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A Dissertation

entitled

The History of the Rhodes State College Dental Hygiene Program

by

Denise E. Bowers

Submitted to the Graduate Faculty as partial fulfillment of the
requirements for The Doctor of Philosophy Degree in Higher Education

Dr. David Meabon, Committee Chair

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The University of Toledo

May 2012
An Abstract of

The History of the Rhodes State College Dental Hygiene Program

by

Denise E. Bowers

Submitted to the Graduate Faculty as partial fulfillment of the requirements for The Doctor of Philosophy Degree in Higher Education

The University of Toledo
May 2012

The historiography of the Rhodes State College Dental Hygiene Program (Program) presents a historical journey of health care, as it relates to oral health, in the United States, in Ohio, and in Lima. This study bridges the gap between the history of higher education and the history of an academic program, dental hygiene. Prior to this study, there was a lack of research on the connectivity between the history of higher education and the history of academic programs. John Thelin’s theoretical framework of horizontal histories informed this study. Seven historical leaders instrumental to the Program’s existence were selected to participate in this historiography. Each leader was asked a series of 16 questions in a face-to-face interview about their perspectives of the events, issues, and challenges that surfaced during the historical journey of the Program’s inception and development. The story presents a detailed account of the journey from 1971 when initial discussion of developing a dental hygiene program in Lima ensued to 2012.
Acknowledgements

This pursuit of my doctoral degree and the writing of this dissertation would not have been possible without the love, support, and encouragement I received from my husband, Kevin; my children, Angela and Ryan; my parents; my sister, Tami; and my Dissertation Chair, Dr. Meabon.

When I opened my notebook on the first day of class, I found a post-it-note written by my husband that read: “Denni, I am sooooo proud of you!” Tears swelled in my eyes, and I knew that I had made the right decision to travel down this road. I have carried that note with me every single day of this journey. Kevin, I cannot thank you enough for placing that note in my binder; for showering me with your endless vote of confidence; and for loving me unconditionally. You are my rock and my best friend!

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Chapter One

Introduction

This historiography is about a dental hygiene program in a technical college located in Lima, Ohio. Lima is nestled in the heart of Northwest Ohio and is located at the crossroads of the historic east-west Lincoln Highway and the accessible north-south Interstate-75. Dayton lies approximately 72 miles to the south of Lima, and Toledo lies 78 miles northeast of Lima. In 1967 a study conducted by Lima community leaders revealed the need for technical education programs to satisfy the employment demands of area businesses, industries, and agencies. In response to this need, Penta Technical Institute of Perrysburg, Ohio began to establish instructional programs on the Lima Campus in 1969. Nursing was the first course of instruction offered on the campus. In the fall of 1969, 49 students enrolled in the nursing program (Rhodes State College Catalog, 2010). Several years later, in the fall of 1976, dental hygiene was added to the growing list of instructional programs offered on the Lima Campus.

On June 13, 2003, the Dental Hygiene Program (Program) at James A. Rhodes State College celebrated 25 years of excellence in dental hygiene. Past, present, and future administrators, faculty, students, and dental hygiene advisory committee members joined in the celebration. Several of the guests in attendance were responsible for the genesis of the Program. The history of the Program had evolved in the hearts and minds of these individuals. However, the history has never been archived into one comprehensive document. Bits and pieces of written information tell part of the story but not the whole story. The researcher of this historical study examined the collective, institutional history of Rhodes State College’s Dental Hygiene Program and developed a
narrative aimed to describe and document the unique and distinctive events that represent the historical foundations of the Program.

Historically, the dental hygiene program on the Lima campus was established to expand the dental hygiene workforce to communities in Ohio in need of dental hygienists and the health care services hygienists provide. Health care in the United States has been a primary focus of government policy for years. In 1965 President Lyndon Johnson enacted legislation which brought Medicare and Medicaid into the health care arena. In 1977 the State Children’s Health Insurance Program (SCHIP) was established by the federal government, under Title XXI of the Social Security Act, to provide health insurance to children in families at or below 200 percent of the federal poverty line. In 1985 the Consolidated Omnibus Budget Reconciliation Act (COBRA) amended the Employee Retirement Income Security Act (ERISA) of 1974 to enable employees to continue health insurance coverage when they retire. In 2010 President Obama enacted the Patient Protection and Affordable Care Act which, in conjunction with the Health Care and Education Reconciliation Act of 2010, make up the health care reform of 2010. The health care reform of 2010 focuses on prevention and wellness for all Americans (www.healthreform.gov).

Currently, several United States populations are not afforded prevention and wellness opportunities due to a severe shortage of health care professionals and health care educators. According to the United States Department of Labor, by 2014 over four million new healthcare workers will be needed to care for the aging population (http://explorehealthcareers.org). The most in-demand health care professions include medical assistants, physical therapist assistants, dental hygienists, dental assistants, and
registered nurses. A shortage of health care educators is one cause of the deficiency of health care workers. In 2009 almost 55,000 qualified nursing applicants were turned away from baccalaureate and graduate nursing programs due to insufficient number of nursing faculty (www.aacn.nche.edu/IDS). A similar situation exists in dental hygiene programs. There is a deficit of dental hygiene educators to teach in the classroom, supervise in the clinic, and serve as mentors to dental hygiene students in providing quality oral health care (http://explorehealthcareers.org). This decline in dental hygiene educators ultimately compromises the nation’s access to prevention and wellness of oral health.

Dental hygienists play a key role in prevention and wellness of oral health for all Americans. President Obama’s Patient Protection and Affordable Care Act provides for numerous oral health provisions designed to enhance access to and quality of oral health care. The law: (1) requires that insurance plans offered under a State Exchange include oral care for children; (2) provides grants to school-based health centers and includes qualified oral health services to be provided at those centers; (3) mandates the establishment of a five-year, evidence-based public education campaign to promote oral health; (4) requires that all states, territories and Indian tribes receive grants for school-based dental sealant programs; (5) establishes a program to educate alternative dental health care providers; (6) provides appropriations for training oral health workforce and financially assisting dental trainees including dental hygienists; (7) removes barriers to practice for professional providers such as dental hygienists; and (8) advocates for expanding the legal scope of professional providers, such as dental hygienists, to reflect
their real training and skills, emphasize prevention, and increase access to care (Patient Protection and Affordable Care Act, 2010).

The oral health provisions outlined in the Patient Protection and Affordable Care Act are a direct response to the United States Surgeon General’s Report on Oral Health entitled *Oral Health in America: A Report of the Surgeon General*. According to the Surgeon General’s report, there is an oral health crisis plaguing the nation (*Oral Health in America, 2000*). Based upon the findings of this report, Surgeon General David Satcher issued a national “Call to Action” promoting access to oral health for all Americans. Mr. Satcher’s directive encouraged policymakers, health professionals, and the public to work together to increase access to oral healthcare by enhancing workforce flexibility and developing local solutions to access to care problems.

This report echoes the message promoted by the American Dental Hygienists’ Association (ADHA) that oral health is essential to the general health and well-being of Americans and that oral disease is linked to systemic health problems. ADHA represents the professional interests of dental hygienists in the United States and places access to oral health care as a top priority. ADHA strongly supported Mr. Satcher’s directive and urged Congress to remember oral health whenever general health was being considered. ADHA also urged Congress to facilitate the implementation of the national oral health plan called for in *Oral Health in America: A Report of the Surgeon General*.

Following the release of the Surgeon General’s report, ADHA spearheaded a joint letter to Capitol Hill in support of the Oral Health Initiative developed by the Health Resources and Services Administration (HRSA). HRSA is part of the Department of Health and Human Services and oversees programs that increase access to health care for
people who are low income, uninsured, or who live in rural and urban neighborhoods where health care is scarce. The goals of HRSA’s Oral Health Initiative were to “work toward the elimination of disparities in oral health status and to improve access to oral health services” (ADHA et al., 2000, ADHA et al. to J. Porter, March 28, 2000).

Licensed oral health care professionals are needed to resolve issues of access and to provide widespread oral health services. On June 27, 2000, ADHA drafted talking points for congressional visits in Washington, D.C. which urged Congress to use dental hygienists to address the dilemma of inadequate access to oral health care: “Dental hygienists are prevention specialists who understand that recognizing the connection between oral health and total health can prevent disease, treat problems while they are still manageable, and conserve critical health care dollars” (ADHA Talking Points for Congressional Visits, 2000).

The ADHA continued its advocacy position by developing a position paper on Access to Care which reiterated that lack of access to oral health care is a critical issue – not just affecting oral health – but overall health in the United State because of the systemic connection between oral health and overall health. Inadequate oral health care is the direct result of the disparities that exist in the health care delivery system. According to ADHA “dental hygienists must play a vital role in the solution to eliminate these disparities and assure quality oral health care for all” (ADHA Access to Care Position Paper, 2001). Christine Nathe (2003) states that “dental hygiene services are largely confined to private dental offices because of supervision requirements, which differ from state to state and hinder dental hygienists’ ability to disperse throughout the community and thereby improve access to oral health care” (p. 24). Nathe (2004) goes on
to stress the need for legislative changes to eliminate dental hygiene workplace barriers so that hygienists can provide dental hygiene services to patients anywhere there is a need. “Changing state statutes to reflect the competency of dental hygienists is mandatory” (Nathe, 2004, p. 12).

ADHA continues to champion initiatives to address health care access issues by providing information to congressmen and other oral health stakeholders of what a dental hygienist is, the education a dental hygienist earns, and the historical background of dental hygiene education (Direct Access to Care and Dental Hygienists, 2006). Nathe (2004) emphasizes the need for continuous education of stakeholders on the dental hygiene curriculum and the services dental hygienists are competent to perform.

**Statement of the Problem**

Since 1998 the Ohio Department of Health has reported that dental care is the number one unmet health care need of Ohioans. In 2002 the Cincinnati Health Department reported that there were over 5000 patients waiting to receive dental care and whose needs were not being met (Linda Reidelbach’s Sponsor Testimony, 2006). In 2004 the Ohio Department of Health convened a task force of key stakeholders to make recommendations for improving access to dental care in Ohio. The Ohio Department of Health convened a similar task force in 2000 (Oral Health and Access to Dental Care, 2009). In 2006 oral health rose to the forefront of a policy debate on health care in Ohio when Representative Linda Reidelbach introduced House Bill 518 into the legislative arena. Representative Reidelbach provided sponsor testimony summarizing the historiography of Ohio’s access to care dilemma and advocating for “dental hygienists to serve as the first responders anywhere in Ohio to provide much needed dental hygiene
services wherever there is a need” (Linda Reidelbach’s Sponsor Testimony, 2006). Reidelbach (2006) states “we must find a way to provide treatment to the poor and indigent populations, to the underserved nursing home resident, and to all Ohio citizens who desperately need oral health care” (p. 2).

On November 17, 2010, a consumer advocacy group known as Dental Access Now announced an initiative to educate Ohio’s citizens about the lack of access to dental care and to pursue alternative providers as a way to expand access to dental care in underserved communities across the state. Universal Health Care Action Network (UHCAN) Ohio is coordinating the effort to bring an innovative dental therapy model to Ohio. The primary goal of UHCAN is to advocate for affordable, quality health care by connecting advocacy organizations across the country (Dental Access Now, 2010). The Ohio Dental Hygienists’ Association (ODHA) and the Ohio Council of Dental Hygiene Directors have joined forces to solicit UHCAN’s support for using dental hygienists, with additional training, as dental therapists. In January 2011 ODHA drafted and approved a position statement on the proposed model of a dental therapist in Ohio. In this statement ODHA requests that the Ohio General Assembly expand the scope of practice for licensed dental hygienists to address the lack of accessible dental care of Ohio’s citizens (ODHA’s Dental Therapist Position Statement, 2011).

Before Ohio’s oral health stakeholders will support dental hygienists providing access to care to Ohio’s un-served and underserved populations, they must have knowledge regarding the scope of responsibilities managed by dental hygienists, as well as awareness of the educational requirements of the practice, both currently and historically.
Ohio hygienists in the late 1960s were scarce except in the big cities of Cleveland, Columbus, and Cincinnati. Students from all over Ohio attended college in the big three of Ohio cities (Cleveland, Columbus, and Cincinnati). Students received their dental hygiene education in these big cities and, upon graduation, did not return to their home towns for employment. Rather, these new graduates relocated to the cities in which they received their training in order to join a lucrative dental practice and become a member of a financially stable dental team (Program Proposal, 1973). This left their local communities without the value of their services. Dentists outside of Cleveland, Columbus, and Cincinnati were in desperate need for hygienists.

In 1970 the Ohio Dental Association (ODA) formed the Task Force on Auxiliary Manpower (Task Force). One of the primary focuses of the Task Force was to study the dental hygiene shortage in Ohio, particularly in the rural and less developed portions of the state, and to determine a solution to the problem (K. Clemens, personal communication, April 2003).

The Task Force collected information from dentists and dental hygienists residing and working in all of Ohio’s eighty-eight counties. The results of this widespread research confirmed that there was a dental hygiene shortage in Ohio. The Task Force and the ODA agreed that the solution to the problem was to develop dental hygiene schools in the geographic areas of need. The most logical place to develop these dental hygiene schools was in existing technical and community colleges (generally located in communities of fewer than 100,000 residents). The community college was the terminal degree-granting institution designed to prepare individuals for vocational occupations and professions. Community colleges were the obvious historical choice for the training of
auxiliary and/or support occupations (Cohen & Brawer, 2008). Dental hygiene was considered an auxiliary occupation of the dental profession. The Task Force and the ODA decided to pursue the development of dental hygiene programs in community colleges located in geographic areas of need.

Geographic sites had long been taken into consideration as obvious choices for program development, including the development of the Dental Hygiene Program at Rhodes State College. The Carnegie Commission on Higher Education (1970) used geographic sites as the criteria for locating health education centers. Lima was among the geographic sites listed in the Carnegie Commission report. In September 1971 the Task Force provided the ODA with an interim report of the dental hygiene subcommittee upholding the Carnegie Commission report. The Task Force “designated a nine county area around Lima as one of the 5 regions in Ohio without a training program and with a low hygienist/population ratio” (Program Proposal, 1973). As a result of these findings, the ODA submitted a proposal to the Ohio Board of Regents soliciting their support to develop dental hygiene schools in the geographic sites within Ohio outlined in the Carnegie Commission Report. The Ohio Board of Regents indicated that it would approve the request once documented evidence of the need to develop these schools was submitted. The ODA responded immediately to this directive (K. Clemens, personal communication, April 2003).

A state-wide needs assessment was conducted to validate increasing the number of dental hygiene education programs in Ohio, specifically in Lima. The results of the study revealed that dental hygienists were needed in almost every area of the state except for Columbus, Cleveland, and Cincinnati. Franklin County was the best served area by
dental hygienists in the State of Ohio due to the dental hygiene program at the Ohio State University. At the time of the study there were 73 counties in Ohio with a least one practicing dental hygienist and 15 without any. The ten-county service area of Lima Technical College employed a total of 33 dental hygienists and presented with an immediate need to fill 29 positions (Program Proposal, 1973).

A concerted effort was made by the researcher to access needs assessment data pertaining to dental hygiene education in contiguous states of Kentucky and Indiana. However, after speaking with the departments of education, boards of dentistry, and dental hygiene program directors it was determined that historical data related to dental hygiene education in these states did not exist thus revealing another gap in the literature.

In Ohio, the results of state-wide needs assessment prompted the Lima Technical College Board of Trustees to pass a resolution to create a Dental Hygiene Advisory Committee (Committee) whose primary directive was to study the need for, and the feasibility of, a dental hygiene program in the Lima area community. The Committee was created in 1972. The Committee developed and conducted a local needs assessment of the ten-county service area of Lima Technical College. The results clearly revealed that a need for a greater number of practicing dental hygienists was apparent both from a statistical standpoint as well as solicited comments from currently practicing dentists. “It is significant to note that the number of hygienists (33) would not even compensate for the annual loss due to turnover (35) of the larger workforce requested by the dentists locating here in the future” (Program Proposal, 1973). The Dental Hygiene Advisory Committee concluded that “the location of Lima Technical College in the midst of this
service area makes it advantageous to institute a program in Dental Hygienist Education which would be accessible to local youth” (Program Proposal, 1973).

A proposal outlining the results of the needs assessment and describing the Lima Technical College Dental Hygiene facilities, curriculum, budget, and faculty was developed and submitted to the Ohio Board of Regents. At the May 1973 meeting the Ohio Board of Regents accepted the proposal, and Lima Technical College’s dental hygiene education program became a reality (Ohio Board of Regents Meeting Minutes, May 1973). The Ohio Board of Regents’ resolution changed a dream into a reality. A dental hygiene program in the Lima area was going to be established; dentists were going to have dental hygienists to employ; and access to oral health services for the community was going to be readily available.

The dental hygiene program in Lima, Ohio was established in 1976 yet its history has never been recorded. Since the Program’s inception it has endured three different governing models, significant curricular changes, and a variety of financial challenges which have never been preserved in college archival holdings. The image portrayed by the Program plays a critical role in the stakeholder’s attitude toward the Program, as well as the College. The Program must develop a distinct image to create a competitive advantage in an increasingly competitive market.

There are seven specific populations of stakeholders that are directly impacted by this lack of program identify: (1) program alumni, (2) prospective dental hygiene students, (3) current dental hygiene students, (4) faculty, (5) staff, (6) employers, and (7) funding agencies. As a resource-acquiring entity, it is important that the Program develop an identity that attracts and maintains the support of its stakeholders. Iggers
(1997) states that “history continues to be a powerful means by which groups and persons define their identity” (p. 143).

The positive image of the Program will, among other things, generate increased student applications, increased endowments, and increased interest by employers of hiring the dental hygiene graduates. Developing a written history of the Rhodes State College Dental Hygiene Program will not only enhance the Program’s identity, but it will also define the Program’s historic sense of place within its community, region, and field of study of higher education.

**Purpose Statement**

The purpose of the study was to describe and document the historical foundation of the Rhodes State College Dental Hygiene Program.

**Research Question**

The fundamental question that this study asked was: How was the Rhodes State College Dental Hygiene Program created and how has it evolved from its inception to 2012?

**Methodological Approach**

Historical methodology guided this study. Robert Williams (2007) states that “historical research is a process of discovery and construction” (p. 11). Discovery and construction were demonstrated in this historiography because there were not previous comprehensive studies to draw from, thus a gap in the knowledge was filled. After contacting all of the dental hygiene program directors in Ohio, Kentucky, and Indiana, the researcher learned that scholarly historical recordings of their programs did not exist. A survey of the 23 community colleges in Ohio revealed that less than 40% had recorded
and archived their historiographies. Therefore most, if not all, of the historical data in this study was presented for the first time. Compiled records and documents not yet archived created an historic opportunity for the researcher to offer original analyses and interpretations. In this study, historical methodology was used to develop a historical analysis of a dental hygiene program at a technical college in Lima, Ohio and to tell a story that had never been told before of oral health care at Rhodes State College.

**Data Collection and Population**

Data collection for this historical study was approached through triangulation. Creswell (2008) defines triangulation as “the process of corroborating evidence from different individuals or types of data collection” (p. 266). Data collection methods include interviews, focus groups, observations, questionnaires, and documents. By using the triangulation process, historians are able to ascertain the reliability and authenticity of their primary and secondary sources of data thus increasing the credibility and validity of their results. Triangulation provided links between the information obtained through oral histories and the review of the documents.

Today most scholars use a mixture of oral, written, and other material sources as the situation requires (Howell & Prevenier, 2001). In this study triangulation consisted of: (1) video recorded face-to-face interviews, (2) primary document-based sources of data, and (3) secondary sources of data.

Preliminary research of primary sources led to the identification of seven historical leaders as interviewees. All seven historical leaders were contacted either via email or telephone and invited to participate in the study. They all agreed to participate and served as the population for this study.
Data Analysis

All primary and secondary data was analyzed and verified for authenticity and relevance (Howell & Prevenier, 2001). Once the interviews were conducted and data gathered, the video tapes were transcribed. Once the transcripts were drafted and read, they were sent to the interviewees for review and confirmation of facts told (Chaddock, 2010). There were no transcription inaccuracies identified by the interviewees so follow-up interviews were not needed.

Following the transcription of oral histories all of the primary and secondary sources of data were coded. “Coding is the process of breaking down, classifying, comparing, and conceptualizing the data contained in the documents (Love, 2003, p. 90). These codes were then collapsed into seven themes related to the development and evolution of the Rhodes State College Dental Hygiene Program: (1) obstacles that had to be overcome for the Program to be developed; (2) economic forces and factors that influenced the creation of the Program; (3) environmental forces and factors that influenced the development of the Program; (4) community forces and factors that influenced the development of the Program; (5) political forces and factors that influenced the creation of the Program; (6) government agencies instrumental in the creation of the Program; and (7) the role of public policy and regional boards in the establishment of the Program.

Theoretical Significance of the Study

Histories written on academic programs are valuable to the historiography of higher education. “The historian investigates what happened in the past by researching the available evidence in order to establish the facts and the chronology of events”
(Williams, 2007, p. 11). Thelin’s (2004) horizontal history model “emphasizes the notion of organizational saga” and incorporates “the founding and influence of institutions and agencies across the higher-education landscape” (p. xx). This historical horizontal perspective includes the integration of public policies, government agencies, and regional boards into the study. Horizontal histories also incorporate “the roles of foundations, consortia, associations, accrediting bodies, state bureaus, and federal agencies, which have contributed funding, incentives, and regulations to the American campus” (Thelin, 2010, p. 71). An adaptation of Thelin’s model was used to trace the development of the Rhodes State College Dental Hygiene Program. This historical horizontal adaptation included the integration of foundations, associations, accrediting bodies, state and federal agencies, public policies, and regional boards used to shape the structure and life of the Rhodes State College Dental Hygiene Program thereby demonstrating the significance of Thelin’s theory of horizontal histories in crafting a narrative historical document of a higher education academic program.

**Practical Significance of the Study**

This historical study contained information gathered from unpublished sources and sources not available in archives. It represented a sole record of the creation and evolution of the Rhodes State College Dental Hygiene Program. This study also addressed the needs of the community; what began as 33 dental hygienists in the 10-county area has led to 578 graduates who serve as oral health professionals in and around Lima as well as across the nation. The findings of this study may assist in strengthening and ensuring the future sustainability of the Program. It is anticipated that this historical narrative will enhance the Program’s identity as well as define the Program’s historic
sense of place within its community, region, and field of study of higher education. It is also expected that developing an identity of the Rhodes State College Dental Hygiene Program will pave the way for future researchers to embark on a historical journey of academic programs on their respective campuses. Finally, this historiography filled a gap in the literature of tracing the history of higher education in America all the way through to the history of dental hygiene education in Lima, Ohio.

Assumptions

The researcher made the following assumptions: (1) primary and secondary sources of data necessary to develop this historiography would be accessible; (2) primary and secondary sources of data would be accurate and reliable; (3) historical leaders would be available and willing to participate in the study; (4) testimonies obtained from the historical leaders would be as accurate as possible; (5) state, regional, and institution policies would be available; and (6) federal and state statutes relevant to this story would be accessible. All six assumptions were confirmed as accurate: (1) primary and secondary sources of data necessary to develop this historiography were accessible; (2) primary and secondary sources of data were accurate and reliable; (3) all seven historical leaders invited to participate in the study accepted the invitation; (4) testimonies obtained from the historical leaders were as accurate as possible and were validated by written sources of evidence; (5) state, regional, and institution policies were available; and (6) federal and state statutes relevant to this story were accessible.

Limitations

One limitation of this study was that the researcher was employed by Rhodes State College and served as the Program Administrator of the Dental Hygiene Program.
This could have led to researcher bias. The researcher’s subjectivity and potential for bias in terms of document analysis, interviews, and observations could also have been a limitation. However, the historian followed the suggestions of Onweugbuzie (2000), and solicited the help of an expert panel to review the interview questions and ensure that researcher bias was not present. A transcriptionist, unrelated to the Program, was used to minimize researcher bias during the transcription process. An outside analyst was solicited to validate the researcher’s analysis and themes.

A lack of generalizability was identified as a potential second limitation of this study. Generalizability refers to the degree in which the findings of a study can be generalized from the study sample to and across populations, settings, and times (Myers, 2000). It is possible that the results of this study will not be generalized to other two-year dental hygiene programs in Ohio or across the United States.

Along with a potential lack of generalizability and researcher bias, personal bias of the historical leaders presented a third limitation to the study. It is a known fact that oral testimonies may not be accurate. “Historians can place trust in oral sources only to the extent that they can be verified by means of external evidence of another kind” (Howell & Prevenier, 2001, p. 26). All of the information presented in the testimonies was validated by other sources of data.

A fourth limitation related to the individuals who were invited to participate in the study. The researcher identified seven historical leaders to interview. The unpredictable ability of the participants to participate in the interviews and to give accurate information was another potential limitation of the study. Fortunately, all seven historical leaders
invited to participate in the study accepted the invitation and provided accurate information which was validated by written documents.

Summary

Chapter One introduced the research topic and outlined the statement and significance of the problem which laid the groundwork for this historical study. The purpose statement and research questions were introduced along with a brief discussion of the methodology that was used to guide this historiography. The chapter concluded with an explanation of the theoretical and practical significance of the study followed by assumptions and limitations identified by the researcher.

Chapter Two will detail the literature review used to trace the historical journey of health care, as it relates to oral health. The literature review will incorporate Thelin’s horizontal history framework to inform the study and break down the history of dental hygiene education into six sections.
Chapter Two

Review of the Literature

Introduction

The primary purpose of this literature review was to outline the history of dental hygiene education from the inception of higher education in America to the implementation of dental hygiene education at Rhodes State College. It took centuries for academic programs, such as dental hygiene, to be incorporated into the education arena. Consequently, much of the information found on academic programs is not readily available in libraries or archives. This was the case with the Rhodes State College Dental Hygiene Program.

Current literature in the area of program and institutional identity include biographies, government sponsored histories as well as institutional histories. However, a gap in the literature exists with regard to program histories. Of the 24 dental hygiene programs in Kentucky, Indiana, and Ohio, there was not one whose history had been recorded and archived. A second gap in the literature was evident by the lack of connectivity between the history of higher education and the history of academic programs. Finally, research had not yet presented a historical journey of health care, as it relates to oral health, in the United States, in Ohio, or in Lima. The researcher of this study used historical methodology to fill these gaps in the literature and to tell a story of dental hygiene education at a technical college in Lima, Ohio.

The history of dental hygiene education was traced via John R. Thelin’s theoretical framework of horizontal histories. Thelin’s (2004) horizontal history model incorporates “the founding and influence of institutions and agencies across the higher-
education landscape” (p. xx). This historical horizontal perspective includes the integration of public policies, government agencies, and regional boards into the study. It also integrates “the roles of foundations, consortia, associations, accrediting bodies, state bureaus, and federal agencies, which have contributed funding, incentives, and regulations to the American campus” (Thelin, 2010, p.71).

When writing horizontal histories, Thelin considered “key historical episodes” that had “enduring implications for colleges and universities” (Thelin, 2004, p. xxi). Thelin’s ideas not only steer the development of institutional histories; they are effective in tracing the development of academic programs. An adaptation of Thelin’s theoretical framework was used to trace the development of the Rhodes State College Dental Hygiene Program and address the research question.

This literature review incorporated Thelin’s horizontal history framework to inform the study and break down the history of dental hygiene education into six sections: (1) the history of higher education in America, (2) the history of community colleges in the United States, (3) the history of community colleges in Ohio, (4) the history of technical education in Lima, (5) the history of dental hygiene education in the United States, and (6) the history of dental hygiene education in Ohio.

The History of Higher Education in America

Christopher Lucas (2006) states that “institutionalized higher learning began between 2300 and 2100 B.C. when Sumero-Akkadian students were expected to master extensive courses of study before earning the title of scribes” (p. 4). During the second millennium B.C., schools of higher learning were known as scribal institutions. By the middle of the third millennium B.C., scribal institutions were located up and down the
Tigris and Euphrates rivers. It was in these institutions that formal instruction and curriculum development began. Mesopotamia is credited with being the leader of formal schooling with the development of large-scale cereal agriculture, horticulture, animal husbandry, and eventually more economically-related topics such as recording wages and rations, registering land titles and rentals, and crop payments. By 1570 B.C. scribal schools were flourishing. A scribal vocation was an alternative to manual labor and was considered more prestigious as well as far less physically demanding. Athens, in fifth century B.C., was the home of the first full-time teachers. In 428 B.C. the first school building was erected. Plato was the first educator who felt it important to have a physical structure where higher learning occurred. Research institutions emerged during the third century. These institutions were initially established in places like Ephesus, Smyrna, Rhodes, and Alexandria. The Alexandria Museum, a well-known center of higher learning, attracted intellectual dignitaries from throughout the world including Herophilus of Chalcedon who founded a medical school early in the third century. A collection of medical manuscripts was housed at the Alexandria Museum along with documents of all major disciplines and fields of knowledge. By the late third century, Roman higher education contained studies in medicine, along with advanced instruction in geometry, arithmetic, astronomy, music, and architecture, which were all made available to older youths. Throughout the late 11th and early 12th centuries, cathedral church schools began to implement courses of study involving the ‘Seven Liberal Arts.’ Included were the subjects of both the trivium (grammar, rhetoric, and dialectic) and the quadrivium (arithmetic, music, geometry, and astronomy). The study of foreign languages emerged in the 12th and 13th centuries followed by the rise of scholasticism. It is believed that the rise
of scholasticism precipitated the evolution of cathedral church schools into cathedral universities (Lucas, 2006).

The patterns and traditions of higher education in Western Europe greatly influenced the system of higher education in the United States (Brubacher & Rudy, 1997). Lucas states that “the American colonial college was an offspring of European parentage” (p. 100). There were nine colleges established in the colonies, and they were all modeled after institutions organized in Europe during the previous 500 years. The majority of the curriculum and the faculty-student relationships mirrored European ‘church-related’ institutions (Cohen & Kisker, 2010). Brubacher and Rudy profess that Harvard, the first English-American college, established standards taken directly from the Elizabethan statutes of the University of Cambridge” (p. 3). Class distinction (freshman, sophomore, junior, and senior), discipline, curriculum, administrative regulations, and degree requirements were all “borrowed” from England. Once Harvard was established, all other English-American colleges emulated this first English-American college (Brubacher & Rudy, 1997).

Harvard, William and Mary, Yale, New Jersey, King’s, Philadelphia, Rhode Island, Queen’s, and Dartmouth were the first nine colonial colleges; they were all built before 1770. According to John Thelin (2004), “the distinction and success of the colonial colleges was associated with their having transplanted the Oxford-Cambridge ideal to America” (p. 7). Rudolph (1990) identifies eight purposes for establishing the colonial colleges as outlined by George III in 1762:

to combat the inconveniences of an uninstructed population drawn from different parts of the World; to guard against total ignorance; to instill just principles of
religion, loyalty and a love of our excellent constitution; to instruct in branches of useful knowledge; to train instructors to go among the people and among the Indians; to develop a sense of unity; to advance learning; and to provide support for the state. (p. 12)

Brubacher and Rudy indicate that the original purpose for founding the colonial colleges was to educate literate, college-trained clergy. “The Christian tradition was the foundation stone of the whole intellectual structure which was brought to the New World” (Brubacher & Rudy, 1997, p. 6). Most of the colonial college faculty were clergy as this group of individuals represented the most intellectual and influential members of society of their time. The second purpose for the establishment of the colonial colleges was to provide courses of study for professional men and public officials. This provided society with educated “orthodox” men as leaders (Brubacher & Rudy, 1997).

As time went by, educating professionals became more prominent than educating clergy. Rudolph states that the colonial colleges were initially not popular institutions. “They were shaped by aristocratic traditions and they served the aristocratic elements of colonial society, a society which was being subjected increasingly to the stress of New World conditions” (Rudolph, 1990, p. 19). The first curriculum of the English-American colleges incorporated subjects of the trivium and quadrivium with the main focus being language arts and philosophy. Along with classical languages and literatures, Aramaic, Syriac, Hebrew, ethics, politics, physics, mathematics, botany, and divinity were part of the curriculums. It was not until the late 1700s that colonial college curricula began to focus more on math, natural science, English, literature, and foreign languages (Brubacher & Rudy, 1997). “By the eve of the Revolution everywhere more attention
was being paid to natural science and mathematics. By 1766, six of the eight colonial
colleges supported professorships of mathematics and natural philosophy” (Rudolph,
1990, p. 30).

The American Revolution changed higher education forever. Prior to 1776,
colonial institutions like Harvard were founded to provide education to men going into
the ministry. After 1776, colleges began to broaden their curriculums to include medicine
and law. Between 1776 and 1783, curriculum expanded to include advanced academic
learning in science and mathematics. Locke, Newton, and Copernican theories surfaced
which led to the development of courses on political philosophy, libertarianism,
government, classical mechanics, physics, and astronomy. Several professorships
emerged in the areas of law, police, public administration, anatomy, medicine, chemistry,
modern languages, moral philosophy, natural history, economics, agriculture, and
mechanic arts.

Eventually, the physical and social environment in America resulted in changes in
America’s institutions of higher learning. The land between the east and west coasts was
extensive. Therefore, colleges were widely scattered across the nation which provided
institutions the opportunity to individualize their educational offerings to meet the needs
of their diverse, and generally poor, population. Interdenominational collegiate boards of
control emerged (Brubacher & Rudy, 1997). In the late 18th and early 19th centuries,
American higher education demonstrated intense

innovation and consumerism, with virtually no government accountability or
regulation. Yet is was not a period of chaos for higher education because the
colleges displayed a pattern of both intuition and response that was very in tune
with the nation’s changing geographic, demographic, and economic character.

(Thelin, 2004, p. 41)

As the United States expanded to the west, the establishment of colleges flourished. With no government accountability or regulation guiding college development and no accreditation, it was very easy to establish colleges. “With the hundreds of colleges opening and closing and trying different ideas to attract support, the variety in institutional type that was to become the hallmark of higher education was present” (Cohen & Kisker, 2010, p. 71). During this period, a separation of philosophy from religion occurred that intensified the development of varied vocational fields of study which provided for training for numerous professions and occupations. Additionally, the elective concept flourished by leaps and bounds. Colleges were evolving as centers of excellence and schools designed to mold the minds of young scholars (Cohen & Kisker, 2010, p. 81).

This increase in colleges continued with the development of the railway system. Private colleges began to emerge along with large public libraries and public high schools. Americans were eager to fulfill their educational goals and dreams. They were not stifled by international forces or the poor economy. The states had full degree-granting powers and played an active role in the life of higher education (Brubacher & Ruby, 1997).

At the beginning of the 19th century, there was approximately 25 degree-granting institutions in America. This number grew to 52 by 1820 and to 241 by 1860. Rudolph (1990) put everything in proper perspective when he said, “The American people went into the American Revolution with nine colleges. They went into the Civil War with
approximately 250, of which 182 still survive. Our country was to be a land of colleges” (p. 47).

Not only did colleges increase in number, they also increased in type. Technical institutions designed for special purposes began to thrive. The first technical institute in the United States was established by Congress in 1802. The United States Military Academy at West Point “nurtured military science and transformed West Point into a national center of scientific study” (Rudolph, 1990, p. 228). The New York Rensselaer Polytechnic Institute, established in 1824, was designed to educate students in the art of applying science to husbandry, manufactures, and domestic economy. Eventually, additional courses of study were added to include civil engineering, architecture, mining, and topographical engineering (Brubacher & Ruby, 1997). Rudolph (1990) equates that expansion of colleges to canal-building, cotton-ginning, farming, and gold-mining. All of these activities were flourishing beyond anyone’s imagination. Rudolph cites four reasons for the vast expansion of colleges during this time period: (1) the federal system of states with their provincial loyalties and rivalries; (2) the home missionary movement; (3) the second period of religious revitalization; and (4) social investment.

Along with the vast expansion of colleges and the creation of diverse types of institutions came several internal changes. Medicine, law, engineering, military science, commerce, theology, and agriculture joined the list of available courses of study. Previously excluded minorities were permitted to enroll. This included women, blacks, and Roman Catholics (Thelin, 2004).

American higher education was influenced by two major events during this time period: the Civil War (1861-1865) and the Morrill Act of 1862. Thelin (2004) states,
“The Civil War, among other things, provided a political opportunity to push through legislation that had been stalled for several years. Such was the case with the 1862 Morrill Land Grant Act” (p. 75). The Morrill Act played an important role in stimulating the growth of technical institutions of higher learning, but it also opened the door for the federal government to provide funding for the creation of land-grant colleges. Ohio University was the first college in the United States founded upon a land endowment from the national government. It is also the oldest college in the Northwest Territory. The Ohio State University, known until 1878 as the Ohio Agricultural and Mechanical College was founded by land-grants in 1862 (Knight, 1891). Land-grant colleges were designed to “furnish the agriculturist, the manufacturer, the mechanic, or the merchant with the education that will prepare him for the profession to which his life is to be devoted” (Brubacher & Ruby, 1997, p. 63). These colleges were developed on the premise that all Americans were entitled to receive some form of higher education. The 1862 Morrill Act opened the door for affordable, practical higher education offered by land-grant state colleges and universities. The Morrill Act of 1890 provided more federal funding for land-grant colleges and authorized the founding of more land-grant colleges. By 1955, the land-grant colleges enrolled more than twenty-five percent of all American college students (Thelin, 2004).

Along with providing affordable, practical higher education, land-grant colleges were among the first colleges in American to offer applied science and mechanic arts and “to give these subjects a recognized place in the college curriculum” (Brubacher & Ruby, 1997, p. 64). By the mid-19th century, the importance of implementing a science course of study into the college curriculum became evident. In 1846, Yale created two new
professorships, “a professorship of agricultural chemistry and animal and vegetable physiology and a professorship of chemistry and the kindred sciences as applied to the arts” (Rudolph, 1990, p. 231). In 1840, Francis Wayland, the President of Brown University, proposed the offering of courses in applied science, agriculture, law, and teaching. In 1847, a Bachelor of Science was awarded to graduates at Cambridge. “The movement for technological and scientific education, which had been underway before the war, spawned new and more popular colleges and institutions” (Rudolph, 1990, p. 244).

As the movement for technological and scientific education progressed through the founding of land-grant colleges, the emergence of the American university surfaced. The Morrill Act of 1862 helped expand the state college into the university model. This university was “an institution complete with an undergraduate college, professional schools, graduate departments, and a wider range of service components” (Cohen & Kisker, 2010, p. 111.) The primary mission of the university was the quest for knowledge and academic excellence. With the formation of the university came schools of business, journalism, engineering, architecture, pharmacology, dentistry, agriculture, mining, forestry, librarianship, education, psychology, and sociology. The Morrill Act enhanced professional education by linking it to a bachelor’s degree course of study in contrast to licenses, diplomas, and certificates (Thelin, 2004). Cornell University has the distinction of being the first official American university. It was chartered in 1865 by the New York legislature. “Cornell University was designed to join in the new spirit of scholarship as well as to foster the vocational subjects and the courses in applied science which were implicit in the land-grant idea” (Rudolph, 1990, p. 266). In 1876, John Hopkins
University was chartered as the first university dedicated to research and graduate training. The idea that an individual needed appropriate training prior to entering practice was addressed by the founding of John Hopkins. Many scholars and educators thought that, to be prepared to enter practice, one had to engage in a lengthy training course and be exposed to knowledge and experience representative of the field in question (Cohen & Kisker, 2010). By the end of the 19th century, 14 institutions were considered real universities. In 1900, the presidents of these 14 institutions met to form the Association of American Universities which resulted in monumental growth and success of universities throughout America (Thelin, 2004).

At the start of the 20th century, two forms of universities existed: (1) the publicly supported American state university whose mission was higher learning and (2) the private, endowed institution whose mission was advanced learning and research. The American state university was founded on the premise that they be free of sectarian control and would offer equality of education opportunity. There were approximately eight universities that were considered state institutions; Ohio University was one of them. Unfortunately, none of these state universities implemented a curriculum that was advanced enough to be characterized as university work nor were they completely public in terms of funding. “Probably the most important stimulus to the establishment of state universities was the extensive granting of public lands for this purpose by the federal government” (Brubacher & Rudy, 1997, p. 153). The land grant initiative that resulted from the passage of the Morrill Acts of 1862 and 1890 boosted the university-building movement in the United States. By 1900, four of the eight American universities who realized student enrollments exceeding 2,500 were state institutions. There was a strong
public demand for comprehensive, vocational training which state institutions were primed and ready to provide.

The need for vocational training became paramount after World War II as science and technology requirements of industry increased dramatically. “The war industry required greater numbers of skilled workers, scientists, craftsmen and technicians. More workers with education at a level between high school and liberal arts based universities were badly needed” (Coe, 2011, p. v). On June 22, 1944, Franklin D. Roosevelt signed the Servicemen’s Readjustment Act (known as the “GI Bill”) into law. This statute provided World War II veterans with funding for vocational training, federal tuition assistance, low interest mortgage loans, and unemployment insurance. Within eight years of the GI Bill being enacted, over eight million World War II veterans had taken advantage of the education benefits provided in the statute (Culbertson, 2010).

With the dramatic increase in enrollment resulting from veterans returning to school and the continued expansion of state land-grant colleges and universities, concerns over quality of education began to surface. The Association of American Universities responded by warning universities that “most so-called universities were not up to par” (Thelin, 2004, p. 147). Foundations, such as the Carnegie Foundation for the Advancement of Teaching (Carnegie Foundation), became committed to transitioning from “uncertainty and sprawl toward coherence and efficiency” (Thelin, 2004, p. 147). By the end of the 19th century, public standards of professional education were implemented. Standards and standardization surfaced. The College Entrance Examination Board was founded; state licensing examinations were developed; and professional associations were established. “The American Bar Association and the American Medical
Association both had committees or councils specifically concerned with studying education requirements for admission to professional ranks” (Brubacher & Rudy, 1997, p. 206). These associations operated similar to accrediting agencies to ensure standardization and quality of education provided to students.

The Carnegie Foundation, which began its work in 1905, is recognized as being the frontrunner for the improvement of professional education. The trustees of the Carnegie Foundation were charged with examining the quality and standardization of training and education provided by colleges and universities. Those colleges and universities who were found to have adopted standards that allowed for consistent, standardized transition from secondary school to college to university were commended for their work. In 1908 the Carnegie Foundation funded a study, conducted by Abraham Flexner, to determine the relationship that existed between colleges and universities and the professional schools of medicine. With the requirements of medical education increasing astronomically, and in the face of advancing standards of the best medical schools, the Carnegie Foundation knew it was time to ensure standardization of the relationship between professional medical education and general education offered in colleges and universities (Flexner, 1910).

One of the significant findings of the study was that, during the previous 25 years, there had been an excessive number of uneducated and ill-trained medical practitioners who graduated from medical school and were currently practicing. This was due, in part, to the vast number of medical schools located throughout the United States and the lack of standardization and quality education provided by these schools. In those days it was “as easy to establish a medical college as a business college” (p. 6). Abraham Flexner’s
1910 report resulted in 30% of the medical schools in the United States closing. The report exposed “shoddy practices and institutional shame of these schools” (Thelin, 2004, p. 148). Between 1920 and 1940, a group of major foundations made it a significant goal to develop standards and bring consistency to American higher education. The Carnegie Foundation and the Rockefeller Foundations’ General Education Board collaborated with the United States Bureau of Education to collect and analyze data geared toward improving the quality of education of America’s colleges and universities. The results were widely accepted and the standards implemented (Thelin, 2001). Beck (2004) indicates that all accredited medical schools in the United States today continue to implement Flexner’s “uniformly arduous and expensive” medical education guidelines (p. 2139).

**The History of Community Colleges in the United States**

As universities rose in popularity and enrollment, the question of what to do with the college surfaced. One proposal was to eliminate the college completely. “In the original design of Johns Hopkins there was no provision for an undergraduate college. The founders of the first American universities deliberately designed their institutions independent of colleges” (Brubacher & Rudy, 1997, p. 250). However, with high schools having to do college work and graduate and professional schools demanding earlier and earlier specialization, the need to retain colleges was being realized among most university presidents and founders. One proposal for connecting instruction between the colleges and the graduate and professional schools was to organize them independently of each other. Another proposal was to shorten the college’s length and duration of academic courses (Brubacher & Rudy, 1997).
Between 1850 and 1920, the idea that the first two years of the American liberal arts college belonged to secondary schools began to emerge (Thornton, 1972). Henry Phillips Tappan and William Watts Folwell initiated the formal discussion of separating out the first two years of college education. Tappan, in 1851, recommended “looking to the establishment of real universities to begin at the point where preliminary education should leave off” (Koos, 1924, p. 342). To Tappan, education had two distinct functions: preparatory and executive. Folwell, in 1869, “urged relegating to the secondary schools those studies which now form the body of work for the first two years in our ordinary American colleges” (Koos, 1924, p. 343). At the end of the 19th century, William Rainey Harper, President of the new University of Chicago, addressed this entire issue by introducing the concept of the junior college. “President William Rainey Harper is credited with strongly influencing the foundation of several of the public and private junior colleges (notably Lewis Institute in Chicago in 1896 and Bradley Polytechnic Institute in Peoria in 1897)” (Thornton, 1972, p. 48).

Harper’s idea was to draw a line between the second and third years of college. The first two years would be based on the mission of a college, and the last two years would represent the mission of a university. Students who attended the junior college would otherwise not attend college and could terminate their college education at the end of two years. Some administrators organized the junior college as a separate two-year institution. Dr. Harper is known as the father of the junior college in America. He separated the freshman and sophomore year of college (lower division work) from the junior and senior years (upper division work). The freshman and sophomore years he called the Academic College, and the later two years he called the University College. In
1896, the Academic College became known as junior college and the University College as senior college. This was the beginning of the junior college movement (Cunningham, 1997).

In 1901, Harper added two years to the high school program in Joliet, Illinois. According to Thornton (1972), Joliet Junior College is the oldest existing public junior college in the United States. Students who successfully completed the junior college program of study were awarded the degree of Associate of Arts. Harper initiated this degree to differentiate the work completed at the junior college from the work of the senior college (Larimer, 1977). In 1907, Senator Anthony Caminetti introduced legislation in California that permitted high schools to offer postgraduate education equivalent to the first two year of college. When this law passed, California became the first state in the nation to authorize local junior colleges. California passed another law in 1917 which provided state and county support for students attending junior colleges similar to support provided for high school students. The third California statute which passed in 1921 resulted in the establishment of independent junior college districts with their own operating procedure, budgets, and board. These three California laws set the standard for future legislation in other states (Vaughn, 1982).

According to R. J. Young (1963), the junior college was designed as an educational institution to provide two years of post-high school level programs in combination with a variety of community educational services. Young identifies four primary functions of the junior college: (1) transfer, (2) terminal, (3) general education, and (4) salvage and democratizing. The junior college served a transfer or preparatory function for students wanting to receive occupational training or to complete their first
two years of a four-year degree. For students who desired to enhance or learn job skills, engage in work-force development in occupations requiring more than a high school education but less than a bachelor’s degree, or complete their education after two years, the junior college served a terminal function. The general education function satisfied students who completed their formal education at the end of their sophomore year, who wanted an overall cultural education, who anticipated immediate entry into a career, or who planned to continue their education at a four-year university. Finally, the salvage and democratizing function of junior colleges met the needs of students who did not graduate from high school, who did not meet four-year college admission requirements, or who could not afford post-high school education.

“In the 1920s, the local ‘junior college’ often hailed as a uniquely American invention and emerged as a successful institution. The typical junior college of the 1920s usually offered a liberal arts curriculum that represented the first two years of work toward the bachelor’s degree” (Thelin, 2004, p. 250). According to Rudolph (1990), “The junior college became the agency for meeting the needs of the non-academically minded high-school graduate” (p. 463).

To perpetuate the junior college movement, President Harry Truman established a Commission to study the status of higher education in the United States, to set goals, and to make recommendations. The Commission’s report, *Higher Education for American Democracy*, “challenged American colleges and universities to extend the democratic ideal to every element of life” (Whitman-Imfeld, 1987, p. 15). The Truman Commission “believed that if America were to fulfill its role as the world’s leading advocate for democracy, the nation must break down the barrier to educational opportunity at the post-
high school level” (Vaughn, 1982, p. 8). The Commission recommended that: (1) educational opportunities be expanded for adults as well as students, (2) vocational and general education be integrated into two-year college curricula, and (3) comprehensive adult education and community service programs be incorporated into junior colleges. These recommendations became the mission of the community college (Whitman-Imfeld, 1987).

Between 1920 and 1945, “the concept of terminal and semiprofessional occupational education gained widespread acceptance” (Young, 1963. P. 43). Young termed this stage of junior college development a Period of Diversification. During this period, institutions expanded their curriculum to include semiprofessional occupational programs. According to Larimer (1977), “diversity of curriculum needed to accompany diversity in interests, abilities and needs of students” (p. 222). To address the diversity issue, the traditional curriculum was enhanced by the addition of English, modern languages, natural sciences, social sciences, and physical education. During this time period, the curriculum also included an expansion of vocational programs. Dr. Merton Hill, principal of Chaffey Junior College in California, “established a junior college in connection with the high school and offered terminal vocational courses in art, manual training, home economics, commerce, music, library training, general agriculture, farm mechanics, and soils” (Thornton, 1972, p.53). Koos (1924) states that the primary focus of students when determining a major was “the bearing of the subject upon some occupational plan” (p. 281).

As junior colleges began to flourish throughout the United States, the need for a junior college organization was realized. In 1920 the American Association of Junior
Colleges (AAJC) was established. The AAJC was charged with formulating standards and curricula of junior colleges (Cunningham, 1987). During the first meeting of the AAJC, held in February 1921, a constitution was adopted thus giving the American junior colleges a national forum. “Over the years, the American Association of Community and Junior Colleges has represented the nation’s community colleges at the national level” (Vaughn, 1982, p. 5).

During the 1930s and 1940s, junior colleges across the nation began providing vocational education courses designed to prepare students for immediate employment upon graduation or transition to a bachelor’s degree program. The AAJC standards and curricula were used to design these vocational education programs. By 1940, terminal programs were offered in about 70% of all junior colleges. State colleges surged during this time period and eventually expanded into professional areas such as nursing, accounting, secretarial studies, home economics, business, and a variety of other trades and technologies (Cohen & Kisker, 2010).

In 1945, the Period of the Community Junior College emerged. Young (1963) indicates that during this period an emphasis was placed on the development of community relationships. Thornton (1972) maintains that in order for an institution to achieve its full stature as a community college, it had to include adult education and community service. According to Katsinas (2008), “community colleges in this country are going to have to consider themselves community service agencies rather than primarily as institutions of higher education” (p. 358). Katsinas stresses the importance of two-year colleges maintaining the community services mission by implementing adult
education programs and classes, public affairs, community development, and counseling onto their campuses.

Between 1945 and 1975, the belief that everyone should have the opportunity to go to college became firmly embedded in the minds of the American people. Vaughn (1982) states that “the most important concept to influence the development of the community college was the belief that all American should have access to higher education” (p. 12). Equal opportunity for all accelerated in the early 1950s. “In 1950, enrollment in public two-year colleges was 168,043” (Thelin, 2004, p. 299). The establishment of the junior college laid the groundwork for the current American higher education system consisting of the community college and the university. The junior colleges were developed geographically to provide access to all interested students. According to Thornton (1972), junior colleges provided an open-door concept and brought education to the people. By the 1960s, society as a whole “committed itself to the belief that education beyond high school was a right and not just a privilege” (Vaughn, 1982, p. 12).

Two-year colleges have had two names since their inception. Until the 1940s, they were called junior colleges. During the 1950s and 1960s, the community college name emerged. A junior college was a “lower-division branch of a private university or a two-year college supported by churches or organized independently” (Cohen & Brawer, 2008, p. 4). A community college was a comprehensive, publicly supported institution. By 1970, the name of junior college was replaced entirely by community college. Other names often used synonymously for community college include: city college; county
Curricular functions of the community college consisted of: (1) academic transfer preparation, (2) vocational-technical education, (3) community services, (4) continuing education, and (5) developmental education (Cohen & Brawer, 2008). Katsinas, Colon, Johnson, Sanders, and Thompson (1999) identified nine service expectations for any two-year institution: (1) college transfer programs; (2) a range of career/technical programming; (3) partnerships with industry, business, and government for retraining the workforce; (4) developmental education; (5) noncredit continuing education opportunities; (6) linkages with high schools; (7) student access and program quality provided at an affordable price; (8) student fees kept as low as possible; and (9) extensive community involvement in the decision-making process.

According to Katsinas, Johnson, and Snider (1999), academic transfer is one of the most important functions of the community college and “a critical key to institutional legitimacy within the structure of institutions of higher education” (p. 12). Koos (1924) states that “the assumption was made that all graduates of high schools who go on to higher levels of training would attend a local junior college during the first two years” (p. 586). Academic transfer resulted in community colleges becoming “the point of first access for people entering higher education; by the late 1970s, 40% of all first-time-in-college, full-time freshmen were in the two-year institutions” (Cohen & Brawer, 2008, p. 22). Cohen and Brawer indicate that the four-year universities generally accepted students transferring from a community college and granted transfer credit for freshman and sophomore courses successfully completed at a community college. Most of the
transfer courses of the early community colleges were in the area of liberal arts. “Ancient and modern languages alone accounted for one-fourth of the curriculum” (p. 348). The liberal arts emphasis continued into the mid-1960s. By 1970, political science, history, literature, and foreign languages were part of most community college curriculum. However, cultural geography, religious studies, and ethnic studies were found in less than one-fourth of the colleges. ”The trend was decidedly toward introductory courses for the transfer students and specialized courses for adults taking them for their own interest, not for degree credit” (p. 350). By the 1990s, liberal arts courses were on the rise again. “The number of colleges offering social and ethnic studies courses went from 15 to 42 percent between 1991 and 1998” (p. 350).

To aid in academic transfer preparation, community colleges converged general education with technical education into their curricula. Katsinas, Johnson, and Snider (1999) state that “advances in technology, the personal computer in particular, drive technical curricula and are forcing a convergence of technical and general education as industries demand graduates who possess critical thinking skills that are developed in liberal arts areas” (p. 12). According to Cohen and Brawer (2008), general education not only enhances one’s critical thinking skills, it also improves students’ moral and spiritual values, communication skills, basic mathematical and mechanical skills, mental and physical health, personal and social balance, creativity, and vocational adjustment. Therefore, general education courses continue to be requirements of vocational-technical programs (Cohen & Brawer, 2008).

The general education concept was reinforced in community colleges with the integration of service learning into the curriculum. Larimer (1977) acknowledges that the
functions of the community college go beyond transfer and vocational roles; they also include community service. Katsinas (2008) reiterates that community colleges are not only institutions of higher education but also community service agencies. “The services dimension for a community college derives its legitimacy, as does the institution itself, from its educational role” (p. 359). Katsinas contends that community human services “represent an extension or expansion of the educational resources directed toward the economic, social, cultural, and civic needs of the people the college serves” (p. 359). In the 1990s, the instructional methodology of service-learning combined community service with classroom instruction and focused on critical thinking in conjunction with personal and civic responsibility. “Service-learning emerged as an attempt to reduce the growing disparity between the liberal arts as portrayed in the disciplines and its original purpose of placing learning in its larger societal context” (Cohen & Brawer, 2008, p. 377). According to Cohen and Brawer, 31% of two-year institutions implemented service-learning in their 1995 curricula. This number rose to 62% by 2003.

Along with the incorporation of community service into programs of study, community college curriculum also included developmental education. Cohen and Brawer (2008) recount the need to incorporate development education due to the increased percentage of students inadequately prepared in secondary schools enrolling in community colleges. “The apparent breakdown of basic academic education in secondary schools in the 1960s, coupled with the expanded percentage of people entering college, brought developmental education to the fore” (Cohen & Brawer, 2008, p. 25).

Enrollment in community colleges reached approximately 2.1 million by the early 1970s, and the expanding economy resulted in the establishment of extensive community
college systems. The community college became a terminal degree-granting institution designed to prepare individuals for vocational occupations and professions. The emphasis in higher education on providing trained personnel for the professions, business, and industry became more distinct. “Vocationalism had gained the day. College going was for job getting, job certifying, job training” (Cohen & Brawer, 2008, p. 31). This led the way for the development of two-year technical programs and associate degrees. The community college served two groups of students: students completing a two-year terminal degree and students transferring to a four-year university (Thelin, 2004).

Another obligation of the community college was to provide educational opportunities for the underserved. Community colleges responded to the needs of those individuals who could not afford university tuition, who were unable to be full-time college students, who were not adequately prepared to enroll in a university, who had lost their jobs, who needed to be trained for another job, who needed or preferred non-traditional educational instruction, or who just wanted something to do with their “free” time. “The two-year colleges were urged by the Carnegie Commission on Higher Education to adopt an ‘open door’ policy admitting all high school graduates and otherwise qualified individuals” (Brubacher & Ruby, 1997, p. 260). Community colleges not only met the needs of the underserved, they also benefited by sizable increases in federal appropriations for vocational education.

Several legislative initiatives provided federal funding to two-year colleges. The 1917 Smith-Hughes Act and the 1927 George-Deen Act provided funding for at least 62 junior colleges in fourteen states by 1939. The 1962 Vocational Education Act and the amendments of 1968 and 1972 vastly augmented the federal funds available to

The legislative initiatives and the benefits afforded students with the two-year college system resulted in tremendous initial growth of these colleges: 1000 colleges in 50 years. There are several reasons cited for the rapid growth of community colleges in their early years: (1) Extensive growth of high school students led to student demand for additional years of schools. (2) Business people supported the institutions so that they would have a continual supply of worked trained at public expense. (3) Community leaders were the formation of a community college as an avenue to community prestige. (4) The educational philosophy of American citizens was that all individuals should have the opportunity to rise to their greatest potential (Cohen & Brawer, 2008).

The number of two-year colleges increased from 20 in 1909, to 170 in 1920, 440 in 1930, 610 in 1940, and 1,173 in 2004. In 1976 the community colleges were enrolling 34% of all students in higher education, and by 1993 this had risen to 37% as community colleges began to be recognized as a permanent component of American higher education. By 2004, the number of students enrolled in community colleges ranged from approximately 2000 to over 40,000 (Carnegie Foundation, 2006). Perhaps the single most influential factor for this enrollment growth was the access to education that the community colleges provided. “The advent of the community college as a neighborhood institution did more to open higher education to a broader population than did its policy
of accepting even students who had not done well in high school” (Cohen & Brawer, 2008, p. 17).

Local officials have drastically influenced the establishment of community colleges. Literature clearly substantiates the influence of local officials in the founding of two-year colleges. The idea that the rise of community colleges is attributed to the effort of local, civic, and professional leaders has merit since it provides an explanation for the two-year colleges as a 20th century phenomenon. In 1964, a group of prominent local officials and professional leaders were contacted by the American Association of Junior Colleges (AAJC) to serve on the Junior College National Advisory Committee. This committee concluded that “the two-year college offers unparalleled promise for expanding educational opportunity through the provision of comprehensive programs embracing job training as well as traditional liberal arts and general education” (Cohen & Brawer, 2008, p. 245). The AAJC was committed to spear-heading the terminal education movement. Eventually, in the late 20th century, the AAJC was renamed the American Association of Community Colleges. Its mission was to promote occupational education and outcomes assessment (Cohen & Kisker, 2010).

Occupational education became even more significant during the 20th century when numerous occupation groups began to focus on expanding higher education to enhance professional status. This led to the formal development and training of various professions at the university along with the establishment and training of auxiliary or support occupations at community colleges (Cohen & Brawer, 2008). Two-year courses of study in various technical programs were developed to appropriately educate auxiliaries. Most programs were associate degree programs, and
graduates were prepared to enter the workforce or transition to a bachelor’s degree-granting institution. As community colleges designed curriculum, support systems, learning laboratories, and instruction to meet the needs of their students and communities, the universities were able to focus on research and professional education.

Accrediting agencies played a huge role in the design of professional programs both at the university and community college levels. Between 1945 and 1975, the need for accreditation expanded. There were six regional accrediting bodies that were responsible for institutional accreditation. In 1956, the National League for Nursing and the American Dental Association joined the American Association of Teachers’ Colleges and the American Medical Association as accrediting agencies for their respective technical programs. Accreditation standards established by these accrediting bodies directed the development of professional and vocational programs. The influence of these agencies resulted in states requiring their students to graduate from an accredited program in order to earn a license to practice in their respective occupation (Cohen & Kisker, 2010). Dental hygiene is one such program.

Community colleges will continue to play an important role in educating America’s youth. They will continue to entice older students “to return to college to learn skills that would enable them to enter a new career or to upgrade their skills and their standing in a job they already had” (Cohen & Kisker, 2010, p. 329). Two-year colleges will also continue to provide lifelong learning for adults in all avenues of their lives. Community colleges will continue to benefit local citizens in much the same way they have done throughout their existence (Cohen & Brawer, 2008).
The History of Community Colleges in Ohio

As the growth of community colleges flourished throughout the nation, there was not much emphasis on the organization and systematic development of two-year colleges in Ohio until the mid-1960s. Ohio did not actively engage in the junior college movement when it first began. In 1952, Ohio was one of 22 states that had not had general legislation for public junior college (Eikenberry, 1954). “Bills allowing for the establishment of public two-year colleges failed to pass the Ohio General Assembly in 1929, 1931, 1949, 1951, and 1953. Conversely, by 1954, 26 states had already passed legislation enabling establishment of public junior colleges” (Katsinas, Colon, Johnson, Sanders, & Thompson, 1999).

Even though it took awhile to establish public two-year colleges in Ohio, the concept of two-year colleges emerged in 1891 as extension services. Ohio universities realized the need to provide extension services to increase access to higher education. Extension courses “were programs which enabled a local community to use the staff or a university or college for credit courses in those subjects which could be taught without laboratory or expensive library facilities” (Gilbride, 1979, p. 60). These extension services were relatively short-lived as they quickly expanded into two-year institutions: Salmon Chase Junior College in Cincinnati was established in 1920, and Franklin University was established in 1924. By the late 1920s, Ohio had three private two-year institutions: the Ohio Mechanics Institute in Cincinnati (1919), Tiffin University (1918), and Urbana Junior College (1927) (Whitman-Imfeld, 1987).

In 1921 the Ohio Joint Commission on Administrative Reorganization advocated for the state to provide support and financial resources to local communities to establish
two-year public institutions. George F. Zook, an expert in higher education for the United States Bureau of Education and a key player in the recently formed American Association of Junior Colleges, spearheaded the junior college movement in Ohio (Cunningham, 1987). Zook stressed the importance of introducing legislation that would allow public school districts to establish two-year colleges. In 1927 Zook spoke at an Ohio College Association meeting and emphasized the importance of vocational programs to fill a community need and junior colleges to increase accessibility of local citizens to higher education (Whitman-Imfeld, 1987). According to Gilbride (1979), Ohio had 58 counties with no college or university, and there was a definite need for establishing junior colleges in populated areas in Ohio which had inadequate higher education facilities. Unfortunately, Ohio Attorney General Edward Turner did not support the junior college movement. In 1928 Turner negatively responded to the idea of public school districts establishing two-year colleges by prohibiting the public school systems from operating their own junior colleges (Katsinas, Johnson, & Snider, 1999).

In the 1930s temporary emergency junior college centers were established by the Federal Emergency Schools Administration to address the need for local vocational education. Education leaders at various Ohio universities provided syllabi and agreed to accept the credits earned at the temporary emergency junior college centers toward a degree program at their institutions. These emergency centers represented the first step toward the development of community colleges in Ohio (Whitman-Imfeld, 1987).

During the mid-1950s, Ohio was forced to consider the issue of meeting the access to higher education challenge anticipated by the “baby boom” scenario. The Ohio College Association (OAC) hired John Dale Russell to conduct a study of long-term
higher education needs. Russell was chancellor and executive secretary of the Board of Educational Finance in New Mexico and a nationally recognized higher education authority (Katsinas et al., 1999). In April 1956, Russell completed the report and concluded “that there was an immediate and urgent need in the state for the establishment in Ohio of many more centers where higher education might be available in an organization that might be described as a community college” (Katsinas et al., 1999, p. 80). A geographic analysis of Ohio revealed several large cities without any local institution of higher education. These cities included: Ashtabula, Canton, Hamilton, Lancaster, Lima, Lorain, Mansfield, Marion, Newark, and Piqua (Russell, 1956). The Russell Report indicated that Ohio should establish educational institutions with a community college mission and that Ohio students were genuinely interested in enrolling in community colleges. It also revealed that the university branch campuses were addressing the needs of the main campus but not the local community needs (Katsinas et al., 1999). According to Russell (1956), past studies indicated that “college attendance in a great many states of this country show uniformly that the closer an area is located to an institution of higher education, the greater the percentage of the potential population who attend college” (p. 21).

Between 1931 and 1952, there were five dissertations written on the need for public junior colleges in Ohio. William Young’s study indicated that “there is a need of local public junior colleges to increase facilities for two more years of education beyond the twelfth grade” (Eikenberry, 1954, p. 23). Charles Secoy’s dissertation stressed the importance of establishing public junior colleges in Ohio “in order to meet the needs of
the large number of graduates of Ohio high schools who were unable to go on to college or who wished to pursue post-secondary terminal work” (p. 24).

In 1952 Ohio had one of 37 public junior colleges located within the East North Central Division and six of 26 private institutions. The East North Central Division consisted of Illinois, Indiana, Michigan, Ohio, and Wisconsin. Out of the 45,466 students enrolled in public institutions in the East North Central Division, only 74 were enrolled in Ohio public institutions (Eikenberry, 1954).

In 1957 the OAC directed Governor C. William O’Neill to appoint a commission to study the status of higher education in Ohio. Members of the commission consisted of eight Ohio college presidents and four non-educators. The commission was called the Ohio Commission on Education Beyond the High School. The Commission’s purpose was to determine how to make education in Ohio more accessible and to propose legislation, based on recommendations from the Russell Report, for the general assembly. Russel (1956) advocated for the establishment of community colleges as institutions to provide terminal and vocational programs suited to the needs of students who did not meet admissions requirements to state universities as well as those students who planned to transfer to a degree-granting college or university. The Commission noted that the decision was not about the need to expand higher education but rather how to expand higher education in Ohio. “Population growth, technological demand, world competition and other forces have taken this matter out of their hands” (The Ohio’s Commission on Education, 1958, p. 35). The results of the Commission’s study, known as the Baker Report, recommended that: (1) two-year colleges were part of higher education and not extensions of high schools, (2) local communities should control and financially support
two-year colleges, (3) vocational education and transferability should be services
provided by two-year colleges, and (4) an Interim Commission should be established to
coordinate the implementation of the Commission’s recommendation across the state of
Ohio. The Ohio legislators established the Interim Commission as recommended by the
*Baker Report*, and the recommendations provided in the *Baker Report* formed the basis of
the Community College Act which passed in 1961 (Whitman-Imfeld, 1987).

In July of 1961, Ohio legislators passed the Community College Act of 1961
which enabled the establishment of public-two year institutions. Section 3354 of the Ohio
Revised Code authorized counties to create community colleges (Community College
Act, 1961). The bill was signed by Governor DiSalle on July 21, 1961; went into effect
on October 21, 1961; and provided the following: (1) outlined how a community could
establish a community college, university branch, or technical institute; (2) required both
local involvement and financial support for establishing a community college district;
(3) limited community colleges to offer only freshman and sophomore liberal arts
courses; (4) created a State Community College Board; (5) required a two-thirds vote of
the Board of County Commissioners or a petition of resident voters to create a
community college district; (6) mandated that a plan for the college be designed by a
seven-member board appointed by the County Commissioners; and (7) directed the State
Superintendent of Schools and president of a public college, approved by the Governor,
serve as advisory members of the board (Katsinas et al., 1999).

As soon as the bill was signed into law, local communities moved quickly to
establish community colleges. Several unmet two-year college program needs in Ohio
would be addressed by the establishment of community colleges. These needs included:
(1) associate degree and one-year occupational program certificates for state and local
government, business, and industry jobs; (2) associate degree programs in general
studies; (3) community service programs; and (4) developmental and remedial programs.
Occupational programs in the following fields would be developed: (1) health care, (2)
chemical engineering, (3) industrial management and supervision, (4) public service, and
(5) business (Little, 1970).

Cuyahoga County in Cleveland prepared to address the unmet occupational and
two-year college program needs by establishing the first community college in Ohio. “On
October 4 a delegation of educators, businessmen, labor officials, and civic leaders met
with the county commissioners and urged that the first community college be build in
Cuyahoga County” (Gilbride, 1979, p. 290). Cuyahoga Community College, also known
as Tri-C, opened in 1963 as Ohio’s first community college. It remains Ohio’s oldest and
largest public community college (www.tri-c.edu).

However, it was not until 1963, when James A. Rhodes became Governor of
Ohio, that technical education became a state priority. In January 1963, Governor Rhodes
signed an amendment to the Community College Act of 1961 that enabled community
colleges to offer technical courses. Ohio Revised Code Chapter 3357 established
technical colleges as an institution of higher learning. The Community College Act of
1963 also: (1) established the Ohio Board of Regents which replaced the State
Community College Board, (2) permitted community colleges and technical institutes to
award associate degrees, (3) required community colleges to have local governing
boards, (4) permitted municipal universities to be considered community colleges so they
could receive state and federal aid, and (5) made eligible for community colleges to receive funds from a $250 million state bond issues (Whitman-Imfeld, 1987).

Governor Rhodes was a strong advocate for expanding vocational and technical education in Ohio. He believed that technical education addressed the economical needs of the community, area businesses, and industry. Famous for saying “a diploma in one hand and a job in the other,” Rhodes believed that technical colleges were the vehicles that would accomplish his goal. Technical education, according to Rhodes, would address the unemployment issue in Ohio as well as the lack of employable skills exhibited by Ohioans, including high school graduates. High schools did a good job preparing students for college but nor for work (Cunningham, 1987). Rhodes was committed to technical education and the community college movement. To Governor Rhodes, technical education was “education with a purpose” (Cunningham, 1987, p. 106).

In February 1964, under the leadership of Governor Rhodes, the Ohio Board of Regents hired the Academy for Educational Development to conduct a higher education needs assessment in Ohio which would ultimately become the basis for the Master Education Plan of 1966. In April 1965, the Academy for Educational Development drafted a summary of the results of their needs assessment and recommendations for the Ohio Board of Regents who, in turn, drafted and published a Provisional Master Education Plan. The Ohio Board of Regents solicited comments, suggestions, and criticisms from higher education institutions and interested stakeholders. Based on everyone’s input, the Board of Regents revised the Provisional Plan and adopted a final Master Plan. The Master Plan: (1) acknowledged the shortage of technical education programs in Ohio and recommended they be increased; (2) recommended that an
Associate of Arts, Associate in Applied Business, or Associate in Applied Science be awarded to students who successfully complete a two-year instructional program; (3) recommended that technical courses of instruction be transferable to a bachelor’s degree; (4) recommended that technical institutions be established within a reasonable commuting distance of all Oho citizens; (5) projected large increases in enrollments in Ohio colleges and universities from 242,000 in the fall of 1964 to 410,000 in 1970, to 560,000 in 1975, and to 650,000 in the fall of 1980; (6) directed existing state supported colleges and universities to expand their facilities to accommodate this increased enrollment; (7) advocated for the development of community colleges, technical institutes, and university branches to meet the projected expansion in enrollment; (8) recognized that technical education as an integral component of education opportunity for students who wanted post secondary education but did want to pursue a bachelor’s degree before entering the job force; (9) advocated for technical education to be regarded as higher education; (10) recommended that technical institutions be built in an area of 50,000 population or more and community colleges in an area of 100,000 population or more; (11) suggested that technical institutions and community colleges both offer technical programs in business, commercial, health occupations, and engineering technology; and (12) suggest that both institutions offer additional programs to meet local community needs. The Plan listed 126 recommendations and conclusions along with three goals for Ohio’s higher education system; it became the state’s blueprint for the development of higher education (Cunningham, 1987).

The Ohio Board of Regents approved four technical institute districts by the end of June 1966: Penta County, Jefferson County, Columbus, and Stark County. These
technical institute districts joined Clark County Technical Institute which was the first technical college approved by the Ohio Board of Regents in 1965. Two new community colleges were established by July 1966: Sinclair Community College in Montgomery County and Mahoning Community College in Mahoning County. These colleges joined Lorain Community College and Cuyahoga Community College (Katsinas et al., 1999).

Governor Rhodes recognized that a relationship existed between education and jobs. This linkage brought Governor Rhodes to Lima, Ohio in 1967. During his visit, Rhodes promised the citizens of Lima that a technical college would be built to meet the expressed needs of Lima area businesses, industries, and hospitals who were struggling to find technicians and allied health professionals (Cunningham, 1987).

**The History of Technical Education in Lima**

Dr. Novice Fawcett became President of the Ohio State University (OSU) in 1956 at which time he initiated a study to assess OSU’s need for off-campus education. In 1956, OSU did not have any branch campuses even though some Ohio universities had moved in that direction. Enrollments in higher education throughout Ohio were on the rise, and off-campus education would provide an answer to accommodate this increase. As a result of the study, OSU established a branch campus in a high school in Marion, Ohio; one in Newark; and a third one in Mansfield. The Lima community expressed a need to establish a branch campus in Lima. “The Lima community was determined that any advanced education program in the community would be attached to Ohio State” (Reed, 1986, p. 8).

Fawcett’s primary consideration for any OSU branch campus was that all of the courses offered at the branch campus had to be equal in quality to the corresponding
courses on the main campus in Columbus. Once Fawcett was certain that this condition would be met, he facilitated the establishment of an educational center in the Lima High School building. The branch was opened in the fall of 1960. “Faculty from Columbus campus were transported by airplane and by car to Lima on a regular basis and other members of the faculty were drawn from Ohio Northern University, from Bluffton College and from the community” (Reed, 1986, p. 9).

With the opening of classes at Lima High School, the search for a permanent campus site began. A campaign to raise money for the new campus commenced. Money for this project came from the following: (1) $300,000 from the $250 million state-wide bond issue that passed in November 1963 for planning a permanent branch campus in Lima; (2) $150,000 pledged for building of roads and drainage ditches by Allen County Commissioners; (3) $250,000 from John E. Galvin and family for the purchase of land; (4) $3.3 million from the Senate Finance Committee; (5) $400,000 from a fund drive, directed by Charles Cook; (6) $3,300,000 from a second state bond issue; (7) $80,000 from the State Controlling Board for the second building on campus (Reed, 1986).

Local funds totaled $700,000. Approximately $600,000 of the local funds was used to purchase the land for the permanent campus site. In September 1964, 565 acres of land was purchased east of Interstate 75 between Mumaugh and Thayer Roads, located right off of U.S. 309 South in Bath Township (Reed, 1986).

On March 12, 1965, plans were announced for the $1.5 million first building which was to be named John E. Galvin Hall. Mr. Galvin was a principal donor for the new campus and a very influential member of the Lima community. The first director of the Lima campus was Dr. J. McLean Reed. Dr. Reed was a resident of Lima and served
as Superintendent of School in Lima in the early 1930s. Eventually, Dr. Reed left Lima to serve as Superintendent of Schools in Danville, Illinois. Upon retiring from the superintendent’s position, Dr. Reed returned to Lima and acquired a retirement home in the Lima area. When it became necessary to appoint a Director of the Lima campus, Dr. Reed’s name was at the top of the list of contenders due to his knowledge of the Lima community and his interest in “giving leadership to this enterprise” (Reed, 1986, p. 10). In July 1962, Dr. Reed was offered the position as branch part-time director, and he accepted the post.

The ground-breaking ceremony for Galvin Hall, on the Lima OSU campus, was held on July 9, 1965. “The first shovel in the ground was by Governor Rhodes, followed by President Fawcett and Dr. Reed” (Reed, 1986, p. 14).

The OSU branch in Lima, Ohio represented the community’s first venture into higher education. It also presented “the first opportunity for the State of Ohio to completely develop a campus from the very beginning” (Reed, 1986, p. 45). The opening day of the OSU-Lima campus was October 3, 1966. “By October 1968, OSU-Lima became the largest campus in Ohio State’s Regional Campus System” (Reed, 1986, p. 76).

Once the OSU-Lima campus was established, a discussion of developing a technical college on the campus began. “Board of Regents Chancellor, Dr. John D. Millet, in November of 1966 suggested the possibility of establishing a technical education program on the campus” (Reed, 1986, p. 80).

In February 1967, a survey was conducted by the Lima Area Chamber of Commerce to determine if the community wanted a technical education college. The
results of the assessment demonstrated a need for technical education programs in many areas of engineering, business, and health technologies. The respondents of the survey demonstrated an immediate need for 517 technicians in their respective professions. The survey results identified three major purposes for establishing a technical education institution in Lima, Ohio: (1) to provide technical education and training for high school graduates, (2) to provide skilled employees for the Lima area businesses, and (3) to establish the Lima area as a competitive region for attracting new industry. The data from the survey served as the basis for the College’s Official Plan which was submitted to the Ohio Board of Regents in January 1968. Plans and preliminary specifications included: (1) the hiring of an architect to design the 23,000 square foot building; (2) $1 million allocated from OSU; (3) the accommodation of 800-1000 students in the building; (4) plans for shared facilities by Lima Technical Center and OSU inclusive of the library, laboratories, classrooms, staff offices, storage rooms, admissions, and counseling services; (5) the development of technology programs consisting of electronics, engineering, mechanical engineering, accounting, data processing, computer/executive secretary, and health technology; (6) the conferring of associate degrees to student that successfully complete the two-year technical program; and (7) the expectation to open Lima Technical Center in September 1969 (Reed, 1986).

Upon review of the Plan, the Ohio Board of Regents appropriated funds to OSU for the planning of Lima Technical Center. On October 2, 1967, a representative from OSU and Penta Technical College announced that “the Lima Campus would have a $1 million technical institute within two years” (Reed, 1986, p. 80). Penta County Technical Institute was located in Perrysburg, Ohio. The Ohio State University and the Ohio Board
of Regents invited Penta County Technical Institute to operate the Lima Technical Center on the Lima Campus as a branch program. The two-year technical education center would service a ten-county area and offer ten course offerings in the technical areas of health services, engineering, and business. The ten counties serviced by the technical program were (and are) Allen, Auglaize, Hardin, Putnam, Van Wert, Hancock, Logan, Shelby, Mercer, and Paulding (www.rhodesstate.edu).

Daniel Brown, a guidance and admission counselor at Penta County Technical College in Perrysburg, was appointed chairman of technical education at the Penta division for the Lima OSU Campus. “Mr. Daniel Brown sought and received support from the local medical community for program planning” (Lerner, 1995, p. 332). Brown’s responsibilities included establishing course offerings; determining building specifications; and communicating with area schools, industries, and businesses to organize advisory committees for the various technologies. Brown facilitated the opening of Lima Technical Center on September 27, 1969, and the first class of 49 nursing students began their training (Reed, 1986).

On June 30, 1970, Dr. Reed resigned as Director of OSU-Lima. In September 1970, Dr. James S. Biddle became the second Director of OSU-Lima and the first President of Lima Technical Center. Dr. Biddle held the first full-time position as Director on the Lima campus and is recognized as the founding president of Lima Technical College. Dr. Biddle “paved the way for the OSU Lima Campus and Lima Technical College to become one of Ohio’s outstanding community college” (Reed, 1986, p. 115). Under his watch, several important initiatives occurred: (1) the Technical Education Laboratory building was created, (2) Cook Hall was completed, (3) a baseball
diamond and tennis courts were built, and (4) the student population on campus flourished. Perhaps the greatest initiative was Lima Technical College being chartered as an institution independent of Penta Technical College.

Under Dr. Biddle’s leadership, the Allen County Technical College District was created pursuant to the provisions of Chapter 3357 of the Ohio Revised Code. The establishment of the Allen County Technical College District, in June 1971, was recommended by the Ohio Board of Regents and in accordance with the 1966 Master Plan for Higher Education in Ohio. Interim operation of technical education at Lima Technical Center was transferred from Penta County Technical Institute to OSU. The Ohio Board of Regents granted the official charter on September 17, 1971, at which time a local Board of Trustees was appointed and assumed legal, statutory, and fiduciary control of the College. On May 18, 1972, Lima Technical Center of Penta County Technical Institute officially became Lima Technical College. Student enrollment was now at 468 and there were 11 technical programs offered (www.rhodesstate.edu).

Dr. Biddle served as the Director of OSU-Lima and President of Lima Technical Center for 18 years. Upon his resignation in June 1988, Dr. Biddle assumed the position as executive director of the Ohio Student Loan Commission in Columbus. Figure 2-1 is a picture of Dr. Biddle during his tenure as President of Lima Technical Center.

Figure 2-1: Picture of Dr. Biddle, first President of Lima Technical Center.
Lima Technical College (LTC) was granted full accreditation status by the North Central Association of Colleges on April 1979. In 1984 LTC hired its own chief administrative and business officers thus making it an independent educational facility. By the mid-1970s, LTC offered over 70 associate degree programs and certificates. In 1991, LTC hired its own President as Chief Executive Officer, and OSU-Lima hired its own Dean/Director. Dr. Biddle served LTC as its first President until 1988. This separation allowed LTC to transition from a generally continuing education program to a workforce development training institution. Even though several of the facilities and services continued to be shared, LTC developed its own identity as a technical college on a co-located campus with OSU (www.rhodesstate.edu).

Dr. Biddle’s resignation was effective on June 30, 1988. A national search commenced, and on June 27th of that same year, Dr. James J. Countryman was offered and accepted the position as the second President of Lima Technical College and Dean/Director of Ohio State University in Lima. The Board of Trustees of both institutions approved the appointment on Friday, July 8, 1988. Since 1983, Dr. Countryman had held the position of Vice President for Academic and Student Affairs at the State University of New York College of Technology at Utica/Rome. From 1979 through 1983, he was the Vice President of Academic Affairs at the same campus. Dr. Countryman held the rank of Associate Professor of mathematics, was the Dean for Academic Services at Purdue University – North Central Campus in Westville, Indiana and taught mathematics at the Purdue University regional campus. Dr. Countryman earned a doctoral and master’s degree in mathematics from the University of Notre Dame; he received his bachelor’s degree in 1959 from Wisconsin State College (Fell,
“President Biddle’s successor was selected by a combined committee of Lima Technical College, the Ohio State University Lima Branch, and the main Ohio State University administration in Columbus” (Lerner, 1995, p. 334). Figure 2-2 presents a picture of Dr. Countryman when he was President of Lima Technical College.

Figure 2-2: Picture of Dr. Countryman, second President of Lima Technical College.

Several innovations were introduced during Dr. Countryman’s presidency. In 1990, Biddle Drive, named after Dr. Biddle, was opened and a college logo was created. Dr. Countryman became the first full-time President of Lima Technical College in 1991. Lima Technical College offered its first telecourse, COM-111, in the fall of 1992. Under Dr. Countryman’s leadership, the College expanded its educational offerings to Kenton, Ohio via a Learning Lab and implemented a strategic planning process. According to Lerner (1995), “The College has matured through the development of a Strategic Plan and is applying quality principles to its operations. The budget has been integrated into the planning process and all members of the organization have begun to add to this process” (p. 335). In 1992, the College developed its first-ever strategic plan as an institutional collaborative. LTC celebrated its 25th anniversary in 1996. Before retiring from the College in 1999 Dr. Countryman secured many corporate and community partnerships that contributed to the success of the College and provided employment for graduates.
Following Dr. Countryman’s retirement in late 1999, Dr. Earl Keese was appointed by the Lima Technical College Board of Trustees as the third President of the College. Dr. Keese was 57 years old at the time of his appointment. Dr. Keese came to Lima from Middle Tennessee State University where he had been Dean of the College of Basic and Applied Sciences and taught mathematics for 30 years. According to Dr. Richard Rapp, Chairman of Lima Technical College’s Board of Trustees, “We set high standards for our next president and believe that Dr. Keese exemplifies what is needed to continue LTC’s progress into the new millennium. His qualifications are outstanding and reflective of this institution and our community” (Green, 2000). Dr. Keese received his Bachelor’s degree from Texas A&M University, a master’s degree of education from West Texas A&M, a master’s degree of mathematics from the University of South Carolina, and his doctoral degree from George Peabody College of Vanderbilt University. Dr. Keese began his tenure as President of Lima Technical College in February 2000 (Green, 2000). It was under Dr. Keese’s leadership that LTC became James A. Rhodes State College.

As Lima Technical College grew, the need for a name change to reflect the College’s mission and focus became apparent. On March 1st, 2002, Lima Technical College’s Board of Trustees voted to change the College’s name to James A Rhodes State College to more accurately reflect the scope and diversity of its courses and services to West Central Ohio and beyond. On June 24, 2002, Lima Technical College changed its name to James A. Rhodes State College in honor of former Governor Rhodes who was instrumental in establishing Ohio’s two-year college system. The name change symbolized “the diverse educational opportunities that the College offered”
(www.rhodesstate.edu). Figure 2-3 displays a picture of Dr. Earl Keese as the third President of Lima Technical College.

![Picture of Dr. Keese, third President of Lima Technical College.](image)

*Figure 2-3: Picture of Dr. Keese, third President of Lima Technical College.*

Under Dr. Keese’s leadership, several other changes to the College occurred. In 2001 LTC’s online coursework and off-campus learning centers served 21 different counties in Ohio. By 2002, over half of the students enrolled at LTC resided outside of Allen County. There were nearly 3000 full-time students attending the College which made LTC the largest two-year college in West Central Ohio. The College offered associate degrees, majors, and certificates in more than 90 programs. It was the region’s leading workforce development trainer, providing more than 2,100 specialized training courses to 18,000 employees. These accomplishments are a direct result of Governor Rhodes’ commitment to bringing technical education to Ohio. During the name change ceremony, Dr. Wilfred Ellis, Chairman of the Lima Technical College Board of Trustees said “Our College is here due to the determination of Governor Rhodes. I believe Lima Technical College represents all of the goals the Governor had for two-year higher education” (Keese, 2002). Dr. Keese stated, “As we reflect upon our past successes and our future goals, we will remain mindful of Governor Rhodes’ intention of providing an education in which our students leave us with ‘a diploma in one hand and a job in the other’” (Keese, 2002).
Dr. Keese resigned as President of James A. Rhodes State College in 2005. Following a national search, Dr. Debra McCurdy was appointed as the College’s fourth and current President. Prior to coming to Lima, Dr. McCurdy served as provost and chief operating officer of Georgia Perimeter College in Dunwoody, Georgia since 1997. Before her tenure at Georgia Perimeter, Dr. McCurdy was associate provost of Clark Atlanta University in Atlanta, Georgia; Vice President for Academic Affairs for Paul Quinn College in Waco, Texas; and Assistant Dean of Academic Affairs at Brandeis University in Waltham, Massachusetts. Dr. McCurdy received her doctoral degree in higher education and supervision, master’s degree in education, and bachelor’s degree in education from Bowling Green State University. Dr. McCurdy began her position as the President of Rhodes State College on February 1, 2006 (Green, 2005). Under Dr. McCurdy’s leadership, student enrollment increased to 4,150 in fall of 2011 and over 100 associate degrees, majors, and certificates were offered by the College. A picture of Dr. McCurdy is seen in Figure 2-4.

Figure 2-4: Picture of Dr. McCurdy, fourth president of Rhodes State College.

The History of Dental Hygiene Education in the United States

The evolution of dental hygiene dates back to 3000 B.C. when people realized the importance of keeping their teeth clean and their mouths free of disease. Culture, rituals, superstition, mysticism, medical knowledge and quackery, trade and industry were all
factors that contributed to the understanding of oral hygiene and the development of the dental hygiene profession (Motley, 1983). Dental hygiene education in the United States emerged from the field of dentistry which was initially incorporated in the medical field. “Until 1530, when the first book devoted entirely to dentistry was published, dentistry had always been included with medicine (Motley, 1983, p. 103).

In colonial America, men interested in practicing dentistry began as barber surgeons and focused their attention on treating oral disease, cleaning teeth, filling cavities, and extracting and replacing teeth with artificial devices. Formal education in dentistry did not exist, even in medical schools, before 1840. Men who were interested in practicing dentistry prepared for their career in one of three ways: (1) they enrolled in a two-session medical course followed by training for two or three years under a dentist-preceptor; (2) they engaged in part of a medical course followed by an apprenticeship with a dentist-preceptor; and (3) they served an apprenticeship without any medical school instruction. During the last half of the 18th century and the first 80 years of the 19th century, the majority of men fell into the third category and preceptor training of dentists began to emerge (Bowers, Clemens, & Stevenson, 2002). Preceptor training is on-the-job training which is conducted in the office of a practicing technician (Kimbrough & Lautar, 2007). John Baker, M.D. preceptor-trained Paul Revere, Isaac Greenwood, and H. Josiah Flagg in the skills of dentistry. Paul Revere eventually became George Washington’s dentist. Isaac Greenwood is credited with developing the foot drill and for promoting the use of toothbrushes and toothpaste to remove hard deposits from the tooth surface (Macaluso, 1994). Levi Spear Parmly, the apostle of dental hygiene, was preceptor-trained by an English-trained dentist, Dr. Petrie. Parmly, in turn, preceptor-trained his
two brothers. Between 1812 and 1923, the Parmly brothers produced a total of 13 practicing dentists in the United States (Sanoudos & Christine, 1999).

Dr. Levi Parmly wrote numerous articles about oral hygiene and disease prevention. He recommended the use of waxed floss silk, four to five times a day, to prevent dental disease. Dr. Parmly is recognized as an influential American dental prevention leader who is credited with introducing flossing as the most efficient way to prevent oral disease. In 1845, the American Journal of Dental Science published an article on oral hygiene which highlighted the fact that dentists were discovering the dental decay and periodontal disease could be prevented. This article stressed that dental hygiene of the oral cavity was being neglected in lieu of the attention being given to “mechanical” dentistry and surgery (Motley, 1988b).

Dr. John Harris, a physician, surgeon, and preceptor-trained dentist, supported the findings of Dr. Parmly. In 1825 Harris moved to Bainbridge, Ohio to provide medical and dental services to the local citizens. In 1827 Harris taught a class in dental education. This class ignited the spark for dental education in Ohio and across the nation. As a result of Harris’ class in Ohio and his commitment to formal dental education for individuals interested in practicing dentistry, Ohio became known as the “Cradle of Dental Education” (Macaluso, 1994).

By 1830, there were approximately 300 individuals practicing dentistry in the United States. Medical practitioners began to refer patients in need of dental care to individuals specializing in dentistry. Consequently, the profession of dentistry began to grow. Preceptor-trained dentists were committed to establishing dental education and implementing standards to ensure consistent, quality dental instruction. Two physician-
dentists, Horace Hayden and Aaron Harris (brother of John Harris), realized the importance of dental education and eventually founded the first formal institution devoted to dentistry: the Baltimore College of Dental Surgery. Hayden and Harris settled at Baltimore, Maryland to establish an independent dental school. In 1840 these men persuaded the Maryland legislature to pass a law “incorporating the Baltimore College of Dental Surgery, privileged to award the degree of Doctor of Dental Surgery” (Kauffmann, 1976, p. 349). Harris became the Dean of the first dental college and taught the first dental course on November 3, 1840. In 1845 Dr. James Taylor and John Alden, students of Dr. John Harris, founded the world’s second dental college, the Ohio College of Dental Surgery in Cincinnati, Ohio. The Ohio College of Dental Surgery was chartered by an act of the Ohio Generally Assembly on January 21, 1845, and became Ohio’s first dental institution (Bowers, Clemens, & Stevenson, 2002).

Even with the founding of the two dental colleges, dental training through preceptorship continued to be the primary training of dentists until 1868. In 1868 dentistry began to be legislatively regulated. Ohio became one of the first three states to pass a dental practice act. “The Ohio State Dental Society, founded two years earlier, had in its purpose the idea of advancing the profession by ridding it of incompetent dentists and charlatans” (Bowers, Clemens, & Stevenson, 2002, p. 6). The newly adopted dental practice act made it illegal for Ohio dentists to practice dentistry and bill for dental services without having received a diploma from a dental college. The dental practice act also mandated the establishment of a state dental board of dentistry to oversee the regulation of the dental profession (Bowers, Clemens, & Stevenson, 2002).
Prior to the adoption of dental practice acts, another organization was established to help regulate the profession of dentistry. In 1859 the American Dental Association (ADA) was formed. The ADA was instrumental in advancing the field of dentistry, advocating for the requirement of dental licensure to practice, and stimulating individuals to engage in scientific dental research. The ADA became the voice of American dentistry, and it remains very active and influential today (Motley, 1983).

By the end of the 19th century, Ohio had four dental colleges: the Ohio College of Dental Surgery (1845), the Cincinnati College of Dentistry (1893), the Ohio Medical University Department of Dentistry (1890), and the Western Reserve University School of Dentistry (1892). The Ohio College of Dental Surgery and the Cincinnati College of Dentistry closed in the 1920s at which time the Ohio Medical University Department of Dentistry became known as the Ohio State University College of Dentistry; the Western Reserve University School of Dentistry became known as Case Western Reserve School of Dentistry (Bowers, Clemens, & Stevenson, 2002).

As the dental profession expanded and became more specialized in Ohio and throughout the United States, the need for an auxiliary to assist the dentist surfaced. In 1902, Dr. C. M. Wright, an influential dentist practicing in Cincinnati, Ohio, proposed the training of women to “aid the dentist in the cleaning and polishing of teeth as a separate specialty in a dental office” (Fones, 1926, p. 1812). Dr. M. L. Rheim of New York referred to this new dental auxiliary as a dental nurse. Rheim felt that dental nurse was the appropriate name for a woman, prominent in the field of dentistry, who was experienced in dental cleanings (prophylaxis) and who valued mouth hygiene. Dr. Rheim “made a recommendation in 1903 to the American Medical Association (AMA)
concerning training and state board requirements of a ‘dental nurse,’ experienced in
dental prophylaxis” (Hillenbrand, 1969, p. 207). The AMA agreed that female assistants,
serving as dental nurses, would be extremely advantageous to the dental profession and
supported the idea that dental nurses be allowed to work under the prescription and
supervision of dentists (Motley, 1988b).

By 1901, Dr. Fones had established a thriving dental practice geared toward
providing preventive services and operative work. He soon realized that he, himself,
could not adequately provide his patients with all of the services they needed. Dr. Fones
needed someone to provide the preventive, prophylactic services for his patients so that
he could perform the operative and restorative services for which he was trained. In 1906,
Dr. Fones decided to train his office assistant, Irene Newman, to perform the functions of
a dental nurse. “He carefully outlined a course of study for Mrs. Newman, a course which
would include basic dental and science subjects as well as the skills of scaling and
polishing” (Motley, 1988b, p. 2). Newman began to provide prophylactic services in
February 1906, and continued to perform these tasks for 20 years. Irene Newman is
recognized as the first dental nurse practitioner in the United States (Fones, 1926).

In 1910 the Ohio College of Dental Surgery taught the first formal one-year
training course for dental nurses. This course was facilitated by a woman dentist, Dr.
Flora Haag, and provided clinical training in private dental offices. However, this course
was discontinued in 1914 because the Ohio dentists did not believe the training provided
enough rigor or education necessary for a dental nurse, and they were not willing to
change their practice patterns. The dentists strongly advocated against continuing with
the course, and the graduates were never licensed nor allowed to practice (Motley, 1983).
Regardless of the situation in Ohio, Dr. Fones was determined to formalize the training of dental nurses. He continued to practice with his dental nurse, Irene Newman, while planning his next step in the development of dental nurse education. Dr. Fones advocated for the services of a dental nurse for Bridgeport, Connecticut school children. These children were poor and unable to access preventive dental treatment. Their oral hygiene was horrendous and dental decay was rampant. For four years, Dr. Fones tried to convince the Bridgeport Board of Education to sponsor his program to develop a dental clinic to serve the educational and preventive needs of Bridgeport school children. In 1913 Dr. Fones won his fight, and the Bridgeport Board of Education allocated $5,000 for the program. Now it became necessary for Dr. Fones to formally train dental nurses to provide the preventive and prophylactic services in the dental clinic (Fales, 1975).

Dr. Fones, known as the father of dental hygiene, did not like the term ‘dental nurse’. Dr. Fones “wanted a name that conveyed a proper description of the work these women would be doing. A hygienist is one who is versed in the science of health and the prevention of disease, and eventually, ‘dental hygienist’ was coined and is still accepted” (Motley, 1988b, p. 1).

In 1913 Dr. Fones announced the first course for dental hygienist at Bridgeport, Connecticut. Dr. Fones organized and sponsored a formal educational program for the training of dental hygienists. The course started on November 17, 1913, with 33 women and ended on June 5, 1914, with 27 women. These 27 women graduated as the first class of dental hygienists in the United States. Among these graduates was Irene Newman. Upon graduation, these women organized the Connecticut Dental Hygienists’ Association which was the first state association of dental hygienists in history. Irene Newman was
the first president of this Association. The Connecticut Dental Hygienists’ Association held its first annual convention in 1915 and grew to 135 members in 1926. Ten of the dental hygiene graduates began their preventive services in the Bridgeport, Connecticut public schools during the fall of 1914 (Fones, 1926).

Dr. Fones led the way for the vast expansion of the profession of dental hygiene. In 1915, the Connecticut legislature realized the importance of dental hygienists and their potential for growth, so they passed an amendment to the dental practice act which regulated the practice of dental hygienists. “For the first time the field of operation of the dental hygienists was legally defined” (Motley, 1983, p. 125).

As soon as the practice of dental hygiene was legalized, numerous dental hygiene programs surfaced. In 1916 the first university course for dental hygienists was established at the Vanderbilt Clinic of Columbia University which was part of the School of Dental and Oral Surgery at Columbia University. This university course was 12 months long and required a minimum of one year of high school for admission. One year after the development of the university dental hygiene program, dental hygienists in Connecticut were granted licensure. The first dental school to establish a two-year dental hygiene program designed for articulation to a bachelor’s degree in dental hygiene was the University of California College Of Dentistry (Macaluso, 1994).

The need for dental hygienists across the nation flourished. The number of dental hygiene programs grew and the graduates provided dental hygiene services throughout the United States. Between 1914 and 1944, 14 dental hygiene schools were founded with programs designed to meet the needs of community dentists, state boards of dentistry,
and the community. Due to the vast differences in community needs and state practice acts, a variety of programs were developed (Motley, 1983).

In 1923 there were approximately 1,100 licensed dental hygienists in 11 states throughout America. Of these 1,100 hygienists, 346 joined together to form a national dental hygienists association in Cleveland, Ohio. This association was called the American Dental Hygienists’ Association (ADHA), and it remains ADHA today. The ADHA has been instrumental in the advancement, protection, and support of the profession of dental hygiene. The ADHA worked collaboratively with the American Dental Association (ADA) Council on Dental Education to expand the length of dental hygiene education. In 1946 the ADA Council on Dental Education “recommended four years of high school and two years of college education as the minimum requirement for dental hygiene and the following year, accreditation requirements for schools of dental hygiene were adopted by the ADA House of Delegates” (Hillenbrand, 1969, p. 207). The adoption of this 1946 ADA resolution precipitated the development of two-year dental hygiene programs at community colleges throughout America and, more specifically, in Lima, Ohio.

The History of Dental Hygiene Education in Ohio

On December 2, 1931, the Ohio State Dental Board solicited input from the Deans of the Ohio State University and Case Western Reserve Colleges of Dentistry regarding the development of a dental hygiene course of study and the minimum curriculum for a dental hygiene program. At the time, the majority of dental hygiene programs in the United States were one year in length. These programs were in the following schools: Northwestern, Forsythe, Michigan, Minnesota, Rochester, Columbia,
Pennsylvania, and Temple. Ohio did not engage in further study of dental hygiene education until 1939 when Dr. Wendell Postle became the Dean of the Ohio State University College of Dentistry and expressed an interest in starting a dental hygiene program. Dr. Postle appointed Dr. Harry Spangenberg to be the Director of the dental hygiene program and to develop the dental hygiene curriculum. The first dental hygiene program in Ohio began in the fall of 1944 at the Ohio State University with 25 qualified women. Admission to the dental hygiene program was limited to females who graduated from accredited high schools. Personal qualities such as neatness, pose, a pleasant speaking voice, courteous manner, and the willingness to serve were essential for the applicants to possess and demonstrate. The cost of the six-quarter program was $1,117.00. The dental hygiene program was accredited by the ADA Commission on Dental Accreditation in 1952 (Bowers, Clemens, & Stevenson, 2002). Ohio State maintained the only dental hygiene program in the state until 1964.

In 1964, Cuyahoga Community College (Tri-C) began the second dental hygiene program in Ohio. Tri-C, located in Cleveland, opened in 1963 as Ohio’s first community college. It remains Ohio’s oldest and largest public community college. Jan Schnur was the first director of the program, and she was also ADHA President. The dental hygiene program completed clinic requirements at Case Dental School until the clinic facilities were completed in 1966 (www.tri-c.edu). The University of Cincinnati, Blue Ash College (a.k.a Raymond Walters College) in Cincinnati was the home of the third dental hygiene program. The University of Cincinnati, Blue Ash College is a regional campus of the University of Cincinnati and serves residents of Hamilton, Butler, Warren, and Clermont
counties. The Cincinnati area dentists wanted a dental hygiene program and were instrumental in getting the program started in 1967 (www.rwc.uc.edu).

By the end of 1960, hygienists who were qualified to practice dental hygiene in Ohio had received their dental hygiene education in Cincinnati, Cleveland, and Columbus and remained in these big cities to join a lucrative dental practice and become a member of a financially stable dental team. Dentists throughout the rest of Ohio were in desperate need of hygienists. To resolve this dilemma, the Ohio Dental Association formed a Task Force on Auxiliary Manpower in 1970. One of the primary focuses of this Task Force was to study the dental hygiene shortage in Ohio and determine a solution to the problem. Dr. Kenneth Clemens, an influential dentist from Lima, served on this Task Force and chaired the dental hygiene subcommittee (K. Clemens, personal communication, April 2003).

Under the direction of Dr. Clemens, the Task Force gathered data of dentists and dental hygienists residing and working in Ohio’s 88 counties. Based on this data, it was determined that 15 of the 88 counties did not have a dental hygienist. The state average for dental hygienists was one hygienist for every 9250 people. These results confirmed the dental hygiene shortage in Ohio. The Task Force and the Ohio Dental Association agreed that the solution to the problem was to develop dental hygiene schools in the geographic areas of need. In 1970, the Carnegie Commission identified geographic sites designated as area health education centers (Carnegie Commission on Higher Education, 1970). In 1971, the Ohio Dental Association submitted a proposal to the Ohio Board of Regents soliciting their support to develop dental hygiene schools in the geographic sites outlined in the 1970 Carnegie Commission Report. The Board of Regents indicated that it
would approve the request once documented evidence of the need to develop these schools was submitted. The Ohio Dental Association responded immediately to this directive (K. Clemens, personal communication, April 2003).

**Summary**

Chapter Two outlined the history of dental hygiene education in six sections via a comprehensive literature review: (1) the history of higher education in America, (2) the history of community colleges in the United States, (3) the history of community colleges in Ohio, (4) the history of technical education in Lima, (5) the history of dental hygiene education in the United States, and (6) the history of dental hygiene education in Ohio. A brief discussion ensued on the methodology and theoretical framework to be used in the study. Gaps in the literature were identified. Chapter Three will provide a road map of the study, detailing the researcher’s use of historical methodology and Thelin’s horizontal histories theoretical framework.
Chapter Three

Methodology

Introduction

Historical methodology guided this study. According to W. H. McDowell (2002), “it is the discipline of history which provides us with the opportunity to understand and appreciate the past, to distinguish myth from reality, and to see which elements of the past had an influence on future events” (p. 3). Historians use all of the information available to them to tell a story and explain how or why various events occurred as they did. The researcher of this study embarked on a historical journey of health care, as it related to oral health and told the story of dental hygiene education in Ohio, specifically at Rhodes State College in Lima.

Robert Williams (2007) states that “historical research is a process of discovery and construction” (p. 11). This study demonstrated discovery and construction because there were not comprehensive studies to draw from, thus a gap in the literature was filled. Most, if not all, of the historical data was presented for the first time. In the absence of any organized archives, the researcher collected and compiled records and documents and provided original analyses and interpretations of these sources.

Robert Schwartz (2003) stresses the fact that “the historical method can be practical, useful, and enlightening. Historical interpretation and analysis show us similarities and analogies in the present and help us anticipate the future” (p. 111). The historical methodologist provided a narrative of past activities necessary to understand present events and prepare for future activities (Wineburg, 2001). The three-stage model of historical inquiry directed the historian to ask what happened, why it happened, and
how did it turn out in the end. The historian must identify positive and negative consequences of the event in question as well as who benefited and who suffered (Gilderhus, 2003).

Schwartz (2003) states that “historical research can be a valuable tool for a variety of research purposes: (1) for policy evaluation, (2) program assessment, (3) academic research, and (4) to expand the base of knowledge and information that researchers and decision makers need to analyze and interpret contemporary events” (p. 98). In this study, the researcher used historiography to develop a historical analysis of a dental hygiene program at a technical college in Lima, Ohio and told a story that has never been told before of health care, as it relates to oral health, at Rhodes State College.

Theoretical Framework

John R. Thelin’s theoretical framework of horizontal histories was used to inform this study. Thelin’s (2004) horizontal history model “emphasizes the notion of organizational saga” and incorporates “the founding and influence of institutions and agencies across the higher-education landscape” (p. xx). This historical horizontal perspective includes the integration of public policies, government agencies, and regional boards into the study. Horizontal histories also incorporate “the roles of foundations, consortia, associations, accrediting bodies, state bureaus, and federal agencies, which have contributed funding, incentives, and regulations to the American campus” (Thelin, 2010, p. 71). When writing horizontal histories, Thelin (2004) considered “key historical episodes” that had “enduring implications for colleges and universities” (p. xxi). Thelin’s ideas not only steer the development of institutional histories; they are effective in tracing the development of academic programs. An adaptation of Thelin’s theoretical framework
was used to trace the development of the Rhodes State College Dental Hygiene Program. This historical horizontal adaptation included the integration of foundations, associations, accrediting bodies, state and federal agencies, public policies and regional boards necessary to address the research question.

**Data Collection and Population**

Primary and secondary sources of data were used for this study. A source is classified as either primary or secondary. A primary source is sometimes referred to as an original source. It provides a direct description of an event by a participant and observer who wrote down exactly what he heard and saw (Williams, 2007). Examples of primary sources include: (1) oral testimonies by an eyewitness of a specific event, (2) a written document describing the event first-hand, (3) letters, (4) institutional records, (5) court decisions, and (6) professional records. The researcher of this study used primary sources consisting of, but not limited to: (1) accreditation self studies; (2) accreditation reports; (3) task force reports; (4) the program proposal which includes construction plans, equipment needs, funding information, and budget projections; and (5) oral testimonies of historical leaders. William Brickman (1982) stresses the importance of primary sources being “of greater significance for an authentic, representative account” (p. 93). The primary sources used by the researcher established the historical foundation of the Rhodes State College Dental Hygiene Program.

The researcher used secondary sources to describe, analyze, and interpret the primary sources. Secondary sources of data are generally written by individuals who were not actually present during the events they write about. Williams (2007) states that “a secondary source is a book, article, film or museum that displays primary sources
selectively in order to interpret the past” (p. 56). Secondary sources of data used by the researcher in this study included: (1) *Higher Education and the Nation’s Health* (Carnegie Commission on Higher Education, 1970); (2) *A Century of Dental Education and a Decade More* (Bowers, Clemens, & Stevenson, 2002); (3) History of Dental Hygiene Education in the United States (Fales, 1975); and (4) *the Origin and History of the Dental Hygienist Movement* (Fones, 1926). The secondary sources used by the researcher provided a rich historical and education context to the study. Appendix A, located at the end of this document, provides a comprehensive list of primary and secondary sources that were available to the researcher.

Data collection for this historical study was approached through triangulation. Creswell (2008) defines triangulation as “the process of corroborating evidence from different individuals, types of data, or methods of data collection” (p. 266). Data collection methods include interviews, focus groups, observations, questionnaires, and documents. By using the triangulation process, historians are able to ascertain the reliability and authenticity of their primary and secondary sources of data thus increasing the credibility and validity of their results. In order for a source to be used as evidence in a historical argument, three things must be considered: (1) it must be understandable at the most basic level of language, handwriting, and vocabulary; (2) it must be carefully located in place and time: when was it written, where, by whom; and (3) it must be checked for authenticity (Howell & Prevenier, 2001).

Additional benefits of triangulation include: (1) it provides confirmation, validation, and completeness of information, (2) it allows researchers to develop a total, comprehensive perspective of a single event, and (3) it identifies interrelationships
between data. One of the primary purposes of historical research is to identify connections between events and sources of evidence (McDowell, 2002).

The researcher used triangulation to provide links between the information obtained through oral histories and the review of the documents. As previously stated, this process strengthened the reliability and internal validity of this historical study.

Today most scholars use a mixture of oral, written, and other material sources as the situation requires (Howell & Prevenier, 2001). In this study, triangulation consisted of video recorded face-to-face interviews, primary document-based sources of data, and secondary sources of data.

The researcher of this historiography designed a computerized system to index all source material. Full biographical details were recorded for each source at the onset to eliminate having to re-check data from these sources later on in the study. All references were recorded accurately and consistently. Biographical details that were documented include: (1) author(s), (2) title of document, (3) date, (4) page number(s), (5) editor(s), (6) publisher, (7) place of publication, (8) interviewee, (9) contact address, and (10) place of interview (McDowell, 2002).

The historian also summarized key points, paraphrased information, and documented direct quotes used in the historiography. While reading each source, the historian asked three important questions: (1) What did the author say, (2) Why did the author say it, and (3) Where was the author’s argument strong and where was it weak or vulnerable (Rael, 2004).

As previously stated oral histories constituted one form of primary data used in this study. Oral history is the systematic collection of living people’s testimony about a
specific event or experience they witnessed first-hand. Historians use oral history in conjunction with other primary sources when conducting historical research to answer questions left unanswered by other sources (Yow, 1994). According to Cutler (1971), oral histories add key information void in written sources, substantiate or discredit information presented in written evidence, and demonstrate a realistic view of life during the time in question. Historiography brings the founders of universities and programs back to life, if they are dead, and presents their stories with accuracy, integrity, and without personal bias, if they are alive (Peterkin, 2010). Archived oral histories serve to effectively preserve history by capturing “anecdotes, emotions, and detailed personal experiences that only individual participants can provide” (Chaddock, 2010, p. 27).

To ensure accuracy of information obtained from the testimonies, the oral histories were conducted on a one-to-one basis, and they were all video recorded (Ritchie, 1995). “The recorded in depth interview can offer answers to questions that no other methodology can provide. One precise advantage of oral evidence is that it is interactive and one is not left alone, as with documentary evidence, to define its significance” (Yow, 1994, p. 10). The oral histories were collected via a semi-structured approach to obtain living people’s testimony about their own experiences. This semi-structured approach allowed interviewees to present their own points of view, to explain things in their own words, and to tell stories that went beyond just responding to a question (Chaddock, 2010).

Per Institutional Review Board (IRB) and archival research guidelines, the recorded oral histories will be gifted to archives at Rhodes State College which are currently being developed to house all of the College’s historical documents.
Participant selection. An effective oral historian interviews every person who can help address the research question, probes for details and jogs memories, listens, and validates information with written evidence (Chaddock, 2010). Seven historical leaders were identified and interviewed. The first historical leader was Dr. Kenneth Clements. Dr. Clemens was the significant player in the process to develop and establish a dental hygiene program at a technical college in Lima, Ohio. Howell and Prevenier (2001) advise historians to consider whether there is an actor in the story who had the authority and power to directly affect the events being studied. Dr. Clemens was one of the lead actors in this historiography. Following is the list of historical leaders who were selected by the researcher and agreed to participate in the study: (1) Dr. Kenneth Clemens; (2) Dr. Richard Buchanan, a member of the first Dental Hygiene Advisory Committee; (3) Mrs. Marge Hilty; a charter hygienist of the first Advisory Committee; (4) Mr. Sam Bassitt, Secretary to the Lima Technical College Board of Trustees and Associate Director for Technical Education when the Program was established; (5) Mrs. Julianne McCain, first Program Director; (6) Mrs. Linda Staley, second Program Director and first Dean of Allied Health; and (7) Dr. Thomas Heckler, Advisory Committee member from 1978 to the present. Appendix B presents a brief biography of each of the seven historical leaders.

All seven historical leaders were contacted either via email or telephone and invited to participate in the study. They all agreed to participate and served as the population for this study. The historian anticipated the occurrence of a snowballing effect. Creswell (2008) describes snowballing as the identification of additional participants to a study via recommendation or suggestion of initial participants. However, additional participants were not identified so only the initial seven were included in the
Interviews. Donald Ritchie (1995) stresses the importance of limiting each interview to two hours to ensure alertness of the interviewee and interviewer which may result in the scheduling of additional interviews including a follow-up interview after the transcription process is complete. Chaddock (2010) advocates for the possibility of more than one interview to ensure accuracy and understanding of information obtained during the collection of the oral histories. The researcher of this study was able to complete the initial interviews in less than two hours and did not engage in additional interviews.

The interviews commenced after the historian had thoroughly read and understood all of the other primary and secondary sources of evidence. This allowed the researcher to ask poignant and relevant questions, confirm information from these sources, check accuracy of information provided in the other sources, probe for more detail and depth not covered in other sources, and avoid questions adequately addressed and validated in written documents (Chaddock, 2010).

Based on a review of the literature, the researcher developed an interview guide consisting of questions developed to allow the participants to address and expound on the research question. The interview questions were open-ended so as not to restrict individual responses and to “allow participants to create responses within their cultural and social experiences instead of the researcher’s experiences” (Creswell, 2008, p. 399).

Once the interview questions were drafted, the researcher solicited the help of an expert panel to review the interview questions for accuracy, relevance, completeness, formatting consistency, and to ensure that researcher bias is not present. The individuals who served on the panel included: (1) Mr. William Wells, Dean and Professor, Division
of Arts and Sciences at Rhodes State College and campus historical expert; (2) Dr. John Fallon, Chair and Professor of Humanities; (3) Ms. Sharon Deubreau, Assistant Professor of Humanities and department historian; and (4) Ms. Mary Lou Gerosky, American Dental Association Commission on Dental Accreditation Site Visitor and Cuyahoga Community College Dental Hygiene Program Director. Appendix C presents the list of interview questions used by the researcher. Once the panel reviewed and approved the interview questions, the researcher provided the participants with the interview guide prior to the interview to allow them time to prepare a response if they chose. The interview guide was electronically disseminated or mailed to each historical leader, depending on their personal preference.

Before conducting the oral histories, the interviewer engaged in research-focused interview training to ensure that complete and accurate information was obtained in a systematic way and to maximize interviewer response. The researcher had developed oral interviewing skills in her professional role as Dental Hygiene Program Director. While annually interviewing prospective dental hygiene students, the interviewer actively listened to and continually assessed the respondent’s non-verbal cues (Health Maintenance Organization Research Network, 2006). She also demonstrated a knowledgeable, respectful, enthusiastic, and sincere attitude which put the applicants at ease and created a willingness to be interviewed. To hone the researcher’s interviewing technique and apply it in a research context, the historian facilitated one practice interview session and shared it with Dr. Meabon to ensure appropriate interviewing technique and outcomes.
The researcher ended each interview by telling the interviewee that a follow-up interview may be needed to confirm accuracy of information and to solicit additional information, if needed. Following each interview, the historian drafted field notes indicating who the interview was with, where and when the interview occurred, and what the essence of the interview was. The field notes assisted the transcriptionist to better understand the interview (Moyer, 1993). The oral historian considered the following questions about each of the historical leaders: (1) How well did the individual observe what he reported, (2) How accurate was the information, (3) Was the information presented realistic and/or unbiased, (4) Did statements support or contraindicate other sources of data, and (5) Were the researcher’s questions unbiased and or interpreted correctly (Chaddock, 2010).

**Data Analysis**

Once the interviews were completed and data gathered, the researcher engaged in data analysis. The recorded testimonies were transcribed. “A transcription is the writing form of a taped interview” (Yow, 1994, p. 227). The researcher used an outside transcriptionist to eliminate bias during the transcription process. The transcription process was long and tedious. Yow (1994) states that “the usual time required for transcribing an hour-long tape is 6-10 hours” (p. 228). Once the transcripts were drafted and read, they were sent to the interviewees for review and confirmation of facts told (Chaddock, 2010). Follow-up interviews were not necessary as transcription inaccuracies were not identified by the interviewees.

Following the transcription of oral histories, all of the primary and secondary sources of data were coded. “Coding is the process of breaking down, classifying,
comparing, and conceptualizing the data contained in the documents (Love, 2003, p. 90). The coding process involved: (a) reading through the data; (b) dividing the text into segments of information; (c) labeling the segments with codes; (d) reducing overlap and redundancy of codes; and (e) collapsing the codes into themes (Creswell, 2008). Examples of codes the researcher used, based on a thorough review of the data, included: (a) obstacles, (b) economic issues, (c) environmental issues, (c) community needs, (d) political issues, (e) factors that influenced the creation of the Program; and (e) driving forces that impacted the design of the Program. These codes were collapsed into seven themes related to the development and evolution of the Rhodes State College Dental Hygiene Program: (1) obstacles that had to be overcome for the Program to be developed; (2) economic forces and factors that influenced the creation of the Program; (3) environmental forces and factors that influenced the development of the Program; (4) community forces and factors that influenced the development of the Program; (5) political forces and factors that influenced the creation of the Program; (6) government agencies instrumental in the creation of the Program; and (7) the role of public policy and regional boards in the establishment of the Program.

The results of data analysis were “trustworthy, authentic, confirmable, and auditable” (Love, 2003, p. 93). After assembling and analyzing the sources, the researcher synthesized the data. Synthesis is the last step in the historiographical process where sources are explained and connected into a story about the past. This is the point at which the researcher tied all of the loose ends together and determined relevance of all information gathered. Data reduction was a major component of the data analysis. By this stage in the study, the researcher had gathered an extensive amount of primary and
secondary sources of data of which not all were relevant to the research question. Only when the historian presented the true meaning of all her data and outlined the interconnections and interrelationships of her data did historical writing commence. The historian of this study: (1) determined which data to use in presentation of results; (2) horizontally and vertically organized the research; and (3) presented a comprehensive study that addressed the research question and fills a gap in the literature (Brickman, 1982).

**Summary**

Chapter Three outlined the research plan for this historical study. Historical methodology guided this study, and John R. Thelin’s horizontal history model was used as the theoretical framework. A synopsis of data collection included a discussion of triangulation and the inclusion of oral histories as a data collection method. A list of seven historical leaders was presented along with a brief description of each leader. The leaders who agreed to participate in the study served as the study’s initial population. The procedures for coding and analysis were explained in this chapter. Chapter Four will highlight the findings of the analysis and detail the results of the study.
Chapter Four

Findings

Introduction

As indicated in Chapter Two, one of the opportunities for this research was to tell a story of dental hygiene education at a technical college in Lima, Ohio. Historical methodology guided this research. John Thelin’s theoretical framework of horizontal histories was used to inform this study. The actual purpose of this study was to describe and document the historical foundation of the Rhodes State College Dental Hygiene Program. The fundamental research question that this study addressed was: How was the Rhodes State College Dental Hygiene Program created and how has it evolved from its inception to 2012?

Primary and secondary sources of data, including oral histories of seven historical leaders of the Program, were used to answer the research question and draft this historiography. The seven participants who were interviewed were paramount to this study as they provided key information void in written sources; substantiated information presented in the written evidence; and demonstrated realistic, first-hand perspectives of the historical foundation of the Rhodes State College Dental Hygiene Program. Appendix B displays pictures and brief biographies of the seven historical leaders.

The historical perspectives of the seven leaders are intertwined throughout this historiography. Figure 4-1 presents a timeline that captures the stories of the historical participants and traces the history of the Program.
The History of Dental Hygiene Education in Lima

By the end of 1960, dental hygienists who were qualified to practice dental hygiene in Ohio moved to Cincinnati, Cleveland, and Columbus to join a thriving dental practice which left the rest of Ohio in desperate need of hygienists. To resolve this dilemma, the 1970 House of Delegates of the Ohio Dental Association (ODA) approved the formation of a Task Force on Auxiliary Manpower. The House of Delegate’s resolution establishing the Task Force is presented in Figure 4-2.
Figure 4-2: ODA Resolution establishing the Task Force (September 1970).

The Task Force was directed to report its findings back to the ODA House of Delegates in September 1971. The Task Force was composed of 18 ODA member dentists, 15 outside consultants, and 6 specialty dentists representing orthodontics, periodontics, endodontics, oral surgeons, pedodontists, and anesthesiologists. The primary purpose of this Task Force was to coordinate and direct the ODA’s activities in the area of education of dental auxiliary personnel, expanded duties of auxiliary personnel, and dental code revision. A subcommittee of the Task Force was formed to specifically study the dental hygiene workforce issue and determine a solution to the dental hygiene shortage problem. Dr. Kenneth Clemens, an influential dentist from Lima, served on this Task Force and chaired the dental hygiene subcommittee (K. Clemens, personal communication, April 2003).

Dr. Clemens held several Task Force meetings over the course of a year including a two-day workshop. The majority of the meetings were held at the ODA office in
Columbus. The Task Force developed a report which provided definitive proof of the
dental hygiene manpower shortage in certain areas in Ohio. Using the 1970 population
per hygienist figures and the 1971 dental hygiene licensure registration data, there were
1151 dental hygienists registered in Ohio and 15 counties with no hygienists. Appendix D
presents a map outlining the number of dentists and hygienists in each Ohio county. The
population per dentist in Ohio was 2215:1; the population per hygienist was 9250:1. The
15 counties with no hygienists were: (1) Henry, (2) Paulding, (3) Hardin, (4) Mercer, (5)
(12) Meigs, (13) Gallia, (14) Pike, and (15) Morgan. These 15 counties represented
378,000 people with 94 dentists which calculated out to 4100 people per dentist with no
hygienist. The three counties with the most favorable population/dentist and
population/hygienist ratio in the state were the counties where dental hygiene schools
were graduating dental hygiene students: (1) Warren, (2) Cuyahoga, and (3) Franklin.
The Task Force concluded that this data illustrated the need for more dental hygienists in
the less densely populated areas. “The Task Force believes that the solution to the
problem would be to train the dental hygienists in the geographical areas of greatest
need” (Task Force Report, 1970, p. 6). The nine county area around Lima was one of the
five regions in Ohio without a training program and with a low hygienist/population ratio.
The nine counties identified in this region were: (1) Paulding, (2) Putnam, (3) Van Wert,
(4) Allen, (5) Hardin, (6) Mercer, (7) Auglaize, (8) Shelby, and (9) Logan. There were
104 dentists and 23 hygienists in the Lima and surrounding area to service 368,000
people (see Appendix D). The population to dentist ratio was 3500:1; the population to
hygienist ratio was 16,000:1. This was in contrast to the region surrounding Columbus
which had 1,201,000 people; a population to dentist ratio of 1800:1; a population to dental hygienist ratio of 4100:1; and a dental hygiene program at the Ohio State University in Columbus (Task Force Report, 1970). Appendix E depicts the geographic areas of need according to the 1970 Carnegie Commission Report.

The dental hygiene manpower shortage in the Lima area was discussed by several of the historical leaders. According to Dr. Clemens, when he moved to Lima in 1956 to practice dentistry, there were very few dental hygienists available to work. “We needed more hygienists. We needed a steady stream” (K. Clemens, personal communication, July 7, 2011). Dr. Buchanan indicated that need was one of the primary economic factors that contributed to the creation of the Program. “There was no supply. No supply means higher demand on wages and higher demand on how they’re treated in the office. There was very little desire to be a team player back then” (R. Buchanan, personal communication, July 14, 2011). Marge Hilty also identified need as the primary economic factor for the Program. However, she took a different slant with her response. “The dentists wanted someone else to do the hygiene because a lot of them didn’t like to do hygiene. They wanted to get to the fillings and the crowns and needed someone else to do the hygiene” (M. Hilty, personal communication, July 14, 2011). Dr. Heckler indicated that there was no steady supply of dental hygienists in the area, and the demand for hygienists was great. In Dr. Heckler’s opinion, the College responded to that need by developing the Lima Technical College Dental Hygiene Program. “The school they decided, from what I gathered, to start a program so they could have a ready workforce that they could develop and develop locally (T. Heckler, personal communication, July 19, 2011).” Julianne McCain (personal communication, July 7, 2011) summarized the
need issue by saying, “I think they really wanted dental hygienists in that community because, at the time, everyone went to Ohio State and they really never went back to their communities.” Mrs. McCain continued by saying, “So when they were forming these smaller dental hygiene programs, they hoped that the students would stay in the area. I think that was the driving force in creating the Lima Program” (J. McCain, personal communication, July 7, 2011).

Based on these comments and the facts presented by the Task Force, Dr. Clemens requested that a program be developed in Lima on the OSU-Lima campus which had broken ground on July 6, 1965. Board of Regents Chancellor, Dr. John D. Millet, reiterated Dr. Clemens request at a November 1966 Board of Regents meeting when he suggested the possibility of establishing a technical education program on the campus (Reed, 1986).

However, in order for the Lima Campus to be approved for a new building to house the dental hygiene program and to receive state funding for the building, the program needed to be a Lima Technical College program. Dr. Clemens was willing to support this idea only if the dental hygiene students who graduated from Lima Technical College’s dental hygiene program would be guaranteed “seamless transfer to the Ohio State University” (K. Clemens, personal communication, April 2003). All members of the Task Force on Auxiliary Manpower agreed and recommended that a Dental Hygiene Advisory Committee be formed to study the need for, and the feasibility of, a Dental Hygiene Program in the Lima Area Community.

Acting in accordance with the findings of Task Force, the Allen County Technical College Board of Trustees passed a resolution during their ninth meeting in Lima on
March 7, 1972, to create a Dental Hygiene Advisory Committee. The resolution read: BE IT RESOLVED by the Allen County Technical College Board of Trustees that a Dental Hygiene Advisory Committee be formed to study the need for, and the feasibility of, a Dental Hygiene Program in the Lima Area Community (*Program Proposal*, 1973).

After the Board of Trustees passed the resolution to establish a Dental Hygiene Advisory Committee (Committee), members were solicited, and the Committee was formed. The members of the Committee consisted of: Dr. Kenneth Clemens, Chair; Dr. Gary Fowler, Lima dentist; Dr. Howard Koch, Lima dentist; Dr. Richard Buchanan, Lima dentist; Dr. David Goodman, Lima dentist; Mrs. Marge Hilty, Lima dental hygienist; and Mrs. Judy Crawford, Lima dental hygienist. Consultants to the Committee were: Dr. James Mercer, Chairman ODA Council on Education and Dr. Nancy Reynolds, Director of Dental Hygiene at the Ohio State University (*Plans for Dental Hygiene*, 1972).

Formal letters of invitation to the Committee were issued on April 2, 1973, by Mr. Sam Bassitt, Secretary-to-the-Board and Associate Director for Technical Education at Lima Technical College (Bassitt, S., 1973, Bassitt to K. Clemens, G. Fowler, H. Koch, R. Buchanan, D. Goodman, M. Hilty, & J. Crawford, April 2, 1973). Mr. Bassitt was hired by the College in June 1970. According to Mr. Bassitt, he was hired “to assist in establishment of programs here at the campus” (S. Bassitt, personal communication, July 12, 2011). As the Associate Director, Mr. Bassitt was directly responsible for the day-to-day operations of Lima Technical College. He prepared all of the reports and budgets, recruited faculty and students, scheduled classes, coordinated faculty efforts, supervised the administrative staff, and solicited influential community volunteers to serve as members of advisory committees.
The Committee began meeting prior to receiving the formal invitations in order to expedite the process of developing Lima Technical College’s Dental Hygiene Program. They held their first meeting on June 15th, 1972. In attendance were Dr. Clemens, Dr. Fowler, Dr. Buchanan, Dr. Goodman, Mrs. Hilty, and Mrs. Crawford. Guests at the meeting were Dr. Jim Biddle, President/Director of Lima Technical College; and Mr. Sam Bassitt, Associate Director for Technical Education at Lima Technical College.

According to the meeting minutes of June 15, 1972, the Committee discussed the needs assessment and feasibility study that they were charged with completing. “The committee reviewed the instruments to be used to collect the data. Specific recommendations and items were noted” (Dental Hygiene Advisory Committee Meeting Minutes, June 1972). Mr. Bassitt agreed to produce the needs assessment; Dr. Clemens and Dr. Buchanan volunteered to mail the assessment to the appropriate addresses.

The meeting continued with a discussion on curriculum. Dr. Biddle distributed sample curricula to the Committee for the purpose of understanding the direction and education of a dental hygiene program. Comments were made and comparisons drawn to other dental hygiene programs currently offered in Ohio.

The final order of business centered on student admission and selection. The Committee noted that Lima Technical College was an open admission institution. It recommended that review and counseling be provided for students not meeting recommended levels for entrance (Dental Hygiene Advisory Committee Meeting Minutes, June 1972).

Dental hygiene education needs assessment. Per the directive of the Allen County Technical College Board of Trustees’ resolution, and the charge of the Dental
Hygiene Advisory Committee, the Committee proceeded to develop and conduct an assessment of Ohio’s dental hygienists and dentists and the localization of the needs of these professionals as they pertained to the ten-county service area of Lima Technical College (Program Proposal, 1973). The 1970 Carnegie Commission Report had already determined that dental hygienists were needed in every area of Ohio except for Cleveland, Columbus, and Cincinnati. The state average for dental hygienists was one hygienist for every 9250 people. A more favorable ratio on a local basis would be one hygienist for every 7000 people. Franklin County had one dental hygienist for every 3500 people which made it the best served area by dental hygienists in Ohio. Putnam County had one hygienist for every 31,000 people; Van Wert County had one hygienist for every 29,000 people; and there were 15 counties with no hygienists (Carnegie Commission on Higher Education, 1970). The 1:3500 hygienist to population ratio of Franklin County was due, in part, to the dental hygiene program currently in existence at the Ohio State University in Columbus. The Committee hoped to replicate that ratio in Lima.

During the summer of 1972 the needs assessment was developed by the Committee and facilitated by the Northwestern Ohio Dental Society, the local dental society of Lima. Dr. Heckler acknowledged the Dental Society as an influential entity in the establishment of the Program. “Well, we had a very, very close-knit dental society back then. Everybody was in favor of the Program. It was just a no-brainer” (T. Heckler, personal communication, July 19, 2011). Mrs. Hilty reiterated Dr. Heckler’s comments by identifying the Northwestern Dental Society as one of the central figures essential to the Program’s development (M. Hilty, personal communication, July 14, 2011). This was validated by the Dental Society’s willingness to promote the 1972 needs assessment.
Questions on the needs assessment included: (1) Do you presently employ a dental hygienist? (2) Have you ever employed a dental hygienist? (3) If your answer to either of the above questions was “no”, have you made a serious attempt at hiring a hygienist? (4) Do you feel that you could provide dental services to more patients by employing a dental hygienist? (5) Would you employ a full-time hygienist? (6) Would you employ a part-time hygienist? (7) Would you be interested in teaching (Program Proposal, 1973). Appendix F presents the 1972 needs assessment.

One hundred and thirty eight assessments were mailed to dentists in the counties of Allen, Auglaize, Hancock, Hardin, Logan, Mercer, Paulding, Putnam, Shelby, and Van Wert were surveyed. There were 136 assessments returned which represented an outstanding 99% return rate. Ten responses were from retired dentists and 126 were from dentists currently practicing. Of the 126 practicing dentists, only 31 employed a dental hygienist. Of the 95 who did not employ a dental hygienist, 12 had seriously tried to secure one, but all 95 agreed that employing a dental hygienist would have enabled them to provide dental services to more patients. About half of the dentists in practice indicated that they would have hired a hygienist if one had been available. However, some dentists expressed reluctance to initiate dental hygiene services in their practices until a constant supply of hygienists willing to come to, or remain in, the area was established (Program Proposal, 1973).

The results of the needs assessment indicated that in 1972 there were 33 licensed dental hygienists in the ten-county area registered with the Ohio State Dental Board, the licensing agency for the State of Ohio. Of those 33 hygienists, 30 were currently employed. Practicing dentists were in need of approximately 68 dental hygienists a year
which correlated to an annual shortage of 35 hygienists in the Lima and surrounding area. If future efforts were successful in attracting more dentists to the area, the need for dental hygienists would escalate. The results of the assessment validated the need to increase the number of practicing dental hygienists in the ten-county area (Program Proposal, 1973). The location of Lima Technical College in the midst of this service area made it extremely advantageous to institute a dental hygiene program. With dentists willing to recruit, teach, and hire dental hygiene graduates from Lima Technical College, it was paramount to begin program development.

**Dental Hygiene Education at Lima Technical College**

During the October 25, 1972, meeting of the Dental Hygiene Advisory Committee, Dr. Biddle reported that Lima Technical College had received preliminary dental hygiene staff approval by the Ohio Board of Regents. The next step was to submit to the Ohio Board of Regents the needs assessment report followed by the final request for program approval (Dental Hygiene Advisory Committee Meeting Minutes, October 1972).

Dr. Clemens shared with the Committee the outcome of his meeting in Columbus with administrators of the Ohio State University Dental Hygiene Program where he discussed the results of the needs assessment. According to Dr. Clemens “The meeting was productive and a substantial relationship between the program at the Ohio State University and the proposed program was fostered” (Dental Hygiene Advisory Committee Meeting Minutes, October 1972).

The Committee deliberated on future program development strategies and obstacles that needed to be overcome for the dental hygiene program to be developed and
to succeed (Dental Hygiene Advisory Committee Meeting Minutes, October 1972). Mrs. Hilty felt that a key obstacle that needed to be overcome in order for the dental hygiene program in Lima to be created and thrive involved educating the public. The public really did not have any idea what a dental hygienist was or the services a hygienist could perform. According to Mrs. Hilty, “You had to educate the public on what they could do, what was legal to do” (M. Hilty, personal communication, July 14, 2011). A couple of the other historical leaders commented on this issue. Mr. Bassitt’s primary impetus was the need to educate the dental community. “I suppose in some sense some of the big drivers and helpers were the dental community, and yet I think they too were obstacles, because some of them were old hands at dentistry and didn’t feel anyone else should be doing what they were doing” (S. Bassitt, personal communication, July 12, 2011). Mrs. Staley stated that, “Dental hygiene was still quite young as a profession in 1976 or ’74 when this was first a vision. But the public was becoming more aware of preventive dental care” (L. Staley, personal communication, July 19, 2011). She reiterated the importance of helping the public understand what a dental hygienist was and the preventive services a dental hygienist could provide.

The Committee strategized on the best way to educate the public and the dental community on the role of a dental hygienist. Word-of-mouth communication from the Committee, the Northwestern Ohio Dental Society members, and supportive dentists and hygienists in the surrounding area was one strategy the Committee felt would work. Educating all stakeholders on what a dental hygienist was and the services a dental hygienist could provide was paramount for the Committee since the needs assessment report revealed that hygienists were in demand.
Curriculum was a major topic of the October Advisory Committee meeting. Emphasis was made on the need to maintain close alignment with the Ohio State University curriculum for ease of transferability of Lima Technical College dental hygiene graduates to the baccalaureate program of the Ohio State University. Transfer of credit was discussed at length during the Committee meeting.

Following the discussion of transferability, Mrs. Hilty brought the topic of accreditation into the conversation. It was realized that Lima Technical College, as well as the dental hygiene program, would both have to be accredited. At the time, Lima Technical College had Correspondent Status in the North Central Association of Colleges and Secondary Schools. Dr. Biddle anticipated full accreditation status in the next few years.

The next item on the agenda was the building and facilities. The number of students, the manner of scheduling and possible clinical utilization all needed to be factored into the facility needs and design.

Additional agenda items included faculty, professional dental supervision, and operational costs. Dr. Biddle stated that each of these items needed to be included in the final program proposal submitted to the Ohio Board of Regents for approval. Similar information would need to be sent to the Ohio State Department of Education. The Committee briefly discussed each of these items and then adjourned (Dental Hygiene Advisory Committee Meeting Minutes, October 1972).

Program facilities. The clinical facilities to support the program were to be built from scratch and, therefore, were appropriate for inclusion in the Phase IV construction/expansion program of the Ohio State University Lima Campus. The Ohio
General Assembly had allocated approximately $4,000,000 for the construction of a building on the Lima campus to house the library, gymnasium, and a variety of technical programs including dental hygiene (Reed, 1986).

Class size for the dental hygiene program was limited to 30 per year. The curriculum had to provide a maximum of 300 hours of classroom instruction and a maximum of 810 hours of lab/clinic instruction. Following the October 1972 meeting, the Committee worked diligently to complete the final program proposal based on the requirements set forth by the Ohio Board of Regents. Per the results of the needs assessment and Committee discussions, it was determined that the clinical facilities to support the dental hygiene program would consist of one dental hygiene clinic, two radiography (x-ray) treatment areas, one reception and dispensary area, and one classroom. The proposed facilities would consist of approximately 4150 square feet and cost $84,740 (Program Proposal, 1973). Appendix G diagrammatical depicts the layout of the proposed facilities.

The dental hygiene clinic accommodated 15 dental hygiene students, 15 dental hygiene patients, and 2 supervisors. The clinic was utilized for demonstrations, hands-on practice on student partners and mannequins, and actual dental hygiene treatment of community patients. It was important that the dental hygiene clinic be located adjacent to the radiography treatment areas, reception room, and dental hygiene locker room for smooth and uncomplicated traffic flow by students and patients (Plans for Dental Hygiene, 1972).

Adjacent to the dental hygiene clinic was the radiography area which consisted of two x-ray exposure rooms and one x-ray processing room (darkroom). One patient, one
student, and one instructor could function in each of the x-ray exposure rooms. The darkroom allowed for up to three students and one instructor. Intraoral radiograph exposures and panoramic exposures were permitted (Plans for Dental Hygiene, 1972).

In close proximity to the radiography area and dental hygiene clinic were the reception room and dispensary area. One dispensary cubicle opened into the unrestricted reception area. The primary activities that occurred in these areas were reception of scheduled and prospective clinic patients; maintenance of patient files; handling of phone calls; and dispensing of materials, tools, and supplies for the dental hygiene treatment of patients (Plans for Dental Hygiene, 1972).

Connected to the dental hygiene clinic was the classroom. Maximum occupancy for the classroom was 20 students and two instructors. All dental hygiene classes and laboratories were scheduled in the dental hygiene classroom (Plans for Dental Hygiene, 1972).

Dr. Clemens was instrumental in the design of the facilities. He spearheaded the plans to install the plumbing for the dental hygiene units under the floor. “We came up with a scheme of using what was called a computer floor. That is where there are big sections of flooring lying on a steel grid which can be lifted up by suction cups whenever you need access to pipes and so forth underneath the floor” (K. Clemens, personal communication, July 7, 2011). Nothing was buried in concrete as with other dental hygiene programs. Another innovative idea generated by Dr. Clemens was to work the system to purchase dental hygiene equipment.

According to Dr. Clemens, “Ohio had a law that said you had to buy Ohio. So the only dental manufacturing company in Ohio that made dental equipment was the world’s
worst” (K. Clemens, personal communication, July 7, 2011). Dr. Clemens did some investigating and learned that the United States Public Health Service, in collaboration with an Oregon-based top-of-the-line dental manufacturing company, was conducting a research project in Kentucky on designing dental equipment. Dr. Clemens made a trip to Louisville, Kentucky to preview the newly designed equipment. David Greer accompanied Dr. Clemens on the trip. According to Dr. Clemens, “David Greer was a staff person at the college. And he was assigned with me to help me. We designed the clinic” (K. Clemens, personal communication, July 7, 2011). Before returning to Lima, Dr. Clemens and David Greer obtained specifications from the A-dec dental manufacturing company for the equipment. “We then had the architect put those specifications from A-dec for the equipment into the construction plans so that no other equipment could fit the specs. So we got good equipment and didn’t have to buy the stuff we didn’t want to buy” (K. Clemens, personal communication, July 7, 2011).

During the February 5, 1973, Dental Hygiene Advisory Committee meeting, Dr. Biddle and Dr. Fowler distributed copies of the second draft of the dental hygiene building and facilities. Items such as adequacy of compressed air supply, provision for mannequins, patient traffic flow, and patient and operatory chair selections were discussed. Addition to the plans included cavitrons and sink stalls. Members of the Committee were asked to “criticize the draft requirements in detail and forward comments to Mr. Greer to guide his revisions” (Dental Hygiene Advisory Committee Meeting Minutes, February 1973). At this stage of planning, the Committee approved the draft of the proposed facility.
Curriculum. During the October 25, 1972, Dental Hygiene Advisory Committee meeting emphasis was placed on aligning the Lima Technical College dental hygiene program curriculum with the Ohio State University curriculum “to preserve the potential for graduates to continue without loss of credit or elongation of program to the baccalaureate program of the Ohio State University” (Dental Hygiene Advisory Committee Meeting Minutes, October 1972). The Lima Technical College dental hygiene program curriculum was designed to meet this objective. According to Dr. Clemens, “We gathered up curriculum from other dental hygiene programs; we checked on what the state laws required and what the accrediting agencies required. We made this grid and put it together in an outline” (K. Clemens, personal communication, July 7, 2011). It took about one year to design the original curriculum during which time Dr. Clemens’ entire dining room table was covered with “stuff about curriculum.”

In the dental hygiene classroom at Lima Technical College, dental hygiene students completed the majority of courses required for an Associate of Applied Science degree. The dental hygiene program consisted of a 104 quarter credit hour curriculum normally requiring two years to complete as a full-time student. The curriculum was also designed to accommodate part-time students who completed the program in more than two years. Graduates of the program were eligible to sit for the dental hygiene certification examination administered by the state dental examining board (Program Proposal, 1973).

The proposed curriculum offered basic science courses in the first year along with introductory dental hygiene science courses. These courses consisted of English; chemistry; biology; Anatomy and Physiology I and II; Dental Anatomy; Oral Histology
and Embryology; Radiography; Dental Materials; Periodontology; and Prophylaxis I and II (Program Proposal, 1973). The second year was devoted primarily to specific dental hygiene topics and incorporated a significant amount of clinical experience. Courses such as General and Oral Pathology; Specialties; Pharmacology; Nutrition; Public Health; and Prophylaxis III, IV, and IV composed the majority of second year dental hygiene courses. General courses in communication and social sciences rounded out the two-year curriculum (Program Proposal, 1973).

Most of the basic sciences courses were offered through the Ohio State University on the Lima Campus. Close articulation with the four-year dental hygiene program of the Ohio State University had been built into the curriculum to encourage Lima Technical College dental hygiene graduates to pursue a baccalaureate degree if the need presented itself. The proposed curriculum was presented to the Dental Hygiene Advisory Committee by Dr. Clemens during the January 23, 1973, meeting. The Committee reviewed, discussed, and modified the curriculum to meet the needs of dental hygiene as outlined by the Committee. Dr. Clemens requested that he be presented with course descriptions and other necessary course material by January 24th. He also appointed a curriculum sub-committee to review the course information and provide recommendations prior to final approval (Dental Hygiene Advisory Committee Meeting Minutes, January 1973).

During the February 5, 1973, Dental Hygiene Advisory Committee meeting, no major changes were made to the course descriptions. Prerequisites were added to some of the courses, and the word ‘clinic’ was substituted for ‘laboratory’ when appropriate (Dental Hygiene Advisory Committee Meeting Minutes, February 1973).
Following the February 5th meeting, Dr. Biddle sent the proposed dental hygiene curriculum to Dr. Reynolds for her review and comment. On February 16th, Dr. Biddle received a letter from Dr. Reynolds suggesting a few curricular changes and indicating her support of the program. The suggested changes consisted of including: (1) one course in sociology, (2) more chemistry, (3) more clinical contact hours, and (4) expanded function in the dental materials course (Reynolds, N., 1973, Reynolds to J. Biddle, February 16, 1973). Appendix H presents the proposed first year curriculum.

**Program budget.** In addition to developing a comprehensive dental hygiene curriculum, a detailed budget was projected for the initiation and implementation of the dental hygiene program. Nearly all the facilities involved with the dental hygiene education program were built as part of a $4,000,000 “Phase IV” construction/expansion program of the Ohio State University Lima Campus (Program Proposal, 1973). This construction was already funded by the Ohio General Assembly and scheduled for occupancy by August, 1975. Unfortunately, “Phase IV” almost did not come to fruition. According to Mr. Bassitt, financial resources were set aside by the legislature for the construction of a new building and the dental hygiene facility. However, when the building project was ready to begin, the money was no longer there.

Economic resources had to be commanded. That was kind of interesting because we had some dollars set aside by the legislature. Yet in the process there was a smaller community up near Cleveland who decided they should have the dollars, not us. And somehow those dollars got shifted away from us. I can remember scrambling (S. Bassitt, personal communication, July 12, 2011).
Dr. Clemens indicated that the money was allocated by the state for constructing a new building on campus to house the library, nursing program, and dental hygiene program. The money was appropriated by the state, but we didn’t use it in the biennium it was appropriated in. Later, I was at a social event and met with a state senator from Springfield. I asked him if there was any chance that we could lose that money. He said, “No, that’s never happened.” However, in the next budget, our money wasn’t there. A legislator from Lake County got the money switched over to Lake County Community College (K. Clemens, personal communication, July 7, 2011).

Dr. Clemens took immediate, unprecedented action to get the money back. He met with the local state senator, Walter White; he testified at the Senate Finance Committee; he solicited the help of a local television personality, Easter Straker, to “campaign for our library and the building;” he testified at the Senate Education Committee; and eventually “we prevailed and got the money back” (K. Clemens, personal communication, July 7, 2011). Within a few months, Phase IV of the building project began and the $84,740 allocated for the design of the dental hygiene facility was maintained (Program Proposal, 1973).

The Phase IV building was named Cook Hall after Charles H. Cook. “A long-time supporter of the campus, he served as a member of the OSU Lima Citizens Advisory Council from 1959 to 1974, and was instrumental in locating the campus at its present site” (Reed, 1986, p. 112). Cook Hall not only housed the dental hygiene facility; it was also the home of the library, gymnasium, Industrial Engineering, Respiratory Care, Radiology Technology, EMT-P-Paramedic, and Nursing. Figure 4-3 is a picture of
Charles Cook at the time construction of Cook Hall commenced. Figure 4-4 depicts Cook Hall in 2011.

*Figure 4-3*: Picture of Charles Cook, the man Cook Hall was named after.

*Figure 4-4*: Picture of Cook Hall in 2011.

The parts of the Cook Hall Phase IV construction/expansion project that affected dental hygiene were a 15-chair dental hygiene clinic with reception and service area; a radiography facility, including a darkroom and exposure rooms; biological science laboratories; faculty and administrative offices; a learning–resources center; and student lounges (*Program Proposal, 1973*).

By the program’s second year, an additional full-time dentist-director was required along with two dental hygienists as full-time faculty, one part-time dentist, one full-time hygienist Spring Quarter, and one part-time hygienist Winter Quarter. The total number of faculty required for the dental hygiene program was six: three full-time and three part-time (*Program Proposal, 1973*).

Based on the need for six dental hygiene faculty and an ultimate enrollment headcount of 65, the dental hygiene program projected cost was $140,000. Financial
support from state subsidies totaled $52,641, and student fees totaled $33,866 which amounted to $95,607. This was $44,393 short of the estimated $140,000 (Program Proposal, 1973). Fortunately, the estimates were prepared two years in advance and did not reflect future subsidies and student fee rates. The estimates also did not take into account that the program would be sharing certain overhead and personnel services with the Ohio State University. Finally, the estimates did not account for an enrollment increase on the campus which could inversely affect the cost per student.

**Faculty.** The last two components of the proposal dealt with faculty and the program director. According to the initial proposal, the Program would need to hire one full-time dentist-director and two dental hygienists by the start of the second year. In addition, there would need to be a part-time dentist and a hygienist to teach in clinic (Program Proposal, 1973)

**Program director.** The Program Director would oversee the entire faculty, full and part-time, as well as manage the day-to-day operations of the program. Additional responsibilities included classroom teaching and supervision of the clinical activity of the students (Program Proposal, 1973).

**Final steps.** After the program director, faculty, budget, curriculum, and facilities proposals were developed, the Committee met on February 5, 1973, to review the documents. No major changes were made to the curriculum or the course descriptions. The second draft of the dental hygiene portion of the new building was disseminated and discussed. Members of the Committee were encouraged to criticize the draft requirements to ensure that all needs and requirements were included. Prior to the February 5th meeting, Dr. Reynolds and Dr. Mercer were asked to provide input in the areas of
curriculum development, accreditation, and articulation with four-year programs 
(Proposal Proposal, 1973). Their recommendations were considered and implemented, as
needed. As a result, Drs. Reynolds and Mercer submitted letters of support for the dental
hygiene program at Lima Technical College (Mercer, J., & Reynolds, N., 1973, Mercer
and Reynolds to J. Biddle, February 2, 1973).

During the February 5th meeting, Dr. Biddle briefly outlined the steps involved in
securing final approval from the Ohio Board of Regents. He informed the Committee that
the various components of the proposal were being assembled for presentation to the
Board of Regents in March or April, 1973 (Dental Hygiene Advisory Committee Meeting
Minutes, February 1973).

At the May 1973 meeting, the Board of Regents accepted the proposal, and Lima
Technical College’s dental hygiene education program became a reality. Figure 4-5 is the
resolution that was approved by the Ohio Board of Regents granting permission for the
development of the Dental Hygiene Program on the Lima campus.

A motion was made by Mr. Steinbrenner, seconded by Mr. Belcher, to
adopt the following resolution:

BE IT RESOLVED: by the Ohio Board of Regents that the new degree programs Associate of
Applied Science in Dental Hygiene Technology,
Associate of Applied Science in Industrial Technology,
and Associate of Applied Business in Real Estate Technology,
submitted by Lima Technical College, are hereby approved.

Voting "aye" on the motion were members Barrett, Belcher, Briley, Doolittle,
Hill, Ludum, Steinbrenner, and Warner. The Chairman declared the resolution
unanimously adopted.

Figure 4-5: Resolution approved by the Ohio Board of Regents in 1973.
The members of the Board of Regents consisted of: (1) Chairman, John Briley, a lawyer and industrialist residing in Perrysburg; (2) Dr. Charles Barrett, a physician residing in Cincinnati; (3) Paul Belcher, a lawyer and bank executive residing in Akron; (4) Robert Doolittle, a lawyer residing in Gates Mills (Cuyahoga); (5) David Hill, a Manpower manager residing in Cleveland; (6) Mary Ellen Ludlum, a civic leader and former educator residing in Columbus; (7) Marvin Warner, a businessman residing in Cincinnati; and (8) George Steinbrenner III, a professional baseball team executive and shipbuilding company executive residing in Bay Village (Cuyahoga). Mr. Steinbrenner actually purchased the New York Yankee baseball team four months before he moved and approved the Associate of Applied Science in Dental Hygiene Technology at Lima Technical College. This was a big year for Mr. Steinbrenner.

The Ohio Board of Regents was identified as an instrumental government agency in the creation of the Program. According to Linda Staley, “without the Board of Regent’s approval we wouldn’t exist” (L. Staley, personal communication, July 19, 2011). Dr. Clemens reiterated that statement by simply saying, “They were on board” (K. Clemens, personal communication, July 7, 2011). Mr. Bassitt echoed Dr. Clemens and Mrs. Staley’s sentiments when he stated that “the Ohio Board of Regents was significant” (S. Bassitt, personal communication, July 12, 2011). He went on to make the following comments about the Board of Regents.

The Board of Regents was very instrumental in assisting and making sure that such things as the Board of Trustees was established appropriately. That good sound people were appointed into those positions. That criteria relative to program elements of, the general study, the general education of basic science,
support systems, the whole notion of the technology that needs to be taught in various fields. That whole curricular kind of things was very well supported by the Ohio Board of Regents (S. Bassitt, personal communication, July 12, 2011).

**After OBOR approval.** From May 1973 until September 1976 the Dental Hygiene Advisory Committee worked diligently to prepare Lima Technical College for accreditation approval and the initiation of its first class of dental hygiene students in September 1976.

**Program director.** The Dental Hygiene Advisory Committee met on September 8, 1973 to discuss, among other things, the Program Director. The primary question was whether this person should be a dentist or a dental hygienist. “Dr. Clemens noted that four other programs in Ohio have had hygienists as Program Coordinators and two others have dentists as Coordinators” (*Dental Hygiene Advisory Committee Meeting Minutes*, September 8, 1975). The educational requirements of the Program Coordinator were also discussed. Should this person have a master’s degree? It was decided that a dental hygienist would be able to effectively manage the program and assume all administrative program responsibilities. The educational requirements issue was tabled for the time being. The Committee noted the importance of getting the Program Coordinator hired and on-board as soon as possible because the Lima Technical College Board of Trustees wanted the program to start in the Fall of 1976. Everyone agreed that candidates for the Program Director must be reviewed at the next meeting scheduled for September 22nd (*Dental Hygiene Advisory Committee Meeting Minutes*, September 8, 1975).

During the September 22, 1975, meeting candidates for the position were reviewed. Two candidates had expressed an interest in the position: Miss Julianne Boston
and Mrs. Heaton. As Associate Director for Technical Education at the College, Mr. Bassitt served on the interview committee. Along with Mr. Bassitt, the pre-established interview committee consisted of Dr. Clemens and Miss Wittmeyer. Miss Boston and Mrs. Heaton were both interviewed (Dental Hygiene Advisory Committee Meeting Minutes, September 22, 1975).

Based on the interview committee’s recommendation, Miss Julianne Boston was hired as the first Director of the Dental Hygiene Program. Miss Boston interviewed for the position in September 1975 and was hired in October of the same year. Just prior to her interview, Miss Boston had graduated from the Ohio State University with her master’s degree in allied health and was living in Dayton, Ohio. Her only teaching experience was as a part-time dental hygiene instructor at Jonesboro Community College in Atlanta, Georgia.

At the October 20th meeting, Dr. Clemens announced that Miss Boston had been offered and accepted the position as Lima Technical College’s first Dental Hygiene Program Director. Her responsibilities consisted of: (1) preparing the budget; (2) maintaining a liaison with the program’s advisory committee, various community groups, and other institutions; (3) developing, evaluating, and revising course outlines and syllabi; (4) coordinating the general, biomedical, dental, and clinical sciences and practice courses; (5) recommending and selecting individuals for faculty appointment and promotion; (6) assigning, supervising, guiding, and evaluating dental hygiene faculty; (7) recruiting, counseling, and selecting students; (8) selecting extramural facilities and coordinating institutions in the extramural facilities; and (9) assuming instructional responsibilities as needed (Application for Accreditation Eligible Status, 1975). Miss
Boston coordinated the Program and the faculty from 1976 to 1979. She currently resides in Dayton, Ohio and retains her married name of Julianne McCain.

One of the faculty hired by Miss Boston was Linda Robinson. Miss Robinson was hired as a full-time faculty member and clinic coordinator on September 15, 1978. When Miss Boston retired as the Program Director in 1979, Miss Robinson applied for the position. On July 1, 1979, Miss Linda Robinson became the second Program Director. Miss Robinson, currently Mrs. Staley, was hired as the first Dean of Allied Health on July 1, 2003. During her tenure at the College, Mrs. Staley served 27 years as the Dental Hygiene Program Director and three years as the first Dean of Allied Health. Mrs. Staley retired from the College in 2006 and continues to reside in Lima.

When Mrs. Staley resigned as Program Director in 2005, Denise Bowers was hired as the third director of the Program. Mrs. Bowers began her tenure as Dental Hygiene Program Director on September 1, 2005. She continues to serve as the Dental Hygiene Program Director and is the author of this historiography.

Lima Technical College, now known as Rhodes State College, has had three program directors since the program’s inception: Julianne Boston-McCain, Linda Robinson-Staley, and Denise Bowers. Appendix B provides pictures and brief biographies of Linda Staley and Julianne Boston. Figure 4.5 presents Denise Bowers with her 2011-2012 full-time faculty.

**Faculty.** Following the hiring of the Program Director, discussion ensued pertaining to faculty. At the October 20, 1975, Dental Hygiene Advisory Committee meeting, the Committee determined that two full-time faculty, in addition to the Program Director, were needed for the first year of the program. This would provide for a 1:6
faculty:student ratio during each clinic session. Qualification requirements for full-time faculty were: (1) teaching experience, completed course work in education theory and practice, or evidence of continued education in theory and practice; and (2) recent clinical experience in the practice of dental hygiene. Ads for the position were placed in the Journal of Dental Education, ODONTIA, and Dental Hygiene. Recruitment letters were sent to all accredited dental hygiene programs in the United States and Canada and to dental hygienists and dentists licensed in Allen, Auglaize, Hancock, Hardin, Logan, Mercer, Paulding, Putnam, Shelby, and Van Wert counties (Dental Hygiene Advisory Committee Meeting Minutes, October 1975). At the November 7, 1977 Dental Hygiene Advisory Committee Meeting, Ms. Kathryn Alm and Ms. Charlene Blanchard were introduced as the new full-time dental hygiene faculty.

As the Program grew, student enrollment increased, accreditation standards tightened, and the number of full-time faculty required for the dental hygiene program changed from two to four. The current four full-time faculty are: Denise Bowers, Program Director; Jill Hay, Clinic Coordinator and Associate Professor; Cyndy Koons, Assistant Professor; and Richard Ramsey, Associate Professor (Accreditation Self Study, 2010). Figure 4-6 presents pictures of the four full-time faculty in 2011-2012.

Figure 4-6: Pictures of the 2011-2012 full-time dental hygiene faculty.
**Budget.** The dental hygiene budget for the Program’s planning phase, June 1975 to June 1976, was $354,601. The majority of this money was allocated for construction and equipment. The budget for the fiscal year during which the first class of dental hygiene students were enrolled, July 1976 to June 1977, was $58,965 (*Application for Accreditation Eligible Status, 1975*). Individuals responsible for preparing and reviewing the dental hygiene budget were the: (1) Health Technologies Chairman, (2) Vice President of the College, (3) Treasurer, (4) President, (5) Board of Trustees, and (6) Program Director (*Accreditation Self Study, 1976*).

During the February 21, 1977 Dental Hygiene Advisory Committee meeting, Miss Wittmeyer reported that the dental hygiene budget for the 1977-78 academic year would be $90,000. In 33 years, the dental hygiene budget has increased $388,172. The budget for the 2011-2012 academic year was $478,172 (*Budget Year 2011-2012, 2011*).

The entire budget process has changed dramatically over the years. According to the 1988 Accreditation Self Study, the Program Director developed a proposed dental hygiene budget and presented it to the Vice President of Instruction. Once all of the divisional budget proposals were presented, the Vice President for Instruction and the Vice President for Business reviewed the requests. The Vice President for Business developed a preliminary budget proposal and presented it to the College President. Once a balanced budget was finalized, it was presented to the Board of Trustees for approval and the programs were notified of their budget allocations. The Program Director was extensively involved in the preparation, review, and revision of the dental hygiene program budget as well as fiscal administration of the budget throughout the academic year (*Accreditation Self Study, 1988*). This budgetary process remained the same for the
next several years with the Program Director having extensive involvement with the preparation, review, and revision of the dental hygiene budget. The Vice President for Instruction and the Vice President for Business/Treasurer continued to provide excellent financial support to the dental hygiene program (Accreditation Self Study, 1996).

After 2003, the budget process became more prescriptive and time-intensive. The budget planning process started in January with the Controller/Assistant Treasurer distributing the budget planning documents to the College’s cost centers/budget managers and concluded in at the end of May with the distribution of the Board of Trustee approved department budgets to the budget managers, including the Dental Hygiene Program Director. Several individuals were involved with the budget process. They included the: (1) Program Director, (2) Dean of Allied Health, (3) Vice President for Academic Affairs, (4) Vice President of Business/Treasurer, (5) Controller/Assistant Treasurer, (6) Executive Director of Institutional Effectiveness, (7) Director of Information Systems, (8) College President, and (9) Board of Trustees (Accreditation Self Study, 2010). Appendix I traces the Program’s budget from its inception in 1975 to the 2011-2012 academic year.

**Curriculum.** The individual responsible for designing and implementing the curriculum was Julianne Boston. During her interview, Mrs. McCain elaborated on the process.

At the time to me it seemed like hit and miss, but we passed our first accreditation, so I guess I did okay! I started with an outline; it was a good outline. I then visited the Toledo program and the Dayton program. The directors there were so welcoming, and they gave me pretty detailed outlines of the courses
that they included in their programs. Then I wrote up most of the objectives for each course until my faculty came on board. It was quite an undertaking. Then everything had to be approved through accreditation (J. McCain, personal communication, July 7, 2011).

Linda Staley concurred with Mrs. McCain on the importance of complying with accreditation standards. Her response to how the curriculum was developed was “according to CODA.” CODA stands for the American Dental Association Commission on Dental Accreditation. Mrs. Staley went on to say that “there was no other way to develop a curriculum. The only way you can develop a dental program is to go by CODA” (L. Staley, personal communication, July 19, 2011). In addition to satisfying CODA standards, Linda indicated that Julianne Boston also had to work hand-in-hand with the Ohio State University.

Because Lima Tech at that time did not offer near the general education courses that it offers now, there was a joint effort with the Ohio State University at Lima to offer a lot of the general education courses, so in developing the curriculum she really needed the cooperation and the collaboration with OSU-Lima, which involved Dr. James Biddle (L. Staley, personal communication, July 19, 2011). Figure 4-7 portrays Julianne Boston hard at work designing the dental hygiene curriculum.

Figure 4-7: Picture of Julianne Boston designing the dental hygiene curriculum.
The dental hygiene curriculum evolved so that eventually the general education courses became part of Lima Technical College course offerings. According to Mrs. Staley, “as time went on and the colleges evolved and Lima Technical College grew and other programs needed the basic and general education courses, we moved a lot of those courses over here” (L. Staley, personal communication, July 19, 2011).

Another entity in conjunction with OSU and CODA that impacted the dental hygiene curriculum was the Ohio Board of Regents. According to Mr. Bassitt, the Board of Regents set the standards for associate’s degree program.

It can be about 100 quarter credit hours long with one-fourth of it in general studies, one-fourth in basic studies, which mostly is the sciences, and then a half of it in what you would refer to as the technical studies. Within the technical studies you had to have certain components. Now within that framework then this local advisory committee, the director and the community said this is what we want in it. So we had this framework, then of course we have the accrediting bodies and we of course want to be accredited. Therefore you got to have that standard and that guideline and figure out how it all fits together. So those things all structurally brought forth the curriculum (S. Bassitt, personal communication, July 12, 2011).

During the January 19, 1976, Dental Hygiene Advisory Committee meeting, Julianne Boston presented changes she had made in the proposed curriculum of May 1973. Miss Boston’s curricular recommendations were based on the comments made by CODA after reviewing the Program’s application for accreditation eligible status submitted by the Program in November 1975. The changes involved moving courses to
different quarters, increasing the number of hours of certain courses, changing the name of some of the courses, and adding sociology to the curriculum. Miss Boston stressed the importance of adding sociology because it was an accreditation requirement. Mr. Bassitt expressed concerns with changing the curriculum as funding was currently approved for the curriculum as presented in May 1973. Following extensive discussion of the proposed curricular changes, the Committee agreed to make all necessary changes to ensure compliance with accreditation standards (Dental Hygiene Advisory Committee Meeting Minutes, January 1976). The curriculum approved by the Ohio Board of Regents in May 1973 contained 109 total credit hours of which 50 were transferable (Application for Accreditation Eligible Status, 1975).

Prior to granting the Program accreditation eligible status, CODA made an evaluation visit to the Lima Technical College campus on March 30, 1976. Following the visit, CODA sent a preliminary draft report to the Program Director for review, comments, and faculty corrections. The report included a recommendation that a dental hygiene educational consultant be retained to assist Miss Boston in the review and re-evaluation of the dental hygiene curriculum (Dental Hygiene Advisory Committee Meeting Minutes, June 1976). The Program was granted accreditation eligible status.

On June 30, 1976, a consultant from the American Dental Hygienists’ Association (ADHA) visited the Lima Technical College Dental Hygiene Program, per the request of the Program Director, to review the curriculum and meet with the Program Director. After reviewing the curriculum, the consultant recommended that 21 changes be made to the existing curriculum (Consultation Visit Report, 1976). Miss Boston moved forward with addressing the recommendations from both the ADHA consultant and CODA.
During the October 18th Dental Hygiene Advisory Committee meeting, Miss Boston presented a summary of the ADHA consultant’s recommendations along with immediate changes she made to the 1976-1977 curriculum and proposed changes to the 1977-1978 curriculum to address some of the recommendations and to put the Program in compliance with accreditation standards. The curricular changes for implementation in 1976-78 consisted of moving Microbiology and Nutrition to the first quarter, increasing lecture and laboratory hours in Dental Hygiene Techniques, moving Dental Practice Administration to the fifth quarter and reducing the lecture hours, moving Psychology to the sixth quarter, and moving English Composition to the fourth quarter. Appendix J documents the original draft of the 1976 dental hygiene curriculum.

Recommended changes for the 1977-78 curriculum included: (1) eliminating General Biology, (2) placing Sociology before Community Dental Health, (3) placing Psychology before Dental Health Education, (4) reviewing the objectives and laboratory exercises in Dental Anatomy, (5) reviewing the objectives and content of General and Oral Pathology and moving this course before Periodontics, (6) implementing preclinical technique instruction during the first quarter, (7) decreasing the hours assigned to Dental Practice Administration, and (8) extending laboratory experiences to a greater variety of off-campus community groups (Dental Hygiene Advisory Committee Meeting Minutes, October 1976). Appendix K presents the revised 1978 curriculum.

Based on Miss Boston’s recommended changes, the final draft of curriculum for the 1976-77 consisted of 109 hours and the 1977-78 academic years consisted of 110 hours. The curricular changes involved the addition and realignment of courses along with a modification in hours and instructional delivery of specific courses (Accreditation
Self Study, 1976). The Program’s curriculum remained at 110 hours until the Fall of 2006 at which time a request to increase the hours to 112 hours was granted by the Ohio Board of Regents (Taggart, M., 2006, Taggart to L. Lesher, August 3, 2006).

The request to add two additional hours to the dental hygiene curriculum was made by Denise Bowers, Dental Hygiene Program Director, due to a legislative change in the dental hygiene scope. On May 12, 2006, as a result of the passage of House Bill 143, dental hygienists in the State of Ohio were permitted to administer local anesthesia. To assist in the passage of House Bill 143, several individuals provided proponent testimony. In Mrs. Bowers’ testimony before the House Health Committee in May 2003, she stated that “Administration of local anesthesia by a licensed dental hygienist would provide more efficient treatment as well as more comfortable care for the patient.” Dr. Janelle Schierling, Director of Dental Hygiene at Raymond Walters College, made the following statement during her November 2004 testimony to the House Health Committee. “I believe that the passage of this bill would be beneficial to Ohio dental consumers and that national dental hygiene educational requirements support this assertion.” Dr. Michael Wine, a practicing dentist in Grove City, provided the following testimony before the Ohio Health Committee in November 2004.

Since dental hygienists are already highly trained in many of the disciplines necessary to ensure the safe administration of local anesthetics, it would be very feasible to enhance the abilities and education of both current hygiene students and registered dental hygienists to enable them to be licensed to give local anesthesia.
As cut and dry as this issued seemed, the passage of House Bill 143 did not happen without a fight from the Ohio Dental Association (ODA). The ODA adamantly opposed any scope of practice change for dental hygienists unless the ODA received something in return. The ODA initiated a plan to amend the legislation to allow unlicensed auxiliaries to perform the dental procedure of placing sealants. If the Ohio Dental Hygienists’ Association (ODHA) would support dental assistants placing sealants, the ODA would support hygienists administering local anesthesia. Keith Kerns, Director of Legal and Legislative Services for the ODA, presented the following testimony in June 2005 before the Ohio House Health Committee with regard to administration of local anesthesia by licensed dental hygienists.

However, allowing anyone other than a licensed dentist to administer local anesthesia in a dental setting as this bill permits is not a decision to be taken under light consideration. The ODA and our council on dental care programs and dental practice spent a great deal of time and effort studying this question. Consistent with our study, we believe that use of local anesthesia by a licensed dental hygienist may only be upon the order of a dentist, after the supervising dentist has evaluated the patient and the patient's needs and only while the dentist is directly supervising the hygienist. We appreciate the sponsor's willingness to address these concerns.

Keith continued his testimony with following statement pertaining to unlicensed dental assistants placing sealants.

As I previously mentioned, the ODA has always been the leader in making recommendations for the safe delegation of duties to qualified personnel. With
that in mind, the ODA respectfully requests that the committee consider another concept aimed at increasing the efficiency of the dental office by allowing for properly trained certified dental assistants to apply dental sealants.

The ODHA strongly opposed the delegation of duties to any unlicensed, minimally trained personnel. Allowing dental assistants to place sealants compromised the safety of patients and jeopardized quality of care. Several dental hygienists testified to this issue before the Ohio House Health Committee as well as the Ohio Senate Health, Human services, and Aging Committee. In the end, House Bill 143 passed with the delegation of sealant placement to dental assistants and administration of local anesthesia to dental hygienists.

The Ohio Revised Code 4715.231 outlined the educational and training requirements for administration of local anesthesia by dental hygienists. In order to satisfy statutory requirements for the education and training of dental hygiene students in administration of local anesthesia, the curriculum needed to be revised and two additional hours needed to be added (Casto, B., 2006, Casto to M. Taggart, June 16, 2006). The Ohio Board of Regents approved the request in August 2006 (Taggart, M., 2006, Taggart to L. Lesher, August 3, 2006). The Ohio State Dental Board approved the revised curriculum in November 2006 (Ohio State Dental Board Meeting Minutes, November 2006). The revised curriculum incorporating the education and training of local anesthesia was implemented in September 2007 by the addition of the Pain Control Management course spring quarter the first year (see Appendix L). The curriculum outlined in the 2010 Accreditation Self Study reflected this curricular change along with several other changes to the curriculum which had to be made in order to implement
administration of local anesthesia and maintain 112 credit hours of instruction 

(*Accreditation Self Study*, 2010).

Another scope of practice change for dental hygienists which affected the curriculum went into effect in December 2010. The Ohio State Dental Board advocated for dental hygienists to administer nitrous oxide-oxygen minimal sedation. The Ohio Administrative Code 4715-9-01.2 outlined the education, training, and examination requirements for delegation of this duty to dental hygienists (*Ohio State Dental Board Dental Practice Act*, 2011). The Program implemented the rule requirements in March 2011 by embedding the four hours of didactic instruction and two hours of clinical experience into an existing course. Fortunately, this change did not warrant additional hours being added to the 112 hour curriculum.

As the scope of practice for dental hygienists continues to change, the dental hygiene curriculum at Rhodes State College will continue to reflect those changes. However, the Program will soon experience a major change in the curriculum unrelated to the dental hygiene scope of practice. In fall of 2012 Rhodes State College will transition from quarters to semesters. All programs on campus, including the dental hygiene program, are currently revising and soliciting approval of their curricula as the College welcomes an entirely new culture. Appendix M provides the semester curriculum for the Program.

**Facilities.** Once the Ohio Board of Regents gave the go-ahead for the Program to be established, construction of the facility began. Figure 4-8 presents the Dental Hygiene Clinic under construction during fall of 1976.
Since the Program approval by the Ohio Board of Regents in May 1973, several changes have occurred in the dental hygiene facilities. When CODA made an evaluation visit on March 30, 1976, they recommended that an additional conventional x-ray room unit be installed and a room divider be inserted between the dental hygiene laboratory and classroom. These changes were approved by the Dental Hygiene Advisory Committee during the June 7, 1976, meeting. Miss Boston implemented these changes in the next academic year (Dental Hygiene Advisory Committee Meeting Minutes, June 1976).

When CODA conducted their first official site visit of the Program on February 2-3, 1987, they recommended that the x-ray exposure rooms be evaluated as soon as possible by appropriate state authorities to ensure compliance with radiation-protection barriers. CODA also recommended that serious consideration be given to creating an area within the dental hygiene facility exclusively for mounting and evaluating radiographs. Finally, CODA recommended that an enclosed locker room be provided for dental hygiene students (Preliminary Draft Commission on Accreditation Report, 1978). The Dental Hygiene Program Director submitted a response to the report on April 24, 1978. In this report, Miss Boston corrected factual data and responded to CODA’s suggestions and recommendations (Boston, J., 1978, Boston to N. Nielson, April 24, 1978).
Boston summarized the response to the Dental Hygiene Advisory Committee during the April 24th meeting (Dental Hygiene Advisory Committee Meeting Minutes, April 1978). A progress report was presented to the Commission on March 9, 1979 demonstrating evidence of addressing the recommendations and being in compliance of accreditation standards (Progress Report, 1979).

During the October 18, 1976 Dental Hygiene Advisory Committee meeting, Miss Wittmeyer announced that Lima Technical College had received a Title III grant from the Ohio Board of Regents for equipment for new programs. Dental hygiene received $18,000 from this grant (Dental Hygiene Advisory Committee Meeting Minutes, October 1976). Equipment purchased with this money included: (1) video equipment, (2) cavitrons, and (3) the Hu-Friedy Instrument Management System. Prior to the November 1988 accreditation site visit, the radiography and sterilization areas were remodeled and updated. Additional equipment was purchased to enhance the learning experiences of the dental hygiene students (Accreditation Self Study, 1988).

From 1987-1993, the Program received $300,000 ($50,000 annually) as the 1987 recipient of an Ohio Board of Regents Academic Challenge grant. During this time, all dental chairs, operator stools, treatment units, and oral radiography equipment were replaced. The IMS Infection Control System was implemented requiring the purchase of large ultrasonic cleaners. Ultrasonic scalers were installed at each treatment area. These changes occurred in stages. In 1992, the clinic’s treatment areas were remodeled and clinic furniture replaced. New dental chairs, microcarts, wash stations, and console units were installed. In 1994, two ultrasonic cleaning units and an automatic processor were purchased (Accreditation Self Study, 1996).
Long-range plans for replacing and adding equipment are revised and submitted in the Program’s annual action plan. Additional college funding is requested by the Program Administrator when equipment need is demonstrated. This process has resulted in continual enhancement of the dental hygiene facilities (Accreditation Self Study, 2003).

In 1998 a replacement institutional-sized steam sterilizer was installed. In 2002 eight ultrasonic units were replaced. Between 1999 and 2002 all dental lamps were replaced. In spring 2003 a new x-ray unit was purchased and installed (Accreditation Self Study, 2003).

In June 2006 new radiography patient chairs were purchased and installed. The laboratory, classroom, and patient education room were remolded during the 2008-2009 academic year. During the 2008 and 2009 academic years, new equipment purchases consisted of: (1) three cordless curing lights, (2) one intraoral camera, (3) one digital imaging system, (4) two computers and monitors, and (5) one color printer (Accreditation Self Study, 2010).

In 2011 the full-time dental hygiene faculty initiated discussion on remodeling the clinic. There is evidence suggesting that the regional dental practice community is adopting chair-side computer access for electronic health records and digital radiography data entry and review. These technological advancements have improved the quality of care and the efficacy of operations within the dental practice setting. Implementing these advancements into the Dental Hygiene Program must be considered so that dental hygiene students are job-ready upon graduation.

All of the changes in dental hygiene facilities and program equipment have been discussed and/or implemented to enhance student learning and to ensure an easier
transition from dental hygiene education to private practice. Appendix N diagrammatically presents the current dental hygiene facility now known as the Dr. Kenneth and Jean Clemens Dental Hygiene Clinic. Figure 4-9 presents the Dental Hygiene Clinic in 2010 with dental hygiene students being instructed in preclinic by Mrs. Koons.

Figure 4-9: Picture of the Dr. Kenneth and Jean Clemens Dental Hygiene Clinic in 2010.

Students. The first class of dental hygiene students began their education at Lima Technical College in September 1976 and graduated in June 1978. Appendix O depicts the first graduating class of Lima Technical College’s Dental Hygiene Program. Based on the 1972 needs assessment, it was initially determined that the Class of 1978 would consist of 30 students in order to meet the hygiene-deficient issue of the dentists in the surrounding counties (Application for Accreditation Eligible Status, 1975). Admission criteria and standards were discussed by the Dental Hygiene Advisory Committee during their September 25, 1975, meeting. The criteria for admission approved by the Committee consisted of: (1) graduation from an accredited high school or evidence of high school equivalency (GED); (2) ACT score of 19; (3) a score of four or above on the Dental Hygiene Aptitude Test; (4) rank in the upper one-half of the high school class; (5) completion of high school algebra, geometry, biology, and chemistry; (6) evidence of
good physical and dental health; (7) a personal interview by the Program Director; and (8) three references (Dental Hygiene Advisory Committee Meeting Minutes, September 1975).

After a lot of discussion and additional research, the Committee decided to reduce the number of students entering the program in September 1976 from 30 to 25. With the Program being new, it was recommended not to overwhelm the faculty and Program Director in the first year of operation. There was also a concern that there may not be enough patients to provide clinical experience for 30 students (Dental Hygiene Advisory Committee Meeting Minutes, June 1976).

In response to a recommendation given by CODA during the February 2-3, 1978 site visit, the dental hygiene faculty developed an interview questionnaire with definite criteria for evaluation of an applicant’s personal qualifications (Interview Questionnaire for Student Selection, April 1978). This interview questionnaire was used during the selection process beginning with the Class of 1980.

By 1988 the maximum number of students accepted into the Dental Hygiene Program was 24. The admission criteria no longer included the Dental Hygiene Aptitude Test or the requirement for the student to be in the top half of his/her high school class. A GED was no longer accepted. However, observation of a dental hygienist in a clinical setting prior to matriculating into the program was now required. Due to the rolling admission process at Lima Technical College, the admission criteria were not weighted. Once an applicant met the minimum entrance requirements, he was accepted into the Program on a first-come basis (Accreditation Self Study, 1988).
As time went on, the observation hours increased to 20 and a grade of “C” was required for high school algebra, biology, and chemistry. Additionally, any student who had college coursework prior to matriculating into the Dental Hygiene Program had to have a 2.50 grade point average or higher (Accreditation Self Study, 1996).

Changes in the admissions criteria continued into November 2003. Two years of high school biology, chemistry, algebra, and geometry and one-half unit of computer science with a grade of “C” or better were required. Completion of Medical Terminology with a grade of “C” or better was required. Observation of a licensed dental hygienist in a clinical setting was decreased from 20 to 16 hours. Four of those hours could be earned by completing treatment as a patient in the Dental Hygiene Clinic. In addition, completion of two of three Hepatitis B inoculations and current certification in cardiopulmonary resuscitation were required prior to matriculating into the Program (Accreditation Self Study, 2003).

By the December 2010 accreditation site visit, the admission criteria consisted of: (1) an ACT composite score of 21 or higher with individual test scores of 20 or higher in math and science and 18 or higher in English and social science and (2) a minimum of 2.75 GPA for any previous college course work at the time of student selection and matriculation (Accreditation Self Study, 2010).

According to Dr. Heckler, the changes in admission requirements have resulted in a higher quality of student matriculating into and graduating from the Program. The quality of the students is better. They’re better educated than what they where when I taught at the College, from a periodontal treatment and disease standpoint and knowledge standpoint. I hear a lot of compliments from the girls that go
through the program that they know what they’re doing. So I think over time a more qualified student begins the Program and a better product graduates from the Program (T. Heckler, personal communication, July 19, 2011).

The admissions requirements remained the same through the 2011-2012 academic year. Minor modifications to the requirements are being discussed as the Program transitions to semesters. With the transition to semesters, the one thing that will not change is the number of students accepted into the Program. Twenty-four students will continue to be accepted into the Program. Appendix P outlines the enrollment numbers of first year dental hygiene students beginning with the proposal in 1975 through 2011.

**Accreditation.** The American Dental Association Commission on Dental Accreditation began operating in 1975. The Commission is the only nationally-recognized accrediting agency for dental and dental auxiliary education programs. The mission of the Commission is: “to serve the public by establishing, maintain and applying standards that ensure the quality and continuous improvement of dental and dental-related education and reflect the evolving practice of dentistry” (*Evaluation & Operational Policies & Procedures*, 2010, p. 3). The Dental Hygiene Program on the Lima Campus has been evaluated by the Commission six times since its inception in 1976.

In 1975 the Program submitted an application for accreditation eligible status and was granted accreditation eligible status in 1976 following the March 1976 evaluation site visit (*Dental Hygiene Advisory Committee Meeting Minutes*, June 1976). Following the February 2-3, 1977 site visit, the Program received conditional approval from the Commission (Dreuth, M.R., 1978, Schuhrke to J. Biddle, May 10, 1978).
According to Dr. Buchanan, accreditation was an obstacle that had to be overcome for the Program to exist and succeed. He credited Julienne Boston with leading the way through the accreditation process. “Well, I think that the business of getting everything lined up for accreditation and doing it the right way was a huge obstacle. Julie Boston was real good at it. She was a pro” (R. Buchanan, personal communication, July 14, 2011). Miss Boston prepared and submitted a progress report to the Commission in March 1979. After reviewing the progress report, the Commission granted the Lima Technical College Dental Hygiene Program full approval during the Commission’s May 1979 meeting (Dental Hygiene Advisory Committee Meeting Minutes, June 1979).

Following the November 1988 accreditation site visit, the Dental Hygiene Program received commendations for: (1) community resources, (2) administration, (3) admissions, and (4) faculty commitment to student. The Program received three recommendations: (1) to include a comprehensive topical outline for all dental hygiene courses, (2) for newly-appointed dental hygiene faculty to obtain advanced study in the subjects taught as well as background in educational theory and practice, and (3) to add current reference texts to the library in the specialty areas of endodontics and prosthodontics (Preliminary Draft Commission on Accreditation Report, 1989). Once the Program Director, Linda Robinson-Lesher, addressed the recommendations, the Program was granted the accreditation status of approval (Forsberg, J.A., 1989, Forsberg to J. Countryman, May 18, 1989).

The November 1996 accreditation site visit resulted in five commendations for administration, faculty, facilities, learning resources, and outcomes assessment. There were no recommendations (Preliminary Draft Commission on Accreditation Report,
The Program was once again granted the accreditation classification of approval at the Commission’s July 1997 meeting (Woldt, J. L., 1997, Woldt to J. Countryman, August 1, 1989).

The fifth accreditation site visit was conducted on November 12-13, 2003. The preliminary draft report of the Commission indicated one commendation for administration, faculty and staff, and one recommendation. The recommendation related to student evaluation methods which must be employed, written, and communicated to the students (Preliminary Draft Commission on Accreditation Report, 2004). Program Director, Linda Lesher, addressed the recommendation prior to the July meeting of the Commission. She sent her response on May 5, 2004 (Dental Hygiene Program Response, 2004). As a result, at the July 20th meeting, the Commission granted the program accreditation status of approval without reporting requirements (Tooks, S., 2004, Tooks to E. Keese, August 20, 2004).

The Commission conducted its sixth site visit of the Dental Hygiene Program on December 1-2, 2010. The Commission is no longer permitted to award written commendations. Under the leadership of Denise Bowers, the Program was granted “the accreditation status of approval without reporting requirements” (Formal Report of the Commission on Dental Accreditation, 2011).

Key events, changes, or turning points that contributed to the Program’s evolution. All of the historical leaders elaborated on key events, changes, or turning points that contributed to the evolution of the Program from its inception to its current state. Dr. Heckler felt that the faculty and program directors have evolved over the years. “Each one of them became better as the time went on. And the faculty were
better trained and better educated. A lot of them have master’s degrees and are more educators than practitioners” (T. Heckler, personal communication, July 19, 2011).

Accreditation standards had a lot to do with the education of full-time dental hygiene faculty and program directors. Standard 3-3 states that “the program administrator must be a dental hygienist who possesses a masters or higher degree or is currently enrolled in a masters or higher degree program or a dentist who has background in education and the professional experience necessary to understand and fulfill the program goals” (Accreditation Standards for Dental Hygiene Education Programs, 2007). Standard 3-7 of the Standards states “the dental hygiene program must be staffed by a core of well-qualified full-time faculty who possess a baccalaureate or higher degree.” The Rhodes State College Dental Hygiene Program consists of full-time faculty who possess a masters degree or higher and a program administrator who is completing her doctorate.

Mrs. Staley (personal communication, July 19, 2011) concurred with Dr. Heckler’s comments and added to them. She actually provided the most input on this issue due to her long tenure with the Program. She cited Julianne Boston’s retirement and her own career change as Program Director as key events. Along with making the career change from full-time faculty to program director upon Miss Boston’s retirement, Mrs. Staley also had the opportunity to serve as the College’s first Dean of Allied Health during her last three years on staff at Rhodes. During the April 1992 Higher Learning Commission Site Visit, the visiting team expressed concern with the lack of a Division Head for the Health Technologies Division. The team felt that, with the size and complexity of the Health Technologies Division, the creation of a Division Head position was needed to provide improved leadership to the division. Effective July 1, 2002,
Rhodes State College restructured the Health Technologies Division by implementing the Dean of Nursing and the Dean of Allied Health positions at which time Mrs. Staley was hired as the Division Dean of Allied Health. The position originally started as a part-time position whereby the Dean also continued to serve in the capacity of program director of his/her specific allied health division program. In 2005, the Dean of Allied Health became a full-time position which Linda filled until she retired in 2006.

In addition to Linda’s career change, she identified AIDS as having a huge impact on the dental hygiene curriculum.

AIDS had a huge impact on our curriculum and on the evolution of the program. Back in the early 80’s, things were all simple, and then came AIDS. And that really changed a number of things. Number one, our infection control went crazy. Microbiology and all of our courses had to change. It also impacted my budget, because of gloves and masks. We no longer used cold sterilization. Everything changed. It was huge. AIDS was huge. AIDS was a huge impact (L. Staley, personal communication, July 19, 2011).

The Program continues to implement rigid infection control procedures to ensure the safety of the students and the patients. Writing utensils and light handles are wrapped in tin foil; heavy utility gloves are worn to disinfect treatment areas; all instruments are sanitized in ultrasonic cleaners then sterilized in autoclaves; blood-soaked gauze is placed in bio-hazard bags and autoclaved; the list goes on and on. As new infection control mandates emerge, the Program will modify existing curriculum and/or procedures to comply.
Key individuals or organizations that have emerged. The majority of the interviewees discussed key individuals or organizations that have emerged subsequent to the original creation of the Program and have contributed to its development. The advisory committee was noted as one of the key organizations that has emerged over the years and contributes to the Program’s development. According to Dr. Heckler, current Chair of the Dental Hygiene Advisory Committee, “As the years have gone by I’ve made more and more contributions, especially in the last three or four years” (T. Heckler, personal communication, July 19, 2011). Dr. Clemens reiterated the importance of the advisory committee emerging as a key organization subsequent to the Program’s inception (K. Clemens, personal communication, July 7, 2011).

Mr. Bassitt concurred with both Dr. Clemens and Dr. Heckler’s reference to the advisory committee as a key organization that has emerged subsequent to the origination of the Program. “I can’t highlight how powerful and how important that advisory committee is” (S. Bassitt, personal communication, July 12, 2011). The advisory committee continues to play a key role in the Program. The members’ input is solicited when: (1) curricular changes are necessary, (2) new technology is being considered, (3) accreditation issues arise, (4) admission requirements need modified, and (5) expert advice is warranted.

In addition to the advisory committee, Mr. Bassitt listed dental hygiene graduates as key individuals who have emerged as a result of the Program. “I would think probably the whole cadre of graduates, if you will, as kind of a segment of the community here that represents a political force for the program which didn’t exist before the Program began” (S. Bassitt, personal communication, July 12, 2011). The graduates of the Program serve
as: (1) members of the local dental hygienists’ association and interact closely with current students; (2) members on the advisory committee; (3) mentors to second year students; and (4) adjunct faculty in the clinic. Graduates continue to emerge as contributing members of society and positive influences of the Program.

Mrs. McCain identified Denise Bowers, Linda Robinson-Staley, and Julie Ball-Vonderembse as key individuals that have emerged subsequent to the original creation of the Program and have contributed to its development. According to Mrs. McCain, Linda Robinson was instrumental in moving the Program forward. “When Linda came on board, it was a blessing. She was very knowledgeable as an educator, and she was very knowledgeable at the state level too. So it was a blessing that she came along” (J. McCain, personal communication, July 11, 2011).

Linda Staley also acknowledged Julie Ball-Vonderembse as a key individual of the Program.

I think employing Julie Vonder Embse was one of the best things I ever did. Julie was special. Julie was great, and she’d be the first to say she wasn’t real creative. She was very scientific and very black-and-white. But I think our clinic, your clinic, is the way it is today because of Julie. She had the ability s to just zero in on and analyze things. She was such a deep thinker. Julie was key to me (L. Staley, personal communication, July 19, 2011).

Julie continues to be employed as an adjunct clinic faculty member with the Program. Her experience and expertise in dental hygiene education is unprecedented. She is an exceptional role model for the students and a huge supporter of the Program. Figure 4-10
is a 1999 picture of Julie VonderEmbse during her last year as a full-time faculty member of the Program.

Figure 4-10: Picture of Julie VonderEmbse in 1999.

In addition to Julie, Linda recognized Dr. Bob Casto as a key individual. Bob Casto served as Vice President of Academic Affairs during part of Linda’s tenure as Program Director, and he was a huge supporter of hers. “He understood. He understood what these clinic sessions were. I didn’t have to explain to him the ratio and accreditation and why I needed dentists and why I needed faculty money and all this and that (L. Staley, personal communication, July 19, 2011).”

Finally, Mrs. Staley identified the Northwestern Ohio Dental Hygienists’ Association (NWODHA) as playing a key role in the evolution of the Program. The majority of NWODHA members are past graduates of the Program. Current dental hygiene faculty as well as students associate themselves with this local association. This trend continues today (L. Staley, personal communication, July 19, 2011).

Challenges that have emerged subsequent to the Program’s creation which have posed threats or created obstacles to its continuation. One of the last questions the historical leaders were asked to address was challenges that have emerged subsequent to the Program’s creation which have posed threats or created obstacles to its continuation. Dr. Heckler identified cost as one of the biggest challenges. “I think your
biggest obstacle going forward is going to be finding money to fund the program. Dental hygiene and dental programs are expensive to run and to keep funded, especially with the way technology changes” (T. Heckler, personal communication, July 19, 2011).

Mrs. Staley concurred with Dr. Heckler’s comment and elaborated on the technology issue. Mrs. Staley recognized that keeping up with technology was a huge challenge for the Program.

The age of technology has been a threat because I recall always having state funding and always being able to buy the equipment that I wanted and then all of a sudden we had to buy all of these computers on campus. I never got the funding for new equipment after the age of technology because all these business students and IT students needed new computers … every year (L. Staley, personal communication, July 19, 2011)!

Mrs. Staley’s comments were reiterated numerous times by graduates of the Program beginning with the Class of 2003 where a graduate recommended “introducing students to dental software such as SoftDent for Windows” as an area in which the Program could improve upon (Class of 2003 Graduate Survey, May 2004). In 2006, a student suggested that the Program “update equipment in clinic” as a recommended change for improvement (Class of 2006 Graduate Survey, May 2007). Thirteen of the twenty-one students who completed the Class of 2009 Graduate Survey indicated that they worked in a technologically advanced dental practice consisting of digital radiographs, digital charging, and intraoral cameras. A similar response was presented by the Class of 2010 with 12 of the 19 students advocating for enhanced technology to be implemented and taught in the Program (Class of 2010 Graduate Survey, May 2011).
The technological revolution has resulted in the Program implementing digital radiography and the intraoral camera into the clinic setting. The cost of both totaled approximately $10,000 which was financially supported by the College. However, this just scraped the surface in terms of what needs to be implemented based on current best practices. Several dental offices are completely paperless and digital. Computers are used for recording patient histories, charting dental examinations, posting progress notes, scheduling appointments, and transmitting x-rays. All x-rays are exposed and processed digitally which makes it easy to transmit them electronically. The Program is investigating the paperless concept which would require a complete overhaul of the clinic totaling an estimated $180,000. Thus far, College administration is on-board with the idea, but final decisions are far from being made. Friedman and Mandelbaum (2011) state that “the workforce is undergoing a fundamental restructuring that every educator, parent, and worker needs to understand” (p. 72). Dental hygiene students who graduate competent in the latest technology are “more productive, globally more attractive and most likely better paid” (Friedman & Mandelbaum, 2011, p. 76).

A second challenge identified by Dr. Heckler is the economy. “It may be a long time before there are local jobs for the people that go through the program. They may be forced to move away from the area or travel farther to find work. And the program may have to look at more outside-the-area students or outside-the-state students to fill classes” (T. Heckler, personal communication, July 19, 2011).

Dr. Clemens agreed with Dr. Heckler’s statement and identified the oversaturation of dental hygienists in the workforce as a challenge that has emerged subsequent to the Program’s creation which could potentially jeopardize the existence of the program. In
his opinion, when graduates cannot find jobs on a consistent basis, students will not apply to the Program and it will cease to exist.

If the people graduate and don’t get employed, then you’ve harmed them for one. And two, the word will be out that says “don’t go take hygiene because there are no jobs. Then you won’t have the people applying and the quality of the applicants will go down. Ultimately, the Program will suffer, and you’ll have to shut it down. Then in a few years we’ll be back where we were before … with no program, no hygienists and the dentists all upset (K. Clemens, personal communication, July 7, 2011).

This is definitely a problem the Program is facing. On the Class of 2007 Graduate Survey, one of the graduates stated “I think upcoming graduates should be better prepared for the current job shortage” (Class of 2007 Graduate Survey, May 2008).

Graduates are finding it very difficult to secure dental hygiene jobs within the ten-county area. They are being forced to seek employment outside of the area and even the state. Some are returning to school to pursue higher education degrees in hope of enhancing job opportunities. Some have even left the dental hygiene field for another career which may prove more viable in terms of employment.

Mr. Bassitt comments relate somewhat to the pursuit of higher education degrees but with a different slant. He felt that one of the most significant challenges is to dental hygienists who want to continue their education.

I think the notion of being able to continue your education after becoming a practitioner. Where do you go from there? And not so much that you have to go somewhere else, but that the percentage of that population needs opportunity to
go in different directions. And I think the whole notion of suggesting that there needs to be a respect for the solidity, the solidness of the Program so that it will be accepted at other institutions for other purposes, whether or not it’s in the same field, whether it’s in dental hygiene or in a lateral direction of something; whether it’s in research or if it’s in some sort of a business venture or if it’s in consulting, or whatever the venture may be. There needs to be a soundness of that program and recognition by the baccalaureate institutions they will accept it and create opportunities for the folks to do other things (S. Bassitt, personal communication, July 12, 2011).

Some of the dental hygiene graduates of the Program are interested in continuing their education and pursuing a baccalaureate degree. The Ohio State University has an articulation agreement with the Rhodes State College Dental Hygiene Program for students who wish to enroll in the OSU bachelor’s degree completion program. The majority of this program is available on-line and can be completed while the student works in private practice. OSU will also be starting a master’s degree in dental hygiene program in fall 2013. This will be an entirely on-line, educator-track program and the first of its kind in Ohio.

Summary

Chapter Four traced the history of dental hygiene education through two phases: (1) the history of dental hygiene education in Lima and (2) the history of dental hygiene education at Lima Technical College. Primary and second sources of data, including oral histories of seven historical leaders of the Program, were used to answer the research question and draft this historiography. The interviews conducted for this research study
were rich with data and provided first-hand perspectives of the historical foundation of the Program. All of the participants’ perspectives were validated with written evidence.

What began as a vision eventually became a reality due to the hard work and dedication of these influential community leaders. Those leaders, under the direction of Dr. Kenneth Clemens, realized that the Lima Community was experiencing a shortage of dental hygienists and made it their goal to resolve the dilemma. In September 1976 Lima Technical College welcomed its first class of dental hygiene students to the Lima Campus. The dental hygiene program at James A. Rhodes State College (a.k.a. Lima Technical College) continues to evolve to meet the ever-changing needs of its students, accreditation standards, federal and state mandates, and the community.
Chapter Five

Discussion, Recommendations, and Conclusions

Introduction

The purpose of this research was to describe and document the historical foundation of the Rhodes State College Dental Hygiene Program (Program). Historical methodology guided this study. According to W. H. McDowell (2002), “it is the discipline of history which provides us with the opportunity to understand and appreciate the past, to distinguish myth from reality, and to see which elements of the past had an influence on future events” (p. 3). Historians use all of the information available to them to tell a story and explain how or why various events occurred as they did. The researcher of this study embarked on a historical journey of health care, as it related to oral health, and told the story of dental hygiene education in Ohio, specifically at Rhodes State College in Lima.

Data collection for this historical study was approached through triangulation. By using the triangulation process, the researcher was able to: (1) ascertain the reliability and authenticity of the primary and secondary sources of data, (2) develop a comprehensive perspective of the history of the Program, and (3) identify interrelationships between the information obtained through oral histories and the review of the written documents.

One of the data collection methods used was oral histories conducted with seven historical leaders of the Program. The study participants had varying levels of involvement in the development and implementation of the Program which became evident as they verbally responded to each of the 16 interview questions. Each oral history added key information void in written sources, substantiated information
presented in written evidence, and demonstrated a realistic perspective of the history of the Program (Cutler, 1971). The seven oral testimonies, in conjunction with the other primary and secondary sources of data, resulted in data that was rich with detail and addressed the research question: How was the Rhodes State College Dental Hygiene Program created and how has it evolved from its inception to 2012?

Chapter Four comprehensively outlined the findings of the data. Chapter Five will discuss the importance of these findings. It will elaborate on the theoretical and practical significance of the study. Recommendations for future research will be presented. The chapter will conclude with the historian’s recommendations for a successful dental hygiene program.

Discussion

The Rhodes State College Dental Hygiene Program began in 1970 with the development of the Ohio Dental Association’s Task Force on Auxiliary Manpower and became a reality in 1976 when the first class of dental hygiene students entered the Program. The journey of the Program’s development was not always smooth; several obstacles had to be overcome for the Program to be created: (1) understanding all that was involved with starting a dental hygiene program, (2) educating the public on what a dental hygienist was, (3) helping the community feel comfortable with the services a dental hygienist provides, (4) educating all stakeholders on the training necessary to become a dental hygienist, and (5) becoming an accredited program. Overcoming these obstacles took a lot of time and energy on the part of everyone involved. College administrators were unsure of what starting a dental hygiene program entailed. There were some dentists in the community who were skeptical about welcoming a new
auxiliary to the dental team. Dental patients wrestled with the idea of allowing someone other than a dentist to work in their mouth. The Dental Hygiene Advisory Committee and Program Director were unfamiliar and inexperienced with the accreditation process. In the end, all of the obstacles were conquered, and the Program began to flourish.

This historiography not only lays the foundation of the Rhodes State College Dental Hygiene Program, it also fills a gap in the literature with regard to program histories. Too few institutions of higher learning have institutional or program histories available in their libraries or archives. This is the case with the 23 community colleges in Ohio who collectively have nine of their institutions’ histories recorded and preserved. Of the 24 dental hygiene programs in Kentucky, Indiana, and Ohio, not one has their history recorded and archived. This historical study opens the door for other historians to trace the histories of higher education institutions and their programs.

Along with setting an example for other researchers, this study demonstrates a theoretical significance of Thelin’s theory of horizontal histories. John R. Thelin’s theoretical framework of horizontal histories was used to inform this study. Thelin’s (2004) horizontal history model “emphasizes the notion of organizational saga” and incorporates “the founding and influence of institutions and agencies across the higher-education landscape” (p. xx). This historical study integrated foundations, associations, accrediting bodies, state agencies, public policies and a regional board necessary to address the research question.

The Carnegie Commission was the first foundation to start the ball rolling by identifying Lima as a geographic area health education center. The Ohio Dental Association then jumped into action to provide the Ohio Board of Regents with
documented evidence of the need to increase the number of dental hygiene programs in various cities throughout Ohio of which Lima was one. Other associations that were integrated into the study included the North Central Association of Colleges and Secondary Schools and the American Dental Hygienists’ Association.

Once the Ohio Board of Regents granted permission for the Program to be established, the American Dental Association Commission on Dental Accreditation (CODA) became a key entity in the process as the accrediting body for dental hygiene programs across the nation. As Linda Staley, one of the historical leaders, stated in Chapter Four, “The only way you can develop a dental hygiene program is go by CODA” (L. Staley, personal communication, July 19, 2011).

Several state agencies engaged in the development and sustainment of the Program. These included the Ohio Board of Regents, the Lima Technical College Board of Trustees, the Lima Area Chamber of Commerce, and the Ohio State Dental Board.

In November 1966, after the OSU-Lima campus was established, Board of Regents Chancellor, Dr. Millet, recommended that a technical education program be developed on the campus. The Lima Area Chamber of Commerce conducted a survey in 1967 whose results indicated that the Lima Community wanted and needed a technical education institution in Lima.

Ohio legislators were essential in drafting policies and statutes enabling community colleges to offer technical courses and establishing technical colleges as institutions of higher learning. OSU-Lima solicited the support of Ohio congressmen to approve the funds necessary to build the facility that houses the Program. OSU-Lima also developed a plan for the technical institution. This plan included specifications for shared
facilities by Lima Technical Center and OSU inclusive of the library, laboratories, classroom, staff offices, storage rooms, admissions, and counseling services. This plan was submitted to the Ohio Board of Regents who then appropriated funds to OSU for the planning of Lima Technical Center which led the way for the establishment of the Dental Hygiene Program.

As the Program was being developed the Northeast Regional Board of Dental Examiners (NERB) was integrated into the process. Mrs. Staley described how the regional boards, especially NERB, played an important role in the Program. “The Northeast Regional Board (NERB) was a major part of this Program because the graduates were required to take and successfully complete NERB to earn an Ohio license. So it was critical for the Program to establish a NERB testing site at the College” (L. Staley, personal communication, July 19, 2011). Passing of a regional board examination remains a licensure requirement for dental hygienists across the United States. Integrating all of these entities into the historiography resulted in a comprehensive horizontal as well as chronological story of the Program thus validating the theoretical significance of Thelin’s theory of horizontal histories.

Not only does this historical study have theoretical significance, it also has practical significance. All of the data used in this study was presented for the first time; there were no comprehensive studies to draw from. In the absence of any organized archives at Rhodes State College or the other dental hygiene programs in Kentucky, Indiana, and Ohio, the researcher collected and compiled records and documents and provided original analyses and interpretations of these sources. Therefore, this study
represents a sole record of the creation and evolution of the Rhodes State College Dental Hygiene Program.

Another practical significance demonstrated by this historiography is the impact this Program has had on meeting the needs of the community. Before the Program began, there were 33 licensed dental hygienists in the ten-county area around Lima which correlated to an annual shortage of 35 hygienists. As of June 2010, the Program has graduated a total of 578 dental hygiene students who have saturated the Lima area and now apply for positions as oral health care professionals throughout Ohio, Indiana, Kentucky, Michigan, and beyond.

**Recommendations for Future Research**

This historiography provides opportunities for continued and future research. Possibilities for future research include exploring additional connections between the historical development of Rhodes State College’s Dental Hygiene Program and the economic, environmental, community, political, and educational events which occurred during and after the foundational period. As the historiography unfolded, various perspectives, trends, and attributes were revealed which have the potential for stand alone research. Seven historical leaders were interviewed whose individual biographies would enhance the Program’s history. A study of the creative leadership of these key people and how their contributions impacted the culture of the College would also add to the historical saga of the Program. Developing an instrument to gather data on the effect this historiography has on student applications to the Program, endowments, and job placement opportunities would validate the importance of all academic programs and institutions of higher learning archiving their histories. To this end, the researcher
strongly recommends that all colleges and universities develop an archive to house historiographies of their institution and academic programs.

**Recommendations for Success**

As I researched the history of the Rhodes State College Dental Hygiene Program, I learned several important lessons which I believe are paramount to the future success of this or any dental hygiene program.

Developing and maintaining relationships with key stakeholders is first on my list of strategies for success. One of the key stakeholders is the Dental Hygiene Advisory Committee. The Committee’s guidance and support led to the Program’s creation. Its continued involvement has led to the Program’s sustainment and growth. Engaging the Advisory Committee in program initiatives and soliciting its input on topics such as curriculum, technology, admissions requirements, accreditation, and faculty is critical to future accomplishments of a dental hygiene program.

Along with the Dental Hygiene Advisory Committee, preserving a relationship with OSU has been invaluable. Without the backing and assistance of OSU in 1967, a technical institute would not have been built on the Lima Campus. Developing and maintaining a relationship with the parent institution on any co-located campus is critical. Without the support of the parent institution, it is unlikely that a dental hygiene program (or any academic program) will be established on the campus.

Without OSU’s agreement that dental hygiene graduates from Lima Technical College would be guaranteed ease of transferability to OSU, the dental hygiene program on the Lima Campus would not have been established. As the Program transitions to semesters in 2012, OSU has committed to retaining the bachelor’s degree articulation
agreement with the Program. Developing and maintaining a relationship with a baccalaureate degree granting institution is important for the fulfillment of educational goals of dental hygiene graduates of two-year colleges.

Other relationships which are essential for the Program’s success include those with institutional leaders and policymakers. Both of these entities have provided support and direction to the Program since its creation. In order for the Program to thrive, this support must be maintained.

Any changes that occur within the Program must be approved by higher administration. This includes changes in curriculum, admissions requirements, technology, student enrollment, faculty, and finances. I have learned that the goals and direction of institutional leaders are not always the same as the Program’s goals and direction. This realization has resulted in my recommendation that dental hygiene program directors be forward-thinking, assertive and skilled in negotiation strategies. These attributes make it easier for Programs to: (1) secure necessary funding for technology, supplies, and additional resources; (2) advocate for the hiring of quality faculty who are paid a fair and reasonable salary; (3) defend current student enrollment; (4) uphold admissions requirements; and (5) promote curricular changes. A Program Director who is forward-thinking, assertive, and an effective negotiator has a much better chance of obtaining positive outcomes for the Program with regard to these changes.

A Program Director who is politically skilled in negotiation strategies is able to confidently interact with legislators, dental board members, association leaders, and community advocates. As with institutional leadership, the goals and objectives of policymakers and association leaders are not always conducive to best practices of the
dental hygiene profession. Oftentimes it is necessary for the Program Director to speak out against and collaborate with these individuals in order to protect and advance the profession of dental hygiene. When the profession advances and the dental hygiene scope of practice changes, the Program must proactively respond. This may mean modifying the curriculum, hiring more faculty, purchasing new technology, expanding student patient care experiences, increasing the budget, and complying with revised accreditation standards. The majority of these changes must, once again, be approved by higher administration thus requiring the effective negotiating skills of the Program Director.

For a Program to be successful, it is essential to remain in compliance with accreditation standards. Maintaining full accreditation status is not a simple task. However, in my opinion, when all of the full-time faculty participate in the accreditation process, maintaining full accreditation status is a much easier process. I have learned that some dental hygiene program directors take full responsibility for drafting the accreditation self-study document and ensuring that their Program remains accredited. I believe that this prevents the rest of the faculty from understanding what is involved with maintaining full accreditation status and embracing a sense of ownership of their Program. It is my recommendation that all full-time faculty take an active role in developing the self-study document and meeting with the accreditation site visitors. I have found that this collaboration also enhances the relationship between the dental hygiene faculty and the Program Director which ultimately unifies their goal of maintaining the future success of the Program.

A final recommendation that I have for the success of any dental hygiene program or higher education institution is that an archive be established and maintained on the
institution’s campus. Archives house information that have cultural, historical, and/or evidentiary value. Academic repositories for historical documents exist to show the function of an institution as well as to preserve and celebrate the history of the institution and the academic community. In my opinion, losing any historical data of an institution or academic program would be detrimental to the future of the institution.

**Conclusions**

The purpose of this research was to describe and document the historical foundation of the Rhodes State College Dental Hygiene Program. The aspiration of this historical study was not to embrace any particular perspective or impose a certain theoretical construct. The aim was to allow the development of the Rhodes State College Dental Hygiene Program to emerge through the eyes of those who lived the experience and to connect their perspectives to the written evidence which documented the Program’s inception and growth. The value of this history is in its ability to narrate a story that gives meaning and understanding to the dental hygiene program located on the Lima campus.

What makes this study unique is that it continues to evolve; the story never ends. For example, beginning in the fall of 2012, the College will transition to semesters, and the Program will respond to that change. The Program Director and faculty are currently working to make the necessary adjustments to the curriculum in a way that minimizes the impact to transitioning students yet results in a more dynamic and student-centered Program. As the curriculum is revised to move the Program successfully into semesters, it also is modified to meet the ever-changing requirements of accreditation standards, federal and state mandates, articulation agreements, and the needs of the community.
Potential accreditation standard mandates include: (1) adding practice management to the curriculum; (2) ensuring graduates are competent in interpersonal and communication skills to effectively interact with other members of the health care team, (3) ensuring that graduates are competent in the application of the principles of ethical reasoning, ethical decision making and professional responsibility as they pertain to the academic environment, research, patient care, and practice management; (4) including instruction on laws governing the practice of the dental hygiene profession and information on how to access licensure requirements, rules, regulations, and state practice acts; and (5) instituting teaching and learning methods that support the development of critical thinking and problem solving skills. If these standards are adopted, the Program’s curriculum will need to be revised to accommodate these mandates.

In order to satisfy the 73 semester hour maximum state mandate, several modifications to the curriculum were made: (1) all clinic and preclinic courses were consolidated from six quarters to four semesters; (2) six didactic courses in quarters were combined into four courses in semesters; (3) 33 courses were part of the quarter curriculum and 26 courses make up the semester curriculum; (4) math was eliminated from the semester curriculum and moved to a prerequisite for matriculation into the Program; (5) in the quarter system, there were 54 basic related and general education hours and 42 technical hours in the curriculum compared to 31 basic related and general education hours and 42 technical hours in the semester curriculum; and (6) two semester courses will be online compared to one course in the quarter system.

With all state higher education institutions transitioning to semesters, the ease of transferability will increase. Currently, the Program has an informal articulation...
agreement with the Ohio State University in Columbus. According to Patricia Gardner, Assistant Director for Academic Studies in the Division of Dental Hygiene at the Ohio State University, OSU will continue to transfer all of the dental hygiene credits as a block. They do have a few cases where they use general or special credit to meet requirements which happens frequently with transfer credits. In that case, OSU will continue to evaluate those courses on a one-by-one basis. There are no substantial changes in the OSU degree completion program under semesters so Patricia is confident that the transferability of courses will remain the same.

Meeting the needs of the community is a major component of the Dental Hygiene Program. Several Program goals, which are outlined in the Dental Hygiene Program Clinic Manual, reflect this initiative. The goals of the dental hygiene program at Rhodes State College are to prepare graduates to: (1) demonstrate entry-level competency necessary to provide educational, clinical, and consultative services to individual of all ages and from any population; (2) assess the overall health of all clients and develop individualized comprehensive dental hygiene care plans; (3) apply dental and dental hygiene science knowledge in the provision of safe and effective dental hygiene care within the scope of the Ohio Revised Code and established professional standards of dental hygiene practice; (4) be a participating member in the dental hygiene professional association; and (5) participate in community activities which promote the importance of oral and general health. The clinical curriculum is designed to prepare the dental hygiene students to be capable, desirous, and proud oral health professionals in the provision of optimal dental hygiene care.
All dental hygiene students are expected to be members of their professional association, the American Dental Hygienists’ Association (ADHA). As members of this association, the students have a voice in their profession; they assure their professional distinction; and they take an active role in securing and advancing the dental hygiene profession in Ohio and across the nation. A primary goal of the Student Chapters of ADHA is to develop leaders in the profession who graduate and become leaders in their respective communities. ADHA has shaped the lives and careers of countless dental hygienists as they strive to provide oral health care services to their patients.

Access to oral health care continues to be a major concern among American citizens. Changes in the dental hygiene scope of practice are in the horizon. In the future, dental hygienists may be able to work in pediatric medical offices providing oral health instruction and care to young children while they are being seen by their pediatricians. What about the possibility of working in OB-GYN offices and providing dental hygiene care and oral health care instruction to mothers, teenagers, and pregnant women? Emergency rooms could use the services of a dental hygienist for patients with trauma to their face and teeth. Dental hygienists would play a vital role in primary and secondary schools for students needing fluoride treatment, sealants, oral screenings, oral health instruction, and preventive care. For home-bound patients, the services of a dental hygienist would be paramount for helping these individuals maintain optimum oral health and combat oral disease.

Addressing the access to oral health care dilemma by expanding the dental hygiene scope of practice would also impact the job shortage problem facing dental
hygienists across the state. If dental hygienists had statutory authority to work in alternative practice settings, lack of employment would not be an issue.

If scope of practice changes occur that allow dental hygienists to practice in alternative settings, thus increasing employment opportunities for dental hygienists and providing access to care to millions of citizens currently not receiving care, the education of these clinicians must also change. According to Allan (2004), clinical prevention and population health would need to be integrated into the dental hygiene curriculum which consists of four components: (1) evidence-base of practice; (2) clinical preventive services-health promotion; (3) health systems and health policy; and (4) community aspects of practice. Evidence-base of practice would include instruction on epidemiology and biostatistics; methods for evaluating health research literature; outcome measurements, including quality and costs; health surveillance; and determinants of health. Clinical preventive services – health promotion would cover information on screenings, counseling, immunization, and chemoprevention. Health systems and health policy would involve education on organization of clinical and public health systems, health services financing, health workforce, and health policy processes. Community aspects of practice would contain instruction on communicating and sharing health information with the public, environmental health, occupational health, global health issues, cultural dimensions of practice, and community services.

In the context of an evolving futuristic healthcare system, dental hygienists are valued members of the healthcare workforce. Dental hygiene students are educated with the knowledge, skills, and professional responsibility to provide oral health promotion and health protection strategies for individuals as well as groups. Dental hygiene
graduates are competent to respect the diverse values, beliefs and cultures present in individual and groups or communities served. Competence is developed through the use of the dental hygiene process of care, which all students are taught and which is integrated across the dental hygiene curriculum. The process of care includes assessment, dental hygiene diagnosis, planning, implementation, and evaluation of all patients treated in the dental hygiene clinic. This process of care encompasses all significant actions taken by dental hygiene students and licensed dental hygienists, and forms the foundation of clinical decision-making. As scope of practice changes occur, the process of care is modified to accommodate these changes. Dental hygiene instruction is revised so that students have the knowledge, understanding, and skills necessary to provide comprehensive dental hygiene care to all patients in all settings.

Revised accreditation standards along with federal and state mandates are being discussed and drafted to allow for these types of scope of practice changes for licensed dental hygienists. All of this is being done so that the community is afforded the opportunity for oral health care. When these opportunities become reality, the Rhodes State College Dental Hygiene Program will proactively respond to the new environment with changes to the curriculum, facility, faculty, budget, and all other resources to ensure that the dental hygiene graduates are competent and confident to provide quality dental hygiene services wherever they are able to practice.

The story of the historical foundation of the Program has been told, but it is only the beginning. As the profession of dental hygiene unfolds, the Program will evolve to educate the new generation of licensed oral health care providers. The future of the
Program remains a mystery for another historian to uncover; the next chapter of this story looms in the horizon.
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Appendix A

List of Resources Used

I. Program Proposal (May, 1973)
   A. Curriculum
   B. Course Descriptions
   C. Administrative Relationships
   D. Needs Assessment
   E. Prospective Enrollment
   F. Facilities and Equipment Assessment
   G. Faculty Requirements
   H. Cost Analysis
   I. Role of Advisory Committee
   J. Campus Enrollment
   K. Student Service Programs

II. Application for Accreditation Eligible Status (November, 1975)
   A. Administration
   B. Admissions
      1. Criteria and procedures
      2. Policies
      3. Enrollment data
   C. Advisory Committee
   D. Curriculum
      1. Curriculum development and approval
      2. Policies
      3. Curriculum summary
      4. Course descriptions
      5. Class schedules
      6. Patient information
      7. Extramural clinical experiences
   E. Facilities
   F. Faculty
      1. Policies
      2. Salary schedules
      3. Program faculty
      4. Faculty schedules
      5. Salaried lecturers
      6. Non-salaried lecturers
   G. Financial Information/Budget
   H. Institution Information
   I. Instructional Equipment
   J. Library
   K. Program Initiation
III. Ohio Board of Regents Meeting Minutes (May, 1973) granting approval of program


VI. Ohio Dental Association Resolution Granting Approval of the Dental Hygiene Program (1970)

VII. Dental Hygiene Advisory Committee Meeting Minutes (1972 to present)

VIII. Summary of Technical Degree Proposal

IX. Curriculum Proposal (1973)

X. Plans for Dental Hygiene Document (1972-1978)
   1. Summary of desired facilities
   2. Survey of dentists accessing need
   3. Tentative criteria for admission

XI. Accreditation Reports and Self Study Documents (May, 1976: accreditation eligible to present)

XII. Course Outlines (February, 1976)

XIII. American Dental Hygienists’ Association Regional Consultants Program Consultation Visit Report (June, 1976)

XIV. Preliminary Draft Report of Commission on Dental Accreditation (February, 1978)


XVI. Letters from Commission to Dr. Biddle for Initial Accreditation of Program (March, 1978 and May, 1978)

XVII. College Catalogs (1970 to present)

XVIII. Pictures of graduates and faculty
Appendix B

Brief Biographies of Historical Leaders

<table>
<thead>
<tr>
<th>Name</th>
<th>Biography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Clemens</td>
<td>Graduated from the Ohio State University College of Dentistry in 1954. He moved to Lima to practice dentistry in 1956. In 1970 the Ohio Dental Association (ODA) asked Dr. Clemens to chair the Dental Hygiene subcommittee of the ODA’s Task Force on Auxiliary Manpower. In 1972, Dr. Clemens was appointed Chair of the first Dental Hygiene Advisory Committee. He continues to work and live in Lima.</td>
</tr>
<tr>
<td>Dr. Buchanan</td>
<td>Also served on the first Dental Hygiene Advisory Committee. He came to Lima in 1962 when he graduated from dental school. He was a general dentist who practiced and resided in Spencerville, Ohio at the time the Program was founded. Spencerville is a small city located outside of Lima. Dr. Buchanan still works and lives in Spencerville.</td>
</tr>
<tr>
<td>Mrs. Marge Hilty</td>
<td>Charter member of the Dental Hygiene Advisory Committee. Resided and practiced in Columbus Grove, Ohio with her dentist husband, Mark Hilty. Columbus Grove is a small suburb of Lima. Mrs. Hilty was a dental hygiene graduate of the Ohio State University and one of two dental hygienists appointed to the first Dental Hygiene Advisory Committee in 1972. Retired as a practicing dental hygienist and, after 36 years, resigned her position on the Advisory Committee in the fall of 2010. Continues to reside in Columbus Grove.</td>
</tr>
<tr>
<td>Ms. Hilty and Dr. Buchanan</td>
<td>Received their appointment notifications from Mr. Sam Bassitt, Secretary to the Lima Technical College Board of Trustees and Associate Director for Technical Education. Mr. Bassitt was hired by the College in June 1970. According to Mr. Bassitt, he was hired “to assist in establishment of programs here at the campus.” As the Associate Director, Mr. Bassitt was directly responsible for the day-to-day operations of Lima Technical College. Prepared all of the reports and budgets, recruited faculty and students, scheduled classes, coordinated faculty efforts, and supervised the administrative staff. During Mr. Bassitt’s tenure at the College, he served as Secretary to the Board, Associate Director for Technical Education, and most recently Vice President of Instruction. Retired from the College in 1998 and maintains residence in Lima.</td>
</tr>
</tbody>
</table>
Miss Julianne Boston was hired as the first Director of the Dental Hygiene Program. Miss Boston interviewed for the position in September 1975 and was hired in October of the same year. Just prior to her interview, Miss Boston had graduated from the Ohio State University with her master’s degree in allied health and was living in Dayton, Ohio. Her only teaching experience was as a part-time dental hygiene instructor at Jonesboro Community College in Atlanta, Georgia. Miss Boston coordinated the Program and the faculty from 1976 to 1979. She currently resides in Dayton, Ohio and assumes the married name of Julianne McCain.

One of the faculty hired by Miss Boston was Linda Robinson. Miss Robinson was hired as a full-time faculty member and clinic coordinator on September 15, 1978. When Miss Boston retired as the Program Director, Miss Robinson applied for the position. On July 1, 1979 Miss Linda Robinson became the second Program Director. Miss Robinson, currently Mrs. Staley, was hired as the first Dean of Allied Health on July 1, 2003. During her tenure at the College, Mrs. Staley served 27 years as the Dental Hygiene Program Director and three years as the first Dean of Allied Health. Mrs. Staley retired from the College in 2006 and continues to reside in Lima.

On October 30, 1978, Dr. Thomas Heckler was introduced as one of the new members of the Committee. Dr. Heckler came to Lima in 1978 as a “trained periodontist”, and he continues to practice in Lima today. As an Advisory Committee member, Dr. Heckler was responsible for developing, implementing, and evaluating programs at Lima Technical College. His expertise and assistance helped the College to establish and maintain rapport with the community. Dr. Heckler has been a member of the Dental Hygiene Advisory Committee for 23 years and currently serves as Chair of the Committee. Dr. Heckler maintains a periodontal practice and resides in Lima.
Appendix C

Interview Questions

Thank you for participating in the research project entitled, The History of the Rhodes State College Dental Hygiene Program, which is being conducted at the University of Toledo under the direction of Denise Bowers.

Following are 16 questions pertaining to the history of the Dental Hygiene Program that I would like you to consider. I will be contacting you in the near future to set up a time to discuss these questions with you. Please feel free to draft your initial responses to these questions prior to our interview.

(1) People are always important to the creation of any institutional endeavor. Who were the central figures important to the establishment of the Rhodes State College Dental Hygiene Program?

(2) What were the driving political forces and factors that you believe influenced the creation of the Program?

(3) What were the driving economic forces and factors that influenced the creation of the Program?

(4) What were the driving community forces and factors that influenced the creation of the Program?

(5) What government agencies (national, regional, and/or state) were instrumental in the creation of the Program?

(6) What role, if any, did public policy and regional boards play in the establishment of the Program?
(7) As it relates to the program’s initial development, what obstacles had to be
overcome in order for the program to be created?

(8) What environmental factors (society, profession, and workforce development)
influenced the development of the Program?

(9) How was the curriculum developed?

(10) What key historical events can you recall that impacted the founding of the
Program?

(11) What key events, changes, or turning points contributed to the evolution of the
Program from its initial state to its current state?

(12) What key individuals or organizations have emerged subsequent to the original
creation of the Program and have contributed to its development?

(13) What challenges have emerged subsequent to the Program’s creation which have
posed threats or created obstacles to its continuation?

(14) Who would you consider the best resource to provide a historical perspective,
from the program’s inception until present?

(15) Written sources of evidence are key to any research project. What documents or
sources of written evidence do you feel I should review?

(16) As we conclude, what additional historical information would you like to share
about the creation of the Rhodes State College Dental Hygiene Program?
Appendix D

Map of Registered Dentists and Hygienists in April 1971

APRIL 15, 1971 REGISTERED
DENTISTS & HYGIENISTS.

13 - This figure represents Dentist
2 - This figure represents Hygienist
Appendix E

Area Health Education Centers from the Carnegie Commission Report
Appendix F

1972 Needs Assessment

The Lima Technical College in cooperation with The Ohio State University may start a Dental Hygiene program. Before any program is started we will need assurance of employment for the Dental Hygiene graduates.

Do you presently employ a dental hygienist?

Yes_______
No_______
Full time_________
Part time_________
Name of Hygienist__________________________

Have you ever employed a hygienist?

Yes_______
No_______
How many_________
Average length of employment_________

If you answer to either of the above questions was "No", have you made a serious attempt at hiring a hygienist?

Yes_______
No_______
Why not?__________________________

Do you feel that you could provide dental services to more patients by employing a dental hygienist?

Yes_______
No_______

Please answer the remaining questions assuming a Dental Hygiene school in Lima would be graduating a continuous supply of Dental Hygienists:

Would you employ a full-time hygienist? Yes_______ No_______
Would you employ a part-time hygienist? Yes_______ No_______
Would you be interested in teaching? Yes_______ No_______
Full-time_________ Part time_________
Clinical_________ Academic_________

Please give the following personal information:

Name__________________________ Age_______
City__________________________ Type of Practice__________________________

How many more years do you plan to practice?_________

Please make any pertinent comments on the back or this page.

Please return this by

Sincerely,

Kenneth M. Clemens, DDS, Ch'mn
Dental Hygiene Advisory Committee
2125 Allen Town Road, Lima, Ohio
Appendix G

Dental Hygiene Clinic Facility Diagram (February 1975)
Appendix H

Proposed First Year Dental Hygiene Curriculum

C. DENTAL HYGIENE CURRICULUM

<table>
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<td>D.H. 131 (D. Anatomy I)</td>
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<td>0</td>
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<td>14</td>
<td>11</td>
<td>10</td>
<td>5</td>
<td>4</td>
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<td><strong>Second (Winter) Quarter</strong></td>
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# Appendix K

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## Appendix M

### Dental Hygiene Curriculum (Semesters)

#### Rhodes State College

**Associate Degree Program**

<table>
<thead>
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<th>Date Prepared: 3/9/2011</th>
<th>Associate Degree Program Name: Dental Hygiene Program: SEMESTERS</th>
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**Spring Semester (16 hours)**

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<td>BIO-1120</td>
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**Summer Semester (10 hours)**

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<td>DTN-1220</td>
<td>Principles of Nutrition</td>
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**Spring Semester (12 hours)**

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Total: 57 Clock Hours, 62 Lab Hours, 3 Related Hours, 28 General Education Hours, 42 Technical Hours.
Appendix N

Dental Hygiene Facility (2010)

James A. Rhodes State College
Dental Hygiene Clinical Facility
Appendix O

First Graduating Class (1978)
Appendix P

Dental Hygiene First Year Student Enrollment

<table>
<thead>
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<th>Academic Year</th>
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