certain criteria or standards are met. The nursing association has the mandate to enforce this approach in nursing education in British Columbia.

An organization that was negative towards the innovation, as evidenced by mistrust and poor communication, was noted as hindering implementation. According to the curriculum implementation literature, a positive climate in regards to the innovation, with good communication networks is essential to facilitate curriculum implementation. One particular problem hindering implementation of the nursing curriculum is beyond the school setting. All nursing programs include a practice or clinical component in the hospital setting. Eleven subjects noted that many of the clinical areas resist the use of conceptual frameworks of nursing. While these frameworks are becoming acceptable in academic circles, they have yet to receive full support in the practice setting. In fact, the hospital is, for all intents and purposes, set up under the medical model. This lack of support for conceptual frameworks in the practice setting is perceived of as a significant hindering factor.

To review then, the subjects of this study listed numerous characteristics that affect innovation implementation. Many of the comments provide support for the findings of the curriculum implementation literature. Some are obviously very significant in nursing education such as those relating to experience and to academic preparation. The clarity and simplicity of the conceptual framework of nursing is also very important in its effect on implementation. A particular problem with implementation of nursing curricula lies in the situation in which the innovation is used. While the nursing school may be supportive and committed to this approach, the practice setting wherein at least half

of the teaching and learning occurs is not so inclined. At present this appears to be a significant hindering component.

#### IV. Chapter Summary

All seven stages of concern were revealed in the data analysis indicating that the subjects had different concerns about nursing curricula based on conceptual frameworks of nursing. As concerns precede implementation, the extent of implementation likely varied from little or no use to sophisticated use. Within each school there were widely different concerns and consequently the extent of implementation of the curriculum varied among the instructors. However, although there were individual differences, many subjects (35) were at the highest Stages of Concern (5 and 6) which would support the observation that curricula based on conceptual frameworks of nursing are being used at a sophisticated level. In other words nursing curricula based on conceptual frameworks are being implemented to a greater extent than had been expected in diploma programs in British Columbia.

Nursing faculty were ranked by the subjects as the most influential of the four factors listed as affecting implementation. The manager and conceptual framework of nursing were ranked as the second and third most influential factors. All three factors are regarded by the subjects as being very influential and the differences in the rank ordering is small.

The subjects clearly reported the significance of both a strong theoretical base and practical use of conceptual frameworks of nursing as facilitating their use. Formal and informal training were noted as very significant as were commitment and participation in decision making about the innovation. Furthermore, a leader who is perceived as committed and supportive was facilitative of curriculum implementation.

In terms of factors that hinder implementation, the most important

ones listed by the subjects appeared to be lack of orientation and on-going training, and lack of theoretical preparation of the instructor. Allegiance to other models, i.e., the medical model, hindered implementation of the conceptual framework of nursing. The other significant response dealt with the problem of implementing a conceptual framework of nursing in the clinical facilities that still tend to use the medical model. For some, the conceptual framework of nursing itself was perceived as difficult to interpret and poorly structured. General resistance to change was also noted. This resistance was presented as a hindering factor and although not explained further is most likely the typical response of some people who prefer to see the status quo maintained. Finally, the subjects noted that the lack of an identified, knowledgeable leader was seen as a significant hindering factor.

Correlational studies between the SoC and the Factors Affecting Implementation data were performed. Unfortunately, because the two sets of data are not both linear (SoC profile can be high at Stage 0 and Stage 6 simultaneously) the findings were inconclusive.

A discussion of the findings and their implications will be presented in Chapter 5.

Footnotes

1. Hall, G., George, A. and Rutherford, W. (1979). Measuring Stages of Concern About the Innovation: A Manual for Use of the SoC Questionnaire (2nd ed.) Austin, Texas: CBAM Project, The Research and Development Centre for Teacher Education.
2. Ibid, p. 1
3. Ibid, p. 26
4. Ibid, p. 40
5. Ibid, p. 46
6. Fergerson, George (1981). Statistical Analysis in Psychology and Education. (5th ed.) New York: McGraw-Hill, pp. 389-392

## Chapter 5

### Summary, Conclusions, Discussion and Implications

#### I Summary and Conclusions

Nursing curricula have progressed through numerous changes over the past two decades. A pervasive change for nursing education in British Columbia involved the introduction of conceptual frameworks of nursing as the basis of the curriculum.

Nursing leaders have been promoting the use of these conceptual frameworks of nursing in all spheres of nursing practice. The nursing literature suggests that there is widespread use and acceptance of conceptual frameworks of nursing in education, research and practice settings. However, successful and complete implementation of a major change seems not always to occur in other areas of education such as public schooling. Curriculum implementation studies on school reforms have concluded that many innovations have not been put into practice by the instructors whose job it was to do so. Consequently, the expected benefits of projects to improve instructional practice have not been forthcoming. In the light of this evidence, the assumption that innovative curricula in nursing were implemented is somewhat suspect. It was this suspicion, coupled with the fact that there is no evidence in the nursing literature that implementation of conceptual frameworks of nursing is actually occurring, that lead to the problem identification of this study.

The primary purpose of this study therefore, was to determine the extent to which nursing curricula based on conceptual frameworks of nursing are being implemented by nursing instructors. The secondary purpose was to identify those particular factors that affect the implementation of curricula based on conceptual frameworks of nursing.



Curriculum implementation was first researched from the vantage point of change theory. Later, as more data were collected, the implementation process itself became the focus. From the study of the process itself certain factors were identified as significant or influential.

In this study the Stages of Concern questionnaire was used to assess the concerns of the subjects about using an innovation. From the SoC data, inferences can be made regarding the extent of use of the innovation. However, while the SoC deals effectively with the instructor, or user, it does not identify particular factors that affect implementation. Therefore, the second instrument, the Factors Affecting Implementation questionnaire, was developed to deal with the second purpose of the study. The items and characteristics assessed by this questionnaire were drawn from the literature review on curriculum implementation.

The results of the SoC questionnaire reveal widely varying concerns among the subjects. As concerns have been shown to precede implementation, it can also be inferred that the extent of use of the curriculum also varies. In fact, while the majority of subjects appear to be using the curricula, there are some who appear not to be using it or are only beginning to use it. However, the grouped data from the ninety-three subjects were interpreted to infer that implementation of curricula based on conceptual frameworks is occurring to a greater extent than might have been expected. The limited or beginning use of the curriculum which was anticipated would have resulted in the majority of respondents having high concerns at Stages 1,2 and 3. However, 40 of the 93 subjects had high concerns at Stages 4,5 and 6 which reveal concerns about the impact of the innovation on students and can be interpreted to mean a sophisticated use of the curriculum. Fifteen subjects had high concerns at Stages 1 and 2 indicating only beginning use of the curriculum wherein the subjects concerns relate to themselves. Six subjects had high scores

at Stage 3 indicating concerns about managing the curriculum or task centered issues. A total of 32 subjects had peak scores at Stage 0 which may be interpreted in a number of ways. Peak or high scores at Stage 0 may mean that the subjects are experienced in using the innovation and are concerned about other things. On the other hand, it may mean that the subjects are just becoming aware of the innovation. These very different results can be clarified somewhat by assessing and comparing stage 0 with the other six stages. However, in the final analysis, a certain ambiguity regarding Stage 0 remains. The other stages of one through six do not suffer from this problem and their interpretation is straight-forward.

Focusing on the second problem area of the study, namely the factors affecting implementation, the subjects ranked the nursing faculty as the most influential item of the four identified. Clearly, peer influence or the pressure of the norms of the faculty group will have effects on implementation. The nursing leader followed in the rank ordering as a very close second choice. The conceptual framework of nursing ranked as a close third following the nursing leader. The organizational climate was clearly seen as the least influential of the four items ranked by the subjects.

When asked to comment on factors that they perceived as facilitating or hindering their use of the curriculum, a number of divergent responses were made. Many responses were consistent with factors identified in the literature review. However, in addition, a number of statements were made that seem particular to curriculum implementation in nursing diploma programs.

In conclusion, curricula based on conceptual frameworks of nursing, are being implemented by the subjects of this study to a greater extent than might have been expected. Most of the concerns of the subjects are high in terms of the impact on students (Stages 4 to 6). Therefore, these subjects are concerned about the consequences of the innovation (Stage 4),

and are wanting to collaborate with others to improve their use of the innovation (Stage 5). Furthermore, some subjects are refocusing their concerns and are interested in revising the curriculum (Stage 6). Some subjects are no longer concerned about the innovation and are concerned about other things. As concerns have been shown to precede use, it can be inferred that the subjects at Stages 4, 5 and 6 are using the innovation. On the other hand subjects at Stages 1 through 3 are still in their initial attempts to use the curriculum. It can therefore be concluded, based on this interpretation of the SoC data, that curricula based on conceptual frameworks of nursing are being implemented by the majority of nursing instructors of this study.

While many factors affect curriculum implementation there are several that are of particular importance to nursing instructors in diploma programs. First, nursing instructors clearly perceive a need for academic preparation and on-going training in the use of curricula based on conceptual frameworks of nursing. Participation in curriculum development activities by instructors was viewed as facilitative. A major hindering factor appears to be the effects of the discrepancy between the academic and practice setting in relation to the use of conceptual frameworks of nursing. According to the subjects, nursing faculty are coming to accept and use conceptual frameworks of nursing. However, this trend is not occurring with the hospital nurses. Nursing instructors work closely with the hospital nurses and this discrepancy is bound to affect curriculum implementation. A discussion of the findings and conclusions is presented in the next section.

## II Discussion - The Extent of Curriculum Implementation

The findings that curricula based on conceptual frameworks of nursing

are apparently being implemented by instructors is contrary to what had been anticipated by the investigator. Several explanations for this finding will be presented, starting with issues related to methodology.

Essentially, the SoC questionnaire involves a self-report rather than a direct measurement of implementation. These self-reports of the subjects may not represent what is actually occurring. Furthermore, most of the subjects have been working with these curricula for two or more years. Daily contact with the curriculum may have lulled them into believing that they were using the curriculum concepts while perhaps in reality no change has occurred. The type and numbers of subjects are also important. A volunteer sample was used and it is apparent that the subjects were primarily experienced instructors. Furthermore, the subjects were probably interested in the topic presented in the questionnaire or they would not have participated. The forty percent who did not respond are an unknown entity and might dramatically change the findings. For example, using conceptual frameworks of nursing is still considered controversial by many nurses. Therefore, some instructors who disagree with their use may have chosen not to participate for this reason. The implication is, if they disagree with the approach, they probably do not use it.

The demographic data also reveal that most of the subjects were experienced instructors. This might automatically lead one to expect high concerns related to the impact of the innovation and students with the inference being that the innovation is being used. However, the SoC data indicate that there are high concerns at all stages. Interestingly, Hall and his associates have found no relationship between the demographic data and the Stages of Concern. This finding holds true for this study. The variety of concerns at all levels also reinforces the implications

of focusing on the individual instructor. This implication will be discussed further in the last section.

Another explanation of why implementation seems to be occurring may relate to the approach to curriculum development in nursing diploma programs. The curriculum implementation literature notes that participation in decision making and curriculum development at the individual school level facilitates curriculum implementation. This issue will be discussed further under implications.

#### Factors Affecting Curriculum Implementation in Nursing

The Factors Affecting Implementation questionnaire addressed the second purpose of the study. The ranking of the nursing faculty as the most influential of the four factors was anticipated by the investigator and can be used to support the claim that the instructor is the most significant factor in curriculum implementation. However, as the subjects themselves are the nursing instructors, they may be biased as to the importance of their role. Furthermore, as the nursing leader and conceptual frameworks of nursing are ranked so closely to the most influential factor, no conclusions can be drawn. On the other hand, the organizational climate was clearly ranked as less influential by the subjects. Currently, much time and effort is being focused on improving organizational climates but according to the subjects of this study it may not be all that significant. However, when assessing the four factors, the organizational climate can be perceived as the least personal of the factors and perhaps the least controllable of the four factors from the subjects perspective. Therefore, they may have given it less weight. However, it is clear that nursing faculty, the nursing leader and the conceptual framework of nursing are all very influential in the curriculum implementation

process. The subjects clearly see the need for academic preparation in the use of conceptual frameworks of nursing. Brief workshops and curriculum committees are worthwhile but not enough. Furthermore, as individuals have different concerns, group work will not meet everyone's needs. In fact, it may even hinder progress as some faculty will have high stage concerns and others low stage concerns. One-to-one or personal assistance was subsequently perceived as very beneficial by some subjects.

Allegiance to previously used nursing models was considered a hindering factor. For example, adherence to the medical model, previously used as the basis of the nursing program, will interfere with the use of the new curriculum. Many of the subjects may have graduated from nursing programs that used the medical model. Changing conceptual approaches clearly is both difficult and complex. Furthermore, change in itself was cited as being resisted in some cases. Some instructors may assume the role of defending the status quo, further hindering implementation efforts.

The nursing leader was ranked by the subjects as the second most influential factor in curriculum implementation. The significance of the nursing leaders role was evidenced by the high ranking it received and also through the comments of the subjects. The desirable curriculum implementation manager was described as knowledgeable and experienced with curricular issues, clearly committed to conceptual frameworks of nursing and able to command the various resources needed to support curriculum implementation efforts.

Valuing the conceptual framework of nursing as important to nursing education was cited as significant in facilitating implementation. Clearly, if the instructors believe in the approach, they will endeavor

to use it. Not surprisingly, hindering aspects related to complex or incomprehensible conceptual frameworks of nursing.

A number of characteristics regarding the situation that affect curriculum implementation in nursing were listed by the subjects. Many of these factors are similar to those cited in the curriculum implementation literature. Factors that are significant and particular to nursing diploma programs relate to external forces beyond the school itself. First, the approval or accreditation procedure of the provincial nursing association was perceived by some as a positive force in maintaining high standards for nursing curricula. One criterion for approval of the nursing program requires that the curriculum include a conceptual framework of nursing. Advocates of this curricular approach would regard the association positively for including these criteria. On the other hand, faculty wishing to try other approaches, complain that the association's approval criteria are too restrictive and hinder the development of more creative curricula.

A second aspect of the situation that appears to be particular to nursing education, involves the clinical learning experience or practicum. Following and concurrent with classroom learning, nursing students practice their skills in the clinical or hospital setting. Although an instructor from the nursing school teaches and supervises the students, the registered nurses in the clinical area also work closely with these students. The subjects note that hospital staff do not yet use conceptual frameworks of nursing. Obviously a discrepancy between the academic setting and the practice setting is created. The nursing instructors may respond in a number of ways to this problem. They may continue to advocate and support the approach. On the other hand, and

especially if they perceive difficulties with the conceptual framework of nursing, this may support them in their desire to abandon or resist the use of the curriculum. Resistance to change can be helpful when it causes one to pause and reflect on the issue. In fact, resistance to change may force nurses to better describe and interpret their conceptual frameworks of nursing. In the long term this could have a positive influence on the use of conceptual frameworks of nursing.

### III Implications

Continuing research is needed to explore further curriculum implementation in nursing diploma programs in British Columbia. The preliminary work of this study raises some intriguing questions. First, validation of the tentative findings that implementation is occurring must be pursued. It appears that curricula based on conceptual frameworks of nursing are being used more extensively than the preliminary or limited use that had been anticipated. One could speculate as to why curriculum implementation does seem to be occurring. Perhaps the extent of implementation is related to the instructors' control of and participation in curriculum development activities at the individual school. These two factors were considered important facilitators in the curriculum implementation literature. As indicated previously, much of the research on curriculum implementation dealt with externally developed and imposed projects. A quite different approach occurs in nursing education in British Columbia. If the findings of this study are valid, local development of curriculum may be a significant facilitating force. Consequently, the efforts of curriculum development at the individual nursing school should be maintained and encouraged.

Implementation efforts still need continuing support to ensure in-



stitutionalization of conceptual frameworks of nursing as the basis of the curriculum. It was suggested that problems with the curricula themselves hinder implementation. Therefore, more work must be done to clarify and simplify the approach. Reestablishing the intent and purpose of conceptual frameworks of nursing would be a valuable first step in this process. Essentially the main intent lies in creating a consistent approach for all faculty to use in teaching students to provide total patient care. This underlying purpose may be forgotten if nursing instructors are not cautious.

Many respondents clearly value conceptual frameworks of nursing and have successfully worked through basic management issues. Clearly, academic preparation for nursing instructors must include content on the meaning, worth, and use of conceptual frameworks of nursing. Orientation to the conceptual framework for new faculty is also essential. However, this is not enough. Working through modules on the conceptual framework and attending workshops to learn about the approach is essential. On-going workshops and group work as in curriculum committees is also recommended.

A further recommendation to support implementation efforts should focus on the individual instructor. Personal encounters or one-to-one assistance in manipulating the curriculum concepts in daily teaching functions was perceived as positive by some subjects. Therefore, an approach focusing on the individual instructor should be developed. For example, a new faculty member could be assigned to work with an experienced instructor, or mentor, in order to learn about the conceptual framework of nursing. The mentor would serve as a role model and resource person. Rather than the trial and error approach that seems

currently to be the norm, such a support system might alleviate initial confusion and difficulties regarding the conceptual framework. Furthermore, if the mentor values and promotes the conceptual framework of nursing, the neophyte may easily adopt these values. Other approaches to address the individual faculty needs should be developed.

The perceived discrepancy between the conceptual approach to nursing care of instructors' and hospital nurses must be evaluated. First, it must be determined if there is in fact a discrepancy. Nursing instructors may or may not be correct in their judgement that hospital nurses use the medical model. Next, the basis of the discrepancy, or the perception of one, must be discovered. From this point, efforts will be needed to remedy the perceived discrepancy. Closer liaison between nursing instructors and hospital nurses should help. This liaison would be supported by better relationships and communication between the nursing school and the hospital setting.

Another source for interesting speculation comes from comparing the different schools SoC profiles and the perceptions of the subjects regarding the factors affecting implementation. A comparison of the total group SoC and the mean ratings of the Factors Affecting Implementation appears to yield little data. However, when reviewing the individual schools, a different picture emerges. The most interesting findings emerge with school 08 and 03. In school 08 the SoC peaks at Stage 5 indicating that the innovation is being used. The mean ratings on the factors are generally high or positive in their perception. On the other hand, in school 03, it is difficult to discern concerns and thus use of the innovation is questionable. Their mean ratings on the factors is generally low or negative. One could conjecture that the more positive the perceptions of the subject, the greater the extent of use

of the innovation. Research, including correlational and relationship studies, is needed to explore this area further.

Preliminary research on curriculum implementation in nursing indicates that the efforts of nursing instructors are being successfully expended. According to the data collected by the SoC, it appears that nursing curricula based on conceptual frameworks of nursing are being implemented. Further research is needed to validate this finding and to explore further the factors that affect implementation. Although these findings can be generalized only to the subjects of this study, one may speculate that they may be applicable to other educational settings. For instance, if curriculum development and implementation is more successful when control of these tasks is in the hands of the individual school, then this approach should be used in other educational areas. Obviously, this would be a major change. However, if the findings of this study are valid and could be generalizable to a wider arena, then such a change is worthy of examination.

In summary, preliminary research appears to indicate successful curriculum implementation efforts in nursing diploma programs in British Columbia. The instructor, nursing leader and the conceptual framework of nursing of the curriculum are all very influential in the implementation process. Furthermore, curriculum implementation efforts require support for facilitating factors and the elimination of hindering factors if the positive effects of nursing curricula are to be realized.

Appendix A

Table 6 Statements on the Stages of Concern  
Questionnaire Arranged According to Stage

Table 6

STATEMENTS ON THE STAGES OF CONCERN QUESTIONNAIRE ARRANGED ACCORDING  
TO STAGE

Item #	Statement
STAGE 0	
3	I don't even know what the innovation is.
12	I am not concerned about this innovation.
21	I am completely occupied with other things.
23	Although I don't know about this innovation, I am concerned about things in the area.
30	At this time, I am not interested in learning about this innovation.
STAGE 1	
6	I have a very limited knowledge about the innovation.
14	I would like to discuss the possibility of using the innovation.
15	I would like to know what resources are available if we decide to adopt this innovation.
26	I would like to know what the use of the innovation will require in the immediate future.
35	I would like to know how this innovation is better than what we have now.
STAGE 2	
7	I would like to know the effect of reorganization on my professional status.
13	I would like to know who will make the decisions in the new system.
17	I would like to know how my teaching or administration is supposed to change.
28	I would like to have more information on time and energy commitments required by this innovation.
33	I would like to know how my role will change when I am using the innovation.
STAGE 3	
4	I am concerned about not having enough time to organize myself each day.
8	I am concerned about conflict between my interests and my responsibilities.
16	I am concerned about my inability to manage all the innovation requires.
25	I am concerned about time spent working with non-academic problems related to this innovation.
34	Coordination of tasks and people is taking too much of my time.

## STAGE 4

- 1 I am concerned about students attitudes toward the innovation.
- 11 I am concerned about how the innovation affects students.
- 19 I am concerned about evaluating my impact on students.
- 24 I would like to excite my students about their part in this approach.

## STAGE 5

- 5 I would like to help other faculty in their use of the innovation.
- 10 I would like to develop working relationships with both our faculty and outside faculty using this innovation.
- 18 I would like to familiarize other departments or persons with the progress of this new approach.
- 27 I would like to coordinate my effort with others to maximize the innovation's effects.
- 29 I would like to know what other faculty are doing in this area.

## STAGE 6

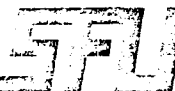
- 2 I now know of some other approaches that might work better.
- 9 I am concerned about revising my use of the innovation.
- 20 I would like to revise the innovation's instructional approach.
- 22 I would like to modify our use of the innovation based on the experiences of our students.
- 31 I would like to determine how to supplement, enhance, or replace the innovation.

---

Taken from Hall, Gene, George, Archie, and Rutherford, William (1979) Measuring Stages of concern about the innovation: A manual for use of the SoC questionnaire. 2nd ed; Austin, Texas: University of Texas, Research and Development Center for Teacher Education.

Appendix B  
Covering Letter and Questionnaire

Reduced to  
65% of Original Size



SIMON FRASER UNIVERSITY, BURIALDA, B.C. CANADA V6A 1S6  
FACULTY OF EDUCATION, 231 3385

May 24, 1983

Dear Nursing Colleague:

During our careers we have witnessed both interesting and substantial changes in our nursing curriculum. In my Master's (education) thesis I am studying nursing curriculum based on conceptual frameworks of nursing from the perspective of implementation. In order to learn more about the implementation of nursing curriculum in our province I need your assistance. This would involve answering the three attached questionnaires which require thirty to forty minutes to complete. The first questionnaire focuses on concerns that instructors have when implementing a curriculum. The second seeks to identify the factors that affect implementation, and the third deals with demographic data.

My study group, of which I hope you will become part, will consist of all nursing instructors from the nine diploma (leading to RN) programs in British Columbia. All responses will be completely confidential, and neither respondents nor specific schools will be identified in my report. For computer processing, numbered blanks appear in the right margin of each questionnaire. Please leave them blank. I will be acting as my contact person at your school. After completing the questionnaires, please place in the attached envelope, seal it, and return to \_\_\_\_\_ by June 6, 1983.

I believe that the questionnaire will provoke some worthwhile thinking about curriculum implementation. I will send a summary of my results to your school in the hope that it will be of value to you in your curriculum development and implementation activities. Thank you in advance for your assistance.

Sincerely,

*Barbara Greenlaw*

Barbara Greenlaw, RN, BN  
Graduate Student  
Faculty of Education  
Simon Fraser University

c.c. Dr. D. Common, S.F.U.





Simon Fraser University  
M.A. (Educ.) - Thesis Study

Implementation of a Nursing Curriculum

A study to identify instructor concerns and factors affecting curriculum implementation.

QUESTIONNAIRES:

1. Questionnaire 1 - Concerns about Implementing a Curriculum based on a Conceptual Framework of Nursing.
2. Questionnaire 2 - Factors Affecting Curriculum Implementation.
3. Questionnaire 3 - Demographic Data.

All responses will be completely confidential and neither respondents nor specific schools will be identified in my report. For computer processing, numbered blanks appear in the right margin of each questionnaire. Please leave them blank.

Please place the completed questionnaire in the attached envelope, seal it and return it to \_\_\_\_\_, who will send them to me.

Please Return By June 6, 1983.

Questionnaire 1: Concerns About Implementing a Curriculum Based on a Conceptual Framework of Nursing.

The purpose of questionnaire 1 is to determine what people who are using or thinking about using various programs are concerned about at different times during the innovation adoption process. The items were developed from typical responses of school and college teachers who ranged from no knowledge at all about innovative programs to many years experience in using them. Therefore, a good part of the items on this questionnaire may appear to be of little relevance or irrelevant to you at this time.

For completely irrelevant items, please circle "0" on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale. In the following example the circled number corresponds to the statement.

This statement is, very true of me at this time.	0 1 2 3 4 5 6 ⑦
This statement is somewhat true of me now.	0 1 2 3 ④ 5 6 7
This statement is not at all true of me at this time.	0 ① 2 3 4 5 6 7
This statement seems irrelevant to me.	① 1 2 3 4 5 6 7

If you choose "7" you have intense concerns about the item. If you choose "4" you have less intense concerns. If you choose "1" the item is not at all true for you at this time. If you choose "0" the item is irrelevant or not applicable. The other numbers in the scale are of an intermediate nature between "not at all true" to "very true". Please respond to the items in terms of your present concerns, or how you feel about your involvement with implementing a nursing curriculum based on a conceptual framework of nursing. For this study, I have defined a conceptual framework of nursing as a description of nursing which incorporates essential concepts such as the patient, health, illness, caring and so forth. A conceptual framework of nursing is also known as a nursing model.

Since this questionnaire is used for a variety of innovations, the phrase curriculum based on a conceptual framework of nursing never appears. However, phrases such as "the innovation", "this approach" and the "new system" all refer to a curriculum based on a conceptual framework of nursing. Remember to respond to each item in terms of your present concerns about your involvement with a curriculum based on a conceptual framework of nursing. Thank you for taking time to complete this task.

I 2 3 4 5 6 7 8 9 10

Questionnaire 1: Concerns about Implementing a Curriculum  
Based on a Conceptual Framework of Nursing

	0	1	2	3	4	5	6	7						
	Irrelevant	Not true of me now	Somewhat true of me now			Very true of me now								
1.						0	1	2	3	4	5	6	7	<u>11</u>
2.						0	1	2	3	4	5	6	7	<u>12</u>
3.						0	1	2	3	4	5	6	7	<u>13</u>
4.						0	1	2	3	4	5	6	7	<u>14</u>
5.						0	1	2	3	4	5	6	7	<u>15</u>
6.						0	1	2	3	4	5	6	7	<u>16</u>
7.						0	1	2	3	4	5	6	7	<u>17</u>
8.						0	1	2	3	4	5	6	7	<u>18</u>
9.						0	1	2	3	4	5	6	7	<u>19</u>
10.						0	1	2	3	4	5	6	7	<u>20</u>
11.						0	1	2	3	4	5	6	7	<u>21</u>
12.						0	1	2	3	4	5	6	7	<u>22</u>
13.						0	1	2	3	4	5	6	7	<u>23</u>
14.						0	1	2	3	4	5	6	7	<u>24</u>
15.						0	1	2	3	4	5	6	7	<u>25</u>
16.						0	1	2	3	4	5	6	7	<u>26</u>
17.						0	1	2	3	4	5	6	7	<u>27</u>

	0	1	2	3	4	5	6	7		
	Irrelevant	Not true of me now			Somewhat true of me now		Very true of me now			
18.	I would like to familiarize other departments or persons with the progress of this new approach.								28	
19.	I am concerned about evaluating my impact on students.								29	
20.	I would like to revise the innovation's instructional approach.								30	
21.	I am completely occupied with other things.								31	
22.	I would like to modify our use of the innovation based on the experiences of our students.								32	
23.	Although I don't know about this innovation, I am concerned about things in the area.								33	
24.	I would like to excite my students about their part in this approach.								34	
25.	I am concerned about time spent working with nonacademic problems related to this innovation.								35	
26.	I would like to know what the use of the innovation will require in the immediate future.								36	
27.	I would like to coordinate my effort with others to maximize the innovations effects.								37	
28.	I would like to have more information on time and energy commitments required by this innovation.								38	
29.	I would like to know what other faculty are doing in this area.								39	
30.	At this time, I am not interested in learning about this innovation.								40	
31.	I would like to determine how to supplement, enhance, or replace the innovation.								41	
32.	I would like to use feedback from students to change the program.								42	
33.	I would like to know how my role will change when I am using the innovation.								43	
34.	Coordination of tasks and people is taking too much of my time.								44	
35.	I would like to know how this innovation is better than what we have now.								45	

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Procedures for Adopting Educational Innovations/CBAM Project  
 R&D Center for Teacher Education, The University of Texas at Austin

Questionnaire 2: Factors Affecting Curriculum Implementation

Guidelines:

The purpose of this questionnaire is for you to identify which factors influence the implementation of a curriculum based on a conceptual framework of nursing.

You are being asked to indicate on the scale, with a check (✓), the point that represents your perception of the following items.

For example:

The conceptual framework of nursing of the curriculum is:

a) coherent                            incoherent

In the first example the respondent has indicated that he/she perceives the conceptual framework of nursing as more coherent than incoherent.

The conceptual framework of nursing of the curriculum is:

b) comprehensible                            incomprehensible

In the second example the respondent has indicated that he/she perceives the item as relatively more incomprehensible than comprehensible.

Questionnaire 2: Factors Affecting Curriculum Implementation

Indicate on the Scale with a check (✓) the point that represents your perception of the following items:

A. The <u>conceptual framework of nursing</u> of your curriculum is:		
1.	clear _____	confusing _____
		46
2.	rigid _____	flexible _____
		47
3.	worthwhile _____	worthless _____
		48
B. The <u>organizational climate</u> of your institution has:		
1.	a supportive attitude for change _____	an unsupportive attitude for change _____
		49
2.	ineffective communication networks _____	effective communication networks _____
		50
3.	good problem-solving skills _____	poor problem-solving skills _____
		51
C. The <u>leadership</u> in your nursing school is:		
1.	effective _____	ineffective _____
		52
2.	participatory in its management style _____	authoritarian in its management style _____
		53
3.	not respected _____	respected _____
		54
D. The <u>nursing faculty</u> in your program in relation to the conceptual framework of nursing of your curriculum is:		
1.	not committed _____	committed _____
		55
2.	generalist in orientation _____	specialist in orientation _____
		56
3.	satisfied _____	dissatisfied _____
		57
Rank order the following items in accordance with their degree of influence on curriculum implementation with 1 having the most influence and 4 having the least influence.		
_____	A. The Conceptual Framework of Nursing	58
_____	B. The Organizational Climate	59
_____	C. The Leadership	60
_____	D. The Nursing Faculty	61

E. Are there other factors that have facilitated your use of the conceptual framework of nursing of your curriculum? (Please circle the appropriate number).

- 1. yes
- 2. no

62

If yes, please specify:

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F. Are there other factors that have hindered your use of the conceptual framework of nursing of your curriculum? (Please circle the appropriate number).

- 1. yes
- 2. no

63

If yes, please specify:

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G. Please feel free to make any comments regarding this questionnaire.

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Questionnaire 3: Demographic Data

Please circle the appropriate number for each of the following:

- a. Your initial preparation for practice was a:
1. Diploma of Nursing (RN) Program
  2. Baccalaureate Program 64
  3. Other (please specify) \_\_\_\_\_
- b. The number of years that you have been involved in teaching a curriculum based on a conceptual framework of nursing is:
1. less than 2 years
  2. 2 - 5 years 65
  3. more than 5 years
- c. Your present position is primarily:
1. instructional
  2. administrative 66
- d. The number of years that you have been employed full time (or equivalent) at your present nursing school is:
1. less than 2 years
  2. 2 - 5 years 67
  3. more than 5 years

Thank you very much for your cooperation. Please place the completed questionnaire in the attached envelope, seal it, and return it to \_\_\_\_\_ who will send them to me.



Appendix C

Complete Listing of Responses of Subjects  
Regarding Factors Facilitating and Hindering  
Curriculum Implementation

Written Responses of Subjects re Factors Facilitating and Hindering Curriculum Implementation

User - Facilitate

- published literature on use of conceptual models of nursing
- work of individual faculty
- individual assistance
- personal encounters
- decisions of other faculty
- more of an informal indirect influence
- readings and bouncing ideas off people outside the program
- support and assistance of individual instructors
- general interest in use of a conceptual framework among nursing faculty
- being able to discuss problems with other members of term and other faculty
- my own research and interest with the topic
- interest (personal) in conceptual framework
- knowledgeable colleagues
- consistency of focus on the framework by faculty
- commitment to the program
- committed student faculty
- involvement in developing the framework
- participation on the curriculum committee and working on the development of the framework and implementation process
- involvement in developing the framework
- experience in developing curriculum
- discussion with other faculty
- teaching in different parts of the program
- observing and participating in practical application of the model

- faculty meetings re: curriculum
- horizontal groups for specific content areas
- frequent inservices and sharing of ideas
- reorientation of old faculty to C.F.; Faculty workshops
- committee involvement - for discussion of elements that are not clear and to assess consistency with instructors, etc.
- have been using these for past 15 years
- faculty input based on past experience
- my knowledge of a conceptual framework from the MSN program at U.B.C.
- background from university baccalaureate program
- familiarity with other frameworks in other institutions helped me to adapt
- advanced preparation in curriculum development
- university program helped to increase understanding and use
- expertise of staff
- practice in using it
- functioning as an instructor in another school with a very similar curriculum
- solid knowledge and experience base in nursing
- further education in the area of nursing curriculum
- knowledge and use of a variety of theoretical nursing
- previous work and educational experience with a similar conceptual framework
- advanced preparation of masters program
- previous experience with a similar framework
- advanced preparation in educational evaluation
- orientation of new faculty to C.F.
- 3 day workshop by a conceptual framework specialist

Innovation - Facilitate

- simplicity
- practical, useful
- detailed outline of our planned curriculum
- belief in the importance of having a framework
- conceptual frameworks are fully accepted ie., are not innovative
- framework is applied to clinical theory and practice with room for nurse and patient to participate
- if the concept of conceptual framework can be taken broadly to mean that in using the 'need' system

Situation - Facilitate

- adequate time to prepare objectives and content from C.F. - with this being the sole responsibility
- financial reasons
- exposure of other college departments and their organizational approaches
- curriculum structure - curriculum committee allows for and encourages participation for all faculty
- medical frameworks which have not worked
- clinical experiences
- external pressure, e.g. RNABC
- pressure from RNABC

Manager - Facilitate

- thorough and complete explanations of the model by curriculum co-ordinator with reinforcement
- one or two resource person's commitment to framework
- working with someone who believes in and understands it
- administration experience
- faculty who are senior enough and confident enough

- the amount of independence in innovative planning that is encouraged by the leaders

### User - Hinder

- new staff
- some instructors who are new in teaching find it difficult to use the conceptual framework in their classes
- little, if any, orientation to the curriculum when starting in the program, and having to pick it up on my own
- poor orientation and follow-up
- no assistance in implementation process
- inadequate orientation of the program/model
- inadequate explanation of the framework during orientation
- lack of faculty conferences (or workshops) on topic
- lack of depth of orientation when first employed
- faculty's unfamiliarity with the conceptual framework (particularly part-time faculty)
- faculty not all at the same level of conceptual thinking and not all at the same level of exposure to the theory of conceptual frameworks
- lack of some faculty's knowledge and utilization of a theoretical nursing model
- the slow pace of the faculty because of the different level of educational preparation and general lack of conceptualization
- exposure of faculty to conceptual frameworks in their own BSN, MN programs
- the framework of nursing program I took
- individual instructors background, experience, etc.
- familiarity with another framework and resistance of a few faculty
- relative lack of knowledge about nursing models and their use in curriculum among nursing faculty and among staff nurse group in agencies
- limitations of clinical faculty

- some people aren't yet comfortable with how to use it, especially in 2nd and 3rd year where concepts are harder to apply
- lack of total knowledge of curriculum and framework
- lack of interest or perception of need of a few faculty
- lack of understanding of value of using a framework
- lack of commitment to value of conceptual framework
- allegiance to the medical model
- temptation to allow students to go ahead of planned framework
- heavy work load
- faculty variability in acceptance to try a conceptual framework
- instructors too set in their ways to change
- resistance from others contagious
- resistance of faculty to change teaching method from old system
- disinterest of faculty, apathy and long term faculty opposed to change as well as misunderstanding curriculum, therefore not teaching as it should be
- other faculty who do not implement it well
- availability of prepared faculty

#### Innovation - Hinder

- variations among instructors with the same conceptual framework
- unclear components of the model
- model not tight enough
- too many concepts in conceptual framework for students and instructors to integrate
- it is just needs, something in the air, not attached to a conceptual framework, (i.e. school doesn't have a 'real' C.F.)
- different interpretations of the framework
- lack of understanding of conceptual framework
- varied interpretations of the model by faculty
- unsure if conceptual framework is acceptable

Situation - Hinder

- resistance, expressed and implied in the health care agencies
- the reality is the medical model
- limited clinical faculties affect placement of students and the ordering of content which affects flow of presentation and relationship to conceptual framework - e.g. insufficient time to relate to needs.
- availability of clinical placement
- difficulty actualizing curriculum when we are faced with the medical model in the clinical setting
- one framework in college and another in hospital
- limited time to plan and prepare course content with input from all involved in the course
- time sequencing in the program
- length of program too short
- time constraints in classroom and clinical
- stress on acquiring skills sometimes interferes
- poor communications
- climate in which it was 'born' - confusion, mistrust, etc.
- negative tone of department during development and lack of free discussion about it
- the discrepancies between classroom content and clinical experiences - application is difficult when clinical area use medical model
- functioning in a clinical area where staff still uses medical model primarily, even though they give voiced understanding of concepts
- lack of understanding and communication of the curriculum and educational process between hospital staff and college
- RNABC approval process

Manager - Hinder

- the lack of one person designated to provide ongoing continuing education re: implementation
- lack of suggestions on relative ways of implementing the framework from higher-ups

- leadership
- lack of role models (Ones who understand my area and the model to show how to apply it)
- lack of resource people for consultation on aspects of the curriculum
- curriculum coordinators who did not understand the model and could not apply it to various nursing specialty areas
- rigid controls set by senior faculty



Appendix D  
Statement of Permission to Use SoC  
Questionnaire

THE UNIVERSITY OF TEXAS AT AUSTIN

COLLEGE OF EDUCATION



October 31, 1983

RE: Barbara Greenlaw

TO WHOM IT MAY CONCERN:

I hereby grant Barbara Greenlaw permission to reproduce and use the SoC Questionnaire in her study of curriculum implementation in nursing education in British Columbia.

Gene E. Hall  
Program Director  
Research on the Improvement  
Process

GEH:v1

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