Curricula and the Relationship to Professional Role Development in Dental Hygiene Baccalaureate Degree Completion Programs

Susan L. Sauer
Loyola University Chicago

Follow this and additional works at: https://ecommons.luc.edu/luc_diss

Part of the Education Commons

Recommended Citation
Sauer, Susan L., "Curricula and the Relationship to Professional Role Development in Dental Hygiene Baccalaureate Degree Completion Programs" (1994). Dissertations. 3475. https://ecommons.luc.edu/luc_diss/3475

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License. Copyright © 1994 Susan L. Sauer
LOYOLA UNIVERSITY CHICAGO

CURRICULA AND THE RELATIONSHIP TO PROFESSIONAL ROLE DEVELOPMENT IN DENTAL HYGIENE BACCALAUREATE DEGREE COMPLETION PROGRAMS

A DISSERTATION SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF CURRICULUM AND INSTRUCTION

BY

SUSAN L. SAUER, B.S.D.H., M.Ed
DIRECTOR: DIANE P. SCHILLER, Ph.D.

CHICAGO, ILLINOIS

MAY, 1994
ACKNOWLEDGEMENTS

It is my desire to offer the members of my dissertation committee my most heartfelt gratitude for their generous and expert assistance. Appreciation is extended to Dr. Diane Schiller, for her knowledge, excellent guidance and unfailing optimism from the beginning of the study; to Dr. Todd Hoover, for his expertise in the area of instructional design; to Dr. Elizabeth Brutvan for her professional acumen and leadership; and to Dr. Steven Miller for his careful review and excellent suggestions for improvement. Appreciation is also extended to Mr. Jack Corliss and to Mr. Nyel Marquez for their assistance in statistical production.

I must also acknowledge three very special groups of individuals who were instrumental in this project:

My family—my mother, my father and my brother—who never failed to support me;
My friends who never failed to listen;
My colleagues at the Loyola University School of Dentistry (1883-1993) from whom I never failed to learn.
# TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................ iii

LIST OF TABLES ........................................... vi

Chapter

## I. NATURE OF THE STUDY

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Rationale</td>
<td>2</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>4</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>7</td>
</tr>
<tr>
<td>Research Questions</td>
<td>8</td>
</tr>
<tr>
<td>Theoretical Framework</td>
<td>9</td>
</tr>
<tr>
<td>Delineation of the Research Problem</td>
<td>16</td>
</tr>
<tr>
<td>Importance of the Study</td>
<td>16</td>
</tr>
<tr>
<td>Delimitations and Limitations of the Study</td>
<td>17</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>18</td>
</tr>
</tbody>
</table>

## II. REVIEW OF RELATED LITERATURE

- Dental Hygiene Baccalaureate Degree Education ........ 21
- Professional Development ................................ 35
- Outcomes Assessment                                 ... 41

## III. METHODOLOGY

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>44</td>
</tr>
<tr>
<td>Research Methodology</td>
<td>46</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>47</td>
</tr>
<tr>
<td>Subject Selection</td>
<td>48</td>
</tr>
<tr>
<td>Pilot Studies</td>
<td>49</td>
</tr>
<tr>
<td>Field Procedures</td>
<td>51</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>52</td>
</tr>
<tr>
<td>Limitations</td>
<td>52</td>
</tr>
</tbody>
</table>

## IV. FINDINGS; ANALYSIS AND EVALUATION

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>53</td>
</tr>
<tr>
<td>Findings</td>
<td>54</td>
</tr>
<tr>
<td>Demographics</td>
<td>54</td>
</tr>
<tr>
<td>Education Toward Professional Roles</td>
<td>60</td>
</tr>
<tr>
<td>Interest In Professional Accreditation of Degree Completion Programs</td>
<td>78</td>
</tr>
<tr>
<td>Analysis and Evaluation</td>
<td>81</td>
</tr>
<tr>
<td>Demographics</td>
<td>81</td>
</tr>
<tr>
<td>Education Toward Professional Roles</td>
<td>82</td>
</tr>
</tbody>
</table>
IV. (continued)
Interest in Professional Accreditation
of Degree Completion Programs .... 85

V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary .................................................. 87
Conclusions ................................................ 95
Recommendations for Further Study ............. 108

Appendix

1. SURVEY DATA ........................................... 110
2. DATA TOTALS ........................................... 125

WORKS CITED ............................................. 145
VITA ......................................................... 150
LIST OF TABLES

Table | page
-----|------
4-1 Institutional Affiliation | 54
4-2 Type Of Institution | 55
4-3 Distribution Of Dental Hygiene Related Courses | 57
4-4 General Education Course Distribution | 58
4-5 Acceptance of Enhanced Roles | 61
4-6 Student Preparation Prior To Entry Into Degree Completion Program | 63
4-7 Student Preparation For Roles After Completion Of Degree Completion Program | 63
4-8 Assessment Measures Of Clinician Role | 64
4-9 Assessment Measures Of Five Roles Prior To Entry Into Degree Completion Program | 64
4-10 Assessment Measures Of Five Roles At Graduation From Degree Completion Program | 65
4-11 Courses Which Support The Role Of Clinician (A) | 73
4-11 Courses Which Support The Role Of Consumer Advocate (B) | 73
4-11 Courses Which Support The Role Of Educator/Health Promotor (C) | 73
4-11 Courses Which Support The Role Of Change Agent (D) | 74
4-11 Courses Which Support The Role Of Researcher (E) | 74
<table>
<thead>
<tr>
<th>Table</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-11 Courses Which Support The Role Of Administrator/ Management</td>
<td>74</td>
</tr>
<tr>
<td>4-12 Interest In Accreditation Of Degree Completion Programs</td>
<td>80</td>
</tr>
</tbody>
</table>
CHAPTER I

NATURE OF THE STUDY

Introduction

The majority of the 209 Dental Hygiene programs accredited by the American Dental Association are housed in community colleges (118); the remainder are divided among schools of allied health (23), dental schools (29), separate dental departments (2) and "other" (22) (ADA, 1985 p. 2). All of these entry-level programs have been accredited through the American Dental Association Committee on Dental Accreditation since 1952 and, as a result of the standards set, have strong similarities in their educational curricula at the conceptual level. The programs are encouraged to meet the accreditation standards in the method best suited to their educational goals and institutional objectives.

There exists a large number of students who complete their professional education at the Certificate/Associate degree level and who do not have the option of obtaining a Bachelor's degree within their institution. Currently forty six programs were identified through the American Dental Hygienists' Association which offer those students with two year degrees the opportunity to complete a baccalaureate degree (ADHA, 1993). These degree completion programs do
not need to be accredited by a professional agency as they are not considered entry level and thus have little or no academic similarities or purpose. Of the studies done to compare or examine the curricula, findings indicated many differences (Taub and Levy, 1983; Rubenstein and Brand, 1986).

The Rationale

The rationale for this study is the need to assess the dental hygiene baccalaureate degree completion program based on the one aspect that they could share—the future roles of the dental hygienist as outlined by the American Dental Hygienists' Association.

The American Dental Hygienists' Association (ADHA) held a series of workshops between 1984 and 1988 as a method of planning for professional development of the roles its members would assume. Each workshop was attended by representatives of education, private practice and the American Dental Hygienists' Association. Each workshop addressed a different aspect of the development process. The members of the first workshop achieved consensus on the major roles which the dental hygienists of the future were to assume that would better integrate them within the health care system. These roles were: clinician, educator, researcher, consumer advocate, change agent and
administrator-manager (Mc Fall, 1992, p. 2). The first workshop participants also agreed on the following areas:

1. Dental hygienists, given the choice between being knowledge-workers or technology-appliers, should be knowledge workers. The profession should seek to "define itself broadly to reinforce preparation of graduates for major roles as health promoters if dental hygiene practice is to be linked with society's needs and values" (ADHA Workshop proceedings, 1984, p. 30).

2. The participants were also asked to discuss questions and make choices relevant to the educational setting (choosing an educational setting over a service setting), entry level (choosing the baccalaureate degree over the associate degree) and curricula (choosing basic preparation and discipline over a career ladder with a general aspect).

These choices were thought to help build the body of knowledge in dental hygiene. The roles were seen as integrated tasks and characteristic of entry-level for the dental hygienist with a baccalaureate degree (AADS, 1992). Other aspects were discussed at the first ADHA Workshop; however, the ones cited formed the most significant part of the problem discussed here.

The second workshop developed the roles and their concomitant responsibilities; the third examined the curricular needs and determined that a change in the
educational preparation currently being followed was needed. This change was away from the current two-year, technically-oriented philosophy toward a four year, integrated professional and liberal arts foundation. The American Dental Hygienists' Association incorporated these recommendations into its House of Delegates 1986 policy statements (McFall, 1992).

Since the Association incorporated the need for the baccalaureate degree as entry level, there have been few studies to investigate the degree completion programs from the standpoint of the curricula. One study examined the degree completion programs' need for a separate accreditation process focusing upon the curricula (ADA, 1985). Another developed a model curriculum for the programs to follow (DiBiase, 1985). However, none has sought to utilize the roles themselves as a unifying theme. This would allow each institution to incorporate courses—both liberal arts and dental hygiene—it feels best prepare the students for each role.

Statement of the Problem

There is currently no standardization of purpose or curricula, if viewed in terms of content areas, among the dental hygiene baccalaureate degree completion programs. This includes courses as well as experiences which would
assist the field of dental hygiene in the professionalization process.

Dental hygiene is not currently unanimously regarded as an independent profession. It is in fact, currently considered one of the "semi-professions" as described by Etzioni (Etzioni, 1969) or "quasi-professions" as described by Lysaught (Lysaught, 1976, p. 14). This categorization is reflected in part by the length, breadth and depth of the educational experience which, for entry-level, is two years of college. This is contrasted with the educational experience of more established professions which require a longer educational preparation. Other factors that influence status include autonomy, licensure, and accreditation authority. Lysaught adds abstract knowledge and a service orientation designed for the public good in an area that is socially valued, complex and uncertain (Lysaught, p. 14).

Because the degree completion programs provide a mechanism for increasing the educational preparation of two year dental hygiene year graduates, it serves an important part of the professionalization process. Along this same plane, articulation policies of the four year institutions play a role in technology-oriented students' choices regarding their education. Such policies will provide important information regarding the curriculum (Trout-Ervin and Morgan, 1989; Alzheimer, 1982). Thus there may be
interest in the current policies in degree completion program infrastructures.

The roles outlined by the American Dental Hygienists' Association were never voted upon by the entire membership and there was and is concern among various constituencies with the four year entry level proposal. In addition, not all dental hygienists are members of the professional association and therefore, not all of the members of the profession would have had an opportunity to speak to the recasting of roles during the Workshops. It is obvious that two year programs cannot incorporate additional sophisticated role-based education into already-packed curricula (AADS, 1992). Thus there is need to look at whether degree completion program faculty agree with these roles as the programs would be expected to provide the opportunity to achieve the roles. Whether or not the faculty agree with the professional roles, it is important to find out if the programs' curricula are designed to help students fulfill some or all of the roles either directly (through dental hygiene courses which are designed to support one or more roles) or indirectly (through general education or liberal arts courses which teach transferrable skills that would allow tangential expertise). Finally, it may be valuable to determine whether the programs are assessing their ability to prepare students for new roles and, if so, how?
**Purpose of the Study**

The purpose of the study is to evaluate the dental hygiene baccalaureate degree completion programs relative to professional role development and outcome. This information should provide a basis of comparison with respect to:

1. an overview of program current infrastructure
2. the level of agreement among program directors' view of professional role development
3. the extent to which students are being educated toward the six enhanced roles
4. the extent to which program directors view the three major groups of courses (dental hygiene, general education and minor areas) as preparatory and contributory toward role development
5. the level of interest in professional accreditation.

The rationale of using professional role development as the basis of comparison is to obtain a unifying curricular commonality for the baccalaureate degree completion programs. Currently there is nothing which binds the programs together as the American Dental Association Accreditation Standards do for the pre-licensure programs. The ultimate purpose of finding such a unifying concept would be to provide a basis for a curricular standard in a professional accreditation process of the programs. Such a process would allow each institution the flexibility to
develop the roles in the manner best suited to its mission and goals. Lack of such standards and curricular guidelines has been noted by several researchers (Taub and Levy, 1983; DiBiase, 1985; Wayman, 1985).

Research Questions to be Asked

1. What are the trends in the infrastructure of the baccalaureate degree completion programs?

2. Do the degree completion program directors agree with the American Dental Hygienists' Association vision of the future roles?

3. In the program directors' opinions, are the programs preparing their students to assume the roles and, if so, how do they assess their student "product"?

4. Which types of courses are most influential in assisting students to assume the six roles?

5. Are the program directors interested in a separate professional accreditation of degree completion programs?

The major conceptual assumption made in establishing the problem is that professional role development is important to degree completion program faculty and that they are aware of and have an interest in those roles set forth by the professional association.
The second assumption is that there is interest in establishing a common link among the degree completion programs for future use in assessment or accreditation by an agency other than the regional association. The third major assumption is that the degree completion program faculty agree with the need for outcomes assessment of their program objectives and have implemented measures to evaluate their students' learning, even though there may not be a professional accrediting agency requiring these.

Theoretical Framework

The theoretical framework for this study is the "rationale for viewing, analyzing and interpreting the curriculum and instructional program of an educational institution" developed by Ralph Tyler (Tyler, 1949, p. 1). The premise of this project is not to develop a standard or model curriculum per se but to develop an approach to curriculum content which would be applicable to and usable by all dental hygiene baccalaureate degree completion programs as a unifying factor. The answers to the four questions which Tyler poses will provide an overview of the programs' attempts to teach toward the expanded roles. Following are the questions which Tyler posed.

1. What educational purposes should the school seek to attain? These "purposes" are actually goals
and Tyler suggests that they should be gleaned from:

a. **studies of the learners themselves** (there are several studies which support the students' quest for a baccalaureate degree in dental hygiene [Waring, 1991; Newell, 1989; Tobian, 1989; Gluck, 1989])

b. **studies of contemporary life outside the school** (During the American Dental Hygienists' Association Workshops, individuals with expertise in various areas reported on the need for increased skills and talents beyond the current scope of education [ADHA Workshop II Proceedings, 1985]. Other studies consulted experts to establish abilities required of future practitioners [ADHA Prospectus, 1988; PEW Foundation, 1992].)

c. **suggestions about objectives from subject matter specialists** (The stimulus for advanced entry level education beyond the traditional two-year scope has been a long-standing topic. Many dental hygiene authors offered suggestions on the subject [Metzger and Forrest, 1980; Mescher, 1984; Wayman, 1985; Kraemer, 1985; Burke, 1991].)
In addition, once these objectives have been identified, Tyler suggests that they be screened or filtered by:

d. **the philosophy of the institution** (Tyler views the educational philosophy of the institution as one of two "screens" through which educators can filter the many possible objectives, thus choosing those most closely connected with their educational missions)

e. **the use of a psychology of learning in selecting objectives** (The second "screen" consists of elements such as the ability to recognize behavioral changes; the conditions under which learning takes place; the length of time it takes to learn particular objectives. Tyler promotes the learning theory advocated by Judd and Freeman where general principles which could be used to solve problems are favored over very specific principles or objectives. The goals advocated for dental hygiene are general and invite multiple educational experiences for attainment.)

2. **How can learning experiences be selected which are likely to be useful in attaining these objectives?**

Tyler is firm in his stance that these experiences
measure what the learner does. However, the teacher is responsible for providing the educational experience which stimulates the desired reaction. The teacher must be familiar with the types of experiences which will cause this atmosphere. General principles to augment this include providing occasions during which the student can practice the behavior and the student enjoys the experience and is able to perform it. There are multiple experiences which may support the same objective and conversely, one experience which may support many objectives (Tyler, 1949, p. 67). While the objectives have already been selected, the types of learning experiences which support them are not known across all of the programs. Thus the questionnaire seeks information on what educational methodology guides the development of each particular role in both closed and open-ended fashion.

3. **How can learning experiences be organized for effective instruction?** Tyler breaks down the concept of organization into the components of vertical (the relationship of experience over time) and horizontal (that which transcends from one area to another) reinforcement. He also defines three important aspects of organization as
integration, sequence and continuity. **Continuity** looks at the recurring emphasis in the learners' experiences with particular elements and this is interpreted as a question in the survey: are dental hygiene courses offered beyond those at the certificate level and, if so, do these courses contribute toward a role or roles? **Integration** refers to the learners' increased unity of behavior in relating to the roles and may be perceived as drawing upon the interaction of the liberal arts and dental hygiene courses. Such interaction is believed to provide opportunities to learn different behaviors in response to the various roles. **Sequence** refers to the increasing breadth and depth of the learners' development and is addressed through examination of the learners' abilities to assume the roles before and after attending the degree completion program. Within this organization there are major elements. One is referred to as "organizing threads" which may be considered the roles themselves. The other element is that of "organizing principles" or concepts. One such concept is increasing breadth of application. Within the study this is termed "professionalization".
4. **How can the effectiveness of learning experiences be evaluated?** Here Tyler defines evaluation as "the process for determining the degree to which these changes in behavior are actually taking place" (Tyler, p. 106). Students must be evaluated at the beginning and the end of instruction and he mentions "colleges are making follow-up studies of their graduates in order to get further evidence as to the permanence or impermanence of the learning which may have been acquired" (Tyler, p. 107). Thus he explains the concept of "outcomes assessment" although it is not so named in his text. One aspect of this project is to gather data on whether students are being instructed and assisted in role development and how this is occurring. Questions are asked regarding behavior both before and after enrollment in the degree completion program as to their ability to assume the role[s] and by what measure is this assessed.

The concept of evaluation itself is not new to dentistry and dental hygiene. Both professions have a long history of external evaluation via professional agency accreditation. Dental hygiene established the standards for accreditation in 1947 and has revised them four times since then. The most recent set in January, 1991 included the concept of outcomes assessment. Prior to that time, there
was more concern with the process of education rather than the product or outcome.

However, the American Association of Dental Schools looks at outcomes assessment as relatively new to dental education with its statement that "the expectation is that outcomes data will be used to assess the attainment of goals and objectives" and that "...departments, programs and schools are expected to ensure that the activities are ongoing" (AADS, p. 5).

The American Dental Association states in its Accreditation Standards for Dental Hygiene Programs (Standard 12, Outcomes Assessment) "Each program must regularly evaluate the degree to which its goals are being met through a formal assessment of outcomes" (ADA, p. 22).

Outcomes assessment is related to the concept of summative evaluation, which Scriven sees as that "conducted at the end of a program to provide potential consumers with judgements about that program's merit or worth" (Worthen and Sanders, p. 34). However, they recognize that it may be difficult to distinguish between formative and summative evaluation "...if a program continues beyond a summative evaluation study, the results of the study may be used for both summative and formative evaluation purposes" (Worthen and Sanders, 1987, p. 36).
Delineation of the Research Problem

The study should compare and clarify the following:

1. Compare the degree completion programs' academic requirements for trends
2. Compare degree completion programs' specific curricula with respect to professional role development
3. Compare degree completion programs' curricula and level of professional role development for trends
4. Compare degree completion programs' use of methods of outcomes assessment
5. Assess the need for professional accreditation.

Importance of the Study

The study is important from several aspects. First, few studies have been done on degree completion program curricula and academic infrastructure. Those studies which were done did not all agree on what constituted a dental hygiene degree completion program. The American Association of Dental Schools publishes a compendium of programs; however it does not seek quite the same information proposed in this study. The American Dental Hygienists' Association also publishes a roster of programs but does not offer in depth information on their content. Second, there is a need to know the degree completion program directors' opinion of professional role development as established by the American
Dental Hygienists' Association. Because not all ADHA members or members of the profession at large were polled on their level of agreement with these roles, ascertaining the level of agreement could provide information which may assist in decision making at various levels.

Third, since there is no central unifying concept among the programs, using professional role development as a possible core would allow each program to continue to utilize its current curriculum or to modify it. It would offer guidance or direction through relating the value of selected courses toward each role.

**Delimitation and Limitations of the Study**

1. The delimitations of the study include:
   a. investigating only at degree completion programs (no comparison with certificate level and/or baccalaureate degree programs to investigate their perceptions)
   b. Using only the faculty perceptions or opinions on the topic
   c. Using a survey questionnaire with few open-ended questions to establish new views or rationale.

2. The limitations include:
   a. Not surveying the students to establish comparisons
b. Not asking for follow-up from the programs if there is no agreement with the roles

c. The author's bias in developing the questionnaire

d. The author's bias in interpreting data.

Definition of Terms


Dental Hygienist: A preventive oral health professional licensed in dental hygiene who provides educational, clinical and therapeutic services supporting total health through the promotion of optimal oral health (ADHA, 1993).

Certificate /Associate Dental Hygiene Program: An entry level dental hygiene program which is conducted at an educational level that includes a maximum of two academic years of dental hygiene curriculum. Such programs are situated in institutions of higher education, must be accredited by the American Dental Association Commission on Dental Accreditation, and allow for admission to four year colleges and universities at the upper division level (ADHA, 1993).

Baccalaureate Degree Dental Hygiene Program: Entry level dental hygiene program which offers varied approaches to complete both the dental hygiene curriculum and a baccalaureate degree. These may be combinations of:
Four year integrated: dental hygiene curricula are offered in conjunction with liberal arts courses throughout the four year period culminating in a Baccalaureate degree and Certificate in Dental Hygiene.

Combination:

Two plus two: two years of liberal arts and two years of dental hygiene curriculum offered in either order but offered consecutively.

One-two one: one year of liberal arts, followed by two years of dental hygiene (granting the Certificate in Dental Hygiene) followed by one year of liberal arts (granting the Baccalaureate degree).

Dental Hygiene Degree Completion Program: A program situated within an institution of higher education which provide certificate level dental hygienists the opportunity to complete a baccalaureate degree. The degree may or may not be in dental hygiene (ADHA, 1993).

Accreditation: A system for recognizing educational institutions and professional programs affiliated with those institutions for a level of performance, integrity and quality which entitles them to the confidence of the educational community and the public they serve. These are
offered through non-governmental, voluntary, institutional or professional associations (ADHA, 1993).

**American Dental Hygienists' Association**: The national professional organization which represents dental hygiene. This organization has no regulatory power over education, practice or accreditation (ADHA, 1993).

**American Dental Association**: The national professional organization which represents dentistry and which in turn is recognized by the United States Department of Education and the Commission on Post Secondary Accreditation to act as the regulatory body for dental hygiene accreditation.

**Curriculum**: A model of strategies outlining what is taught in educational institutions, as well as the methodology for teaching and evaluating the material.

**Goals**: Educational statements of purpose used as guidelines and which outline the scope of a program.

**Outcomes Assessment**: The process of collecting information about the attainment of goals and analyzing that information to validate the efforts made. The information gleaned may serve to guide improvement of the program.
CHAPTER II
REVIEW OF RELATED LITERATURE

This chapter is divided into several sections which influence the topic of dental hygiene education. These elements include information on aspects of baccalaureate education, professionalization and outcomes assessment.

**Dental Hygiene Baccalaureate Degree Education**

There are several aspects which apply to the review of the literature on baccalaureate dental hygiene degree completion education. Topics include the diversity among programs, roles and career emphasis for dental hygiene graduates, and model curricula.

Impetus for the need for baccalaureate degree education came out of the 1975 and 1976 Iowa Dental Hygiene Conference on Baccalaureate Education. While there has been much written regarding the topic of the need for the bachelor's degree within the profession, much of the information concerns the integrated four year program. Less has been devoted to the topic of degree completion programs; yet, due to the much larger number of community colleges and the number of students who would potentially be served by degree
completion programs, the topic is necessarily one which should be addressed.

Wayman defines baccalaureate degree education as that which is "...offered exclusively at the junior and senior levels of colleges as upper division courses whether post-liberal arts, post certificate or distributed through out four years" (Wayman, 1985, p. 136). She discusses the increasing complexities of clinical practice demands as one reason to increase the traditionally accepted two year programs. She believes that two levels of dental hygiene practice will be the result of dental hygiene education continuing to remain within formal higher educational settings. The two year graduate would function at an introductory level while the baccalaureate prepared dental hygienist would provide more advanced treatment with little or no supervision. However, there would need to be standardization of the baccalaureate program curricula and such programs would require a new accreditation process. Wayman speculates that curricular diversity at the certificate or two year level may be the result of institutional factors that reflect local definitions of dental hygiene. However, she does not address the diversity at the baccalaureate level which may result from similar pressures or, more possibly, institutional factors alone.

Thus, there may be strong reasons for diversity in the baccalaureate programs which may have to do with the
mission, goals and objectives of the institution. The question then becomes, how can both institutional and professional goals be met? One possible answer, which will be explored more thoroughly in the next chapters, is the use of professional roles and their development as the focal point for curricular unification. Programs which seek to educate their students to assume standard professional roles may accept a standard set of goals developed by the national professional association if implementation or goal development is left to the individual programs. This format is the same one followed by the American Dental Association Commission on Dental Accreditation. That the concept has worked well is demonstrated through the low failure rate of all of the Certificate dental hygiene students from accredited programs on the ADA Joint Commission Dental Hygiene National Board Examination.

If the baccalaureate program directors agree with the American Dental Hygienists Association roles and the descriptors or "goals" which support them and, if these "goals" are in accord with the institutional mission statements, then the "goals" may in fact become the standards upon which an accreditation process may be based. Provision of broad general guidelines allows each institution to implement the educational process in the manner which best suits the individual school.
The concept of two levels of dental hygiene practice gained more attention in the article "A Model for Two Year and Baccalaureate Clinical Dental Hygiene Education" (Gluch Scranton and Riggoletto, 1985). The authors base the need for differentiation between two year and four year graduates on the fact that the current educational preparation has not kept up with the actual demands for current and future practice. They view their proposed model as a bridge to an integrated four year program (targeted to the year 2000) from the current diverse educational practices. The authors incorporate the level of education with the roles each dental hygienist would play. All graduates would possess clinical skills, however, the baccalaureate graduate would have greater breadth of experience and hence, greater autonomy. In the area they term "professional skills" it is the baccalaureate curriculum which would include research, writing, practice management, legislative, organizational and evaluation skills.

In "Career Preparation Role of Baccalaureate Dental Hygiene Education" a model four year integrated curriculum is presented (Metzger and Forrest, 1980). The purpose of the design was to graduate dental hygiene practitioners with a baccalaureate degree who have developed "skills necessary to assess their own performance" (Metzger and Forrest, p. 26). Their model, a 1+3 design, calls for the first year to consist of prerequisites, the second and third years to
consist of basic and advanced dental hygiene content and the fourth year to consist of a specialty area. In that fourth year students could choose from among the disciplines of public health, research or education. Although students in the model program would receive the certificate in the third year, the authors do not indicate whether students from other schools could complete the fourth year and thus earn baccalaureate degrees within this program. The authors' suggestion that flexible curricular design be observed acknowledged the uniqueness of each baccalaureate dental hygiene program based upon its setting, resources and needs of its students. However, they assert that there must be role definition and definite goals within these programs which should be set by the educators.

The predecessor of the current professional roles as envisioned by the American Dental Hygienists Association was discussed in "A New Career Emphasis for Baccalaureate Dental Hygiene Education" (Brine, Rossman and Mescher, 1979). Their model drew upon a statement from the Invitational Conference on Baccalaureate Dental Hygiene endorsed by those participants:

Baccalaureate degree dental hygiene education is capable of making unique and essential contributions in the prevention of oral disease and promotion of oral health. To make these contributions baccalaureate dental hygiene education must be modified to emphasize biomedical, behavioral and clinical sciences. Therefore basic dental hygiene curricula must include an advanced core of knowledge in biomedical, behavioral and clinical science. Learning experiences should develop a high level of proficiency in clinical,
managerial, education and research skills. Curricula should be designed to be flexible and to integrate biomedical and behavioral sciences with dental hygiene content at each curricular level (Brine, Rossman and Mescher, p.269).

The model role was called the "oral health facilitator" and encompassed functions that included research, public health, educational and political elements. The authors discussed the concept that creation of a new role would necessitate acquiring information from adjacent fields such as social work, public health and education and applying it to dental hygiene. They viewed distinct areas of biological and social sciences as providing information that would be integrated into the curriculum and which would emphasize problem solving at ever increasing levels of complexity.

Mescher reviewed admissions requirements for dental hygiene programs and in doing so found many inconsistencies with commonly held notions regarding the requirements (Mescher, 1979). Basing her research upon readily accessible accreditation and association documents, she found that few programs were genuinely two school years in length. Many of the incoming students were beyond the high school level, having had one or more years of college. Thus she concluded that many certificate level dental hygiene graduates were not receiving degrees commensurate with their academic preparation or level of education. Among her conclusions were the notions that dental hygiene may have an image equated with training rather than education and based
upon that, state boards of dentistry may continue to restrict the practice of dental hygiene. Among the author's suggestions are the development of alliances between two and four year institutions to allow students to earn degrees "... commensurate with the length of the educational programs" and that "...baccalaureate degree programs include educational content and experiences in the curriculum that will prepare students for decision-making roles in the delivery of health care" (Mescher, p. 72). The suggestion of preparation for such roles is one which fits in with the purpose of this paper: that the programs look to role preparation and the associated goals as a common curricular link, thus allowing each to maintain autonomy over the process.

The directors of the baccalaureate dental hygiene programs identified through accreditation documents and the authors' awareness of such programs were surveyed by Taub and Levy in 1983. The programs included both four year baccalaureate and post-certificate programs. The authors sought information regarding types of degrees conferred, the major specialization for the degree, and the objectives of the four year curriculum. The purpose was to ascertain the nature of education and treatment offered beyond the basic certificate dental hygiene program and whether any curricular commonalities might be identified (Taub and Levy, p. 28). The statistical analysis chosen (frequencies)
compared data of interest to the present study: 1) the areas of specialization revealed that the majority of programs' major was dental hygiene 2) the primary objective for those programs answering this question was preparation for private practice or dental hygiene education or had multiple objectives 3) curricular types revealed that there were nine different patterns, all variations on 2+2, 1+2+1 or four year integrated (Taub and Levy, p. 31). The results indicate "...that there are more differences than similarities among baccalaureate degree programs for dental hygiene in the United States" and "...there does not appear to be any common content or sequence of courses in these programs"( Taub and Levy, p. 30). The authors raise the question of whether the programs should exhibit curricular commonality and similar objectives. They call for work role clarification based upon the level of education.

Rubenstein and Brand described the post-certificate programs in 1986. They defined such programs as those which 1) were affiliated with a dental hygiene school or department and 2) contained a core of advanced dental hygiene courses within their curriculum (Rubenstein and Brand, 1986, p. 608). The twenty item closed and open ended survey was sent to all dental hygiene programs in institutions which offered the baccalaureate degree. Of these, thirty one met their definition and after review of all data, the final pool consisted of twenty eight programs.
The admissions criteria were compared and found to be relatively uniform in the types of requirements for entry as well as for graduation. Program goals identified from fifteen of the twenty eight programs were found to have a wide range and included: dental hygiene education; preparation for advanced professional or graduate education; clinical skills and knowledge; development of a well rounded graduate through exposure to liberal arts courses; and professional/personal development, responsibilities and leadership (Rubenstein and Brand, p. 609).

Their findings revealed that few of the twenty eight programs used a track or minor area to teach specific skills or knowledge, even though this was a stated goal of many. The authors speculate that this could result from specific alternate career preparation via core courses within that area (for example, public health); exploration of a variety of options through exposure to general reference courses such as management, thereby developing skills transferrable to a variety of settings; or an emphasis on the liberal arts. Eighteen of the programs did not offer advanced clinical skills. Although the authors believed that this area was an important aspect for the students (since many had been away from clinical education for a long time and might be in need of updating) they noted that "no specific guidelines exist to design strategies to enable program faculty to evaluate clinical competency" (Rubenstein and
Brand, p. 609). To do so would require additional resources or could trigger a negative reaction from students who already considered themselves licensed professionals. Also, emphasis on the clinical aspect could present a negative image to those students who sought out the program to pursue an alternative career pathway. Rubenstein and Brand conclude that it is difficult to evaluate whether baccalaureate programs are indeed preparing their students for a variety of careers, since few of the programs kept data on their students' choices. They acknowledge that the roles specified by the ADHA would require advanced education but note that relatively few dental hygiene students are enrolled in degree completion programs.

In "Dental Hygiene Curriculum Model for Transition to Future Roles" Paarman, Herzog and Christie state that a major problem in professional education is that educators have failed to satisfactorily define the educated professional (Paarman, Herzog, and Christie, 1990, p. 200). The authors reviewed several existent programs' curricula through examination of their college bulletins and suggest that few offer content which would prepare graduates for all of the roles outlined by the ADHA.

Their concern is the need for articulation programs which would enable certificate level graduates to proceed on toward a baccalaureate degree. The remainder of the article deals with a model four year integrated curriculum which
matches course content with its applicability to a particular role. For example, the psychology course, required as one of the five liberal arts courses by the ADA Standards on Accreditation, is seen as contributing to all of the roles. A proposed course such as "The Legislative Process" would contribute toward the Consumer Advocate and Change Agent roles. The model is clearly pre-licensure in its intended nature as it adheres to the requirements of the ADA Standards on Accreditation and assumes the burden for preparing its graduates for the ADA Joint Commission Dental Hygiene National Board Examination. However, the fourth year of the model would allow articulation by certificate graduates from other programs. The fourth year curriculum includes advanced, clinically related courses as well as research methodology and community health. It allows each student to select tracks relevant to interest. The model is successful in its attempt to address the relevancy of designated dental hygiene and specialized courses drawn from other disciplines such as public health or research toward the professional role. Unexplored is the part played by the liberal arts or elective courses outside those required by the accreditation standards (two English or writing courses and one course each in speech, psychology and sociology).

While the courses in dental hygiene are important, there is evidence that the liberal arts play an important part in the development of each of the roles. As noted by
Paarman, et. al, each role may be augmented by different types of courses. One author looked at the part that the liberal arts played in professional education and determined that education has been most valuable when it is concerned with real life of the period (McGrath, 1957, p. 7). He sees the purpose of the liberal arts as: providing essential knowledge, cultivating intellectual skills and cultivating traits of personality and character (McGrath, p. 26). Professional education has as its purpose to: provide orientation or to acquaint the student with the basic principles of the profession; provide vocational flexibility or the ability to adapt to new organizational structures, policies or practices; provide basic principles rather than specific facts or techniques; cultivate professional attitudes and motivation that education is only beginning with the receipt of the baccalaureate degree (McGrath, pp. 36-40).

Leighbody holds that vocational education and the liberal arts complement each other. The liberal arts need vocational education as a reference point and in similar fashion, training for a job without understanding the role of the liberal arts is seen as restrictive (Berman, 1967, p. 67).

McGrath advocates the integration of the professional education with that of the liberal arts, citing several reasons for this structure. Among them are the opportunity
to capitalize on the students' motivation toward the profession to help "see the relationship to" the liberal arts. Meaningful material is also learned more quickly. Furthermore, it allows the faculty within the profession to participate in the selection of their students (McGrath, p. 52).

However, not all of the degree completion programs include additional dental hygiene courses and McGrath notes that there is value in separating the two spheres of professional and liberal arts education. The rationale for this approach includes the fact that students may attend fully to the liberal arts without having the glamour of the professional courses obscuring the worth or value of the former. Such a division also allows the student who has difficulty in deciding upon a career to explore several areas prior to committing himself or to change schools without penalty once a choice is made. Cost factors are an important consideration allowing students to attend a community college for a portion of their education prior to transferring to a more expensive setting. Finally, administratively such divisions create less complication with course sequences and allow faculty of the liberal arts courses to avoid a "narrow focus" of instruction to accommodate the professional student (McGrath, pp. 50-51).

"General Education in the Professional Curriculum: Faculty Perceptions of Contributions" discusses
the influence of the liberal arts courses in professional programs (Arlton, Ernst, Sunderwirth, 1990). The authors designed a survey to help identify contributions which the general education courses made to student development. It also sought to ascertain the manner in which faculty utilized contributions made by the courses to their health programs. General education courses were ranked as to the skills and values they imparted: communication, problem solving, understanding of self and others' behavior, personal value system, appreciation/understanding of other cultures and aesthetic awareness and appreciation of the arts (Arlton, p. 54). The authors explored a number of reasons for the lack of interdisciplinary cooperation ranging from accreditation standards to protection of scarce human and financial resources. Their study lead them to the conclusion that an integrated approach is the better educational route. However, they did not address the situation commonly encountered in some of the health professions, including dental hygiene, whereby the professional sequence is completed at the community college level. Not every four year institution has additional professional course work to offer its students and those students may need only to complete liberal arts courses.
Professional Development

The issue of professional development influences baccalaureate degree completion programs. Although there is relatively little discussion on dental hygiene in this context, there is considerable information regarding nursing and the other allied health occupations (Maloney, 1992; Cohen, 1981). Those concepts apply equally to dental hygiene. Cohen states that nursing remains at a semi-professional stage due to the imbalance between the desire to provide professional service and the limited theoretical base (Cohen, 1981). Maloney states that nurses have assumed the title of professional because they equate licensure with professionalism. However, nurses fail to note that the most important criteria in professionalism is education and that standardization of education is critical (Maloney, 1992). According to Lindeman, nursing has followed a "convoluted progression toward becoming an unambiguous profession" (ADHA Workshop Proceedings, 1984, p. 24). She notes that nursing originally had four hallmarks: 1) Services were linked to societal need; 2) research and program evaluation were part of practice; 3) nurses trained nurses and controlled their own profession; and 4) nurses collaborated with other professionals. However, in the United States nursing education changed and became controlled by the employment setting, and thus the original hallmarks were diminished. Another situation encountered was the inability to maintain
educational progress. Once nursing began to reform its educational pattern away from the vocational model and toward an academic one, its image became one of an emerging profession. However, one problem which still remains is the lack of unified educational standards for entry into practice. (ADHA Workshop II Proceedings, 1985, p. 25).

Dental hygiene is included in the category of a "semi-profession" (Etzioni, 1969) or a "quasi-profession" (Lysaught, 1978) based upon several factors. The term "semi-profession" describes those vocations in which 1) the training period is shorter, generally less than five years; 2) the status is less legitimated 3) the right to privileged communication is less established 4) there is less of a specialized body of knowledge; and 5) there is less autonomy from supervision or societal control than the established professions (i.e., medicine or law) (Etzioni, p. 4).

Etzioni notes that "a significant segment of the semi-proessions aspire to a full-fledged professional status and sustain a professional image, despite the fact that they themselves are often aware that they do not deserve such a status..." (Etzioni, p. vi). Further, he states that "...the desire to pass for a higher-status group produces pressures which split the group into those closer to the 'passing' limit and those more remote, thus weakening both subgroups in the societal give and take" (Etzioni, p. vii). He points out that there is a need to recognize this middle
group's status (between professional and blue collar workers) and with it the realization that this group will very often never achieve the coveted status of the well established professions. Troutt-Ervin and Morgan note that often health care workers may refer to themselves as professionals in their association journals or within their organizations, but often they are referred to as technicians by the established professional world (Troutt-Ervin, Morgan, 1989, p. 3).

The chapter "The Theoretical Limits of Professionalism" continues with this line of speculation. Its author, William Goode, states that "Occupations that seek recognition as professions engage in transactions within all three markets- prestige, power and income- with varying success. Most will not rise far or achieve professional status, but those that do must change themselves" (Etzioni, p. 169).

"Professionalization" is defined as a "trend toward more formal occupational association and more formalized occupational codes of behavior in many diverse lines of work" (Vollmer and Mills, 1966, p. 2). Such a process affects many jobs to varying degrees along a continuum. They view the ideal profession as including: 1) a basis of systematic theory; 2) authority recognized by both the client and the professional group; 3) broad community sanctions and approval of this authority; 4) a code of
ethics regulating relations of professional persons with clients and colleagues; 5) a professional culture sustained by a formal professional association (Vollmer and Mills, p. 10).

In the discussion of the history of professionalization, Wilensky refers to the "generating traits" of a profession: a basic body of abstract knowledge and the ideal of service. Each is supported by "subdimensions" and each of the subdimensions is viewed as a continuum.

The subdimensions of professional knowledge include:

1) Knowledge and skills should be abstract and organized into a codified body of principles
2) Knowledge should be applicable or thought to be applicable to the concrete problems of living
3) The society or its relevant members should believe that the knowledge can actually solve these problems
4) Members of the society should also accept that these problems be given over to the occupational group for solution because of the knowledge which that group possesses
5) The profession itself should help to create, organize and transmit the knowledge
6) The profession should be accepted as the final arbiter in any disputes over the validity of any technical solution lying in its area of supported competence
7) The amount of knowledge and skills and the difficulty of acquiring them should be great enough that the members of society view the profession as possessing a kind of mystery that is not given to the ordinary man to acquire by his own effort, even with help (Etzioni, p. 297).

However, Wilensky cautions that in developing professional knowledge, the aspiring profession must be able to control a more substantial knowledge base than other occupations with
which it may be in competition for status. This may be
difficult to discern because some occupations can actually
perform certain skills better than the profession above
them. Also, admissions requirements for many occupations
often require broad foundations which in turn, causes
overlap of knowledge with other professions (Etzioni, p
277).

The process of professionalization as observed by
Wilensky among established and developing professions
consistently followed this order:

1) a full time commitment to the task
2) establishment of a training school (preferably
   ultimately within a university setting)
3) formation of a professional association
4) political agitation to gain legal support for job
   protection
5) establishment of a formal code of ethics.
   (Wilensky, 1964).

He notes that there were variations in the order among both
established and developing professions but on the whole
adhered to the process.

Caplow outlines the steps in the process of
professionalization in somewhat different order:

1) Establishment of a professional association
2) Change of name
   -reduces association with old tasks or status
   -asserts the technological monopoly
   -provides a title which can be monopolized
3) Develop and promulgate a code of ethics
   -asserts social utility of the occupation
   -sets up public welfare rationale
   -develops rules which serve as further criteria to
     eliminate the unqualified
4) A prolonged political agitation (the object of which is to obtain the support of public power for maintenance of new occupational barriers)

5) Development of training facilities directly or indirectly controlled by the professional society with responsibility for admissions and final qualifications (Vollmer and Mills, pp 20-21).

Everett Hughes describes those occupations which are striving to attain professional status as attempting to increase the educational requirement; achieving authority for delineating their proper work; and awarding higher prestige to those members who are out of the "field" and into another aspect such as research or administration. Among older, more established professions there is no such division (Vollmer and Mills, p. 67). Anderson views professional education as a dynamic entity which continues to develop and work toward the ideal (Anderson, 1974, p. 7). He also sees professional education as, among other traits, seeking to broaden its scope of service.

The article "Professional Socialization: A Comparison of Dental Hygiene Graduates' Professional Attitudes and Interpersonal Values" views the process of professional socialization (the period during which novices learn the social roles of the profession) as one method of outcomes assessment (Kraemer, 1987). Although Kraemer notes that all professions follow a similar process developing professions such as dental hygiene may not proceed at an even pace (Kraemer, p. 563). Anderson adds that the methodology by which students are educated such as an internship or
practicum as enhancing the process of professionalization (Anderson, 1974, p. 18).

Outcomes Assessment

"Accreditation is a system for recognizing educational institutions and professional programs affiliated with those institutions for a level of performance, integrity and quality which entitles them to the confidence of the educational community and the public they serve" (Cheney, p. 1). The Department of Education in 1987 proposed a change in the procedures and criteria for recognizing accrediting agencies which required inclusion of assessment of student achievement as a measure of educational quality (Federal Register, 8 September 1987). The American Dental Association Commission on Dental Accreditation is the agency responsible for accrediting dental hygiene entry level programs. It incorporated Standard 12, Outcomes, in its 1991 Accreditation Standards.

Sims offers definitions of the entire range of evaluation. Measurement is defined as "a simple process of gathering and quantifying information for future interpretation and serves as the base for the more complex activities" (Sims, p. 4). Assessment occurs when measurements are analyzed and is defined as "the process of gathering and analyzing information about the impact and functioning of undergraduate education" (Sims, p. 5).
Evaluation occurs when judgement is applied to assessment efforts (Sims, p. 4).

Outcomes assessment is defined as the "process of collecting information about the attainment or outcome of an academic endeavor; analyzing that information by comparing and contrasting it with previously established statements of mission, goals and objectives; then using that information to validate the existing effort or to make recommendations to guide improvement" (AADS, 1990, p. 5). The AADS acknowledges that one of the most critical elements in outcomes assessment is selection of appropriate goals and objectives and that there are goals and objectives common to all programs and schools which would then be included across all programs and schools (AADS, p. 11).

Assessment is ongoing and may address cognitive, affective, psychomotor, interpersonal or communications issues. It "requires faculty to define exactly what it is we are trying to do, to describe and explain how we plan to measure our accomplishments to test ourselves and our programs, to examine the results and to become accountable for our efforts be they good or bad" (Van Stewart, 1990).

The need for outcomes assessment permeates across all of allied health care education (Fauser, 1992; Weithaus and Fauser, 1991) although few studies have concentrated on dental hygiene. One study of dental hygiene outcomes assessment compared certificate and baccalaureate degree
completion program students within the same institution in terms of practice patterns. The authors discovered that there were differences between the groups in terms of educational preparation and breadth of practice setting experiences. Both groups adhered closely to the goals of their respective programs (Cameron and Fales, 1988).
CHAPTER III

METHODOLOGY

Introduction

This chapter describes the basis for the methodology and procedures followed in this study and includes: theoretical framework; selection of subjects; design of the questionnaire; and collection and analysis of data.

The American Dental Hygienists' Association (ADHA) Framework for Theory Development describes four main concepts which comprise the parameters of dental hygiene. These include the client; the environment; health and oral health; and dental hygiene actions. The concept of environment refers to factors which include education. (ADHA Policy Manual).

The paradigm concept is a two-way process. The environmental element—in this case education—may yield a conceptual model that progresses to a theory which may find its way into application. The reverse may also be true. A theoretical model can be derived from practice and produce a conceptual model which contributes to the paradigm.
The ADHA promotes research which supports the theoretical basis for education as well as that which broadens the scope of dental hygiene practice. Within its mission statement, the ADHA seeks to promote "the highest standards of dental hygiene education" (ADHA Policy Manual). It also supports the concept of dental hygiene accreditation standards which provide for the preparation of entry level dental hygienists capable of assuming responsibilities in the roles of clinician, health promoter/educator, researcher, administrator/management, consumer advocate.

**Research Approach or Methodology**

The study utilized a descriptive research approach. This type of research has as its purpose "to describe systematically the facts and characteristics of a given population or area of interest, factually and accurately" (Isaac and Michael, 1989, p. 46).

A questionnaire was the method chosen to collect data for the study. Among the purposes for the descriptive approach using survey studies are: "to identify problems or justify current conditions and practices; to make comparisons and evaluations; to determine what others are doing with similar problems or situations; and to benefit from their experience in making future plans and decisions" (Isaac and Michael, 1989, p. 46). Survey research serves to
provide description, explanation and exploration (Kromer, 1993).

The questionnaire format has both advantages and disadvantages. According to Kromer, ease of use is the primary advantage and covers much ground in terms of cost, contacting subjects, data collection, and subjects' understanding and completion of the instrument. In addition, the format is consistent in its method of obtaining information. Isaac and Michael add that the questionnaire surveys are self-administering and may be anonymous (Isaac and Michael, p.130). Limitations include problems with response rates; reliability and validity; and the inability to follow up (Kromer, 1993). There is no control over who actually completes the survey nor that the questions were understood (Isaac and Michael, p. 130).

Instrumentation

The survey questionnaire format was based upon the Instructional Systems Design (ISD) process. The survey consisted of a total of thirteen questions. Of these, ten were multiple-part, closed ended questions. The responses to these questions fell into different categories. First were categorical responses which required a Yes or No response; following up on positive answers were checklists that allowed the respondents to acknowledge areas which applied to their programs. Second, an equal appearing
interval or Likert scale was used. The Likert scale format offered the subjects five responses to a series of positive statements made about the curriculum within their programs. Of the three remaining questions, two were both closed and open ended and used the same Likert scale. In addition the respondents were given the opportunity to clarify their responses.

The survey went through several Dissertation Committee revisions prior to pilot testing. A cover letter was designed which explained the purpose of the study and how the resulting data would be used. Respondents were assured that Section I, Demographics, would be reported primarily in aggregate form, but that specific programs would be identified which offered unique, positive educational approaches to curricula. Sections II and III would be identified in aggregate form, divided by region, only.

**Subject Selection**

Subject selection was limited to degree completion program faculty. There are currently forty six degree completion programs identified by the American Dental Hygienists' Association (ADHA). Dental Hygiene Program directors identified their programs as offering the degree completion option to the ADHA during its annual Education Survey. These programs are defined as those which offer the certificate level dental hygienist the opportunity to work
towards a baccalaureate degree. The degree does not necessarily need to be in the field of dental hygiene.

All of the program directors were included in the sample, as the total number was small enough to do so and because the information could potentially provide a comprehensive overview of administrative and curricular procedures. The study was designed to be answered by program directors and did not include students. Students were not included for several reasons: the information sought was relevant to curriculum and faculty are usually responsible for curriculum decisions; students have varied reasons for attending post-certificate programs which may or may not have to do with curriculum offerings; the number of students enrolled in programs is quite variable and data might not truly represent trends across regions.

Pilot Studies

The questionnaire was pilot tested in July, 1993. Five individuals were selected. Four current program directors all at universities and all with degree completion programs and one former community college program director were sent or given the survey. These individuals represented geographic diversity: one was from the Pacific Northwest; one from the West; one from the Mid West; and two from the Middle Atlantic states. All individuals were contacted at a professional meeting and asked to participate in the pilot
test. All agreed to review the survey and to return it with comments as to clarity, etc. One individual reviewed the survey at the meeting; the remaining individuals were mailed the survey. Of those surveys sent out, one from the Middle Atlantic region was not returned. Because there were two institutions already included in this area, it was not deemed as a critical omission. The pilot tested approximately 8% of the institutions.

The returned surveys included a number of helpful suggestions. Among these were grammatical changes which resulted in greater clarity; substantive changes which resulted in inclusion of open-ended questions and additional choices in checklist items.

The questionnaire design was specific to the purpose and to the dental hygiene community, who would be expected to be familiar with the topic. In addition, it offered an explanation of the professional roles, thereby providing less chance for misinterpretation. This was borne out with the pilot testing and as a result could be said to have face validity. Internal validity involves the degree to which the outcomes of the study are related to the approach used and not other effects (Tuckman, 1988, p. 6). Again, based upon the small sample, the questionnaire would appear to have a moderate degree of internal validity. Because the population surveyed is small, results could be generalizable to the population of degree completion programs but would
not be so to the entire population of dental hygiene entry level programs. The test would appear to be reliable in its measure again based upon the results received from the pilot study.

**Field Procedures and Data Collection**

The survey design included the appropriate directions for each question. In addition, the cover letter explained the purpose of the study and how the data would be used. Confidentiality was assured for Section II (Education Toward Professional Roles) and Section III (Interest in Professional Accreditation of Degree-Completion Programs). Data for these sections would appear in aggregate form and if differentiated, would be so only by region. Data in Section I (Demographics) would be reported in aggregate form, perhaps broken down by region. It would appear in individual form only to highlight significant, positive educational endeavors where appropriate.

Questionnaires were sent to all forty six identified degree-completion programs via first class mail. In addition, one letter was sent to the investigator as a check on the reliability of delivery. The cover letter and the last page of the survey contained mailing information and the date desired for the survey's return. Provisions made for follow up included a second letter and for those not
responding to the second mailing, a reminder telephone call was planned.

Data Analysis

The data collected were to be displayed in frequency tables which were to show the overall percentages of program demographics such as: 1) the number of hours accepted from the certificate program toward the baccalaureate degree; 2) the type of degree granted; 3) the types of dental hygiene-related courses required; 4) the variety of general education courses required. In addition, the frequency tables would display the level of agreement with the definition of the roles and the related aspects. These aspects include: matching the institutional mission; level of student preparation at entry and after graduation; and courses designed to prepare students for each role.

Limitations

Among the perceived limitations of the methodology, are:

1) a small pilot study which was not chosen randomly, thereby potentially causing bias
2) only schools listed by the American Dental Hygienists Association were used; others may exist which accept dental hygiene credits and allow
students to obtain degrees and which may prepare students for various roles.
CHAPTER IV
FINDINGS; ANALYSIS AND EVALUATION

Introduction

The findings from the questionnaire are presented in this chapter. To facilitate both presentation and interpretation of data, the chapter is divided into two sections. Section I contains the Research Findings and includes: Demographics; Education Toward Professional Roles; and Interest in Professional Accreditation of Degree-Completion Programs. Section II contains the discussion of the general findings.

The original population consisted of forty six (46) programs. Survey responses revealed three programs which self-identified as incompatible with the concept of the degree-completion program as portrayed in both the survey and the cover letter. These three programs declined to participate, indicating that the degree completion option was offered outside of the dental hygiene program structure. Thus, the dental hygiene programs would appear to have little, if any, influence over the students or the curricula. Therefore, the revised population consisted of forty three (43) programs and of these, thirty five (35)
responded with completed surveys. The total response rate was 81%.

FINDINGS

Demographics

Institutional Affiliation

The majority of the programs (24 or 68.8%) were situated in a public institution while a smaller number (6 or 17%) were located in private schools. Five programs (14.3%) did not respond to this question. Results are shown in Table 4-1.

<table>
<thead>
<tr>
<th>School Type</th>
<th>Number of schools</th>
<th>Percentage Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>24</td>
<td>68.6</td>
</tr>
<tr>
<td>Private</td>
<td>6</td>
<td>17.1</td>
</tr>
<tr>
<td>No Response</td>
<td>5</td>
<td>14.3</td>
</tr>
</tbody>
</table>

In describing the type of institution, one program (2.9%) indicated a Technical School affiliation; four (11.4%) indicated that they were affiliated with a four-year college; five (14.3%) indicated a Dental School affiliation; and twenty-two (62.9%) were affiliated with a University. Three respondents (8.6%) did not answer this section. Table 4-2 summarizes the findings.
TABLE 4-2

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>22</td>
<td>62.9</td>
</tr>
<tr>
<td>Dental School</td>
<td>5</td>
<td>14.3</td>
</tr>
<tr>
<td>Four Year College</td>
<td>4</td>
<td>11.4</td>
</tr>
<tr>
<td>Technical School</td>
<td>1</td>
<td>02.9</td>
</tr>
<tr>
<td>No Response</td>
<td>3</td>
<td>08.6</td>
</tr>
</tbody>
</table>

The location of responding schools revealed a majority of institutions in the North East, South East, Mid West and South Central states; fewer responses were obtained from the North West, South West and Western states.

Institutional Requirements

The type of degree granted was evenly divided between the Bachelor of Science (17 or 48.6%) and the Bachelor of Science in Dental Hygiene (17 or 48.6%). One institution indicated that the "other" degree awarded was the Bachelor of Science in General Studies. A large number of programs required a major (27 or 77.1%) while a smaller number (7 or 20%) did not. The majors include Dental Hygiene (59.2%); Dental Health Education; a choice of Education or Public Health; or Special populations. Several respondents (11 or 31.5%) indicated that a major was required; however, they did not specify choices or the requirements.
Few programs required a minor (4 or 11.4%). Of the programs which did so indicate, the choices included education, business, health science or education or students could choose any area for a minor.

All but one of the programs (34 or 97.1%) accept credits earned in the Certificate or Associate level program toward the Baccalaureate degree. The semester and/or quarter credit hours accepted ranged from 16 to 155.

Dental hygiene-related courses were required by twenty-nine of the programs (82.9%) while five did not require any dental hygiene-related courses (14.3%). The results are summarized in Table 4-3.

Dental-hygiene related courses included the broad categories of Advanced Dental Hygiene Theory, Advanced Dental Hygiene Clinic, Dental Hygiene Education, Public Health and Hospital Dentistry. A section for "other" with room for the course name was also included, yielding varied categories.

Advanced Dental Hygiene Theory was a feature of many of the programs (45.7% or 16) with the number of required courses ranging between one and three (and semester/quarter credit-hours ranging from two to six).
TABLE 4-3

Distribution of Dental Hygiene Related Courses

<table>
<thead>
<tr>
<th>Area</th>
<th># of Courses</th>
<th># of Credits</th>
<th>% Chosen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Theory</td>
<td>1-3</td>
<td>2-9</td>
<td>45.7%</td>
</tr>
<tr>
<td>Advanced Clinic</td>
<td>1-3</td>
<td>2-6</td>
<td>48.6%</td>
</tr>
<tr>
<td>Dental Hygiene Education</td>
<td>1-2</td>
<td>1-6</td>
<td>37.1%</td>
</tr>
<tr>
<td>Public Health</td>
<td>1-3</td>
<td>3-9</td>
<td>17.1%</td>
</tr>
<tr>
<td>Hospital Dentistry</td>
<td>1-3</td>
<td>2-9</td>
<td>08.6%</td>
</tr>
<tr>
<td>Other</td>
<td>1-4</td>
<td>3-16</td>
<td>74.3%</td>
</tr>
</tbody>
</table>

Advanced Dental Hygiene Clinic was a requirement in seventeen (48.6%) of the programs; the number of courses to be completed ranged from one to two and the number of semester/quarter credit hours ranged from one to six.

Dental Hygiene Education formed a required category in thirteen (37.1%) of the responding programs; and the number of courses needed for completion of the requirement ranged from one to two with the semester/quarter credit hours between two and nine.

Fewer programs (17.1% or 6) required Public Health courses; those that did indicated a range of between one and three courses to complete the requirement. Those semester/quarter credit-hours ranged between three and nine. Only three (8.6%) of the programs had a requirement in
Hospital Dentistry. In this area, required courses ranged between one and three with the semester/quarter credit-hours falling between two and nine.

The "Other" category was composed of a large number of topic areas and many programs had requirements in the "other" selection. Most courses were particular to each program and many programs offered and required multiple selections. Those topic areas which were common to many programs were "Current Issues/Concepts"; "Geriatrics"; and "Research".

### TABLE 4-4

General Education Course Distribution

<table>
<thead>
<tr>
<th>Course Area</th>
<th># of Courses Required</th>
<th># of Credits Required</th>
<th>% of Programs' Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math/Computers</td>
<td>1-3</td>
<td>3-11</td>
<td>74.3%</td>
</tr>
<tr>
<td>Social Science</td>
<td>1-4</td>
<td>2-15</td>
<td>60.0%</td>
</tr>
<tr>
<td>History</td>
<td>1-2</td>
<td>3-9</td>
<td>48.6%</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>1-3</td>
<td>3-9</td>
<td>45.7%</td>
</tr>
<tr>
<td>Science</td>
<td>1-4</td>
<td>3-20</td>
<td>45.7%</td>
</tr>
<tr>
<td>Literature</td>
<td>1-4</td>
<td>3-12</td>
<td>34.3%</td>
</tr>
<tr>
<td>Philosophy</td>
<td>1-3</td>
<td>3-9</td>
<td>31.4%</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>1-4</td>
<td>3-11</td>
<td>11.4%</td>
</tr>
<tr>
<td>Theology</td>
<td>1-2</td>
<td>3-6</td>
<td>02.9%</td>
</tr>
<tr>
<td>Other</td>
<td>1-7</td>
<td>3-36</td>
<td>65.7%</td>
</tr>
</tbody>
</table>

General Education courses formed a significant
requirement for most of the programs (91.4% or 32). Only three (or 8.6%) did not require any liberal arts courses as a part of their curricula. These results are displayed in Table 4-4.

Philosophy was identified by eleven (31.4%) of the programs as a requirement; the number of courses needed to complete the program ranged from one to three and the semester/quarter credit-hour values fell between three and nine. From one to two History courses were required by seventeen (48.6%) of the programs. The semester/quarter credit-hour values fell between three and ten. One to four English Literature courses were identified as requisites by twelve (34.3%) of the programs with semester/quarter credit-hour values of between three and twelve.

Math or computer science courses were required by twenty-six (74.3%) of the programs. The number of requisite courses ranged from one to three; semester/quarter credit-hour values spanned three to eleven.

The Fine Arts formed a requirement for sixteen (45.7%) of the degree completion programs with students taking between one and three courses. The semester/quarter credit-hour values were between three and nine. Foreign Language and Theology were expected by small numbers of the responding institutions (11.4% or four and 2.9% or one respectively). The number of courses required for Foreign Language was between one and four with semester/quarter
credit-hour values between three and eleven. For Theology, the required courses ranged from one to two with corresponding semester/quarter credit-hour values from three to six.

Science course work was expected by sixteen (45.7%) of the degree completion programs; the number of courses fell between one and four with semester/quarter credit-hour values between three and twenty. Social Science was required by twenty-one (60%) of the programs. The number of expected courses fell between one and four and the corresponding semester/quarter credit-hour values ranged between two and fifteen.

Over one half (62.8%) of the program directors selected the "other" option. Many of the programs indicated that they required student to choose from among "clusters" of courses designated by such titles as "Humanities". Also included were courses such as Statistics or Physical Education. There were a number in this group (12 or 37.1%) who selected the "other" option but did not further identify or describe the courses.

Education Toward Professional Roles

In this study, each role included the description as outlined by the ADHA. For purposes of the survey, the investigator termed these descriptors "goals". Baccalaureate degree completion program directors were then
asked to indicate their level of agreement with the goals for each of the six roles and to assess whether such goals were in harmony with the institutional mission statement. These results are portrayed in Table 4-5.

### TABLE 4-5

**Acceptance of Enhanced Roles**

<table>
<thead>
<tr>
<th>Role</th>
<th>Level of Agreement with Goals</th>
<th>Harmony with Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S.A.</td>
<td>A</td>
</tr>
<tr>
<td>Clinician</td>
<td>% = 54.3 n=19</td>
<td>% = 45.7 n=16</td>
</tr>
<tr>
<td>Consumer Advocate</td>
<td>% = 45.6 n=16</td>
<td>% = 48.6 n=17</td>
</tr>
<tr>
<td>Educator/Health Promotor</td>
<td>% = 54.3 n=19</td>
<td>% = 34.3 n=12</td>
</tr>
<tr>
<td>Change Agent</td>
<td>% = 42.9 n=15</td>
<td>% = 48.6 n=17</td>
</tr>
<tr>
<td>Researcher</td>
<td>% = 57.1 n=20</td>
<td>% = 40.0 n=14</td>
</tr>
<tr>
<td>Administrator/Management</td>
<td>% = 42.9 n=15</td>
<td>% = 57.1 n=20</td>
</tr>
</tbody>
</table>

The role of Clinician was one with which all of the directors either Strongly Agreed (19 or 54.3%) or Agreed (16 or 45.7%). All of those who responded to the question (97.1% or 34) indicated that the goals were in harmony with their schools' mission statements. The level of agreement
(48.6%); sixteen Strongly Agree (45.6%); and two No Opinion (5.7%). Again most of those responding to this question (97.1% or 34 of the directors) felt that the goals were in harmony with their missions. For the role of Educator/Health Promotor, nineteen Strongly Agreed (54.3%); twelve Agreed (34.3%) and three had No Opinion (8.6%). Thirty programs agreed that the goals harmonize with the mission (85.7%).

With the role of Change Agent, fifteen (42.9%) Strongly Agreed; seventeen (48.6%) Agreed; and three (8.6%) had No Opinion. While thirty programs (85.7%) agreed that the goals were in harmony with the mission, four (11.4%) felt that the goals were not. The level of agreement among the program directors for the role of Researcher was twenty (57.1%) Strongly Agreed; fourteen (40%) Agreed; and one (2.9%) had No Opinion. The goals for this role also had a high level of compatibility with the institutional missions as thirty-four of the thirty-five programs agreed (97.1%).

For the role of Administration/Management, fifteen (42.9%) Strongly Agreed and twenty Agreed (57.1%) with the goals. Compatibility with the mission statement was seen by thirty-two (91.4%) of the directors while three (8.6%) felt that the goals were not compatible.
### TABLE 4-6

**Student Preparation For roles Prior To Entry Into Degree Completion Program**

<table>
<thead>
<tr>
<th>Role</th>
<th>Completely</th>
<th>Partially</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinician</td>
<td>= 54.3%</td>
<td>= 40%</td>
<td>= 2.9%</td>
</tr>
<tr>
<td></td>
<td>n=19</td>
<td>n=14</td>
<td>n=1</td>
</tr>
<tr>
<td>Consumer Advocate</td>
<td>= 11.4%</td>
<td>= 68.6%</td>
<td>= 11.4%</td>
</tr>
<tr>
<td></td>
<td>n=4</td>
<td>n=24</td>
<td>n=4</td>
</tr>
<tr>
<td>Educator/ Health Promotor</td>
<td>= 22.9%</td>
<td>= 65.7%</td>
<td>= 02.9%</td>
</tr>
<tr>
<td></td>
<td>n=8</td>
<td>n=23</td>
<td>n=1</td>
</tr>
<tr>
<td>Change Agent</td>
<td>= 02.9%</td>
<td>= 62.9%</td>
<td>= 25.7%</td>
</tr>
<tr>
<td></td>
<td>n=1</td>
<td>n=22</td>
<td>n=9</td>
</tr>
<tr>
<td>Researcher</td>
<td>= 11.4%</td>
<td>= 60.0%</td>
<td>= 28.6%</td>
</tr>
<tr>
<td></td>
<td>n=3</td>
<td>n=21</td>
<td>n=10</td>
</tr>
<tr>
<td>Administrator/ Management</td>
<td>= 05.7%</td>
<td>= 57.1%</td>
<td>= 31.4%</td>
</tr>
<tr>
<td></td>
<td>n=2</td>
<td>n=20</td>
<td>n=11</td>
</tr>
</tbody>
</table>

### TABLE 4-7

**Student Preparation For Roles After Completion of Degree Completion Program**

<table>
<thead>
<tr>
<th>Role</th>
<th>Completely</th>
<th>Partially</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinician</td>
<td>= 80.0%</td>
<td>= 08.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n=28</td>
<td>n=3</td>
<td></td>
</tr>
<tr>
<td>Consumer Advocate</td>
<td>= 25.7%</td>
<td>= 71.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n=9</td>
<td>n=25</td>
<td></td>
</tr>
<tr>
<td>Educator/ Health Promotor</td>
<td>= 65.7%</td>
<td>= 28.6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n=23</td>
<td>n=10</td>
<td></td>
</tr>
<tr>
<td>Change Agent</td>
<td>= 14.3%</td>
<td>= 77.1%</td>
<td>= 05.7%</td>
</tr>
<tr>
<td></td>
<td>n=5</td>
<td>n=27</td>
<td>n=2</td>
</tr>
<tr>
<td>Researcher</td>
<td>= 60.0%</td>
<td>= 40.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n=21</td>
<td>n=14</td>
<td></td>
</tr>
<tr>
<td>Administrator/ Management</td>
<td>= 25.7%</td>
<td>= 60.0%</td>
<td>= 08.6%</td>
</tr>
<tr>
<td></td>
<td>n=9</td>
<td>n=21</td>
<td>n=3</td>
</tr>
</tbody>
</table>
### TABLE 4-8

**Assessment Measures of Clinician Role**

<table>
<thead>
<tr>
<th>Status in Program</th>
<th>Faculty Assess Skills</th>
<th>Interview</th>
<th>Self Assess</th>
<th>Board Exam Scores</th>
<th>Other</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTER</td>
<td>% = 60.0</td>
<td>% = 31.4</td>
<td>% = 51.4</td>
<td>% + 62.9</td>
<td>% = 8.6</td>
<td>% = 8.6</td>
</tr>
<tr>
<td></td>
<td>n = 21</td>
<td>n = 11</td>
<td>n = 4</td>
<td>n = 18</td>
<td>n = 3</td>
<td>n = 3</td>
</tr>
<tr>
<td>GRADUATE</td>
<td>% = 60.0</td>
<td>% = 31.4</td>
<td>% = 60.0</td>
<td>% = 31.4</td>
<td>% = 14.3</td>
<td>% = 8.6</td>
</tr>
<tr>
<td></td>
<td>n = 21</td>
<td>n = 11</td>
<td>n = 21</td>
<td>n = 11</td>
<td>n = 5</td>
<td>n = 3</td>
</tr>
</tbody>
</table>

### TABLE 4-9

**Assessment Measures of Five Roles**  
**Prior to Entry into Degree Completion Programs**

<table>
<thead>
<tr>
<th>Role</th>
<th>Written Exam</th>
<th>Self Assess</th>
<th>Interview</th>
<th>Accept Prior Course Work</th>
<th>Other</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Advocate</td>
<td>% = 31.4</td>
<td>% = 40.0</td>
<td>% = 25.7</td>
<td>% = 37.1</td>
<td>% = 11.0</td>
<td>% = 20</td>
</tr>
<tr>
<td></td>
<td>n = 11</td>
<td>n = 14</td>
<td>n = 9</td>
<td>n = 13</td>
<td>n = 4</td>
<td>n = 7</td>
</tr>
<tr>
<td>Educator/Health Promotor</td>
<td>% = 40.0</td>
<td>% = 34.3</td>
<td>% = 31.4</td>
<td>% = 54.3</td>
<td>% = 8.6</td>
<td>% = 8.6</td>
</tr>
<tr>
<td></td>
<td>n = 14</td>
<td>n = 12</td>
<td>n = 11</td>
<td>n = 19</td>
<td>n = 3</td>
<td>n = 3</td>
</tr>
<tr>
<td>Change Agent</td>
<td>% = 25.7</td>
<td>% = 40.0</td>
<td>% = 28.6</td>
<td>% = 37.1</td>
<td>% = 8.6</td>
<td>% = 22.9</td>
</tr>
<tr>
<td></td>
<td>n = 9</td>
<td>n = 14</td>
<td>n = 10</td>
<td>n = 13</td>
<td>n = 3</td>
<td>n = 13</td>
</tr>
<tr>
<td>Researcher</td>
<td>% = 37.1</td>
<td>% = 22.9</td>
<td>% = 17.1</td>
<td>% = 57.1</td>
<td>% = 11.0</td>
<td>% = 8.6</td>
</tr>
<tr>
<td></td>
<td>n = 13</td>
<td>n = 8</td>
<td>n = 6</td>
<td>n = 20</td>
<td>n = 4</td>
<td>n = 3</td>
</tr>
<tr>
<td>Administrator/Management</td>
<td>% = 28.6</td>
<td>% = 28.6</td>
<td>% = 34.3</td>
<td>% = 42.9</td>
<td>% = 11.0</td>
<td>% = 22</td>
</tr>
<tr>
<td></td>
<td>n = 10</td>
<td>n = 10</td>
<td>n = 12</td>
<td>n = 15</td>
<td>n = 4</td>
<td>n = 8</td>
</tr>
</tbody>
</table>
TABLE 4-10  
Assessment Measures of Five Roles  
At Graduation from Degree Completion Programs

<table>
<thead>
<tr>
<th>Role</th>
<th>Written Exam</th>
<th>Self Assess</th>
<th>Interview</th>
<th>Other</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Advocate</td>
<td>% = 51.4</td>
<td>% = 51.4</td>
<td>% = 22.9</td>
<td>% = 25.7</td>
<td>% = 25.7</td>
</tr>
<tr>
<td></td>
<td>n = 18</td>
<td>n = 18</td>
<td>n = 8</td>
<td>n = 9</td>
<td>n = 8</td>
</tr>
<tr>
<td>Educator/ Health Promotor</td>
<td>% = 74.3</td>
<td>% = 60</td>
<td>% = 22.9</td>
<td>% = 37.1</td>
<td>% = 11.4</td>
</tr>
<tr>
<td></td>
<td>n = 26</td>
<td>n = 21</td>
<td>n = 8</td>
<td>n = 13</td>
<td>n = 3</td>
</tr>
<tr>
<td>Change Agent</td>
<td>% = 51.4</td>
<td>% = 60</td>
<td>% = 31.4</td>
<td>% = 22.9</td>
<td>% = 17.1</td>
</tr>
<tr>
<td></td>
<td>n = 18</td>
<td>n = 21</td>
<td>n = 11</td>
<td>n = 8</td>
<td>n = 6</td>
</tr>
<tr>
<td>Researcher</td>
<td>% = 80.0</td>
<td>% = 37.1</td>
<td>% = 25.7</td>
<td>% = 31.4</td>
<td>% = 5.7</td>
</tr>
<tr>
<td></td>
<td>n = 28</td>
<td>n = 13</td>
<td>n = 9</td>
<td>n = 11</td>
<td>n = 2</td>
</tr>
<tr>
<td>Administrator/ Management</td>
<td>% = 54.3</td>
<td>% = 48.6</td>
<td>% = 22.9</td>
<td>% = 25.7</td>
<td>% = 20</td>
</tr>
<tr>
<td></td>
<td>n = 19</td>
<td>n = 17</td>
<td>n = 8</td>
<td>n = 9</td>
<td>n = 7</td>
</tr>
</tbody>
</table>

Assessment of students' abilities to fulfill each role based upon its descriptions (or goals) involved first questioning the baccalaureate degree completion program directors as to their opinions on the level to which students entering the programs had been prepared to do so. Also included was the question as to how this was assessed. Then, the directors were questioned on their opinions of the abilities of students to fulfill the roles after completing the program. How this was assessed as well as what educational methodology was used to enhance development of the role were the questions which completed this section.
represented by Part II, questions five through 10, sections c, d, and e on the survey. Tables 4-6 through 4-10 portray these results.

**Clinician:** Upon entering the degree completion programs, nineteen (54.3%) of the directors felt that the students were completely able to fulfill the role; fourteen (40%) felt students were partially able to do so; and one (2.9%) felt that students were not at all able to fulfill the role of clinician. Evaluation of the skills among the programs was accomplished through: faculty assessment by twenty-one (62.9%) programs; interview by eleven programs (31.4%); use of Board examination results by twenty-two (62.9%) of the programs; student self-assessment by eighteen (51.4%); "other" by three (8.6%); and no assessment by three (8.6%). Most programs used multiple methods to attain the evaluation.

Upon completion of the program twenty-eight (80%) of the respondents indicated that students were completely prepared to fulfill the role; three (8.6%) felt that students were partially prepared to do so. There were four directors (11.4%) who did not answer this question.

Assessment of the outcomes was based upon and distributed according to: clinical evaluation by twenty-one of the programs (60%); state or regional board exams by eleven (31.4%); interview by eleven (31.4%); self assessment by twenty-one (60%); other by five (14.3%); and not assessed by
three (8.6%).

Again multiple measures were common across most of the programs. Clinical experiences which enhanced development of the role included Periodontics in twenty-one programs (60%); hospital dental clinics in eleven (31.4%); community clinics in thirteen (37.1%). The choice of "other" was selected by more than one-half of the respondents (60%) and included a variety of clinically-related experiences.

Common to several of the programs were externships, field experiences and specialty clinics. A portion of those selecting the option of "other" (43.9%) did not offer additional descriptions or explanations. Also common across most of the programs were multiple measures of clinical skills.

**Consumer Advocate:** Of the directors responding, four (11.4%) assessed the entry level skills of the students as **completely** able to fulfill the role; twenty-four (68.6%) assessed students as **partially** able to do; four (11.4%) as **not at all** able to carry out the role. Assessment of these abilities and their distribution were as follows: written/oral examination used by eleven of the programs (31.4%); self-assessment used by fourteen (40%); interview by nine (25.7%); acceptance of previous course work by thirteen (37.1%) or "other" techniques by four (11.4%). There were seven programs which did not assess the entry level abilities (20%).
After completion of the program, nine (25.7%) of the directors saw students as completely able to fulfill the role and twenty-five (71.5%) as partially able to do so. The outcomes were determined and distributed according to: written/oral examination by eighteen (51.4%) of the programs; self assessment by eighteen (51.4%); interview by eight (22.9%); "other" techniques by nine (25.7%); and no assessment by nine (25.7%). The use of multiple measures in programs was common. The methodology chosen to enhance development of the role of Consumer Advocate included: lecture in twenty-five (71.4%) of the programs; seminar in twenty-four (68.6%); independent study in sixteen (45.7%); practicum in twenty-five (71.4%); and "other" methods by five (14.3%). Among the descriptions for the category of "other" were course projects or internships.

**Educator/Health Promotor:** Of the program directors responding, eight (22.9%) saw students' entry level skills sufficient to allow them to completely fulfill this role; twenty-three (65.7%) thought that students entered the programs partially able to carry it out; and one (2.9%) felt that student were not at all able to do so. Following the same order of assessment, fourteen (40%) of the directors used written/oral examinations; twelve (34.3%) used student self assessment; eleven (31.4%) used interviews; and nineteen (54.3%) accepted previous course work. Three used
After completion of the program, twenty-three (65.7%) of the directors viewed students as completely able to carry out the role; ten (28.6%) felt that the students were partially able to do so. The outcomes were based upon the use of written/oral examination in twenty-six programs (74.4%); student self assessment in twenty-one of them (60%); interview in eight programs (22.9%); "other" methods by thirteen (37.1%); and were not assessed in four (11.4%). The educational methodology used to augment development of the role included: lecture in thirty of the programs (85.7%); seminar in twenty-three (65.7%); independent study was chosen by sixteen (45.7%); and practicum by thirty (85.7%). The category of "other", chosen by 20% of the programs, included similarities across several such as projects or student teaching. Multiple measures were used by many of the programs.

Change Agent: A number of directors indicated that students were either completely prepared to assume this role (2.9% or one) or partially prepared to do so (62.9% or twenty-two). There were nine directors (25.7%) who felt that the students were not at all prepared to fulfill the role. The directors indicated that the evaluation was distributed among the programs according to: written/oral examination in nine (25.7%); self assessment by fourteen
(40%); interview in ten (28.6%); assessment of previous course work within thirteen (37.1%); or "other" means in three (8.6%). A number (22.9% or eight) did not assess incoming students' skills.

After program completion, five (14.3%) of the directors felt that students could fulfill the role completely; twenty-seven (77.1%) felt that the students could do so partially; while two (5.7%) indicated that students were not at all able to carry out the role. The outcomes were measured by written/oral examination in eighteen programs (51.4%); self assessment in twenty-one (60%); interview in eleven (31.4%); "other" means in eight (22.9%); or no assessment in six (17.1%). Educational methodology which enhanced role development was distributed according to the alternatives: lecture in twenty-one programs (60%); seminar in twenty-five (71.4%); independent study by eighteen (51.4%); and practicum by twenty-one (60%). Of the five who chose the selection "other" (14.3%), the descriptions included electives, projects and field experiences.

Researcher: In assessing the level of preparation which incoming students exhibited, three respondents (11.4%) noted that students were considered to be able to fulfill the role completely; twenty-one (60%) were believed to be able to do so partially; and ten (28.6%) were seen as not at all prepared to fulfill the role of researcher. The distribution of the means of evaluating this was: written/
oral examination in thirteen of the programs (37.1%); self assessment in eight of them (22.9%); interview in six (17.1%); acceptance of previous course work by twenty (57.1%); or "other" by four (11.4%). Three did no assessment (8.6%).

Once the students completed the program, they were judged capable of carrying out the role completely by twenty-one (60%) of the directors or partially able to do so by fourteen (40%). The outcome measures were distributed according to: written/oral examination in twenty-eight of the programs (80%); self assessment in thirteen (37.1%); interview in nine (25.7%); "other" methods chosen by eleven (31.4%); or not assessed by two (5.7%). Preparation for the role included the use of: lecture in thirty-two of the programs (91.4%); seminar in twenty-one of them (60%); independent study in twenty-four (68.6%); and practicum by fifteen (42.9%). Those who selected "other" as the method noted such means as conducting research to prepare for this role.

Administration/Management: Among the directors, the students' entry level skills were assessed as enabling the students to fulfill the role completely by two (5.7%); by twenty as partially able to carry out the role (57.1%); or not at all able to fulfill the role by eleven (31.4%). The assessment distribution was: written/oral examination used in ten of the programs (28.6%); self assessment by ten
(28.6%); interview by twelve (34.3%); acceptance of previous course work by fifteen (42.9%). There was a group of four (11.4%) who chose "other" methods of assessment while eight (22.9%) of the programs did not assess the skills.

After completion of the program nine (25.7%) of the directors felt that their students could carry out the role completely; twenty-one (60%) could do so partially. Only three (8.6%) felt that student were not at all able to fulfill the role. The outcome assessment and its distribution was: written/oral examination chosen by nineteen of the programs (54.3%); self assessment used in seventeen (48.6%); interview selected in eight (22.9%); "other" methods by nine (25.7%); or not assessed in seven cases (20%). Supporting development of the role of Administration/ Management were: lecture by twenty-seven of the programs (77.1%); seminar by nineteen (54.3%); independent study by eighteen (51.4%); practicum by eighteen (51.4%). "Other" methods (selected by 11.4% or four programs) included actual administrative duties or clinical observations to support the role.

The directors were asked their opinions as to whether dental hygiene related courses, general education courses or specialty courses within their curricula contributed toward development of each of the six roles. The results are shown in Tables 4-11 (A-F).
### TABLE 4-11(A)
Courses Which Support The Role Of Clinician

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Response</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygiene</td>
<td>n=34</td>
<td>n=13</td>
<td>n=1</td>
<td>n=1</td>
<td>n=1</td>
</tr>
<tr>
<td></td>
<td>% = 51.4</td>
<td>% = 37.1</td>
<td>% = 2.9</td>
<td>% = 2.9</td>
<td>% = 2.9</td>
</tr>
<tr>
<td>General Education</td>
<td>n=9</td>
<td>n=17</td>
<td>n=4</td>
<td>n=3</td>
<td>n=2</td>
</tr>
<tr>
<td></td>
<td>% = 26.1</td>
<td>% = 48.6</td>
<td>% = 11.4</td>
<td>% = 8.6</td>
<td>% = 5.7</td>
</tr>
</tbody>
</table>

### TABLE 4-11(B)
Courses Which Support The Role Of Consumer Advocate

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Response</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygiene</td>
<td>n=12</td>
<td>n=20</td>
<td>n=0</td>
<td>n=1</td>
<td>n=1</td>
</tr>
<tr>
<td></td>
<td>% = 34.3</td>
<td>% = 60.0</td>
<td>% = 02.9</td>
<td>% = 02.9</td>
<td>% = 02.9</td>
</tr>
<tr>
<td>General Education</td>
<td>n=5</td>
<td>n=25</td>
<td>n=1</td>
<td>n=4</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>% = 14.3</td>
<td>% = 71.4</td>
<td>% = 2.9</td>
<td>% = 11.4</td>
<td>n = 0</td>
</tr>
<tr>
<td>Specialty</td>
<td>n=11</td>
<td>n=14</td>
<td>n=3</td>
<td>n=5</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>% = 31.4</td>
<td>% = 40.0</td>
<td>% = 8.6</td>
<td>% = 14.3</td>
<td>n = 0</td>
</tr>
</tbody>
</table>

### TABLE 4-11(C)
Courses Which Support The Role Of Educator/Health Promotor

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Response</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygiene</td>
<td>n=22</td>
<td>n=10</td>
<td>n=1</td>
<td>n=0</td>
<td>n=1</td>
</tr>
<tr>
<td></td>
<td>% = 62.9</td>
<td>% = 28.6</td>
<td>% = 2.9</td>
<td>% = 2.9</td>
<td>% = 2.9</td>
</tr>
<tr>
<td>General Education</td>
<td>n=9</td>
<td>n=21</td>
<td>n=1</td>
<td>n=4</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>% = 25.7</td>
<td>% = 60.0</td>
<td>% = 2.9</td>
<td>% = 11.4</td>
<td>n = 0</td>
</tr>
<tr>
<td>Specialty</td>
<td>n=18</td>
<td>n=15</td>
<td>n=1</td>
<td>n=0</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>% = 51.4</td>
<td>% = 42.9</td>
<td>% = 2.9</td>
<td>% = 0</td>
<td>n = 0</td>
</tr>
</tbody>
</table>
**TABLE 4-11(D)**
Courses Which Support The Role Of Change Agent

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Response</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygiene</td>
<td>n=11</td>
<td>n=14</td>
<td>n=2</td>
<td>n=5</td>
<td>n=1</td>
</tr>
<tr>
<td></td>
<td>%=31.4</td>
<td>%=40.0</td>
<td>%=05.7</td>
<td>%=14.3</td>
<td>%=02.9</td>
</tr>
<tr>
<td>General Education</td>
<td>n=6</td>
<td>n=16</td>
<td>n=6</td>
<td>n=6</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>%=17.1</td>
<td>%=45.7</td>
<td>%=17.1</td>
<td>%=17.1</td>
<td></td>
</tr>
<tr>
<td>Specialty</td>
<td>n=10</td>
<td>n=14</td>
<td>n=4</td>
<td>n=5</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>%=28.6</td>
<td>%=40.0</td>
<td>%=11.4</td>
<td>%=14.3</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 4-11(E)**
Courses Which Support The Role Of Researcher

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Response</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygiene</td>
<td>n=16</td>
<td>n=17</td>
<td>n=0</td>
<td>n=0</td>
<td>n=1</td>
</tr>
<tr>
<td></td>
<td>%=45.7</td>
<td>%=48.6</td>
<td>%=0</td>
<td>%=0</td>
<td>%=2.9</td>
</tr>
<tr>
<td>General Education</td>
<td>n=5</td>
<td>n=24</td>
<td>n=3</td>
<td>n=3</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>%=14.3</td>
<td>%=68.6</td>
<td>%=8.6</td>
<td>%=8.6</td>
<td></td>
</tr>
<tr>
<td>Specialty</td>
<td>n=18</td>
<td>n=14</td>
<td>n=1</td>
<td>n=1</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>%=51.4</td>
<td>%=40.0</td>
<td>%=2.9</td>
<td>%=2.9</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 4-11(F)**
Courses Which Support The Role Of Administrator/Management

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Response</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygiene</td>
<td>n=12</td>
<td>n=15</td>
<td>n=2</td>
<td>n=4</td>
<td>n=1</td>
</tr>
<tr>
<td></td>
<td>%=34.3</td>
<td>%=42.9</td>
<td>%=05.7</td>
<td>%=11.4</td>
<td>%=02.9</td>
</tr>
<tr>
<td>General Education</td>
<td>n=6</td>
<td>n=16</td>
<td>n=7</td>
<td>n=5</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>%=17.1</td>
<td>%=45.7</td>
<td>%=20.0</td>
<td>%=14.3</td>
<td></td>
</tr>
<tr>
<td>Specialty</td>
<td>n=14</td>
<td>n=15</td>
<td>n=1</td>
<td>n=4</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>%=40.0</td>
<td>%=42.9</td>
<td>%=02.9</td>
<td>%=11.4</td>
<td></td>
</tr>
</tbody>
</table>
Clinician: The respondents had a high level of agreement (51.4% or eighteen Strongly Agree; 37.1% or thirteen Agree) that dental hygiene related courses contribute to the development of the role of clinician. Those who did not find this to be so were equally represented by one Disagree (2.9%); one Strongly Disagree (2.9%); and one No Opinion (2.9%). When questioned about the part general education courses played toward role development, nine Strongly Agreed (26.1%); and seventeen Agreed (48.6%); three had No Opinion (11.4%); three Disagreed (8.8%); and two Strongly Disagreed (5.7%).

Consumer Advocate: Dental hygiene related courses were seen as contributing to the development of the role (34.2% or twelve Strongly Agree; 57.1% or twenty Agree). There were two respondents who did not feel that these courses aided role development (one or 2.9% Disagree; one or 2.9% Strongly Disagree). General education courses were considered quite conducive toward role development (14.3% or five Strongly Agree; 71.4% or twenty-five Agree) while a smaller number of respondents did not view them in the same light (11.4% or four Disagree). Only one had No Opinion (2.9%). The directors' perceptions of specialty courses as contributory were high (29.9% or eleven Strongly Agree; 40% or fourteen Agree). A modest number did not see these courses as helpful in role development (one or 2.9% Strongly Disagree; five or 14.3% Disagree) with a small group having
No Opinion (three or 8.9%)

**Educator/ Health Promotor:** In formation of this role, dental hygiene related courses were perceived as beneficial by the majority of the directors (twenty-two or 62.9% Strongly Agree; ten or 28.6% Agree). Only one did not perceive these to be of help (2.9% Strongly Disagree) or had No Opinion (2.9%). General education courses were also viewed as positive in development of the role by nine of the directors (25.7%) who Strongly Agreed and twenty-one (60%) who Agreed while four (11.4%) Disagreed or had No Opinion (2.9% or one). Specialty courses were acknowledged as advancing the role by a majority of the directors (eighteen or 51.4% Strongly Agree; fifteen or 42.9% Agree). None disagreed with the statement and only one (2.9%) had No Opinion.

**Change Agent:** Dental Hygiene related courses were thought to contribute to the role of change agent (31.4% or eleven Strongly Agree; 40% or sixteen Agree) although a moderate number of directors did not hold the same opinion (31.4% or eleven Strongly Disagree; 14.3% or five Disagree). Two had No opinion (5.7%). General education courses were seen by most of the respondents as conducive to development (17.1% or six Strongly Agree; 45.7% or sixteen Agree) while a number did not (17.1% or six Disagree). No Opinion was indicated by 17.1% or six. Specialty courses were seen as contributory by more than one half of the directors (28.6%
or ten Strongly Agree; 40% or fourteen Agree) while a smaller group did not (14.3% or five Disagree). A small group of five had No Opinion (14.3%).

**Researcher:** Dental Hygiene related courses formed a significant contribution to the role based upon respondents' opinions (45.7% or sixteen Strongly Agree; 48.6% or seventeen Agree); only one respondent did not see the courses in the same manner (2.9% Strongly Disagree). A majority of the directors saw general education courses as enhancing role development (14.3% or five Strongly Agree; 68.6% or twenty-four Agree). There were three respondents who felt that the general education courses did not help to develop the role of researcher (8.6%) with another three (8.6%) having No Opinion. Specialty courses provided exceptional support to the development of researcher (51.4% or eighteen Strongly Agreed; 40% or fourteen Agreed) with one each who did not concur (2.9% Strongly Disagreed) or had No Opinion (2.9%).

**Administrative/Management:** The final role received advancement from dental hygiene related courses (34.3% or twelve Strongly Agreed; 42.9% or fifteen Agreed). There were those who did not hold the same view (2.9% or one Strongly Disagreed; 11.4% or four Disagreed) while two (5.7%) held No Opinion. General education courses were felt to contribute to development of the role by a moderate percentage of the respondents (17.1% or six Strongly Agreed; 45.7% or sixteen
Agreed). A more notable number of respondents did not concur (14.3% or five Disagreed) or held No Opinion (20% or seven). Specialty courses followed much the same outline with fourteen Strongly Agreeing (40%); fifteen Agreeing (42.9%); four Disagreeing (11.4%); and one with No Opinion (2.9%).

Interest In Professional Accreditation of Degree Completion Programs

The statement "Dental hygiene degree completion programs prepare graduates for new entry level aspects of the profession beyond those of the Certificate/Associate degree programs" sought to ascertain the level of agreement with the concept of the profession preparing itself for additional responsibilities through earning the baccalaureate degree. The majority of directors agreed with the statement: twenty-one Strongly Agreed (60%); eleven Agreed (31.4%); while three did not (8.6% Disagreed). Approximately one third (31.9%) chose to clarify their responses and the majority were supportive in nature. The consensus was that the degree completion programs provide skills beyond entry level ("new knowledge and competencies"; "critical thinking and problem solving"). In addition the programs were thought to offer opportunities beyond those available to certificate-level students. However there is often no distinction made between the two degrees although
there was the belief that there ought to be. Others emphasized the critical role played by the general education courses in preparing students for new roles but looked at the need for better integration of existing courses rather than adding new ones to support that goal.

The statement "It is important to consider specific professional accreditation of dental hygiene degree completion programs based upon the preparation of or new entry level roles" brought responses distributed among the choices: six directors Strongly Agreed (17.1%); ten Agreed (28.6%); six had No Opinion (17.1%); eleven Disagreed (31.4%); one Strongly Disagreed (2.9%). Those who disagreed were more likely to make a clarifying statement (20% against the 14.5% of those who agreed). Themes which emerged from the commentary centered upon:

1.) The problems which faced such an accreditation (roles are too broad and would cause redundancy in the accreditation; standardization would be difficult; there is no need for such currently; concern with all programs being responsible to teach all roles; cost and time factors).

2.) The use of professional roles as the basis for a curricular standard (programs serve other purposes than preparation for new roles).

Those who agreed with the statement appeared to support selected elements of the professionalization process:

1.) Augmenting the knowledge base to advance the
profession 2.) Standards bring meaning to a degree. Some in agreement with the statement had more cautious views such as concern with adding courses or the potential loss of program flexibility under accreditation.

The final statement "Specific accreditation of degree completion programs should utilize professional role development as the basis of the curricular standard" again saw the responses distributed across all of the choices: three Strongly Agreed (8.6%); ten Agreed (28.6%); six had No Opinion (17.1%); nine Disagreed (25.7%); and one Strongly Disagreed (2.9%). This data is summarized in Table 4-12.

TABLE 4-12
Interest In Accreditation Of Degree Completion Programs

<table>
<thead>
<tr>
<th>Statement About Degree Completion Programs</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Response</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare Students for New Roles</td>
<td>n=21</td>
<td>n=11</td>
<td>n=0</td>
<td>n=3</td>
<td>n=0</td>
</tr>
<tr>
<td></td>
<td>% = 60.0</td>
<td>% = 31.4</td>
<td></td>
<td>% = 08.8</td>
<td></td>
</tr>
<tr>
<td>Consider Specific Accreditation</td>
<td>n=6</td>
<td>n=10</td>
<td>n=6</td>
<td>n=11</td>
<td>n=1</td>
</tr>
<tr>
<td></td>
<td>% = 17.1</td>
<td>% = 28.6</td>
<td>% = 17.1</td>
<td>% = 31.4</td>
<td>% = 02.9</td>
</tr>
<tr>
<td>Utilize Roles for Educational Standard</td>
<td>n=3</td>
<td>n=10</td>
<td>n=6</td>
<td>n=9</td>
<td>n=1</td>
</tr>
<tr>
<td></td>
<td>% = 08.6</td>
<td>% = 28.6</td>
<td>% = 17.1</td>
<td>% = 25.7</td>
<td>% = 02.9</td>
</tr>
</tbody>
</table>
ANALYSIS AND EVALUATION

Demographics

The material in this section provides information to the research question: "What are the trends in the infrastructures of the baccalaureate degree completion programs?" Corresponding sections of the survey are Part I, questions one through four.

Institutional affiliation data may be viewed in terms of the overall strength of the response rate. However, because there are inherently fewer programs in the Western United States (a total of twelve), and because more of the non-respondents were located within that geographic area (four of seven non-respondents were from the West) the results here could have been biased. The Western portion of the United States has more liberal practice acts which may influence the curricula of the programs in terms of courses required or offered.

The intent of the demographics section was to provide an overview of both the differences and the similarities that exist among the degree completion programs. The value of the section becomes limited because of the inconsistencies in the respondents' completion of several sections. For example, program directors may have answered a question but then failed to follow up on including additional information. This was true for the information sought on the range of majors.
Within the section for general education courses the actual format used prevented many from completing it because their requirement agenda was different in scope than the one used. However, in the survey it was necessary to follow a format to attempt to achieve consistency. One possibility to circumvent this would have been to utilize the college catalogs from each program to try and interpret the desired information, although this too could be subject to bias.

**Education Toward Professional Roles**

This section provides data to assist in answering the questions "In the program directors' opinions, are the programs preparing their students to assume the roles? If this is the case, how are the students assessed?"

Corresponding sections within the survey were Part II, questions five through ten, parts a and b.

Based upon the frequencies obtained, it would appear that the directors do, in fact, agree with the roles as described. It would also appear that, based upon the frequencies, the directors felt that the goals are compatible with their institutional mission statements. Because the roles are broad based they should fit in with most programs.

The following section which requests the directors to assess student skill level both before and after program enrollment is more specific. Interpretation of the entry
level ability to assume the clinical role could be misinterpreted. The question must be interpreted in light of the goals which may not reflect every entry level program's thrust. It may also be that the degree completion programs are assessing incoming students in light of the required Advanced Dental Hygiene clinical courses which teach advanced techniques. Such courses could produce students who have been exposed to a wider variety of experiences than entry level students.

The choice of "not assessed" upon entry into a degree completion program may indicate that the program does not prepare students for that particular role and hence, does not evaluate for it. It does not necessarily imply that no evaluation is taking place. Because these roles are only suggested rather than required, a program may have another agenda or area (tied in with the major or minor requirements, for example) for which students are assessed prior to and after enrollment.

Reviewing which types of courses influence role development answers the research question "What types of courses are most influential in assisting students to assume the roles?" It receives its data from Part II, questions five through 10, parts f, g and h. For purposes of discussion, agreement between the course and the role is determined if the frequency of agreement is more than 50%
while disagreement is at less than 25%. Not surprisingly, dental hygiene related courses were felt to contribute to the development of each of the six roles. This finding could indicate that the programs' curricula were designed to foster professional growth toward each of the roles. Because of the broad nature of the role descriptions, it is conceivable that the courses were designed with general goals in mind and the roles fit in with those other purposes.

General education courses were seen as contributing to most of the roles, the exception being Change Agent. Because many of the roles are broad and utilize skills that are not clinically or even health care related, the contribution which general education courses make is consistent with their stated purpose. Roles such as that of Clinician would draw upon the abilities of critical thinking or understanding of other cultures which are supported by general education courses.

Specialty courses are presumed to exist for a specific purpose and for purposes of the study were assumed to be the same as dental hygiene related courses for the role of Clinician. The remaining roles were all strongly supported by specialty courses. This finding could indicate that such courses were developed for the expressed purpose of enhancing specific professional responsibilities. The question did not ask whether these courses were taught
within the dental hygiene department itself by dental or dental hygiene faculty or were, for example, courses out of other departments which were seen as able to support a professional goal.

**Interest In Professional Accreditation of Degree Completion Programs**

The data presented in this section provides information to answer the remaining question "Are the directors interested in a separate accreditation of the degree completion programs?" Corresponding sections in the survey are those in Part III, questions eleven through thirteen. It should be noted that questions eleven and twelve include fill-in sections in which directors are encouraged to clarify their choices.

Interpretation of the statement, "Dental hygiene degree completion programs for new entry level aspects of the profession beyond those of the Certificate/Associate degree programs" may have been inconsistent among the directors because one clarifying response indicated uncertainty regarding the phrase "new entry level". It appears that most of the program directors do support the concept that new skills result from attending the degree completion programs. This could be interpreted as contributing toward the process of professionalization through enhancing the knowledge base.

Statement twelve, "It is important to consider specific
professional accreditation of dental hygiene degree completion programs based upon the preparation for new entry level roles" appears to have less overall consensus. This may be due to the directors agreeing with the concept yet hesitating to accept the actualization of the process perhaps because of its potential impact upon the programs. The directors recognize the diversity which exists among the programs and may feel that such diversity serves the profession well; the standardization which stems in part from accreditation might be perceived as altering the programs' characters. Also, only directors were surveyed while other administrators whose opinions would have both merit and weight were not. Thus there may be agreement only on the concept without regard for the implementation and its effects.

Statement thirteen, "Specific accreditation of degree completion programs should utilize professional role development as the basis of the curricular standard" generated a distributed response pattern. The use of the particular article "the" rather than the general article "a" in the segment "as the basis" may have swayed the reader to assume that only the roles should be used to form such a standard.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Chapter I structures the problem, explains the rationale for the study and poses the questions to be answered. Juxtaposed are the current predominance of two year Dental Hygiene programs (which are supported by and accredited by the American Dental Association or the "ADA") and the American Dental Hygienists' Association ("ADHA" [the professional association representing Dental Hygiene]) advocacy for four year, integrated baccalaureate degree programs. The ADHA adopted the resolution of the baccalaureate level as entry level after a series of workshops during which members reviewed the needs of the profession as well as what would be required of professionals in the future. There are forty-six programs identified by the ADHA as baccalaureate degree completion programs. Such programs bridge the gap between two year programs, the majority of which are situated at the community college level, and four year integrated programs. Few of these degree completion programs are alike from the
standpoint of purpose or curriculum. One area which could be a shared goal is the preparation of students for the enhanced and expanded roles which were targeted by the ADHA during a series of workshops as those needed by future dental health care providers. Such roles—clinician, consumer advocate, educator/health promotor, change agent, researcher, and administration/management—build upon the foundation established by the certificate programs but then go beyond that level. Using the roles as a starting point would provide the degree completion programs with a common linkage.

For purposes of the study the descriptors developed by the ADHA were termed "goals". The study then sought to obtain: 1) an overview of the current programs' infrastructures to help in verifying the roles' place within them; 2) the level of agreement that the program directors had with each of the roles; 3) information regarding the extent to which students were being educated toward each role; 4) knowledge about which types of courses are beneficial in preparing students for each of the roles; and 5) data on the directors' perceived needs and/or desires for a separate accreditation process for the degree completion programs.

The research questions which were derived from the purposes were:

1. What are the trends in the program infrastructures?
2. Do the degree completion program directors agree with American Dental Hygienists' Association vision of the roles?

3. In the program directors' opinions, are the programs preparing their students to assume the roles? If they are, are the programs assessing outcomes and how is this being done?

4. Which types of courses are most influential in assisting students to assume new roles?

5. Are the program directors interested in a separate professional accreditation of degree completion programs?

The study used the theoretical framework designed by Ralph Tyler to help develop an approach to content that would be applicable to all degree completion programs. The framework follows.

1. The educational purposes the school should seek.

The purposes were seen as the previously mentioned goals and were derived, in accordance with Tyler's theory, from the learners themselves (research into student views of degree completion programs); from studies of contemporary life outside the school (as a result of the workshops which called in experts in all areas); and from subject matter specialists (from dental hygienists themselves).

"Screens" filter the material and were determined to be the philosophy of the institution (seen here as compatibility with mission statements) and the psychology of learning (viewed here as the broad-based, general goals).

2. Selection of learning experiences.

The study sought to look at the types of learning experiences (lecture, seminar, clinic, etc.) which help to prepare students for the six roles.

3. Organization of learning experiences.

The study looked at whether there are dental hygiene related courses offered beyond the certificate level. Also studied was the
relationship of the liberal arts and dental hygiene courses in preparing students.


There was evaluation of skills and measures of outcomes both before and after program entry (did students progress in their abilities to fulfill the roles as a result of attending the degree completion programs?).

Chapter II drew upon three distinct educational areas to provide a background for the study: dental hygiene baccalaureate degree education; professional development; and outcomes assessment.

The area of dental hygiene baccalaureate degree education included the concept of degree completion programs and drew upon both the past and current literature. The impetus for baccalaureate education came from conferences held in the middle 1970's. Progressing from that point, other scholarly works revealed that most so-called two year programs were actually more than two academic years in length and in credit granted and thus did not grant the degree commensurate with the academic effort. Additional studies then outlined the need for the four year integrated program granting the bachelor's degree and what the actual programs and processes should involve. There was also a discussion of what would be expected of the graduates of a four year program in contrast to two year graduates. Between these two poles, other articles described model curricula. Few articles dealt with the degree completion
program. Those that did attempted to develop model curricula for such programs. It could be difficult to affix a model curriculum onto each degree completion program given the individual institutional guidelines which influence them. Thus the problem of how to achieve articulation between the community college and the university settings capable of granting the baccalaureate degree was not completely addressed. Those articles which did look at the degree completion programs found many academic inconsistencies among them with regard to structure, goals, purposes, and curricula (in both dental hygiene and liberal arts courses). One article pointed out the need to focus baccalaureate degree curricular efforts toward the proposed professional roles.

The topic of the liberal arts in the professional curriculum is an important aspect of baccalaureate dental hygiene education. It assists with the transformation of a strictly technical education into a professional one by adding breadth to it. Liberal arts courses are seen as providing additional experience in critical thinking skills, problem solving and helping to increase the understanding of the who, what, when, where, and why of humanity.

The process of professionalization is appropriate to this study for several reasons. Dental hygiene is not universally regarded as a full profession based upon (among other factors) the length and breadth of educational
preparation; the knowledge base; and the degree of professional autonomy. The field of dental hygiene does embrace a professional association and a well-developed code of ethics. Currently, dental hygiene is striving to increase its body of knowledge as well as the entry level educational preparation of its students. The latter relates directly to this study as the baccalaureate degree completion programs form an important and significant route for the majority of dental hygienists to increase their educational preparation and hence, move themselves and the field toward a more professional status.

Outcomes assessment measures are much in evidence across higher education and are particularly promulgated by both the American Dental Association and the American Association of Dental Schools. Both groups have a significant impact upon dental and dental hygiene entry level education. However, they have less influence upon the degree completion programs because these are not regarded as entry level. Recognition of the role which outcomes assessment plays in ascertaining whether education is accomplishing its stated goals is pertinent to the degree completion programs. Such outcomes can illuminate commonalities or linkages among diverse programs.

The methodology chosen for this descriptive study was a questionnaire as discussed in Chapter III. The advantages of such a format (ease of use; facility in contacting
subjects; and cost containment) were felt to outweigh the disadvantages (response rates; reliability; validity; and follow up). The technique employed to offset the disadvantages of the response included second reminder mailings and follow up telephone contact. Multiple revisions of the questionnaire prior to pilot testing and pilot testing of the instrument were techniques used to offset potential problems of reliability and validity.

Since the total population of degree completion programs is small, all of the programs were included as the population of the study. The pilot test surveyed four current or past directors of either community college or university based programs. Three of the directors are currently associated with degree completion programs. The group represented geographic diversity as well. The sample for the pilot test was 8% of the original population but 11.5% of the revised total. The data was displayed in frequency tables.

The findings in Chapter IV related little new information about the demographics: the majority of programs are in public institutions; most indicated a university affiliation; and most grant the Bachelor of Science or Bachelor of Science in Dental Hygiene degree. More of the institutions are located in the eastern and midwestern portions of the United States and the location of the respondents followed that pattern. Almost all programs
accept credits from the entry level schools, although there is a wide variance in the number accepted.

The directors exhibited agreement with the six enhanced roles of clinician, consumer advocate, educator/health promotor, change agent, researcher, and administrator/management based upon descriptors outlined by the professional association, the American Dental Hygienists' Association. These descriptors were called "goals" for the purposes of this study. There was also a high rate of agreement that these goals were in harmony with the institutional mission statements of the degree completion programs.

Most of the programs required advanced dental hygiene related courses within the curricula and most had multiple offerings as well as multiple requirements among these. Such courses were seen as very influential in preparing students toward each of the six roles.

General education courses were also required by almost all of the programs. They too were seen as positive in supporting the roles including that of clinician.

The level of agreement with the statements regarding the need for a professional accreditation of degree completion programs was mixed. The first statement's purpose was to establish whether the directors agreed that degree completion programs did prepare students for new and advanced roles. To this, the majority agreed. The second
statement sought to establish the directors' feelings toward consideration of a separate accreditation. The responses were more distributed across all of the choices, with almost one half agreeing and almost one third disagreeing. The remainder had no opinion. The third statement (which asked whether accreditation of degree completion programs should utilize professional role development as the basis of a curricular standard) received fewer overall responses, yet of those who did answer, less than one half agreed with the premise. Fully one third disagreed and one fifth had no opinion.

Conclusions and Analyses

Use of the Tyler framework allowed coordination of the known factors with data that would be discovered in the survey. Thus, the first category, the purposes which the school should serve, was an established element—the roles themselves. Through the review of the literature, studies of the learners themselves, contemporary life outside of the schools and suggestions about objectives from subject matter specialists—all categories within Tyler's framework—helped to develop the enhanced roles. The survey sought to learn whether the philosophy of each institution (another category in the Tyler model) was in harmony with each of the roles. The broad nature of the roles themselves was an already established factor and was related to the psychology of
learning. Other areas of the model which the study sought to learn were the type of learning experiences which degree completion programs offered to augment the six roles; whether dental hygiene course were included within the programs ("continuity"); if general education courses were included within the curricula ("integration"); and whether students had the ability to carry out the roles both before and after attending the program ("sequencing" and "evaluation"). Thus the model was useful in combining familiar data with new to answer an educational question.

The trends in the policies of the degree completion programs include offering either the Bachelor of Science or the Bachelor of Science in Dental Hygiene degrees. The majority of programs require a major and the one most commonly noted is Dental Hygiene, while few programs require a minor. These findings are similar to those in previous studies (1983 and 1985) indicating that there has been little change over time concerning these structural elements.

The wide diversity in the number of courses accepted by degree completion programs raises questions which may have both negative and positive effects. Is such variance in the number of courses accepted based solely upon the institutional rules and regulations concerning the total number of credits permitted from community colleges; or is there conflict with courses in the major being situated
within the traditional "lower division" area? The latter poses an almost complete reversal of normal transfer policy: most students who transfer to baccalaureate degree institutions do so with most of the liberal arts/ general education courses but few of the major courses complete while dental hygiene does just the opposite. Such circumstances could continue to identify dental hygiene as "different" from other professional programs at the very time it is seeking to establish its professional status. In addition, acceptance of a small number of credits discourages the linkages so necessary to facilitation of educational progress. On a more positive note, the variance may indicate a high degree of flexibility on the part of those programs accepting a large number of courses. Such flexibility may facilitate the transfer, matriculation and graduation of students.

The number of programs which require dental hygiene related courses appears to have increased when compared with the 1985 ADA study. Of the programs responding, twenty (or more than one half) require course work in one or more choices offered on the survey as dental hygiene related (advanced theory or clinic; public health; education or hospital dentistry). This may signify development of an increased knowledge base beyond entry level which may in turn influence the professionalization process. However, there is little indication of whether these courses- in
preparing students for assuming the enhanced roles— are in fact increasing the scope of the students' educational experiences. The questionnaire did not explore the breadth, depth or content of the courses designated as dental hygiene related and therefore it is not possible to determine whether these courses are in fact adding to the knowledge base in dental hygiene beyond that already existent and designated as entry level. Finally, the fact that programs require additional courses does not substantiate their content value in the work place.

General education courses are required by thirty-two (91.4%) of the programs. Integration of the liberal arts with advanced professional courses follows the most-advocated pattern within higher education. In such a combination, professional courses help students to relate to liberal arts courses and both categories assist in student development. Such a model is consistent with the goals set forth in the ADHA planning workshops (choosing to be a knowledge worker in an educational setting whose basic preparation is consistent with liberal arts education). The question arises as to whether programs which require (in both overall number and type) relatively few general education courses prepare students as well as those with more vigorous requirements. Because liberal arts courses do contribute to independent knowledge and intellectual skills as well as toward the enhanced dental hygiene roles, there
may be some legitimate concern with the variance in requirements.

Information gleaned from Chapter II and compared to findings from this study indicate that there may be a decline in the overall number of degree completion programs. A 1983 study by Taub and Levy noted forty-nine programs while the 1985 ADA survey identified fifty-four. The current study originally identified forty-six such programs. While there may be variance due to differing definitions, the number does not seem to be increasing.

The preparation for assumption of the six enhanced roles appears to be at a high level. The program directors accept the roles in concept and many appear to be teaching toward some or all of the roles within their programs. There also appears to be recognition of and reliance upon the integration of the liberal arts and dental hygiene related courses to promote the professionalization process. The study appears to have contributed toward the process as it established the directors' overall agreement with the enhanced roles and their accord that the degree completion programs prepared students for new roles. Agreement on these matters helps to establish standards for the degree completion programs, and standardization of education is a major factor in the professionalization process. While the current focus and emphasis in dental hygiene education appears to be on the four year integrated programs, the
number of such programs is small. The reality is that of far larger numbers of two year programs which depend upon the degree completion programs for the opportunity to earn a higher degree. While the articulation policies are still a school by school process, those programs which are already incorporating education toward the roles are helping to establish a common link among themselves. Continuing to integrate the dental hygiene and general education courses as many of the programs are doing also contributes toward the process. The other factors which help to determine a profession, such as autonomy, licensure and authority for self-accreditation all stem from the foundation of education. However, it does not appear that all of the directors see the issues in the same light: while they agree that increased skills and new entry level aspects result from additional education, they do not accept the need for a separate accreditation process.

However, not included within the survey was the topic of the value of the enhanced roles in the work place. Little research has been done regarding the practicality or applicability of such roles in any of the areas in which dental hygienists are employed. The roles are broadly based and some are quite general; each could apply to almost any allied health occupation. Such a concept could contribute to the value of dental hygienists in the work place; many health care institutions promote the concept of cross-
training employees to cope with more than one set of responsibilities.

Among the changes which are discussed for the health care system are an emphasis on prevention and consequently, the part which allied health care practitioners will play. New methods of delivery call for expansion of the allied health professionals' roles rather than continuation of the educational status quo. Currently, there is little indication that oral health is to be incorporated within the reform although dental professionals are interested in inclusion. The enhanced roles appear to meet both the direction which the reform is taking and the increased needs of future clients. Of particular interest would be the treatment complexities presented by an aging population. This group, well educated toward maintenance of their natural dentition, still faces the medical problems associated with aging. These problems may impact upon the oral health and call for higher order medically and dentally related knowledge. However, advanced skills in all six of the roles would benefit those of any age who are currently under served with preventive oral health services.

Another question which arises: is one individual capable of assuming all six roles (and at what level) after preparation with an undergraduate degree? Is the concept of preparing a dental hygiene generalist (as promulgated by the AADS Task Force and the PEW Foundation) actually adding
more- and more specialized- courses that might be better situated at the graduate level?

Assessment of student abilities is evident both before and after entry to the degree completion programs. A variety of measures are used to assess students' abilities to assume some or all of the six roles. This may be indicative of the directors' concern with accomplishing their educational purposes as the outcome measures are not required by a professional agency. However, they may in fact be required by a regional authority.

There is agreement between the 1985 ADA survey and this study's findings regarding the advanced skills of students with the baccalaureate degree. The 1985 survey statement, "Graduates of post certificate programs have skills and knowledge in dental hygiene beyond those required for entry to the occupational field" achieved a response of 2.39 (where Strong Agreement=1 and Strong Disagreement=5). The current study statement "Dental hygiene degree completion programs prepare graduates for new entry level aspects of the profession beyond those of the Certificate/Associate degree programs" earned a response of 1.33 (where Strong Agreement=1 and Strong Disagreement=5 [scoring adjusted for scale differences]). One conclusion may be related to the more focused approach—via the roles and their concomitant goals—to what the skills and knowledge are. This finding is in concert with the PEW Foundation strategy number four for
Allied Health which recommends "development, testing and evaluation of new ways of utilizing health care workers in the care system" (PEW, 1992).

Another similarity appeared between statements in the two surveys. The 1985 survey statement, "Specialized accreditation of post-certificate dental hygiene programs is necessary and/or desirable" earned a mean score of 3.5 (with Strongly Agree=1 and Strongly Disagree=5). The present survey statement, "It is important to consider specific accreditation of dental hygiene degree completion programs based upon the preparation for new entry level roles" drew a mean response of 2.93 (where Strongly Agree=1 and Strongly Disagree=5 [scoring adjusted for scale differences]). While there appears to be slightly more support for the concept of accreditation, the difference is not that much more significant.

While others have developed conceptual model curricula, it may be of interest to look at a process-based model which could provide a guide to follow in integrating role based education along with dental hygiene and liberal arts courses. The process builds upon McGrath's view of the purposes which the two educational divisions serve. He noted that the purpose of liberal arts education was based upon:
Subject: Provide essential knowledge, especially in the areas of English literature, history, philosophy and economics.

Method: Cultivation of intellectual skills or reasoning which transcends all subject areas. This includes both inductive and deductive reasoning and skill in communication.

Attitudes
Ideals: Development of traits of personality and character; values and value systems and the desire to expand knowledge.

The purpose of professional education was to provide:

- orientation to the profession ("entry level")
- vocational flexibility
- basic principles in technology (McGrath, 1957).

While each degree completion program should retain its individuality, a common tenet to bind them together would contribute toward standardization. A unified approach can support the process of professionalization across all of the programs. Following the process, each degree completion program may look to its individual resources to discover how best to foster development of each role through integrated effort of liberal arts and professional courses. The process follows.

1) Consider the institutional mission.
2) Consider the departmental or divisional philosophy.
3) Review each role and its concomitant descriptors. Two or more roles may be collapsed based upon perceived similarities.
4) Review the liberal arts subject areas: what areas are required by the highest authority within the institution? by the department or division? Which courses are specifically required? which are electives? Compare the goals and objectives of these with those of the role(s) under review. Similarities in content or purpose can direct faculty to recommend or require selections intended to support the role(s).

5) Review the subject areas pertinent to dental hygiene. Which courses are required and which form electives? Are there clinical as well as didactic areas included? Compare the goals and objectives of these with the role(s) under review. Again, similarities in content or purpose can direct faculty to recommend, require or to develop those courses which support a specific role or roles.

6) Review methodology in both disciplines. Discussion with liberal arts faculty is critical to establish consistency. Is there emphasis upon development of intellectual skills? What teaching strategies are used to foster these skills?

7) Review the attitudes and ideals which come through the courses. Is there emphasis upon development
of both personal and professional value systems? Are faculty fostering the desire to continue learning outside of the program?

8) Review the goals and objectives selected and compare the evaluation methodology chosen to establish validity and cohesiveness.

The overall conclusions which may be drawn are in response to the questions posed.

* 1.) What are the trends in the infrastructures of the baccalaureate degree completion programs? The majority of the programs offer the major in dental hygiene but do not require a minor. The degree most often awarded is the Bachelor of Science or the Bachelor of Science in Dental Hygiene. The hours accepted from certificate level programs vary widely as do the specific course requirements; however, almost all of the programs require a combination of dental hygiene and general education courses to complete the degree.

* 2) Do the degree completion program directors agree with the American Dental Hygienists' Association vision of the future roles? There is overall agreement with the roles and harmony with the program mission statements.
3) In the program directors' opinions, are the programs preparing their students to assume the roles, and if so, how do they assess their student "product"?

The majority of the degree completion programs are preparing students to assume some or all of the roles of clinician, consumer advocate, educator/health promotor, change agent, researcher, and administration/management. Assessment is used to evaluate both entry level and exit level outcomes by a variety of measures including clinical assessment, written or oral examination, self assessment or interview.

4) Which types of courses are most influential in assisting students to assume the six roles?

Dental hygiene related courses, liberal arts courses and specialty courses all have strong influence in assisting students to achieve fulfillment of the roles.

5) Are the program directors interested in a separate professional accreditation of degree completion programs?

There does not appear to be strong consensus for a separate accreditation process, although the directors agree that the enhanced roles provide
new entry level skills beyond those of the certificate level students.

**Recommendations for Future Study**

One recommendation for future study includes surveying all of the entry level dental hygiene program directors to ascertain 1) their overall level of agreement with the six enhanced roles; 2) which roles they believe they are preparing their students to assume; and 3) the degree to which these directors believe that they are preparing the students for each role. This would assist the degree completion program directors to better focus their efforts in helping curricula to meet student needs.

Another recommendation would be to survey a sample of students currently enrolled in both entry level and degree completion programs to obtain an overview of student opinion of the enhanced roles and the anticipated value of such roles in the practice or job setting. Following this, there may be need to investigate the practicality of the roles in the actual work place if in fact the programs are preparing students to assume these roles. With the anticipated changes in the nation's health care policies, investigation of the impact which the enhanced roles may have could be of interest to the both certificate and degree completion programs.
It would appear that the dental hygiene baccalaureate degree completion programs have the opportunity to utilize a common goal which could enhance their professional standing. This common goal of preparation of students for new and enhanced professional roles is currently not required by any agency. Many of the programs agree with those roles and incorporate education toward them into curricula using liberal arts, dental hygiene and specialty courses. This process supports a standard and common educational purpose and thus may assist the field of dental hygiene toward professional growth.
The enclosed survey is designed to assess the extent to which Directors of Post-Certificate/Degree Completion Baccalaureate Dental Hygiene Education Programs agree with the six roles designated by the American Dental Hygienists' Association. The roles—Clinician, Educator/Health Promoter, Change Agent, Researcher, Consumer Advocate, and Administration/Management—were developed by dental hygienists during the ADHA Steps To The Future Workshops, held from 1984-1986. The study also seeks to discover the extent to which the programs are preparing their students to fulfill these roles; how this is being accomplished and how the process is being assessed.

The information in section I, Demographics, will be discussed primarily in aggregate form and in individual form only when selected programs warrant special attention because of unique and positive educational endeavors. The information in Sections II and III will be used in aggregate form only and no programs or individuals will be identified.

There is not a great deal of information available on the topics included in the survey and thus your input is very valuable. The information is being gathered for my doctoral dissertation and, needless to say, I would be most grateful for your support in completing this and returning it as soon as possible but before January 6, 1994! As a former Program Director (until the closure of Loyola University of Chicago Dental School and Dental Hygiene Education Program) I recognize how busy you are and so, I will take this opportunity to thank you in advance for your help. Please feel free to call me if you have questions regarding the survey.

Very truly yours,

Susan Sauer, R.D.H., M.Ed.
SURVEY

Baccalaureate Degree Completion Program Survey

PART I  DEMOGRAPHICS

1. a. Program name ____________________________________________________________________

b. Institutional affiliation _____________________________________________________________

  ____ Public
  ____ Private
  ____ University
  ____ Dental School
  ____ 4 year college
  ____ Technical school

c. Location _________________________________________________________________________

d. Degree granted _________________________________________________________________

  ____ BS
  ____ BSDH
  ____ BA
  ____ Other _______________________________________________________________________

e. Is a major required?

  ____ Yes (Please list choices) ______________________________________________________

  ____ No

f. Is a minor required?

  ____ Yes (Please list choice[s]) ______________________________________________________

  ____ No

2. Are dental hygiene-related courses required for the baccalaureate degree in your program?

  ____ Yes
  ____ No

If Yes, please indicate the following by checking all that apply:

<table>
<thead>
<tr>
<th>Area</th>
<th># of courses</th>
<th># of credits</th>
<th>Sem/Qtr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced D.H. Theory</td>
<td>____________</td>
<td>____________</td>
<td>_______</td>
</tr>
<tr>
<td>Advanced D.H. Clinic</td>
<td>____________</td>
<td>____________</td>
<td>_______</td>
</tr>
<tr>
<td>D.H. Education</td>
<td>____________</td>
<td>____________</td>
<td>_______</td>
</tr>
<tr>
<td>Public Health</td>
<td>____________</td>
<td>____________</td>
<td>_______</td>
</tr>
<tr>
<td>Hospital Dentistry</td>
<td>____________</td>
<td>____________</td>
<td>_______</td>
</tr>
<tr>
<td>Other</td>
<td>____________</td>
<td>____________</td>
<td>_______</td>
</tr>
</tbody>
</table>
3. Do you accept credits from the certificate/AAS program toward the Bachelor's degree
   __ Yes (please indicate the number of credit accepted ____ (circle: **semester or quarter** hours)
   __ No

4. Are general education courses (also known as "Core or Humanities" courses) required for the Bachelor's degree?
   Note: These do not include the 5 courses required for the Certificate which were 2 English, Speech, Psychology and Sociology.

   __ Yes
   __ No

If Yes, please check off the courses required; indicate number of courses and number of hours. (Please circle Semester or Quarter)

<table>
<thead>
<tr>
<th>Area</th>
<th># of Courses</th>
<th># of Credits</th>
<th>Sem/Qrt (Circle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>History</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>English Lit.</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Math or</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Computer science</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Foreign Lang</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Theology</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Science</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Social Science</td>
<td>____</td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Other</td>
<td>____________________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PART II  EDUCATION TOWARD PROFESSIONAL ROLES

5. The role of CLINICIAN includes the following descriptors from the ADHA which I have termed "goals":

- accepts the consumer as a partner in providing preventive and therapeutic oral health
- plans for treatment and disease prevention, intervention and control
- implements appropriate clinical services
- evaluates effectiveness of the consumer's self-care

a. Please indicate your level of agreement with this definition
   Strongly agree  Agree  No opinion  Disagree  Strongly disagree

b. Do these goals harmonize with your institutional mission?
   ___ Yes
   ___ No

c. The majority of students who enter your Degree-completion program are prepared to fulfill the above goals of CLINICIAN
   ___ Completely
   ___ Partially
   ___ Not at all
   How is this assessed? (Check all that apply)
   ___ Clinical assessment by faculty
   ___ Use of state/regional board examinations
   ___ Interview
   ___ Self-assessment
   ___ Other
   ___ Not assessed

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals of CLINICIAN
   ___ Completely
   ___ Partially
   ___ Not at all
   How is this assessed? (Check all that apply)
   ___ Clinical assessment by faculty
   ___ Use of state/regional board examinations
   ___ Interview
   ___ Self-assessment
   ___ Other
   ___ Not assessed
e. What clinical experiences does your program offer to enhance this role? (Check all that apply)

- Periodontics
- Hospital dental clinic
- Community clinic
- Other (please describe)

f. Dental hygiene related courses required in your program contribute to the development of the goals of CLINICIAN

Strongly agree Agree No opinion Disagree Strongly disagree

g. General education courses required in your program contribute to the development of the goals of CLINICIAN

Strongly agree Agree No opinion Disagree Strongly disagree

6. The role of CONSUMER ADVOCATE included the following descriptors which I have termed "goals":

- obtains health services for individuals and groups through a variety of mechanisms
- assists in bringing people into the health care delivery system
- monitors the quality of services and programs
- acts in advisory capacity for consumers
- develops networking systems to resolve problems"

a. Please indicate your level of agreement with this definition of CONSUMER ADVOCATE

Strongly agree Agree No opinion Disagree Strongly disagree

b. Do these goals harmonize with your institutional mission?
   - Yes
   - No
c. The majority of students who enter your Degree-completion program are prepared to fulfill the tasks of CONSUMER ADVOCATE
  — Completely
  — Partially
  — Not at all

  How is this assessed? (Check all that apply)
  — Written or oral examination
  — Self assessment
  — Interview
  — Acceptance of previous course work
  — Other
  — Not assessed

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals
  — Completely
  — Partially
  — Not at all

  How is this assessed? (Check all that apply)
  — Written or oral examination
  — Self assessment
  — Interview
  — Other
  — Not assessed

e. What educational methodology is used to guide development of this role?
  — Lecture
  — Seminar
  — Independent study
  — Practicum
  — Other (please describe)

f. Dental hygiene related courses required in your program contribute to the development of these goals

  Strongly agree  Agree  No opinion
  Disagree  Strongly disagree
g. General education courses required in your program contribute to the development of these goals

Strongly agree    Agree    No opinion
Disagree  Strongly disagree

h. There are special courses in my program which contribute to these goals

Strongly agree    Agree    No opinion
Disagree  Strongly disagree

7. The role of EDUCATOR/HEALTH PROMOTER included the following descriptors which I have termed "goals":

"assesses, plans and transmits knowledge of health promotion and disease prevention to individuals and groups
- analyzes health needs and behavioral characteristics of specific population groups
- manages resources and delivers cost effective programs
- works independently or in collaboration with other health professionals to provide health education
- evaluates health education and health promotion strategies"

a. Please indicate your level of agreement with this definition of EDUCATION/HEALTH PROMOTION
Strongly agree    Agree    No opinion
Disagree  Strongly disagree

b. Do these goals harmonize with your institutional mission?
   ___Yes
   ___No

c. The majority of students who enter your Degree-completion program are prepared to fulfill the above goals of EDUCATOR/HEALTH PROMOTER
   ___ Completely
   ___ Partially
   ___ Not at all

   How is this assessed? (Check all that apply)
   ___ Written or oral examination
   ___ Self assessment
   ___ Interview
   ___ Acceptance of previous course work
   ___ Other
   ___ Not assessed
d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals
   [ ] Completely
   [ ] Partially
   [ ] Not at all

   How is this assessed? (Check all that apply)
   [ ] Written or oral examination
   [ ] Self assessment
   [ ] Interview
   [ ] Other
   [ ] Not assessed

e. What educational methodology is used to guide development of this role?
   [ ] Lecture
   [ ] Seminar
   [ ] Independent study
   [ ] Practicum
   [ ] Other (please describe)

f. In your opinion, those dental hygiene related courses required in your program contribute to the development of these goals
   Strongly agree  Agree  No opinion  Disagree  Strongly disagree

g. General education courses required in your program contribute to the development of these goals
   Strongly agree  Agree  No opinion  Disagree  Strongly disagree

h. There are special courses in my program which contribute to the goals
   Strongly agree  Agree  No opinion  Disagree  Strongly disagree

8. The role of CHANGE AGENT incorporates the following descriptors from the ADHA which I have termed "goals"

   " works with individuals, organizations, agencies and social institutions which have authority for or influence conditions which bear on dental hygiene education and practice
   - analyzes barriers to change and diagnoses forces of resistance
creates an atmosphere conducive to the dynamics of change and selects change mechanism compatible with the target of change.
- evaluates the success of change action"

a. Please indicate your level of agreement with this definition of CHANGE AGENT

Strongly agree Agree No opinion
Disagree Strongly disagree

b. Do these goals harmonize with your institutional mission?
   ___ Yes
   ___ No

c. The majority of students who enter your Degree-completion program are prepared to fulfill the above tasks of CHANGE AGENT
   ___ Completely
   ___ Partially
   ___ Not at all

   How is this assessed? (Check all that apply)
   ___ Written or oral examination
   ___ Self assessment
   ___ Interview
   ___ Acceptance of previous course work
   ___ Other
   ___ Not assessed

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals of CHANGE AGENT
   ___ Completely
   ___ Partially
   ___ Not at all

   How is this assessed?
   ___ Written or oral examination
   ___ Self assessment
   ___ Interview
   ___ Other
   ___ Not assessed
e. What educational methodology is used to guide development of this role
   - Lecture
   - Seminar
   - Independent study
   - Practicum
   - Other (please describe)

f. In your opinion, those dental hygiene related courses required in your program contribute to the development of the goals of CHANGE AGENT
   Strongly agree    Agree    No opinion
   Disagree        Strongly disagree

h. General education courses required in your program contribute to the development of these goals
   Strongly agree    Agree    No opinion
   Disagree        Strongly disagree

i. There are special courses in my program which contribute to the goals
   Strongly agree    Agree    No opinion
   Disagree        Strongly disagree

9. The role of RESEARCHER incorporates the following descriptors from the ADHA which I have termed "goals":
   - applies the scientific method to select, evaluate and modify oral health care or education
   - interprets and evaluates research findings and applies findings to practice
   - uses principles of problem solving in clinical and non clinical work efforts
   - contributes to the theoretical and scientific knowledge base for dental hygiene practice through communication of findings

a. Please indicate your level of agreement with the definition of RESEARCHER
   Strongly agree    Agree    No opinion
   Disagree        Strongly disagree
b. Do these goals harmonize with your institutional mission?
   __ Yes
   __ No

c. The majority of students who enter your Degree-completion program are prepared to fulfill the above goals
   __ Completely
   __ Partially
   __ Not at all

   How is this assessed?
   __ Written or oral examination
   __ Self assessment
   __ Interview
   __ Acceptance of previous course work
   __ Other
   __ Not assessed

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals
   __ Completely
   __ Partially
   __ Not at all

   How is this assessed?
   __ Written or oral examination
   __ Self assessment
   __ Interview
   __ Other
   __ Not assessed

e. What educational methodology is used to guide development of this role?
   __ Lecture
   __ Seminar
   __ Independent study
   __ Practicum
   __ Other (please describe)

f. In your opinion, those dental hygiene related courses required in your program contribute to the development of the goals of RESEARCHER
   Strongly agree   Agree   No opinion
   Disagree   Strongly disagree
g. General education courses required in your program contribute to the development of these goals
   Strongly agree  Agree  No opinion
   Disagree   Strongly disagree

h. There are special courses in my program which contribute to the goals
   Strongly agree  Agree  No opinion
   Disagree   Strongly disagree

10. The role of Administration/Management included the following descriptors from the ADHA which I have termed goals:
   "- utilizes data collection, persuasion and protocol skills to justify initiation and development of health promotion or health care
   - organizes and programs oral health services for consumers
   - communicates objectives of the program to consumers, health professionals and/or agency personnel
   - identifies, gathers and procures necessary resources for program operation
   - applies organizational skills in formulating policies and procedures and in carrying out operational aspects of the program
   - manages resources effectively and efficiently
   - evaluates program quality in relation to predetermined goals, perceived needs of the population served, and cost effectiveness
   - modifies the program on the basis of evaluation results."

a. Please indicate your level of agreement with this definition of Administration/Management

   Strongly agree  Agree  No opinion
   Disagree   Strongly disagree

b. Do these goals harmonize with your institutional mission?
   __Yes
   __No
c. The majority of students who enter your Degree-completion program are prepared to fulfill the above goals
   __ Completely
   __ Partially
   __ Not at all
   How is this assessed?
   __ Written or oral examination
   __ Self assessment
   __ Interview
   __ Acceptance of previous course work
   __ Other
   __ Not assessed

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals
   __ Completely
   __ Partially
   __ Not at all
   How is this assessed?
   __ Written or oral examination
   __ Self assessment
   __ Interview
   __ Other
   __ Not assessed

e. What educational methodology is used to guide development of this role?
   __ Lecture
   __ Seminar
   __ Independent study
   __ Practicum
   __ Other (please describe)

f. In your opinion, those dental hygiene related courses required in your program contribute to the development of the goals of ADMINISTRATION/MANAGEMENT
   Strongly agree   Agree   No opinion
   Disagree   Strongly disagree

g. General education courses required in your program contribute to the development of these goals
   Strongly agree   Agree   No opinion
   Disagree   Strongly disagree
h. There are special courses in my program which contribute to the goals
   Strongly agree  Agree  No opinion
   Disagree  Strongly disagree

PART III  INTEREST IN PROFESSIONAL ACCREDITATION OF DEGREE-COMPLETION PROGRAMS

11. Dental hygiene degree-completion programs prepare graduates for new entry level aspects of the profession beyond those of the Certificate/AAS programs.
   Strongly agree  Agree  No opinion
   Disagree  Strongly disagree

   Comments which may clarify your view
   

12. It is important to consider specific professional accreditation of dental hygiene degree-completion programs based upon the preparation for new entry-level roles.
   Strongly agree  Agree  No opinion
   Disagree  Strongly disagree

   Comments which may clarify your view
   

13. Specific accreditation of Degree-completion programs should utilize professional role development as the basis of the Curricular Standard.
   Strongly agree  Agree  No opinion
   Disagree  Strongly disagree

THANK YOU FOR COMPLETING THIS SURVEY!

Please indicate if you would like to receive a copy of the results of this survey:
   Yes  
   No

Return in self-addressed envelope as soon as possible but before January 6, 1994 to: Susan L. Sauer
January 12, 1994

Dear:

You should have recently received a survey from me regarding dental hygiene baccalaureate degree completion programs which was due back on January 6, 1994. While a significant number of our colleagues have already done so, your survey has not yet been returned. I realize that my timing was less than perfect, what with exams, the end of the semester and the holidays all crowded into those weeks!

I would most truly appreciate your taking time to complete and return the survey to me at your earliest convenience! If by chance, you did not receive the survey, please contact me so that I may send you one immediately...I am hoping to be able to include all of the post-certificate programs as the population, so your participation in very important. Thank you in advance for your assistance and I wish you, your faculty and students the very best in this New Year.

Very truly yours,

Susan L. Sauer, R.D.H., M.Ed.
Appendix 2
Data totals
(numbers signify those programs responding to that question or statement)

Baccalaureate Degree Completion Program Survey

PART I DEMOGRAPHICS

1. a. Program name

b. Institutional affiliation
   24 Public
   6 Private
   22 University
   5 Dental School
   4 year college
   1 Technical school

c. Location: North East=6 schools; South Central=5 schools; South East=6 schools; North Central=10 schools; Mid Central=1 school; South West=4 schools; North West=3 schools.

d. Degree granted
   17 BS
   17 BSDH
   0 BA
   1 Other

e. Is a major required?
   27 Yes
   7 No
   1 No response

f. Is a minor required?
   4 Yes
   31 No

2. Dental hygiene-related courses are required for the baccalaureate degree in your program
   29 Yes
   5 No
   If Yes, please indicate the following by checking all that apply:
   Area
   16 require Advanced D.H.Theory
   10 programs require 1 course(s)
<table>
<thead>
<tr>
<th>Programs</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>3 programs</td>
<td>require 2 credits</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2 programs</td>
<td>require 4 credits</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

17 require Advanced D.H.Clinic
12 programs require 1 course(s)
<table>
<thead>
<tr>
<th>Programs</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2 programs</td>
<td>require 1 credit(s)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

13 require D.H. Education
6 programs require 1 course(s)
<table>
<thead>
<tr>
<th>Programs</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 programs</td>
<td>require 2 credits</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>

6 programs require Public Health
<table>
<thead>
<tr>
<th>Programs</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 programs</td>
<td>require 1 course(s)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1 program</td>
<td>require 3 credits</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>

3 require Hospital Dentistry
<table>
<thead>
<tr>
<th>Programs</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 program</td>
<td>requires 1 course(s)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1 program</td>
<td>require 2 credits</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>

26 programs require Other courses. Each program which described them is listed as follows:

A) Seminar in health care (1 course, 2
Principles of health education (1 course, 3 credits)
Special problems (1 course, 2 credits)
Research methods (1 course, 2 credits)
B) Oral Medicine (1 course, 3 credits)
Dental Hygiene Research (1 course, 3 credits)
Instructional strategies (1 course, 3 credits)
C) Thesis (1 course, 3 credits)
D) Dental seminars (3 courses, 11 credits)
Independent study
Oral health research
Directed study in special patient care and in public health
E) Biostatistics (1 course, 3 credits)
F) Advanced Periodontics (1 course, 3 credits)
G) Health Professions courses (4 courses, 12 credits)
H) Practicum (1 course, 6 credits)
I) Electives in dental hygiene
Computers
Intraoral photography
J) Geriatrics (1 course, 3 credits)
Advanced head and neck anatomy (1 course, 3 credits)
K) Research writing (1 course, 2 credits)
Ethics; legal and professional issues (1 course, 3 credits)
Topics in Microbiology (1 course, 1 credit)
L) Dental education student teaching (1 course, 10 credits)
Clinical supervision (2 courses, 6 credits)
M) Research (1 course, 3 credits)
N) Investigation of health (1 course, 3 credits)
Instructional methods (2 courses, 6 credits)
O) Research methods (1 course, 2 credits)
Oral pathology (1 course, 2 credits)
P) Research (1 course, 3 credits)
Field work (1 course, 6 credits)
Q) Current issues (1 course, 3 credits)
Field study (1 course, 3 credits)
Senior capstone (1 course, 3 credits)
R) Current concepts in dental hygiene (2 courses, 6 credits)
S) Advanced preventive dentistry (1 course,
3 credits)

3. Do you accept credits from the certificate/AAS program toward the Bachelor's degree?
   34 Yes
   1 No
   The number of credits accepted ranged between 16-155 semester or quarter hours

4. Are general education courses (also known as "Core or Humanities" courses) required for the Bachelor's degree?
   Note: These do not include the 5 courses required for the Certificate which were 2 English, Speech, Psychology and Sociology.
   32 Yes
   3 No

If Yes, please check off the courses required; indicate number of courses and number of hours

11 programs require Philosophy
   8 programs require 1 course(s)
   1 " 2 "
   1 " 3 "
   8 programs require 3 credits
   1 " 6 "
   1 " 9 "

17 programs require History
   6 programs require 1 course(s)
   8 " 2 "
   6 programs require 3 credits
   6 " 6 "
   2 " 10 "

12 programs require English Literature
   6 programs require 1 course(s)
   3 " 2 "
   1 " 4 "
   5 programs require 3 credits
   1 " 5 "
   3 " 6 "
   1 " 12 "
26 programs require Math or Computer Science

8 programs require 1 course(s)
11 " " 2 "
2 " " 3 "
7 programs require 3 credits
2 " " 5 "
8 " " 6 "
2 " " 7 "
1 " " 8 "
1 " " 9 "
1 " " 11 "

16 require Fine Arts

9 programs require 1 course(s)
3 " " 2 "
1 " " 3 "
8 programs require 3 credits
2 " " 4 "
1 " " 5 "
1 " " 6 "
1 " " 9 "

4 programs require Foreign Language

3 programs require 1 course(s)
1 " " 3 "
3 programs require 3 credits
1 " " 11 "

1 Program requires Theology

1-2 courses for 3-6 credits

16 programs require Science

2 programs require 1 course(s)
7 " " 2 "
3 " " 3 "
1 " " 4 "
1 program requires 3 credits
1 " " 4 "
5 " " 6 "
2 " " 8 "
1 " " 9 "
1 " " 12 "
1 " " 15 "
1 " " 20 "

21 programs require Social Science

11 programs require 1 course(s)
4 "     "     2 
1 "     "     3 
1 "     "     4 
1 program requires 2 credits
10 "     "     3 
1 "     "     4 
2 "     "     6 
1 "     "     9 
1 "     "     10 
1 "     "     12 
1 "     "     15 

23 programs require Other courses. Those respondents who described them included the following:

A) Humanities (1 course, 3 credits)
B) Geography (1 course, 3 credits)
   Physical education (2 courses, 2 credits)
   Health (1 course, 2 credits)
C) Core courses (7 courses, 21 credits)
D) Health care administration (2 courses)
E) Science, Technology and Society (1 course, 3 credits)
   Cultural diversity (1 course, 3 credits)
F) Technical writing (1 course, 3 credits)
   Business (1 course, 3 credits)
   Communication (1 course, 3 credits)
G) Humanities (2 courses, 6 credits
   Health/Physical education (1 course, 3 credits)
H) Nutrition (1 course, 3 credits)
I) Government (2 courses, 6 credits)
   Kinesiology (4 courses, 4 credits)
   Statistics (1 course, 3 credits)
J) Advanced writing skills/English composition (1 course, 3 credits)
K) Anthropology (1 course, 3 credits)
   Political science (1 course, 3 credits)
L) Humanities (1 course, 5 credits)
   Writing (1 course, 5 credits)
   Capstone course (1 course, 5 credits)
M) Humanities (4 courses, 12 credits)
   Advanced composition (1 course, 3 credits)
N) Electives (12 credits)
O) Humanities (2 courses, 8 credits)
   Technical writing (1 course, 4 credits)
   Health care delivery (1 course, 4 credits)
PART II  EDUCATION TOWARD PROFESSIONAL ROLES

5. The role of CLINICIAN includes the following descriptors from the ADHA which I have termed "goals":

" - accepts the consumer as a partner in providing preventive and therapeutic oral health
 - plans for treatment and disease prevention, intervention and control
 - implements appropriate clinical services
 - evaluates effectiveness of the consumer's self-care"

a. Please indicate your level of agreement with this definition

   Strongly agree  Agree
   (19)           (16)

b. Do these goals harmonize with your institutional mission?
   34 Yes
   0 No
   1 No response

c. The majority of students who enter your Degree-completion program are prepared to fulfill the above goals of CLINICIAN

   19 Completely
   14 Partially
   1 Not at all
   1 No response

   How is this assessed? (Check all that apply)
   21 Clinical assessment by faculty
   22 Use of state/regional board examinations
   11 Interview
   18 Self-assessment
   3 Other
   3 Not assessed

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals of CLINICIAN
28 Completely
3 Partially
0 Not at all
4 No response

How is this assessed? (Check all that apply)
21 Clinical assessment by faculty
11 Use of state/regional board examinations
11 Interview
21 Self-assessment
5 Other
3 Not assessed

e. What clinical experiences does your program offer to enhance this role? (Check all that apply)
21 Periodontics
11 Hospital dental clinic
13 Community clinic
21 Other

f. Dental hygiene related courses required in your program contribute to the development of the goals of CLINICIAN

Strongly agree Agree No opinion
(18) (13) (1)

Disagree Strongly disagree
(1) (1)

g. General education courses required in your program contribute to the development of the goals of CLINICIAN

Strongly agree Agree No opinion
(11) (17) (4)

Disagree Strongly disagree
(3) (0)

6. The role of CONSUMER ADVOCATE included the following descriptors which I have termed "goals":

"- obtains health services for individuals and groups through a variety of mechanisms
- assists in bringing people into the health care delivery system
- monitors the quality of services and programs
- acts in advisory capacity for consumers
- develops networking systems to resolve problems"
a. Please indicate your level of agreement with this definition of CONSUMER ADVOCATE

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(16)</td>
<td>(17)</td>
<td>(2)</td>
</tr>
</tbody>
</table>

b. Do these goals harmonize with your institutional mission?

34 Yes
0 No
1 No response

c. The majority of students who enter your Degree-completion program are prepared to fulfill the tasks of CONSUMER ADVOCATE

4 Completely
24 Partially
4 Not at all
3 No response

How is this assessed? (Check all that apply)
11 Written or oral examination
14 Self assessment
9 Interview
13 Acceptance of previous course work
4 Other
7 Not assessed

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals

9 Completely
25 Partially
0 Not at all
1 No response

How is this assessed? (Check all that apply)
18 Written or oral examination
18 Self assessment
8 Interview
9 Other
9 Not assessed

e. What educational methodology is used to guide development of this role?

15 Lecture
24 Seminar
f. Dental hygiene related courses required in your program contribute to the development of these goals

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(12)</td>
<td>(20)</td>
<td>(0)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
</tr>
</tbody>
</table>

g. General education courses required in your program contribute to the development of these goals

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(5)</td>
<td>(25)</td>
<td>(1)</td>
<td>(4)</td>
<td>(0)</td>
</tr>
</tbody>
</table>
h. There are special courses in my program which contribute to these goals

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(11)</td>
<td>(14)</td>
<td>(3)</td>
<td>(5)</td>
<td>(0)</td>
<td>(2)</td>
</tr>
</tbody>
</table>

7. The role of EDUCATOR/HEALTH PROMOTER included the following descriptors which I have termed "goals":

"assesses, plans and transmits knowledge of health promotion and disease prevention to individuals and groups
- analyzes health needs and behavioral characteristics of specific population groups
- manages resources and delivers cost effective programs
- works independently or in collaboration with other health professionals to provide health education
- evaluates health education and health promotion strategies"

a. Please indicate your level of agreement with this definition of EDUCATION/HEALTH PROMOTION

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(19)</td>
<td>(12)</td>
</tr>
</tbody>
</table>

b. Do these goals harmonize with your institutional mission?
32 Yes
c. The majority of students who enter your Degree-completion program are prepared to fulfill the above goals of EDUCATOR/HEALTH PROMOTION

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Completely</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Partially</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Not at all</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>No response</td>
<td></td>
</tr>
</tbody>
</table>

How is this assessed? (Check all that apply)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Written or oral examination</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Self assessment</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Acceptance of previous course work</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Not assessed</td>
<td></td>
</tr>
</tbody>
</table>

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Completely</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Partially</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Not at all</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>No response</td>
<td></td>
</tr>
</tbody>
</table>

How is this assessed? (Check all that apply)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>Written or oral examination</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Self assessment</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Not assessed</td>
<td></td>
</tr>
</tbody>
</table>

e. What educational methodology is used to guide development of this role?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Seminar</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Independent study</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Practicum</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

f. In your opinion, those dental hygiene related courses required in your program contribute to the development of these goals

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(22)</td>
<td>Strongly agree</td>
<td></td>
</tr>
<tr>
<td>(10)</td>
<td>Agree</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>No opinion</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(0)</td>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>No response</td>
<td></td>
</tr>
</tbody>
</table>

g. General education courses required in your program
h. There are special courses in my program which contribute to the goals
   Strongly agree Agree No opinion No response
   (18) (15) (1) (1)

8. The role of CHANGE AGENT incorporates the following descriptors from the ADHA which I have termed "goals"

   "- works with individuals, organizations, agencies and social institutions which have authority for or influence conditions which bear on dental hygiene education and practice
   - analyzes barriers to change and diagnoses forces of resistance
   - creates an atmosphere conducive to the dynamics of change and selects change mechanism compatible with the target of change
   - evaluates the success of change action"

   a. Please indicate your level of agreement with this definition of CHANGE AGENT

      Strongly agree Agree No opinion
      (15) (17) (3)

   b. Do these goals harmonize with your institutional mission?
      30 Yes
      4 No
      1 No response

   c. The majority of students who enter your Degree-completion program are prepared to fulfill the above tasks of CHANGE AGENT
      1 Completely
      22 Partially
      9 Not at all
How is this assessed? (Check all that apply)
9 Written or oral examination
14 Self assessment
10 Interview
13 Acceptance of previous course work
3 Other
8 Not assessed

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals of CHANGE AGENT
1 Completely
27 Partially
2 Not at all

How is this assessed?
18 Written or oral examination
21 Self assessment
11 Interview
8 Other
6 Not assessed

e. What educational methodology is used to guide development of this role
21 Lecture
25 Seminar
18 Independent study
21 Practicum
5 Other

f. In your opinion, those dental hygiene related courses required in your program contribute to the development of the goals of CHANGE AGENT

Strongly agree Agree No opinion
(11) (14) (2)

Disagree Strongly disagree No response
(5) (1) (2)

h. General education courses required in your program contribute to the development of these goals

Strongly agree Agree No opinion
(6) (16) (2)

Disagree Strongly disagree No response
(6) (0) (1)
i. There are special courses in my program which contribute to the goals

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(10)</td>
<td>(14)</td>
<td>(4)</td>
</tr>
<tr>
<td>Disagree</td>
<td>Strongly disagree</td>
<td>No response</td>
</tr>
<tr>
<td>(5)</td>
<td>(0)</td>
<td>(2)</td>
</tr>
</tbody>
</table>

9. The role of **RESEARCHER** incorporates the following descriptors from the ADHA which I have termed "goals":

- applies the scientific method to select, evaluate and modify oral health care or education
- interprets and evaluates research findings and applies findings to practice
- uses principles of problem solving in clinical and non clinical work efforts
- contributes to the theoretical and scientific knowledge base for dental hygiene practice through communication of findings

a. Please indicate your level of agreement with the definition of **RESEARCHER**

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(20)</td>
<td>(14)</td>
<td>(0)</td>
</tr>
<tr>
<td>Disagree</td>
<td>Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>(0)</td>
<td></td>
</tr>
</tbody>
</table>

b. Do these goals harmonize with your institutional mission?

34 Yes
0 No
1 No response

c. The majority of students who enter your Degree-completion program are prepared to fulfill the above goals

3 Completely
21 Partially
10 Not at all

How is this assessed?
13 Written or oral examination
8 Self assessment
6 Interview
20 Acceptance of previous course work
4 Other
3 Not assessed
d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals

14 Completely
21 Partially
0 Not at all

How is this assessed?
28 Written or oral examination
13 Self assessment
9 Interview
11 Other
2 Not assessed

e. What educational methodology is used to guide development of this role?
32 Lecture
21 Seminar
24 Independent study
15 Practicum
4 Other

f. In your opinion, those dental hygiene related courses required in your program contribute to the development of the goals of RESEARCHER

Strongly agree Agree No opinion
(16) (17) (0)
Disagree Strongly disagree
(0) (1)

g. General education courses required in your program contribute to the development of these goals

Strongly agree Agree No opinion
(5) (24) (3)
Disagree Strongly disagree
(3) (0)
h. There are special courses in my program which contribute to the goals

Strongly agree Agree No opinion
(18) (14) (1)
Disagree Strongly disagree No response
(1) (0) (1)

10. The role of Administration/Management included the following descriptors from the ADHA which I have termed goals:
utilizes data collection, persuasion and protocol skills to justify initiation and development of health promotion or health care
- organizes and programs oral health services for consumers
- communicates objectives of the program to consumers, health professionals and/or agency personnel
- identifies, gathers and procures necessary resources for program operation
- applies organizational skills in formulating policies and procedures and in carrying out operational aspects of the program
- manages resources effectively and efficiently
- evaluates program quality in relation to predetermined goals, perceived needs of the population served, and cost effectiveness
- modifies the program on the basis of evaluation results."

a. Please indicate your level of agreement with this definition of Administration/Management

Strongly agree  Agree
(15)  (20)

b. Do these goals harmonize with your institutional mission?
32 Yes
3 No

c. The majority of students who enter your Degree-completion program are prepared to fulfill the above goals
2 Completely
20 Partially
11 Not at all

How is this assessed?
10 Written or oral examination
10 Self assessment
12 Interview
15 Acceptance of previous course work
4 Other
8 Not assessed

d. Upon graduation from your Degree-completion program students are prepared to fulfill the goals
9 Completely
21 Partially
3 Not at all
How is this assessed?
19 Written or oral examination
17 Self assessment
  8 Interview
  9 Other
  7 Not assessed

e. What educational methodology is used to guide development of this role?

  27 Lecture
  19 Seminar
  18 Independent study
  18 Practicum
  4 Other

f. In your opinion, those dental hygiene related courses required in your program contribute to the development of the goals of ADMINISTRATION/ MANAGEMENT

   Strongly agree    Agree    No opinion
   (12)               (15)     (2)
   Disagree          Strongly disagree
   (4)                (1)

g. General education courses required in your program contribute to the development of these goals

   Strongly agree    Agree    No opinion
   (6)               (16)     (1)
   Disagree          Strongly disagree    No response
   (4)                (0)      (1)

h. There are special courses in my program which contribute to the goals

   Strongly agree    Agree    No opinion
   (14)              (15)     (1)
   Disagree          Strongly disagree
   (4)                (0)
11. Dental hygiene degree-completion programs prepare graduates for new entry level aspects of the profession beyond those of the Certificate/AAS programs.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(21)</td>
<td>(11)</td>
<td>(0)</td>
<td>(3)</td>
<td>(0)</td>
</tr>
</tbody>
</table>

Written clarification included the following comments:
- Baccalaureate degree completion programs provide dental hygienists with entry credentials for positions requiring a B.S. degree and the opportunity to build upon their particular skills to enhance their preparation in one or more of the roles (current or future)

- Additional general education courses will provide a liberal education; this background prepares for graduates' additional roles (other than clinician)

- I am assuming the new entry level is the 6 roles. Too much variability in programs from what I have seen.

- Our program's goal is to improve critical thinking and problem solving in dental hygiene, and to broaden the conceptual forms from dental hygiene to oral health.

- If you mean by "new" additional knowledge and competency skills-then very much so!

- Our program tends to attract many non-traditional students who are looking for new avenues beyond private practice to pursue while still maintaining their careers in dental hygiene.

- While I feel there should be entry level distinction between degrees, in reality there is not.

- It is necessary for BS programs whether completion or not to provide students with skills above entry level.

- I wish they did but too many add courses to the AS and do not integrate the material to effectively reach these goals.

- Advanced clinical techniques, i.e., some limited anesthesia.

- Independent decision making, critical thinking which helps prepare the graduate for "self supervision".
12. It is important to consider specific professional accreditation of dental hygiene degree-completion programs based upon the preparation for new entry-level roles.

Strongly agree Agree No opinion
(6) (10) (6)
Disagree Strongly disagree
(11) (1)

Written clarification included the following comments:
• An entry level is defined at present. I'm not sure what "new" means.
• It may be difficult to standardize this due to individual university undergraduate requirements.
• There is considerable variation among programs. Very little research, writing, computer skills. Need to support development of a knowledge based professional to advance dental hygiene.
• Curriculum for a degree from (a) university is so full of general education requirements that any further addition of courses will make a program unattractive—we already are faced with adding a language requirement. Getting a degree is expensive.
• I am a little unsure of what is meant by "new entry level roles". At an arts and sciences institution like ours, we are also comfortable with student who pursue a degree for personal fulfillment, career changes, graduate study or professional school.
• These programs generally are much broader in scope than practice specific; accreditation efforts begin to be a bit redundant.
• I do not feel that the post clinical programs should fall under accreditation standards. My program is the 1-2-1 type. The upper level courses are taken after the completion of the clinical two years.
• As long as we have some flexibility to maintain the vital components of our individual degrees. By this I mean we are now accredited through the education department too. And they can be flexible for our degree to a point.
• Costs and time factors are prohibitive unless external funding is available.
I'm not sure we are in a position to accredit BS completion programs or require them to specialize in all areas.

By ADHA if we ever get a clear picture of BS education. Honestly, I'd like degree completions to be replaced by comprehensive integrated BS.

However, the areas for professional accreditation are so broad that I'm not sure there is one accreditation for all types of degree completion programs.

I think "completion" does a disservice to the students. Dental Hygiene should all be Bachelor level, thus accredited as such.

If the academic credential is to mean something, there needs to be standards.

13. Specific accreditation of Degree-completion programs should utilize professional role development as the basis of the Curricular Standard.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3)</td>
<td>(10)</td>
<td>(6)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(9)</td>
<td>(1)</td>
</tr>
</tbody>
</table>
WORKS CITED

A. Single Volume Works


B. Journals


Cameron, Cheryl A., Martha H. Fales. "Outcome Comparisons of Traditional and Degree Completion Baccalaureate Dental Hygiene Graduates". Journal of Dental Education. 52 (1988):470-472.


C. Other Sources


American Dental Association, *Baccalaureate Degree Completion Programs for Dental Hygienists* May 1985, Chicago Council in Dental Education.


VITA

The author, Susan Laura Sauer, is the daughter of Irwin and Mary Sauer. She was born in Chicago and raised in Berwyn, Illinois and graduated from the public elementary and high schools there. Her professional education was in Dental Hygiene and she received both the Certificate and Bachelor of Science degree in Dental Hygiene from Marquette University, Milwaukee, Wisconsin. In addition, she earned a Master of Education degree from the University of Illinois at Urbana. Ms. Sauer has been associated with private dental offices in the practice of dental hygiene. From 1974 until its closure in 1993, she was a faculty member of the Loyola University of Chicago School of Dentistry, Dental Hygiene Education Program where she served as the Director from 1984 until 1993.
APPROVAL SHEET

The dissertation submitted by Susan L. Sauer has been read and approved by the following committee:

Dr. Diane P. Schiller, Director
Associate Professor, Curriculum and Instruction
Loyola University Chicago

Dr. Todd J. Hoover
Associate Professor, Curriculum and Instruction
Loyola University Chicago

Dr. Steven I. Miller
Professor, Educational Leadership and Policy Studies
Loyola University Chicago

Dr. Elizabeth Brutvan
Director of Professional Development
American Dental Hygienists' Association

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

April 6, 1994

Date

Diane P. Schiller
Director's signature