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CONVERTING CLINICIAN TO EDUCATOR: PREPARATION FOR DENTAL
EDUCATION BY CONTINUING PROFESSIONAL EDUCATION

by

Lynn Samons Russell

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Education

Major: Higher and Adult Education

The University of Memphis

December 2016

Dedication

This dissertation is dedicated to all those who may think age factors into pursuing their dreams, do whatever it requires to travel the winding paths to get there. Remember life is short: Take the trip, Eat the cake and Buy the shoes!

To Warner and Katelyn: Thank you for believing in me: “feels like some kind of ride...but it's turning out to be life going absolutely perfectly.”

To Deedee Beene: This is for you... I only wish you had been able to see your journey through, and I miss our camaraderie.

To my friends: Thanks for understanding my absence from multiple events and know that I will soon be back to normal.

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To Dr. Tim Hottel, Dr. Jack Seeberg, and Dr. Ed DeSchepper: Thank you for believing that this goal would be accomplished and giving me my “dream job.”

Thank you, Dr. Jeff Wilson...for everything!

Thanks also to a very patient and understanding committee: Dr. Colton Cockrum, Dr. Wendy Griswold, and Dr. Donna Menke.

Special thanks to Michele Stout for her unbelievable patience.

Abstract

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Converting Clinician to Educator: Preparation for Dental Education by Continuing Professional Education. Major Professor: Jeffery Wilson, Ph.D.

Healthcare education is of the utmost importance for all individuals in our society. Those that teach in healthcare professional programs are often unprepared for the challenges that are present. Ill-prepared educators may or may not provide a quality education to those students who will eventually care for us. This research addresses this problem by questioning dental and dental hygiene educators currently involved in educating students. It further focuses on the manner in which the interviewed individuals have been prepared to offer instruction and whether that preparation has been adequate. Data was obtained by semi-structured interviews of dental educators who had moved to academia during the last five years. Five themes emerged that aligned with the literature concerning clinicians who evolve or transform to dental educators, their feelings regarding professional development, continuing professional education, mentoring, and a new identity. Though much was learned, there appears to be more that can be learned with the purpose of changing the ways in which these individuals become educators.

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Chapter 1

Introduction

Long ago, I remember being asked the question “What’s the best advice you ever received as a teacher?” from my first faculty member. “Remember.... you know more than your students do.” This is a succinct statement to cover educational preparation. Teaching in a professional dental school requires a skill set honed to more than delivering dental care. Dentists and dental hygienists have a unique set of skills as clinicians. Each works in a very small space on individuals who are not always happy to be in the dental office. The technical work is precise, requires patience and a strong back, not to mention a passion for taking care of others. This research study seeks to determine if a technical skill set, by itself, is adequate preparation for teaching others. Those who have been both clinician and educator have opinions as to what makes a good educator.

Overview

In this study, I am interested in discovering exactly how the dental educator has transitioned or transformed from clinician to educator. Through semi-structured interviews, I heard their personal accounts of the transition made from clinician to educator. These accounts provided ample data to determine what would be needed to make such a change if the change was transformative in nature, and how their statements could possibly effect a change in how these dental educators are prepared for teaching. The responses to the interview questions give the study’s participants a voice; their replies to the proposed questions provide some insight into the transformational process that takes the individual from clinician to educator.

As a clinician who has converted to educator, I have found that multiple skill sets are needed to accomplish both clinical expertise and educational prowess. Though there is overlap, education, especially in a dental school, requires the adoption of new thoughts and ideas, acceptance of a new way of thinking, and a position that requires stamina, intelligence, and passion. These observations prompted the need for further research to better understand the multiple components of transition and transformation as it applies to becoming a dental educator. Additionally, this research answered questions related to how this process is implemented in various educational environments and whether or not it is a process that is efficient as well as acceptable. Determining efficiency and acceptability, based on the proffered responses, indicates the need for change in teacher preparation in the dental education arena. This research entails inquiry, analysis of the replies, comparing the dentists' and dental hygienists' experiences using their interview answers, developing themes from the proffered responses, supporting my work by the results of previous research, and perhaps to acknowledge that some institutions may need to reassess the way in which they prepare their faculty. It was necessary to incorporate transformative theory into the findings in order to produce an evidence-based, systematic approach that satisfies the novice educators needs and produces a qualified educator that is confident and prepared for his or her new role.

Purpose Statement

An educational degree proclaiming an individual to be a doctor of dental surgery or a doctor of dental medicine is not indicative that the person will be a doctor of education by default (McAndrew, Motwaly, & Kamens, 2012). The same is true for dental hygiene educators. There are multiple strategies to prepare and recruit dental faculty so that practical didactic and clinical instruction is provided in dental education (Haj-Ali, Walker, Petrie, & Steven, 2007). To

understand the process by which a clinician becomes educator, it is necessary to investigate the potential pathways a clinician may travel to transition to the competent teacher.

Continuing professional education with instruction, and professional development may be sufficient by some standards, but it is prudent to ask individuals to share their stories regarding the process of their personal conversion. It is then, the purpose of this dissertation to discover through examination of the participants' stories and personal opinions, what is a viable means for converting to an educator? Are continuing professional education and/or career development classes adequate means for the conversion experience? It will also be possible to determine what the participants needed and may not have received from their individual institutions. To familiarize those unrelated to dentistry or unfamiliar with terms that may appear in the study, a list of terms can be found on page 22.

Entering dental students have completed a minimum of four years of college and are considered by chronological age, adult students; they are older than the "traditional" college student that is 22 years or younger. Dentists who are teaching these students should be aware of the multiple considerations of adult education including but not limited to content, knowledge of the students' background, and personal characteristics (Ross-Gordon, 2002). This research seeks to gather information relating to the dentists' and dental hygienists' ability to teach their students, the learning needs of these adult, professional students, and the relationship that exists between educators and students. In so doing, it will be determined exactly how the clinician develops into or converts to an educator. It will also be determined what, if any, additional steps that might have been taken by the clinician to prepare for teaching.

During the last few decades, the typical means of problem-based learning, case studies, and Socratic dialogue have been the conventional means of educating students (Savery, 2006;

Smits, Verbeek, & De Buissonje, 2002). According to previous studies, it has been determined that using the “traditional” method of lecture did not always provide learners with a context for the content, theory, or clinical application (Savery, 2006). The preferred method has been a learner-centered approach that involves a defined problem with a solution found through research, theory, practice, knowledge, and skill (Savery, 2006). Additionally, the “sage on the stage” is no longer a workable approach; it has been replaced by the “guide on the side” method of instruction. This approach employs the mentor or coach as the demonstrator and explainer of relevant skills, and the student has ample opportunity to practice (Fuller & Unwin, 2007).

Many dental clinicians are competent practitioners and are successful in caring for their patients. However, their success in private practice is not always predictive of how well they are able to teach a student their particular set of clinical skills. When the dental clinician retires, or leaves his/her private practice and transitions to academia, the previous skill set is no longer what dictates their success. How well will they transition to the adaptation of the instructional methods necessary to teach a student? Conversion to an academic career may afford job satisfaction and revitalize a career in dentistry while simultaneously satisfying the need for qualified faculty in our dental schools (Dennis & Ottenge, 2011). At present, there are more unfilled positions in dental school faculty than individuals to fill those ranks (Hicks et al., 2013).

More than merely moving to academia, dental instructors may have little or no experience as educators (McAndrew et al., 2012). Their personal practice styles and their enthusiasm to improve teaching effectiveness are often different from the methods and motivation of existing school-based faculty members. Many dental schools have begun to emphasize practices that may be unfamiliar to those individuals that are private sector converts.

The process of teaching in medical or dental education is not the same as training

(Hesketh et al., 2001). “Quality teaching is more important now than ever before because of today’s climate of increased accountability” (Hesketh et al., 2001, p. 555). Challis and colleagues have correctly identified an increasing need for training of those health professionals involved in educational supervision (Challis, Williams, & Batstone, 1998). In dental education, there are “traditionally three separate tracks offered to dental faculty: the full-time clinician (no tenure), the clinician- scholar (tenure; teaching, research, and service related), and researcher (research and graduate education)” (Vanchit et al., 2011, p. 82). Often, the novice educator is unaware that there are multiple tracks and accept the one offered without question.

The clinician moving to academia may rely on his or her existing skills and does not realize that there may be some form of professional development attendance that would prepare them for a new career. The provision of faculty development for dental educators is challenging and critical to the success of dental educational programs (Haden, Weaver, & Valachovic, 2002). Once the novice educator begins a career in academia, is it then that he or she would seek courses in theory to help the career change? Increased workloads and dwindling resources have produced faculty overwhelmed by the amount of teaching, clinical requirements, research, and administrative demands (Haden et al., 2002). Schools that merely retain the “status quo” when resources are unavailable produce a diminished quality of teaching and consequently, fewer scholarly pursuits. The reduction in faculty productivity then leads to a decrease in salaries which leads to faculty pursuing careers outside of academia (Haden et al., 2002).

Historically, an article, *American Dental Association Transaction: Annual Report of the Council on Dental Education*, published in 1950, identified 28 dental schools with 135 faculty vacancies. This article allows one to “see” that faculty shortages are not new in the field of dentistry. Whatever has been done in the past to remedy the shortage situation has done little to

curb the effect that currently there are not enough faculty available to instruct in America's dental schools. Couple faculty shortages and ill prepared or unprepared faculty applicants and there exists a real issue with delivering a quality education to dental and dental hygiene students. New faculty with no educational experience in pedagogy indicates an inherent need for dental programs to train their faculty in teaching methods before they enter the classroom or clinic.

Faculty development within dental schools, in the form of continuing professional education, may be what is necessary to bring new or existing faculty to the level required to produce a skilled dental workforce. Essential elements that must be considered for effective community faculty development include promoting a culture of respect between school-based and community faculty members, basing professional development on the needs of these educators, integrating principles of adult learning theory, and establishing continuing institutional support (Haden et al., 2002). Recent to the field of adult education and in alignment with this context is the professional development of adult educators (Brookfield, 1995). The theory of adult learning addresses the integration of new information, the learner's perspectives and the practice by which their world view changes (King, 2004). It would seem that effectively adopting these elements would create a professional development program that would help the practitioner become an active role model and practitioner- preceptor-educator.

Research Questions

What then is necessary faculty training to make the transition from clinician to educator?

The following research questions were posed to the participants to prompt the research:

1. In what ways are dentists able to convert their clinical expertise to an educator method of instruction?

2. In what ways does continuing professional education help clinicians become teachers, instructors, and educators?
3. How do the dentist and dental hygienist develop his or her professional identity as an educator?

These questions provided the foundation for the qualitative study that follows. If the professional development programs offered by the institution where the dental educator is positioned are concerned with the professional growth of the instructor and strive to offer classes that will enhance the skills of the educator, then professional development courses may be sufficient. Should the institution exist on the premise that the new dental instructor needs no additional training in educational theory, context, or practice, then the future dental workforce may suffer.

Significance of the Study

There exists prior research that adult learners may alter their viewpoints, perceptions, the nature of their professional understanding, and methods of educational practice (King, 2004). This study should offer enough insight into the individual's professional shift from clinician to an educator that future means of training and education may be altered and individuals, programs, and institutions may ultimately benefit from the experiences of others. Having made the transition from clinician to educator a decade ago, I have been able to observe and experience how the clinician is trained. It has been my personal experience and understanding that most dental educators have been privy to the "see it-do it-teach it" theory. Though some have made a successful transition I believe that many others have had the opposite experience. If this study uncovers that educators have had a difficult time making this transition, there may be a reason to reevaluate educational training for clinicians before they begin to teach. It may also affect other

healthcare professionals who may ultimately prepare to teach. The subsequent paragraphs indicate an optimal learning environment in dental education. Beyond a change in professional development or continuing education courses, my research influences the formation of best practices as guides for the novice educator by examining the personal and vocational experiences of new educators. In some clinical healthcare educational programs, an inherent tension exists between theory and practice; clinical instruction relies on practice, and evidence-based instructional practices rely on theory. Theory is necessary to advance the discipline, in this case, dental education, and create an evidence-based curriculum to direct novice educators (McAllister, Tower, & Walker, 2005). The performance type of instruction without theory-driven knowledge may assure competence but may not achieve excellence (McAllister et al., 2005).

Training clinicians to become educators should be transformative. The clinician should change in such a way as to be able to evaluate the formation of ideas and to reflect on the process of changes in attitudes, the experiences which prompted the change and the meaning-making that resulted (Kegan, 2000; King, 2004). The dental educator, as opposed to the clinician, is in the institutional environment to share his or her expertise, to guide, to instruct, and to build a sense of community among students (McAllister et al., 2007). This study, as a narrative inquiry, sought out stories of personal and professional transformation.

Beyond transformation and as a component of a community of practice, professional identity will be considered as an important attribute. Shields (2008) stated, “in contemporary American society, identity is emphasized as a quality that enables the expression of the individual’s authentic sense of self” (p. 301). Supported in Erikson’s work on identity, Josselson (1996) described the interrelationships between self and the social world and tentatively initiated

a view of identity as socially constructed. Authenticity within the context of the social world is altered as Josselson suggested, “Living our identities is much like breathing. We do not have to ask ourselves each morning who we are” (p.29). The dentist or dental hygienist who moves from the clinical practice to a university shifts identities and adjusts to the compound and multi-dimensional realities of professional education. The experienced practitioner becomes the novice educator and then identifies with the role of the instructor who may be on the periphery of such core academic functions as research, teaching, and service. Professional identity plays a central role in how we make sense of our work environment and enact our careers (Weick, 1995). It will be important to question participants to determine at what point they saw themselves as dental educators and not just dentists or dental hygienists.

Clinicians who enter a learning environment that is typically research intensive, are often expected to deliver high-quality learning experiences in diverse classrooms or clinics. The clinicians, typically adept in providing the benefits of practice, may offer rich insights from experience. Incorporating clinicians into academia with no professional development or instruction in teaching methodology presents a challenge (Webb, Wong, & Hubball, 2013). Though these clinicians may provide valuable professional expertise and practical experience, such experience is merely an enhancement to student learning and not the foundation that supports education.

Despite the abundance of professional development initiatives offered at most universities, the new educator with a substantial teaching load may not have the opportunity to attend or participate in the offerings (Webb et al., 2013). Clinicians have often been away from the University for several years or more and like others that are new to teaching are typically unaware of the most current approaches to teaching and learning (Boyd & Harris, 2010). In

dental education, as is the case with other professional education, the norm is no longer lecture and demonstration. Dental faculty should be trained and engaged in scholarly approaches to teaching and learning, grounded in educational theory, understand program management, focus on the self-directed learner, promote critical thinking and practice correct methods of assessment (Kanuka, 2011). A prevailing educational theory can change an educator's view on what is important. This requires the individuals new to teaching to search beyond facts and statistics and compels them to recognize the complexity of learning (Kanuka, 2011).

Research, comparable to that which is proposed here, incorporates a critically reflective dimension and may identify major theories that participants bring to their practice. Dental schools are environments that offer opportunities for faculty to teach responsibly and ethically. Dental faculty must incorporate the habit of clarifying objectives and their expectations but should also consider the learning preferences of their students. For dental faculty, such a practice will translate into a continuous effort to incorporate beliefs that will inform a successful method of education. The novice educator in dentistry may have never been confronted by requirements that indicate optimal teaching conditions.

Critical reflection is the thoughtful analysis of one's practice through the broadest range of perspectives, is inherent to thoughtful teaching. It is the responsibility of instructors and /or professors to create a chance for critical reflection to occur in the classroom. Dental faculty must try, to introduce multiple perspectives and traditions into each class meeting that can enhance critical reflection and incorporate evidence- based theories. Such a practice is not often present in the toolkit of the novice educator. This study may indeed find out how the current dental faculty has been able to incorporate critical reflection and other responsibilities.

Clinicians, recently converted to instructors, initially tend to teach using traditional methods typical of teacher-directed practices (lecture, mid-term, and final exam). As clinicians tend to recognize the type of teaching necessary to be successful; it is hoped they will teach their students not only how to learn the subject but incorporate higher order thinking skills, analytical reasoning, and effective treatment offerings. (Ambrose et al., 2010).

Theoretical Framework

While considering the theoretical framework, which provides the mainstay of my research and realizing this to be the “lens through which I will view my research”; I have chosen transformative learning as my framework. This fulfills my purpose to explain the meaning of the conversion experience, so the knowledge gained will promote any informed and effective change to the manner in which clinicians become educators. In order to investigate, to fully understand, and to analyze the data, I will use transformative learning theory as my conceptual basis.

Dentists and dental hygienists have accumulated a body of experience that is directly affected by relationships, beliefs, emotions, ethical responses, and core values. These frames of reference help them understand their experiences. If, for instance, an idea fails to *fit* into their preconceptions it becomes an item unworthy of their time, thought, and association and may be rejected and labeled as irrelevant. As individuals each has a habit of mind and a point of view; the former set by broad and habitual ways of thinking and the latter continually changing based on problem solving skills and the need to alter the environment where learning takes place. In this study we are given the dentists and the dental hygienists who, over the course of their career have learned to manipulate their learning environment to accommodate changing roles (Mezirow, 1997). Though the dentists and dental hygienists have similar roles, their adaptation to a changing role presents a split in the point of views.

As I report my findings, it is hoped that other dental professionals will use this as a frame of reference for defining the boundaries of the profession as well as shape and improve the professional practice of dental education. This study, being qualitative in nature, supports Parahoo's (2006) theory that a theoretical framework is used when the research supports one theory. In this study, the boundaries of my framework have been defined by dentists and dental hygienists who have left clinical practice and transitioned to education. This narrows the field of prediction and limits the scope of the study. Additionally, it defines the direction in which this study will move. The context according to Miles and Huberman in Roberts (2010) allows the researcher in this study to determine what "key factors, constructs, or variables" are viable (p. 129).

It is thought that each participant has made a conversion, transition, or alteration in their professional identity. No longer just a clinician in private practice treating patients and acting as his or her own boss, these individuals have moved to an environment in which others decide their professional objectives, workdays, job description, and salary. Such a change is likely to affect the way the individual perceives himself or herself.

Assumptions

Several assumptions were made in this study. It was assumed that participants in the study would be truthful in their narratives, relaying their personal experiences as their own perceptions of reality. It was also assumed that participants under the age of 50 will be difficult to find, thus the population of the study will be 50 plus years of age and typically retired from private practice (as is the case in my university). This, however was only true for the dentists interviewed; the dental hygienists had a broader range of age. It further assumed that the novice dental educator had little preparation in educational methodology and no additional degree in

education. No one with such a degree presented himself/herself as a participant, if that had been the case, the individual would have been disqualified and not interviewed. I could not assume that the vast majority of participants have had *no* training in educational methodology nor could I assume that these individuals have had *no* professional development courses as an onboarding experience, or have chosen continuing education courses that addressed the art of teaching the adult student.

Limitations

This study has limitations that need to be acknowledged. Currently, in my role as Chair of the Dental Hygiene department in the College of Dentistry at the University of Tennessee, it has been my observation that most of the educators at my institution have become educators in the same or a very similar manner. If this is the case in other institutions, this similarity may limit the ability of the study to go beyond “proving or disproving” the research. This research is based on the premise that the dental educational venue is in a natural environment associated with dental education and according to Wiersma (2000), cannot be replicated unless in the same dental environments are considered. Though the sample size of 26 may seem comparatively small and the locations in the dental programs are highly individualized environments the concepts that present themselves should be indicative of how continuing education has been experienced. Certain designs and methodologies (i.e., phenomenology) come with limitations over which there is no control. Another limitation of this study is the actual choice of the problem chosen for the study. Availability of the participant to take time from their schedule to participate in the interview process may limit the number of participants. Arranging time to conduct an interview with the dental educator is difficult; 45 mins of time out of a busy schedule

is not always easy to find. For the researcher to explain or often clarify a question may affect the participant's response; it may affect the length and breadth of the answer.

Definition of Terms

For those readers who are not associated with dentistry, dental education, clinical instruction, and the process of matriculation for the dental or dental hygiene students, a list of relevant terms and a brief description has been included.

The following terms are within the text and may need clarification (many have been taken directly from the organizations' statements on their websites):

- AADS - American Association of Dental Schools: now known as ADEA (ADEA, 2016)
- ADA - American Dental Association: Founded in 1859, the not-for-profit American Dental Association is the nation's largest dental association, representing more than 157,000 dentist members. Since then, the ADA has grown to become the leading source of oral health related information for dentists and their patients (ADA, 2016).
- ADEA - American Dental Education Association: Members of this association are found within dental schools and allied dental education programs that are in the U.S. and Canada. According to their website (n.d.), some members are faculty, program directors, administrators, and students. "The mission of this association, formerly known as the American Association of Dental Schools is to guide and direct those institutions and individuals in the dental education community to address contemporary issues influencing education, research and the delivery of oral health care for the overall health and safety of the public. ADEA's activities encompass a broad range of research,

advocacy, faculty development, meetings and communications like the esteemed *Journal of Dental Education*” (ADEA, 2016)

- ADEA ITL American Dental Education Association’s Institute of Teaching and Learning- Located within the jurisdiction of ADEA, an individual, desiring to hone teaching skills may learn multiple teaching concepts: student motivation, working assertively and productively with difficult students, principles and theories of learning, and the concepts of the mentoring approach to student instruction. Enrollment in this initiative precipitates face-to-face interaction with 60-70 colleagues, who are current faculty or are transitioning to full- or part-time teaching positions and preeminent instructors in dental education (ADEA, 2016).
- ADHA - American Dental Hygienists Association-Committed to the profession of dental hygiene. The ADHA goal is to move the entire professional dental hygiene community forward and expand the scope of practice in individual governing states. ADHA provides its members unlimited access to practice resources, leadership tools, government advocacy, and student resources (ADHA, n.d.).
- Clinician - (for this purpose) an individual qualified in the clinical practice of dentistry or dental hygiene; one who works directly while treating patients rather than in a laboratory or research environment (Merriam-Webster, 2016).

Chapter Summary

In summary, career changes often prompt an individual to develop a new set of skills. This is especially true as a dental clinician moves into academia and begins teaching dental and dental hygiene students. Though the previous skills of the individual are still very critical to

instruction, a new and often foreign skill set may be necessary to be successful. This research seeks to realize how this new information is acquired, how it has affected the individual, how the process has occurred, and how a new identity has been formed. The study seeks to uncover the attributes and processes of a transformative experience through dialogue and sharing of the experiences presented by the participants.

The impending faculty shortages within dental educational environments suggests that, in some cases, dental educators are merely thrust into education without adequate preparation. If this is the case, then those enrolled in dental schools and dental hygiene programs may not be privy to the “best” educational processes. Considering rising tuition costs, licensure exams, and high stakes testing, the student wants and deserves the best dental education possible. This study further seeks to understand how the novice educator prepares for the educational experience and the environment and collegial culture he or she enters. King (1997, 1998, and 2004) posits that prior research has defined transformative change as that dramatic alteration that occurs when the individual experiences “dramatic change in professional perspectives” as he or she progresses through formal learning concepts, research directives, and literature reviews that may be associated with the conversion/transformative experience. Because adult educators may engage in professional development, it was prudent to also consider the participant’s responses that relate to support they may have received, barriers they faced, and responsibilities that they perceived regarding their individual experiences. Any perceived needs that were met or unmet should come forth as the participants answer the open-ended questions in the interview process. Additionally, the participant’s awareness of barriers and perhaps fear of such may be related during the dialogue.

Chapter 2 will present a review of the literature and Chapter 3 will discuss the methodology for carrying out this study. In Chapter 4, the results are presented followed by a discussion in Chapter 5 that addresses the implications of what was discovered.

Chapter 2

Literature Review

Literature Search

In seeking adequate literature to support the problem statement and affirm this dissertation topic, multiple words, groups of words, and themes were placed in the search box. Authorities in dental education and their respective websites were visited (ADEA, ADHA, ADA) as well as numerous websites that proffered higher degrees in dental education and health professions training.

Selection criteria and keywords were: *dental education, dental faculty education, dental faculty preparation, dental faculty shortages, professional development for dental faculty, dental continuing education, dental faculty training, clinicians transitioning to education, teaching preparation for dental educators, clinical teaching, dental clinicians in academia, courses in clinical instruction, effective clinical teaching, effective teachers, dental leadership challenges, mentoring, effective mentoring, dental faculty mentoring, faculty coaching, faculty development in the health professions, dental faculty recruitment, dental academic careers, dental teaching workshops, trends in dental education, health professionals with academic careers, and nursing educators.*

Also included was *dental hygiene faculty* as a reasonably similar topic.

The article search was instigated at the University of Memphis Library using ERIC and EBSCO as the initial database search. The nature of the subject matter directed a search for more relevant items, and thus, PubMed was indicative of a primary source. Before the database search, the American Dental Education Association (ADEA) website was instrumental in providing assistance, as they are the authority on dental education. The American Dental

Educators Association offers access to statistical information, conference presentations, and additional resources that are vital to the research topic. They provide survey instruments and various publications as well as relevant articles concerned with the training of dental faculty, the impending crisis of dental faculty shortages, and suggestions for transitioning from clinical dental practice to academia. In each attempt at the review, the search was redefined, and the number of articles was reduced from as many as 3,894 articles to 251 articles. The actual number of items selected for consideration stands at 179.

The library at the University of Tennessee Health Science Center (UTHSC) was the primary source for subject searches. The database offerings were found to be more than adequate. Most of their holdings include journals related to health professions, and there exists a large volume of periodicals devoted to the dental profession. Some of the databases available are:

- CINAHL- Nursing and Allied Health Literature
- JCR- a comprehensive database that allows comparison of journals
- Medline@ Ovid- allows for greater search control when searching PubMed
- PubMed- The National Library of Medicine which contains articles back to 1946
- Scopus- an abstract and citation database
- Web of Science- Multiple disciplinary coverages of 10,000 high impact journals

Brenda Green, M.L.S., the library liaison for allied health professions and instructional services coordinator at the UTHSC Library was helpful for guidance in manipulating the search in multiple databases. Ms. Green was adept with the main word and key phrase selection; she was able to provide direction in a funneling method for eliminating additional reading and loss of time.

PubMed has a section on recent activity that lists suggested abstracts and citations recorded on the right-hand side of the page. Beneath the abstract, additional articles by the same authors and other full-text databases (EBSCO) are available from the links. The most recent reports are current (January 2015) while others date back to 1946; thus offering an extensive amount of literature.

Overview

The American Dental Association's (ADA), 2001 *future of dentistry report* presented a hope that with optimal oral health (semi-annual visits to the dentist and periodic exams), one would be assured of improved overall health and subsequently a better quality of life. The report essentially challenged the dental profession to take a leadership role in achieving that vision. In Roth's article (2007), it is reported that dentistry's:

ability to promote the future oral health of the nation will depend on its capacity to incorporate new ideas within an ever-changing field. The dental clinician, as well as the dental educator, must be able to incorporate innovative technologies into practice. He or she must be able to accept the changing needs of the patient. The dental profession must also be involved in providing a sufficient supply of well-trained dental educators to fulfill the learning needs of dental students; empowering them with the necessary skills to teach effectively and efficiently in the dental educational setting. Both clinicians and educators must promote a strong focus on research and evidence-based ideas, and address the needs of those communities who lack access to care. (p.983)

The ADA report further determined that “a strong educational system is critical to the future of a strong and viable profession” (2001). According to Pyle et al., (2006), the need to transform dental education through wide-ranging systemic change, the American Dental Education Association (ADEA) Commission on Change and Innovation in Dental Education (CCI) suggests that the profession has lost its vision and may be wavering in achieving its goals. (Pyle et al., 2006)

If the previous statement has merit, the future of dentistry cannot advance accordingly. Clinicians will be unable to offer the best of dental care to their patients, and dental educators will be unable to provide the optimal educational experience to their students; there would be no innovative ideas and no commitment to research and evidence-based approaches to dental health care (Pyle et al., 2006). The question to be pondered is: *How does the profession secure the future it imagines?*

The greater majority of dentists that have recently graduated (within one year) report being licensed and employed. Recent graduates, according to Pyle et al. (2006), have positive feelings about the profession of dentistry though they may feel the overall health care system is lacking. Currently, there are 57 dental schools in the United States (ADA, 2015). There are approximately 300 dental hygiene programs. In these educational venues, the faculty consists of clinicians who have chosen academia, retired from private practice, made a significant career move, and opted for a less stressful atmosphere (Kennedy, 1998). The future of dental education is largely dependent on the faculty within the school maintaining content knowledge, pedagogical expertise, and professional commitment (Kennedy, 1998).

How do they achieve the pedagogical/andragogical expertise needed to advance dental education? Over 3,000 faculty members in existing dental schools that instruct students in

concepts of basic science are extremely important to the future of dentistry and its advances in research. These individuals are involved in a much more crucial endeavor- the training and education of dentists and dental hygienists (Kennedy, 1995). These dental schools as educational venues may be at risk of semi-extinction because few dentists start out in academia (4% according to ADEA's 2014-2015 survey of faculty), and few remain for an extended amount of time (Shepherd et al., 2001). Why is this the prevalent attitude? Is it that they are ill prepared for the academic role, or could it be that dental faculty assumes that their ability to successfully practice dentistry is *Carte Blanche* or full authority to take on the professorial role.

The literature gained from multiple databases indicates that there is indeed a shortage of qualified dental educators (ADEA, 2000). Though some of the literature is beyond that which one may consider recent, little has changed since the first articles have been written. There are also mitigating factors that deter the dentist from pursuing a future in academia; these include academic preparation, salary, mentoring experiences, and postgraduate training (Rogér, Meggan, Wehmeyer, & Milliner, 2008). There is minimal exposure to academic careers for the undergraduate (Rogér et al., 2008).

Rogér et al. (2008) found recurring themes about careers in academia as they interviewed 69 dental educators. There were 10 consistent negative themes: bureaucracy, time commitment, financial frustration, political failure, lack of mentorship, research emphasis, lack of teaching skill development, lack of student engagement, isolation, and funding uncertainty. Thinking that *lack of teaching skill development*, and subsequently *student participation* are crucial to the success of the dental educator, it is necessary to isolate this theme in other articles and then concentrate all efforts in closing the gap between what we know about dental educators and what we do not know about the continuing professional education that may be vital to the proper

preparation of these individuals. Through the synthesis of the information and analysis of the underlying themes, it was discovered that there is a reasonable solution to the problem posed.

What is the difference between the practicing dental clinician and the dental educator?

Clinicians vs. Educators

Dentistry offers many rewarding career options combining science and technology with helping people enhance and maintain their oral health. Dentists are on the cutting edge of advanced technology, making the practice of dentistry both challenging and rewarding. Dentists are doctors who specialize in oral health. Their responsibilities include but are not limited to:

diagnosing oral diseases, promoting oral health and disease prevention, creating plans to maintain or restore the oral health of their patients, interpreting diagnostic tests, ensuring the safe administration of anesthetics, monitoring growth and development of the teeth and jaws, and performing surgical procedures on the teeth, bone and soft tissues of the oral cavity”. (ADA, 2016, para. 4)

“Dentists' areas of care include not only their patients' teeth and gums, but also the structures of the head, neck, and jaw, the tongue, salivary glands, and the nervous system of the head and neck” (ADA, 2016).

The process for obtaining a degree in dentistry is daunting and according to the American Dental Association, “the first two years of dental and medical schools are essentially the same - students take multiple higher level courses in the basic sciences and in some schools the medical and dental students are actually in the same classes. When the first two years are finished, the dental student must take and successfully pass the first part of a national competency exam, administered by the American Dental Association’s Commission on Education. Once this

testing is completed, the dental student will then shift his or her focus to the basic skills to be learned for acceptable clinical practice. During this time there is a concentration on diagnosis and treatment planning. The culmination of dental school and before licensure, the student must take the second part of the national exam and a regional or state clinical competency examination. To obtain and continue to be licensed the new dentist commits to continuing education requirements for the rest of their career. It is of the utmost importance to remain aware of evidence-based dental conditions, treatment, and theory (ADA, 2016).

Dental hygienists provide a vast array of preventive services to their patients. It is more than just “cleaning teeth”. These oral health providers perform oral cancer screenings, take x-rays, place dental sealants and provide instruction and oral health education to their patients. The profession demands lifelong learning, the acceptance of evidence based practice, and the implementation of the latest techniques and procedures to adequately address the needs of their patients (UTHSC, 2016). Dental hygienists work in various practice settings. The majority of dental hygienists work in private offices but that is only one of many possible venues. They may also work in health departments, government funded low- cost clinics, nursing home and hospital settings, and school environments. They can be directly involved with patient care, or choose sales, research or education. Those that may choose education may work full-time, part-time or as adjunct faculty. In addition, those involved in education, at any level, require adequate preparation to deliver the type education the students require and expect (UTHSC, 2016). Dental hygienists attend accredited programs that are held to specific and stringent educational standards. They are taught to be educator, advocates, managers and researchers; they incorporate these in their daily activities. As an indispensable part of the dental team, he or she supports the dentist in procuring and implementing procedures founded in providing optimal health for the

patient. As there exists a relationship between systemic health and oral health, the dental hygienist must employ the most current evidence-based practices to prevent and treat dental disease (Darby & Walsh, 2003).

The level of education and clinical training required to earn a dental hygiene degree is most often a two-year program requiring 60 hrs of specific prerequisites culminating into a Bachelor of Science in dental hygiene; this type of education is known as a 2 + 2. Prerequisites are typically anatomy and physiology, chemistry, English literature and composition, psychology, sociology, and electives in social sciences. All of the previously mentioned courses are useful and complete the requirements for the degree. The dental hygiene school education, like many healthcare programs, consists of both clinical and didactic study. Dental hygiene students see patients and practice their clinical skills while relying on the academic curricula to provide sufficient theory for “best practices” in dental treatment. Dental hygiene students are taught by dental hygienists and dentists, who have sought careers in education as their choice of practice and who have typically more than ten years’ experience in private practice.

As clinicians, the dentist and dental hygienist are often called upon to educate their patients. Few people understand the unique terms associated with dentistry, and so it falls upon the clinician to educate and explain terms and procedures to the patient. The ability to educate a patient is a learned skill. It often improves with time and experience. The skill is taught to a student, and typically the venue of educational delivery is varied.

More than just an education, the dentist and hygienist may choose multiple paths to travel for the practice type they prefer. Working together as a team, these professionals are adept in addressing the dental needs of patients (ADA, 2016).

The dental hygienist spends a significant portion of time “teaching patients appropriate oral hygiene strategies to maintain oral health and counseling patients about proper nutrition and its impact on oral health” (ADA, 2016). An individual considering a career in dental hygiene should be able to perform work that requires precision and utilizes critical thinking skills (UTHSC, 2016). Additionally, the dental hygienist must have manual dexterity and good vision. Their skills require the ability to function efficiently and effectively under time and patient management constraints. Furthermore, hygienists are expected to comply with a variety of clinical and workplace rules and regulations related to successful and safe clinical practice. Therefore, making the transition to educators encompasses more than just continuing with the ascribed skill set; there must be a new skill set to make them into successful educators.

Effect of the Clinician to Educator Experience

There exists, within academia, dental educators with little or no experience in teaching. There must be a standard indicating an acceptable method of preparation for these individuals which would assure an efficient means of transitioning from clinician to educator. Both the dentists and dental hygienists in academia leave clinical practice and return to dental programs to become the educators, who are then expected to transfer their knowledge and skills to the students they teach. Dental educators should be part of a well-qualified faculty; one that is essential to the successful transfer of knowledge and clinical skill (Kennedy & Hunt, 1998). Academic Dentistry changes rapidly to adapt to the advances in the profession, so the need for lifelong learning is constant (Kennedy & Hunt, 1998).

Most dental professionals are privy to a status in society as a position of respect. Dentists are considered to be 'experts' in a particular field of knowledge because of the rigorous education they have completed. They commit to continuing and lifelong learning. They are regarded as

providing a quality service because of the esteemed position that they possess and the degree that has been conferred, which most often benefits the greater community. Being a member of the dental profession is about practicing at a level considered above any service that may be offered by people who are considered semi-skilled, have a certification in a particular trade, or who have no definitive skill or education. The quality of the services provided, which are guided by a code of ethics, and are linked to a particular standard of practice are connected to the selfless and caring nature of the oral health professional. Their skill set benefits society. In effect, the dentist, as a member of a profession operates under a specific “state of mind” which dictates the thoughts and actions that they have to uphold the highest clinical and ethical standards. As professionals who convert to another career, do these individuals see their new vocation as less than professional?

The Transformative Experience

If the theory of transformative learning explains how adult learners make sense or meaning of their experiences, how social structures influence the way they perceive that experience, and how the dynamics of that change ultimately modify the gravity of the experience, then the experience of a career shift should be transformative in nature (Mezirow, 1991). The aim of transformative learning is to allow individuals the opportunity to address the reasons that prompt their actions and to modify them if they are lacking (Christie, Carey, Robertson, & Grainger, 2015). This may include both a mental shift as well as a behavioral one. The hope of transformative learning is that better individuals (those that have experienced a transformation) will create a better society. Because transformative learning is defined as a process in which the “meaning perspective,” including “thought, feeling and will” (Mezirow, 1978, p. 105), fundamentally changes, understanding how these processes evolve over time is

crucial. I anticipate that the conversion from clinician to educator is transformative in nature. The effect such a transformation has on the dental or dental hygienist, especially one that is older, may have a high impact and further influence their career choice.

According to King (2004), when adopting a premise of examining multiple components of the learning-teaching practice involved with professional development of educators, various understandings are provided. Trends may be established and recommendations for responsibility and modes of practice can be evaluated. Using a comprehensive analysis of respondents' answers may identify patterns and lend itself to a broader evaluation of the personal experiences of the participants (King, 2004). Additionally, the interviews may uncover the insights the participants have regarding their individual transformative experiences and the depth of which it occurred.

Mezirow (1991) describes the experience of transformational learning as "rather than merely adapting to changing circumstances by more diligently applying old ways of learning, [adults] discover a need to acquire new perspectives to gain a complete understanding of changing events"(p. 3). Not unlike Mezirow, Brookfield (1986) stated "... significant personal learning might be defined as that learning in which adults come to reflect on their self-images, change their self-concepts, question their previously uncritically internalized norms, and reinterpret their current and past behaviors from a new perspective" (p. 213). This transformation process calls for critical analysis in order to focus on the potential changes in beliefs, values, and understanding (Brookfield, 1986).

According to King (2002), transformational learning involves questioning one's previous beliefs, perceptions, and ideas as he or she explores the way in which they have regarded their view of the world. There is often a "disorienting dilemma" which as a trigger, may prompt self-examination and over a period, the individual starts to alter meaning perspectives to fully

understand the experiences and the world in a new way (Cranton, 1994). Cranton (1994) stated the content of their understanding changes, but also the very way they understand is altered. Transformative learning within the context of professional development context is enhanced by recognizing and accepting the diverse needs, contexts, and abilities some faculty may bring to technology learning; in dental education, it may be “simulation technology” King (2002). Some of these needs are seen as being somewhat unique to faculty and may be identified as including their expertise in their fields (dentists and dental hygienists), having different daily schedules, and unusual and varied work responsibilities (Baiocco & DeWaters, 1998; King, 2002; Lawler & King, 2000).

Faculty frequently approach professional development with less than stellar previous experiences. “Viewing them as adult learners, one can begin to see them as risk-takers, needing to step aside from their comfortable and familiar "expert" standing and engage as learners in areas within which they may not feel competent” (King, 2002, p. 4).

As these faculty members are interested in gaining skills, the professional development may instead become an exploration of unique and fresh solutions to curriculum, teaching and learning, and ways of understanding (King, 2002). For the novice educator, especially the dentist over the age of 50, there exists the "disorienting dilemma" which is often found in technology's relationship to current dental school culture and the dentists' educational expectations. Learning a new skill-set is often uncomfortable for adults, but learning technology seems to especially generate fear and uncertainty (King, 2002).

According to Kegan (2000), it is not always the changes in *what* we know, but it is the changes in *how* we know that defines transformational learning (p. 50). By seeing the potential in changes affecting educators regarding teaching and learning, one can easily see the long

reaching effect for educators, their students, their peers, and the institutions where they work. Dental educators are in a unique position in that they typically have not had the opportunity to learn *how* to do their job. Many have merely fallen into their positions in a way that has not included teacher training, and many have never planned on teaching. Some may return to school, perhaps to study adult education on a part-time basis, but typically they learn their ways of teaching through experience, usually modeling themselves on others that have taught and been successful (Cranton & King, 2003). Professional development activities are not always seen as valuable; many being classes on how to perfect a skill and not touting adult learning theory (Cranton & King, 2003).

If one wishes to view professional development or continuing professional education as an opportunity to develop transformative learning it gives one a fresh approach to reaching goals and satisfying learning objectives, it affects what we do in our practice, and how we proceed with our work (Cranton & King, 2003). Through multiple curricula and learning activities that encourage dental educators to become authentic teachers, new possibilities occur (Cranton & King, 2003). According to Cranton and King (2003), “Rather than teaching and learning, as usual, they can begin to look at their habits of mind and work with new questions, insight, and promise. Professional development that is transformative in nature provides grounding for continued lifelong learning in the professions” (p. 37).

Baby Boomers Enter Academia

In 2006, data indicated that most dental faculty were in their 50s and 60s with retirement in their near future (Livingston, Dellinger, Hyde, & Holder, 2006). The older individual has the propensity to share experiences rich with detail and depth. When dentistry noticed that there were few academicians to fill the empty spaces in dental schools, they still made no plans to

recruit and/or transition existing dentists to academia (Livingston et al., 2006). The American Dental Education Association (ADEA) and the American Dental Association (ADA) are concerned that the academic community in dental schools will be unable to fill faculty vacancies that will appear in the foreseeable future (Bibb & Lefever, 2002). It has become increasingly apparent that the United States is facing a critical faculty shortage in health care education (Nunn et al., 2004). Nunn et al. (2004) reported in 2002 there were 274 vacant faculty positions in dental schools. Seventy-five percent of those were in the clinical sciences (Haden, Beemsterboer, Weaver, & Valachovic, 2000). In 2007, dental school deans reported 369 vacant budgeted faculty positions, and they were less than optimistic about being able to fill them (Valachovic, 2010). In the past, dental educators were recruited from dental school classes and advanced education program graduates. According to ADEA, recently graduated students comprise only four percent of the total dental faculty in the United States. Sixteen percent of open faculty positions will be filled by those graduating from advanced education programs. Eighteen percent will transfer from other dental institutions. Optimistically, private practitioners will fill the remaining 62%. The problem is not only to fill open positions but to address the future needs of students in a changing dental environment.

Addressing the Shortage of Qualified Faculty

In 1999, the American Association of Dental Schools' (AADS) task force attempted to implement programs that would mentor, prepare and recruit faculty (Bibb & Lefever, 2002, p. 703). If there is no change in the current lack of dental faculty ready to teach, there will assuredly be a crisis in providing dental students access to a quality education. To address the impending shortage of dental faculty, academic dental careers should be made more attractive or the process of training clinicians to become educators should be simplified (Flores-Mir, 2006). It

appears that those dental schools that did not promote faculty positions in academia were primarily concerned with developing student research endeavors. These findings prompted Haden et al, (2000) to propose opportunities that would emphasize the rewards associated with academic dentistry. Senior dental students interested in teaching could transition to “student teacher” status. Such an optimal experience would provide an opportunity for these students to develop an understanding of teaching theory and research; it would provide practice in curriculum and pedagogy (Bibb & Lefever, 2002). The student could reflectively make sound decisions regarding their future in academia (Weaver, Haden, & Valachovic, 2001). Along the same lines, personal mentoring would present the student teachers with an opportunity to teach important subject matter to incoming students, would instill confidence, and would provide a successful milestone in their professional development (Haden et al., 2000). Though this is a worthy proposal, it may not address the critical need for faculty in time to avoid the vacant positions on college campuses with dental educational programs (Haden et al., 2000).

ADEA’s Institute for Teaching and Learning (ITL) offers a certificate in teaching for dental educators and grants fifty continuing education credits upon completion or a one-year path to a Master’s degree in Health Profession Education (American Dental Education Association (ADEA) website, n.d.). The Master’s degree is given by the University of the Pacific in collaboration with ADEA and is known as the Academy for Academic Leadership (American Dental Education Association (ADEA) website, n.d.). Additionally, similar programs can be found at Massachusetts General Hospital, the University of Michigan, the University of Illinois (Chicago), Johns Hopkins University, the University of Missouri (Kansas City), Vanderbilt University, Rosalind Franklin University of Medicine and Science, Loma Linda University, Michigan State University, University of Cincinnati, North Carolina State University, and Texas

A & M. In total, there are “now 121 such programs worldwide” (Tekian & Artino, 2013, p. 1399). The growth rate for such programs has been constant which in and of itself indicates the recognition of the need for such a program (Tekian, Roberts, Batty, Cook, & Norcini, 2014). Unfortunately, most of the programs require considerable sums of time and money and may not be a good fit for “seasoned” dentists transitioning to educator roles. More often, dentists develop their teaching techniques based on instinct and trial and error (Mc Andrew et al., 2012; Steinart et al., 2006).

The shortage of dental educators often prompts schools to deviate from the typical tenure track, full-time position and seek to fill positions with part-time and adjunct faculty. Part-time and adjunct faculty positions do not always offer the same professional development opportunities or require the faculty member to possess the same level of skill. Most non-tenure tracks in dental education represent a decreased research emphasis and an increased clinical emphasis (Kennedy & Hunt, 1998). According to Kennedy and Hunt (1998), roughly 15% of faculty are full-time and have administrative duties, and 24% are non-tenure track appointments. Non-tenure tracks offer the administrator-educator flexibility and increased adaptability.

With the non-tenure track positions, there is an increasing rate of turnover; approximately 33% in a period of five years (Kennedy & Hunt, 1998). Typically, educators leaving academia are going to private practice or retiring. A survey from 1990, indicated that to successfully meet the national demand for dental faculty, as many as 200 individuals must enter academia (Kennedy, 1990). An assessment of the clinical practice environment indicates there will be a shortage of qualified dental faculty. Faculty positions remain unfilled for long periods of time because there are too few qualified applicants, there are educators returning to private practice, and many current educators have plans to retire in the next ten years (Carr, Ennis, & Baus, 2010).

Dental faculty must be supported in their efforts to seek the skills and knowledge needed to teach so that they will be able to embrace and withstand the changing dental environment (Kennedy & Hunt, 1998). This impending shortage of qualified dental faculty prompts research to establish how current faculty is trained to teach and then to discern if the current approaches are sufficient or should be modified.

In 2006-2007, most new faculty in dental education came from private practice. At that particular time, there were more than 400 dental school faculty vacancies (Haden et al., 2009). This computes to approximately seven positions per dental school. Health profession education has a natural turnover of faculty, even when there is no viable shortage (Anderson, 2009). The scarcity of full-time clinical faculty has been documented for years; it is still an important issue for dental schools (Vanchit et al., 2011). Published reports indicate the shortage is not short-term and will not disappear quickly (Haden et al, 2000). Generally, dental faculty members enjoy the role of teaching students and derive an enormous amount of satisfaction from being associated with the school. Those that leave academia say the workload, the shortage of available free time, the demand for research and publication, and administrative responsibilities often lead to burnout (Vanchit et al., 2011). Beyond burnout, faculty report that increased workloads affected the amount of time for scholarly activities and consequently negatively affects their prospects for tenure and promotion (Vanchit et al., 2011). Those that are on tenure track often switch to a nontenure track position or leave their academic careers for other opportunities (Vanchit et al., 2011). Bertolami (2007) stated that the issue of faculty shortage was not new but may grow as institutional budgets continue to shrink. Faculty shortage is becoming a complex issue; teaching in dental schools is no longer just a technical skills profession but has morphed into a scientific and analytical, technical expertise profession (Vanchit et al., 2011). As skill sets increase in

scope, faculty must be prepared to offer their students a high-quality education, respect for high quality dental care, and support the mission of the institution. Adequate training for new dental educators may alleviate the impending shortage crisis and prepare the educators for what the future of dental education may require. Dental schools must plan for their futures by providing long-term innovative development programs, include mentoring and coaching, and, in essence, grow their faculty (Vanchit et al., 2011).

Training vs. Education

Education stems from the Latin word *educere* – to lead forth, to raise up, edify, train, coach, and inform. It is prudent to consider carefully whether our current dental education system and the way it is regulated, still allows dental education to continue to lead the profession forth. Education is not just about teaching others what we know. If an individual is interested in the future of dentistry, we need to recognize that education is an exceedingly important means of social change, and it is up to dental educators to ensure that the changes our education system brings about are advantageous to all concerned (Kay, 2014). “How” one teaches students has an intense effect on the direction the profession of dentistry will take going forward. Therefore, taking a moment to consider carefully the part we want our dental education system to play is time well spent (Kay, 2014).

Should the new dental educator be trained in the new profession or educated to adapt to the new role? When someone undergoes training, it entails guaranteeing that an individual does things as trained. Training is dependent on the idea of there being a person who ‘knows’ and one who does not; there is a person that is “right” and a person who must learn what is “right.” Training is concerned with creating obedient students; it does not assure these students will excel. Training will not produce effective students in the sense of those who will achieve much,

it does, however, create students who perform just as instructed and who behaves robotically, doing that which the trainer thinks is acceptable (Kay, 2014). Training produces able workers who work in the way the trainers have allowed to them believe they must (Kay, 2014). Well trained individuals accept this type of instruction and in so doing accept that they do not ‘know’ a great deal, and they need to be told *what* to learn and *how* to learn. Innovation and creativity are virtually absent. The trainers set the precedent of what is important; change and original thinking are discouraged.

Education, on the other hand, encourages individuals to think critically about what they do and how it is done. Education questions “why” things are done. Educators are amenable to students about the uncertainties and unknowns present in teachable moments. Education encourages students to do more than perform but to learn about how a task is done, how it is taught, and how it is learned by the student (Kay, 2014). Educators, not trainers, seek questions and students who challenge them.

The best place “to provide ongoing support in gaining needed learning, skills, and support for educators is professional development. However, while many professional developers come from an education and training background, few are schooled in adult learning” (King & Lawler, 2003, pp. 5-6). The perspective suggested by King and Lawler (2003) provides for designing and implementing professional development for teachers of adults with the primary focus on understanding the concept of adult learning, the multiple contexts in which these teachers practice, and the diverse needs of each group of educators. As a college teacher, professional development typically addressed your particular discipline (i.e., dentistry), not to whom you taught; if you were perhaps in the training and development sector (especially a private institution), it focused on teaching for increased productivity and profit. Those who prepare

professional development activities may not concentrate on the fact that “teachers of adults are themselves adult learners whose learning differences and needs for application, critical reflection, respect, and support need to be understood” (King & Lawler, 2003, p. 6).

In dentistry, it is by educating, as opposed to training, where instructors thereby allow students to challenge, criticize, and reject current ideas. Educators encourage individuals to pursue innovation and change and create new ways of solving problems. The intention of dental education is to build dentists and dental hygienists who will develop the profession of dentistry. These individuals derive their desire for innovation and change from the needs of those they serve; in this way dentistry, will be guided in a direction that benefits many.

Educating people into a dental profession produces caregivers who think critically and independently and who will challenge the *status quo*. They will strive to develop innovative and improved procedures, relying on original concepts and insightful thought. Education will create professionals who do not simply accept the thinking of their instructors. Students, not trainees, will accept the truth of authority because they have learned to develop a level of understanding of their chosen profession, the individuals who support it, and its purpose. These educated individuals will be those who will be agents of social and scientific change (Kay, 2014).

Training means that there exists a body of individuals that learn to perform a list of procedures according to how another has requested. In so doing, the dental profession is taught to keep doing the same things, in the same way, regardless of the changes in the world beyond, ultimately resulting in a profession with a set of skills suited to the world as it was, not as it is, or will be (Kay, 2014). In a world where change is certain, and the pace of change is continually accelerating, this state of affairs will have dire outcomes for professional autonomy (Kay, 2014). Should this be the norm, dentistry would become increasingly regulated and controlled. It

appears that the best option of developing a profession that shapes the future is to accept that knowledge transfer is a social process involving not just knowledge, but beliefs and cultural acceptance. Dental educators should adopt the teaching of Paulo Freire and develop young dentists for the best chance of developing a profession that will lead rather than follow – a profession that develops, creates, and influences the political and societal understanding of how best to serve the population (Kay, 2014).

Historical Information Concerning Dental Education

The *Journal of Dental Education* was first issued in 1936. From that early time, the central topic for the journal has been the dental school faculty. Ten years before the first edition of the journal, in 1926, William Gies wrote in his report concerning the foundation of dental education: “Everywhere education is chiefly what the teacher makes it” (p. 237). Gies summarized what he thought was the immediate need in dental schools:

A much larger proportion of able and inspiring whole-time teachers, who, devoting their lives to teaching as a profession, by their character and example would exalt the spirit of dentistry, by their conduct of the instruction would heighten the quality of oral health service, by their research would steadily extend the boundaries of dental knowledge, and by their scholarship would give to dentistry and dental education the intellectual distinction is now lacking in each. (p. 237)

Gies’s concept of the professionalization of those educators in dental schools was crucial to the overall professionalization of dental education (Drisko & Whittaker, 2012). Gies envisioned a dental educator as a professional much different from the clinician who merely teaches (Drisko & Whittaker, 2012). In 1995, another publication, *Dental Education at the Crossroads:*

Challenges and Change, the following appeared: “The day to day fulfillment of the educational mission of dental schools depends on the quality and commitment of their faculty” (Field, 1995, p.122). This report also recognized that many dental faculty members were “stuck” in rigid departments, had non-competitive salaries, and had little opportunity for professional development (Field, 1995). Field’s report (1995) proposed solutions for improving the previously listed challenges by recruiting talented faculty intent on sharing knowledge, passion for their field, and who valued commitment to the student. Unfortunately, the same report noted that faculty recruitment is a priority and continued faculty development after hiring is not.

The Journal of Dental Education (JDE) is currently the most valuable resource for dental school faculty as well as allied dental educators. Its roots are, in general, situated in pedagogical research. Early issues offered information on educational methodology and findings from psychological studies. The Journal has since provided articles on learning preferences, personality types, teaching theory, and core professional skills to “develop” the untrained dental instructor. It has been and continues to be committed to developing, reporting, and evaluating educational methods used by dental faculty (ADEA, 2011-2014).

Recently, the JDE has been involved in reporting the increasing problems associated with faculty shortages and suggestions to mentor and coach dental students as future faculty members (Drisko & Whittaker, 2012). In the last few years, the JDE has maintained that impending shortages of dental faculty have increased the interest of recognizing those elements that make the average clinician seek out positions in academia and want to stay once they transition.

A satisfaction survey by Froeschle and Sinkford (2009) for full-time instructors indicated that most educators in dental schools anticipated a maximum time frame of eight years spent in academia. Females were the majority of respondents. A previous survey in 2001 conducted by

Shepherd, Nihill, Botto, and McCarthy (2001) ranked items by the degree of satisfaction. These respondents had less than five years' experience as educators. Factors of importance to these respondents were resources, facilities, benefits, and salary. Those that were of concern to the respondents were leadership, autonomy, tenure, promotion, and professional development opportunities (or lack of) (Shepherd et al., 2001). ADEA has since conducted additional surveys, and the consensus of these results were fears associated with being "stuck" in their careers with little hope for professional development, promotion, and tenure (Drisko & Whittaker, 2012).

The regular dental faculty in the United States has traditionally been exclusively male; the standard for dental hygiene faculty has been almost entirely female. As women have increased in numbers as students within dental classes, so have they increased in number as dental educators (Trower, 2007). In 2000, women were 25% of full-time dental faculty (Trower, 2007). A shifting ratio of male to female may affect the overall degree of satisfaction by those in educational roles.

In 2006, the establishment of the Academic Dental Careers Fellowship Program (ADCFP) by ADEA and the American Association for Dental Research (AADR) encouraged dental students to pursue teaching positions as opposed to entering clinical practice. The ADCFP was also expected to reduce the number of open faculty positions that had steadily increased in the last few decades (Drisko & Whittaker, 2012).

According to the literature, these academic environments will likely be impacted by satisfaction and dissatisfaction, an increase in part-time educators, due partly to budget cuts within state institutions and a disconnect between the ability of the part-time faculty member to adequately teach students; full-time faculty being ultimately responsible for the outcomes (Drisko & Whittaker, 2012). Faculty development has become increasingly important to both

full-time and part-time faculty as it is thought to be “critical to maintaining a viable and competent workforce” (Drisko & Whittaker, 2012, p. 70). Faculty frequently request and want more faculty development as it promotes the ability to implement significant curricular changes and instructs faculty on rapidly advancing technological issues (Drisko & Whittaker, 2012).

Academia as a Career Choice

Current dental and dental hygiene students are rarely presented with academia as a potential career choice (Rogér et al., 2008). Rupp et al. investigated the students’ awareness of careers in academia and related that 71% of dental students reported little knowledge of potential careers as educators. A quantitative study analyzing responses from 240 dental faculty members indicates that 87% of those considered as “new” faculty had postgraduate training, which suggests the postgraduate setting may have been where these dentists were exposed to research, service, and teaching (Schenkein & Best, 2001). Research indicates that there exists no typical dental educator; each educator is seen as a unique entity (Rogér et al., 2008). Faculty appointments are typically consistent with the institution’s mission. Hunt and Gray (2002) related that dental schools employ faculty that are oriented to institutional goals; clinically trained faculty tend to seek out institutions that are clinically intensive and research-trained clinicians seek research-oriented institutions (Rogér et al., 2008). Much research has been done investigating such graduates, but little research has been conducted to examine the motivation or attitudes of current dental educators.

Moving forward, it has been suggested that specific goals of leadership could be incorporated into the dental curriculum to improve the attributes of the potential dental educator (Skoulas & Kalendarian, 2011). Such suggested topics are self-awareness, team participation, negotiating skills, cultural competency, communication, conflict management, confronting

change, upward mobility, and emotional aptitude (Skoulas & Kalendarian, 2011). Education that produces no one to ascend into academia is without merit. Education should provide the student with faculty that empowers them and promotes leadership roles in industry, patient treatment, national associations, and research. Many dental schools include a research track but few incorporate leadership training into the curriculum. Such training may produce skilled and knowledgeable faculty able to enhance the learning experiences of students (Skoulas & Kalendarian, 2011).

Faculty Development

There exist multiple themes regarding the practical preparation of the dental educator. One such method is the American Dental Education Association's Academy of Academic Leadership Institute for Teaching and Learning. This program is a "professional development program that prepares dentists and dental educators for successful academic careers" (Haden et al., 2009, p. 1320). The goals of this particular program are to refine teaching skills, instill confidence, promote job satisfaction, and foster professional growth in the "new" academic setting. The curriculum consists of 50 hrs. of onsite learning culminating in additional assignments at "home" institutions and online learning modules. The complete experience encompasses a period of two months. It includes five areas of importance: faculty recruitment, development of academic skills, career planning, membership in the ADEA Society of Teaching and Learning, and the ability to teach peers (Haden et al., 2009). It is one of many faculty development strategies.

Faculty development, wrote Wilkerson and Irby (1998): is dependent upon faculty members' interest and expertise; faculty development has a critical role to play in promoting academic excellence and innovation, and it is a

tool for improving the educational vitality of our institutions through attention to the competencies needed by individual teachers and to the institutional policies required to promote academic excellence. (p. 387)

Faculty development, according to academic authority, Carole Bland, is a program to prepare institutions and faculty members for their educational roles including teaching, research, administration, scholarship, and career development (Bland, Seaquist, Pacala, Center, & Finstad, 2002). Before 1975, it was thought that workshops and planned leaves would address fatigue, outdated teaching methods, and lack of time for research. Many thought that if seminars on pedagogy were increased and sabbaticals were taken, the vitality of a faculty would improve (Bland et al., 2002). The standard thought was that teachers were responsible for their motivation and efficiency, and if administration left them alone and provided minimal interference, the educator would thrive. Beyond 1975, new faculty expectations have dictated how the educator will spend his/her time (Bland et al., 2002). Some of the expectations relate to revenue, varied types of faculty appointments, and greater diversity in faculty roles.

Among the faculty development realm of thinking, there is mentoring. Cited as a viable reason for leaving academic endeavors is a lack of mentoring and coaching (Shepherd et al., 2001). In 1999, the American Association of Dental Schools (AADS) conducted a survey directed at dental school Deans to determine if there existed within the institution a formal program that promoted academic careers. Those existing programs were focused on developing student research efforts (Haden et al., 2000). As a response to these findings Haden et al. (2000) suggested that to educate students about academic pathways, teaching assistant opportunities should be provided. This would offer the students a chance to learn the positive aspects of academic dentistry. A teaching experience within the pre-doctoral program would allow the

students to develop an understanding of theory and research which is the pillar of curriculum and pedagogy (Bibb & Lefever, 2002). This is further supported by the literature that suggests that an additional benefit would be mentorship and role modeling as a positive influence on the decision to pursue an academic career (Bibb & Lefever, 2002). An elective course for fourthyear dental students and/or dental hygiene students would provide an apprenticeship teaching experience under the supervision of faculty mentors and would introduce the students to learning theory, concept sequencing, and means of assessment. Graduate programs in dental hygiene have education tracks. By this method, the students can finalize plans for their future (Bibb & Lefever, 2002). A program offering such an experience was instigated by the College of Dentistry at UCLA. The results of which were positive and helped the school identify who may serve well as mentors and who possesses expertise in educational methodology. The students involved reported a positive experience (Bibb & Lefever, 2002).

The American Dental Education Association (ADEA) Special Interest Group on Scholarship of Teaching and Learning (SoTL SIG) was initially launched as the first ADEA Community of Interest in 2006 and was approved as a Special Interest Group by the ADEA Board of Directors in 2010 (ADEA, 2014). The strategic directions for 2011-14 include a priority to “promote the scholarship of teaching and learning as an integral part of the institutional culture.” (ADEA, 2016; Lanning et al., 2014, p. 1354). In support of that priority, the group is committed to aiding in the development of an infrastructure that promotes the scholarship of teaching and learning in dental and dental hygiene education. A primary initiative is to recognize the current status of SoTL in academic dentistry. SoTL concerns itself with systematic, literature-based inquiry into outcomes involving learning as well as teaching (Lanning et al., 2014). According to Lanning et al., (2014) dental faculty perceived particular

barriers to the scholarship of teaching and learning. Some of these obstacles are demands for research productivity, academic freedom loss, and lack of clear guidelines as to faculty expectations. SoTL, when accompanied by awards, promotion, and merit pay, was likely to be an acceptable practice according to Lanning et al.'s respondents (2014). Specific comments in this study indicated that for SoTL to be part of the academic environment, there must be some portion of faculty development offered and value placed on the endeavor by the institution (Lanning et al., 2014). Among the observed obstacles to engaging in SoTL were comments that extended from apathy to not considering SoTL to be a priority, to competing priorities between SoTL and other academic responsibilities. Ultimately faculty perceptions indicated support for cultural change through systemic analysis and measurable student learning outcomes.

Faculty Development vs. Continuing Education

The American Dental Hygienists' Association (ADHA) Standards of Care promote professional responsibility. Within the parameters of liability, the dental hygienist must be able to access and implement current, legitimate, and consistent evidence in clinical decision making by the ability to analyze and clarify recent literature (ADHA, 2011). An important component in the achievement of knowledge and skills necessary for evidence-based practice is a formal education in a defined area of expertise (ADA, 2012). Dental educators must develop and implement sufficient evidence-based practice knowledge and skill and be adept in passing the knowledge to their students. This prompts educators to reform and/or revise the curricula for future clinicians to gain the necessary information and skills to close any gap between what is known and what is taught (Stanley, Hanson, Van Ness, & Holt, 2015). The literature suggests that dental hygiene faculty attitudes and education impacts the integration of evidence-based practice into curricula (Bertolami, 2007; Forrest & Miller, 2009; Werb & Matear, 2004).

Continuing education courses are most often the means by which dental educators stay abreast of current and new topics. Ideally, clinicians and teachers can be self-taught, to a certain degree, if they access electronic databases to locate scientific literature; this method is assuring access to the most recent studies (Stanley et al., 2015). The literature suggests additional education is required to incorporate such knowledge into dental programs.

According to Webb et al., (2013), research intensive institutions are aware of the need for incorporating the most recent discoveries in dentistry and are seeking out leading practitioners to deliver quality student learning experiences in diverse dental programs. In response to professional challenges to “keep up” with current practice, many universities have developed responsive and flexible programs as professional development to meet the circumstances and need of dental faculty (Stanley et al., 2015).

Houle (1980) wrote about continued learning in the professions, the basis of continuing professional education. He observed that it was “impossible completely to separate practice (and the external control of practice) from the ways in which it is learned” (p. 10). In addition to the three modes of learning Houle (1980) described- inquiry, instruction, and/or performance, he noted: “every occupation that lays claim to the distinction conferred by the term *profession* constantly seeks to improve itself in certain distinctive ways” (p. 10). He described these distinctive ways as: “characteristics – such as increased complexity in solving problems, a capacity to use more complex knowledge, and a more sensitive awareness of ethical problems – [that] are related to the entire life career of the individual practitioner... therefore, a lifetime of learning is required to establish, maintain, or elevate the level of accomplishment suggested by each of these characteristics” (Houle, p. 10).

Literature Assessment and Summary

The literature review spanned several clinical environments but was limited to areas of appropriate clinical instruction- dentistry, nursing, and physical therapy. The dominant themes that exist within the literature are:

- Very few clinical environments have instructors with degrees in education
- There exists a current shortage in qualified dental educators
- Over a period of time, the number of qualified educators in dentistry has not increased.
- The number of unfilled faculty positions in dental schools has increased
- Few programs have addressed the need for experienced and well-educated instructors
- The American Dental Education Association offers the most relevant courses to prepare the dental clinician to become a dental educator
- The comfort level of the novice educator decreases as he/she enters the classroom environment

The first concerns regarding faculty shortages in dental education were presented as early as 1999 (ADEA, 1999). It was noted that beyond the shortage there is concern that technological advances and societal changes would further distance the clinician from an effective transition to an educator (Shepherd et al., 2001). The decline in the number of dental faculty is a direct result of fewer graduates entering academia as well as fewer faculty remaining in their current positions. Existing faculty are a valuable component of a comprehensive dental education and are necessary to promote oral health research and continue the advances made in clinical dentistry (Kennedy, 1995). There are many factors which easily dissuade the graduate dental student from seeking a teaching position- private practice is lucrative, academia has shifting expectations of their faculty, preparation time for teaching is lengthy, dental educators make far

less money than their private sector counterparts, and new graduates have a significant amount of student debt to pay. According to the Institute of Medicine report in 1995, major societal changes over the last two decades have greatly impacted academic dentistry. Cohen (1999), in his presentation to Allied Dental Directors in Colorado, suggested that these changes include more ambitious objectives, a host of unprecedented problems, difficult management of students, many collegial commitments (committees and research), and higher levels of job-related stress as deterrents to academic pursuits. The literature gives no credence as to why novice educators enter academia and thus it is also unknown why they stay or leave. Shepherd et al.'s study of 2001 was the earliest attempt to understand what factors influenced the pursuit of academic Dental careers. The most significant issues affecting dental educator career satisfaction were working environment, educational resources, excellent leadership, the opportunity for professional development and benefits associated with the position. Pertinent to this study is the indication of the availability of professional development courses and educational resources. These are vital to a well-prepared faculty.

Several articles revealed that often a mentor resulted in improved retention of faculty. Relationships and a sense of community and collegiality are often important as desirable expectations of new faculty. Mentoring aids the novice educator seeking to integrate the academic environment. Haden et al. also cited mentors as a crucial influence for educators as they choose an academic career (2000). Trower (2007), as well as the *Project on Faculty Appointments* at Harvard University, indicated the same factors as important but put a generational “spin” on it stating that senior faculty and junior faculty (Boomers vs. Gen Xers) live in different worlds and so have varying needs regarding commitments and convictions.

These articles may have the same characteristics of my planned research considering the age of

my participants; affirming what has been found in previous studies. Dentistry may not be prone to attracting new educators if the trend is to remain stagnant and not embrace the changes desired by a younger generation.

Nursing is very similar to dentistry in its attempt to attract and keep faculty; nursing, like dentistry, have faculty who come from a clinical environment to teach without proper training in educational theory and practice (American Association of Colleges of Nursing, 2005; Billings & Kowalski, 2008; Suplee & Gardner, 2009). Each of the cited articles is consistent in the theory that professional development is a life-long process and supports achievement of career goals; not unlike the life-long education standards found in dental education programs and promoted as a means of educating faculty. They further support the notion that nursing faculty seek opportunities for development and rely on the leadership within institutions of higher education to provide a supportive environment to provide such opportunities. It is anticipated this theme of lifelong learning will be prevalent in the research to be conducted for dental educators. Suplee and Gardner (2009) propose orientation for faculty that is not time restricted, is incorporated in faculty development and continuing education, provides an inviting atmosphere, promotes mentoring, and covers at least the very basics of the educator's role which is not foreign to what dental educators desire. Another article authored by McAllister, Tower, and Walker (2007), addressed common problems faced by clinical educators (much like what might be expected in a study addressing dental faculty). They outline transformative education with specific strategies like use of Socratic dialogue, diplomacy skills for student management, solution-oriented feedback, and practice/education with reflection.

Insufficient preparation in the skills needed for educational endeavors is one characteristic of the challenges facing expert clinicians who move to academia. Davis, Dearman, Schwab, and

Kitchens (1992) suggested that many professionals who accepted teaching roles did so without fully understanding the consequences of assuming such a responsibility. For individuals undergoing a work role transition, the findings of this study may provide an awareness that their experience may not be unique and others have made a strong transition.

Advances in every aspect of dentistry in the last few years have been occurring at an exponential rate which has led to knowledge and technologies that have the ability to transform dentistry in both practice and education (Iacopino, 2007). The ongoing advances in dentistry, and subsequent curriculum changes present a major challenge to those who are attempting to reinvent themselves as educators. According to De Paola and Slavkin (2004), dental health education needs some type of reform to adapt to advances in the profession. The educational environment has not kept pace with the shifting patients' needs and expectations; the faculty of today must be in step with change, advances and discoveries to produce a graduate ready to confront the challenges that a dental career presents. It has been suggested that revisions may result in an outcome-based system that organizes major reforms in oral health education, thus preparing the new graduate to excel in clinical dentistry.

By all outward signs, the dental profession is not merely advancing but flourishing. However, signs of an impending crisis in dental education threaten the future effectiveness of the profession. Transforming dental education through the application of principles espoused by the ADEA Commission on Change and Innovation in Dental Education (CCI) is essential for safeguarding the future of the profession. To meet the future oral health needs of the public, dental schools must retain their research mission and prepare their students for evidence-based practice. In support of this, both the curriculum and the educational environment and approach to

dental education must transform (Roth, 2007). The question remains- are the educators that were previously clinicians prepared to teach the latest advances in dentistry?

Professional Development

Barnett (2003) stated:

The goal of any professional development program is to inform and change teacher behavior as a result of new information. To this end, teachers and other educators spend countless hours in professional activities learning to use new instructional strategies or materials. Sometimes there is change, and sometimes the person goes right back to doing what he or she had been doing all along, (p. 1)

Research indicates that educators value professional development experiences that are similar to their beliefs about teaching (Kubitskey & Fishman, 2007), and those that are centered on learning new information to help in teaching (Hawley & Valli, 1999). These experiences are most often attended when they occur during the work day (Good, Miller, & Gassenheimer, 2003; Hirsch, 2004; Speck & Knipe, 2005). Additional research indicates that such offerings are considered successful when the attendees have sufficient time to learn and then are able to continue the skills associated with the content (Harwell et al., 2000; Klinger, 2004; V. Richardson, 2003). Professional development is well attended when supported by school leaders (Brandt, 2003), is delivered with the attitude of continual learning as an important aspect of the institution's mission (Cohen & Hill, 2000), and supports collegiality (Lauer & Dean, 2004). These findings are considered as part of a positive culture or a teaching environment that encourages learning and promotes practice and reflection (Speck & Knipe, 2005). Such a teaching and learning institution promotes effective professional development.

According to the literature, promotion of educator growth and development can be measured by increased student achievement. Professional development offerings are not well attended when they have a lack of support from administration, there is a lack of time, and the offerings do not address the needs of the attendees (Cohen & Hill, 2000; Rock & Wilson, 2005). Educators may be disengaged from professional development when it does not consider the teaching experience of the faculty. Often professional development is designed for the entire institution faculty and is not targeting one group (i.e., clinical or didactic). Professional development becomes a one-size-fits-all class designed to accommodate a large group as opposed to a select group (Speck & Knipe, 2005).

Mentoring as Preparation to Teach

Mentoring was a factor in at least 12 articles. The literature suggests that as preparation for teaching, a mentor may have sufficient input to aid the novice educator into the educational environment with the least amount of trauma. Given the impending shortages of dental faculty in the United States, it is important to retain existing as well as new faculty members. Mentoring could play a crucial role in this context. In a professional environment such as the dental school, the term “mentor” implies that experienced faculty members may provide insight and support to those peers who are less experienced, with the goal of ensuring their success. Research on the role of mentoring in academia has a long tradition (Berk, Berg, Mortimer, Walton-Moss, & Yeo, (2005). A mentoring program could result in significantly more positive perceptions of collegial support in the educational environment. Given that any form of positive support can be beneficial when coping with stress, this conclusion is significant.

The Making of an Educator by Continuing Professional Education

Continuing professional education, though not a substitute for formal educational training, can and often does prepare the dentist and dental hygienist clinician for an academic career. A subjective perception of adult development divides this into three types: sequential, life events, and transitions; the latter being necessary for this study (Hansman & Mott, 2010).

Current literature suggests that transformative learning, the ability to restructure one's being and thinking, rests not with individual gain, but for the benefit of society as well (Boucouvalas & Lawrence, 2010). Transforming the clinician to an educator in dentistry is a "perspective transformation" (Mezirow, 1991, p. 167). In this learning, the clinician must critically reflect on his/her previous assumptions, recognize the needed alteration and replace them with proper perspectives relating to the current need to change (Mezirow, 1991). Multiple authors have conducted research, developed theories and created social change in their effort to explore specific adult learning situations; such a circumstance as the adult clinician transitioning to adult educator.

There should be a collaborative strategy among various providers of adult continuing education; attention to communication, vision, cooperation, and power (Knox, 2002). Adult education is defined as "activities intentionally designed for the purpose of bringing about learning among those whose age, social role, or self-perception define them as adults." (Merriam & Brockett, 2007, p. 8). Adult learners are often confused about their identity both personal and professional, as an adult learner. The previous statement allows one to see the difficulty some have to return to a learning environment, such as professional development and continuing education, needed by many who go to academia from a profession like dentistry. It appears that the individual's perception of his or her professional identity may have a significant impact on

the clinician's ability to decide if a different set of skills are necessary to become an educator.

Continuing Education should be more than merely the delivery of information. It should, however, be used as an experience of growth and insight (King & Lawler, 2003). Educators should be interested in and exposed to any issues, current and future, which may affect their organization (King & Lawler, 2003). The future of continuing education, especially for the professional, will be expected to present topics that spark interest and guide practice. Facilitators and presenters must recognize the teacher of adults is also an adult learner and so incorporate pedagogy (andragogy) as well as address the needs, opinions, and plans of the attendees. The days of continuing professional education meaning "training" sessions should be passed, and these programs to educate teacher should attempt to see the potential of educators and trainers exploring their worldviews and developing their voices (King & Lawler, 2003). Teachers of the adult learner may have life-changing experiences as they try to understand a new future and a new focus.

Active Learning

Any incorporation of active learning in a clinical environment, especially in a Dental school, is well accepted according to Behar-Horenstein, Mitchell, and Dolan (2005). Their observations examined the quality of didactic instruction incorporated into the clinical environment. Their thoughts were that interactions within the institution are influenced by the personal dynamics of instruction. Activities and behaviors can be measured and described. The curriculum is not the most important aspect of teaching, but the incorporation of values like integrity, honesty, respect, and cooperation. A dental school or dental program with active learning at its core will need qualified faculty who are participatory in teaching methodology and who are willing to pause for interaction during knowledge dissemination. Such engagement and

interaction are found more often in the experienced faculty member than the novice. Similarly, McHarg and Kay (2008), see educators as agents of social change promulgated by their interaction and engagement of students and by creating an environment where all who are there feel trust for others as well as concern. They emphasize the need for the student to play an active role and control their own learning, subsequently removing some pressure off the educator who may or may not know how the facilitation of such a classroom would proceed. Such thoughts may be the hope and expectation of the novice educator, but may not be the norm for those individual participants who were interviewed in the research study.

The Shifting Work Role

Work role transition occurs when entering a new community of practice, in dentistry as well as nursing. In considering a new practice, it is necessary to view it from the psychological, sociological and cognitive perspectives. Anderson (2009) states that though master's qualified clinical experts may be recruited into academia, and they may have clinical expertise in a given area, they do not necessarily possess the knowledge needed to be successful in the academic setting. According to Billings (2003), "excellence in teaching is not intuitive" (p. 100). On the other hand, one might wonder how then learning may occur as clinicians participate in the challenges of their professional work of education. Is it preferred that educators incorporate their work experiences into a form of understanding the educational process? Several authors theorize intuition as a psychological process; in a few cases, some of the authors define intuition within a cultural, psychological framework. Intuition, as some authors suggest, is also a process that involves how professionals engage emotionally and socially with those who seek their expertise (Atkinson & Claxton, 2000; Claxton, Atkinson, Osborn, & Wallace, 1996). Atkinson and Claxton (2000) conceptualize some of the dimensions of perceptions, deliberations,

anticipations, content, and feelings. It is then determined from their research that "novice teachers quickly learn to rely on their own resourcefulness and are adept at crafting their intuitive ideas into practice" (p. 103). Then educators and clinicians may be using intuition on a daily basis; it would be part of dealing holistically with complex situations.

Chapter Summary

Chapter 1 has offered a background to the research study, an introduction to relevant terms, the purpose of the survey and questions related to the inquiry. It has proposed that continuing education and professional development may be substituted for formal education for those individuals instructing dental and dental hygiene students. What remains to be uncovered is: Whether this type of clinician education is sufficient to make the novice educator *feel* prepared, actually *be* prepared, and at the same time offer an adequate and efficient means of education? The literature suggests that continuing professional education may suffice in some instances to provide adequate opportunity for learning adult educational theory. Continuing education allows the "learner" to build upon past perspectives of a profession and simultaneously provide new and innovative approaches to teaching and learning (Kasworm, Rose, & Ross-Gordon, 2010b).

Additional research is needed to confirm the findings of the aforementioned authors. Are the descriptions and conclusions of these studies indicative of the clinician seeking a position in academia? It would seem that the expertise and skill set of the clinician would benefit the transition to educator, but to what purpose? According to Anderson (2009), there is a cognitive aspect to the transition that is vital to the success of the novice educator. The next chapter, Chapter 3, will detail how this study was carried out.

Chapter 3

Methodology

Overview of Research Methodology

Qualitative research concerns the meanings, ideas, characteristics, metaphors, symbols, and description of things (Berg, 2007). Berg (2007) states that qualitative research emerged from naturalistic inquiries usually in the fields of sociology, anthropology, and linguistics but, is currently applied to most of the social sciences. This approach is used to investigate research questions in nursing, social work, administration, community services, management, education, and medicine.

The purpose of this study was to understand how the dentist and/or dental hygienist (dental clinician) transitions from a strictly clinical disposition to that of a dental educator. Additionally, it is important to understand the different avenues that may be traveled to arrive in academia. It is clear that the dental schools in the United States are facing an impending crisis of dental faculty shortages (Livingston, Dellinger, Hyde, & Holder, 2006). This research sought to find what processes are in use by clinicians as they transition, if continuing professional education is sufficient preparation, and is it a transformative experience resulting in a new perspective and/or identity.

A common methodology in the study of adult learning is detailed research (Merriam & Simpson, 2000). In this instance, the focus would be on facts about individuals, their opinions, and their attitudes (Kerlinger, 1986). This would ideally draw attention to the degree in which events are related (Merriam & Simpson, 2000). Using a descriptive design, I will be able to explain, from semi-structured interviews, the characteristics of the transition each participant has experienced. Such description will rely on a collection of facts, the documentation of a problem

(inadequate teacher preparation), or a comparison of the experiences of my participants (Merriam & Simpson, 2000).

The following research questions sought an understanding of a collective experience, how it occurred and why it is important. The nature of such an inquiry suggests the relationship between the researcher and the subject as well as the professional limitations that shape the inquiry (Denzin & Lincoln, 2011). As a clinician who has been through the same or similar experience, the research questions has been created to understand how others felt in similar circumstances.

1. In what ways are dentists able to convert their clinical expertise to an educator method of instruction?
2. In what ways does continuing professional education help clinicians become teachers, instructors, and educators?
3. How do the dentist and dental hygienist develop his or her professional identity as an educator?

In this chapter, the research methodology, the rationale for the epistemological choice, theoretical framework, data collection methods, analysis, and interpretation is discussed. Additionally, confidentiality, trustworthiness, and subjectivity statement will be included in the discussion.

Research Design

Research is vital to the advancement or development of any field of study (Merriam & Simpson, 2000). Most research depends on the inquisitive nature of the individual involved and the energy with which they proceed (Merriam & Simpson, 2000). The basic philosophical assumptions of the researcher qualify the type research that is employed in conducting the means

of implementation (Creswell, 2009). It will be of great substance to both explore and understand the meaning each participant assigns to his or her transformative event. As I hope to do more than report, it is necessary to use a qualitative approach. Therefore, I sought to understand of the meaning individuals ascribed to this institutional problem. I anticipated that though I had definitive questions for the participants, emerging questions may materialize during our interaction. Such anticipation lends me as the researcher a flexible arrangement as a means of interpretation and meaning of the data I received. I have chosen qualitative research because it extends beyond numeric description typically associated with measurable outcomes. I was questioning a life experience and so used a narrative inquiry strategy. This study is concerned with questioning participants about their involvement relating to a transition or possibly a transformation to a different work role. My knowledge, as the researcher, used to approach the data may be influenced by my personal values and opinions. I have chosen to use qualitative data and in so doing will accept any bias and will acknowledge it in the foundation of the study.

The semi-structured interviews prompted the participants to describe in detail the experiences they had when first coming to academia. The same questions were asked of each participant, and every effort was made to maintain the trustworthiness of each participant (Borg, Gall, & Gall, 1999). As I am concerned with the philosophical questions of “what can be known,” “who can know it,” and “what perspective or lens was used to find it” as Kanji mentioned (2012), I relied on the “science of knowing.”

Interpretivism

It has been said that dentistry is entrenched in the epistemology of Objectivism because it is logical and typically lock-step in nature. In answering the research questions, however, there was an objective reality of meaning, and a logical approach to understanding a response (Crotty,

1998, 2010). In researching the necessary preparation or the perceived training of the clinician converting to educator, we are reminded of Crotty's statement (1998) that "all knowledge, and, therefore, all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world" (Crotty, 1998, p. 42). The answer sought may not be correct or precisely measurable (as in quantitative studies), but it is the interviewee's perspectives.

How we know what we know, is a relevant epistemology because this research is concerned with an interpretation of human nature or understanding and explanation of human behavior. The participants in this study will make meaning of their personal experiences as they seek to move from clinician to the educator and the meaning they make will provide data for understanding this phenomenon. The meaning varied between participants, though they were often similar.

The dentist, as a practicing professional, has implemented a particular skill set to be successful in private practice. As the dentist transitions to educator, he or she must make this move relying on past knowledge and learning new skills as an individual. Though the constructionist epistemology is defined as a "philosophical stance behind a methodology... [which] provides a context for the process involved and is a basis for its logic" (Crotty, 1998, p. 66). One might consider a constructivist approach because this knowledge will interpret social practice (Crotty, 1998). However, I was looking for culturally derived and historically situated interpretation of an event and so chose the interpretivist approach.

This research has dentistry as the culture, and historical situations are the transitions or transformations the participants experienced. Interpretivism can be construed as "knowledge of the world" (Crotty, 2010, p. 67). Max Weber (1864-1920) suggested that human sciences were

concerned with understanding. Weber affirms: “interpretive sociology considers the individual and his action as the primary unit, as its ‘atom’ ... In this approach, the individual is also the upper limit and the sole carrier of meaningful conduct ... Hence, it is the task of sociology to reduce these concepts to ‘understandable’ action, that is, without exception, to the actions of participating men.” (Weber, 1970, p. 55).

Qualitative Research Procedures

Typically, in experimental type research, I, the investigator/researcher chose to utilize procedures to remove myself from informal interactions with participants (DePoy & Gitlin, 2011). The kind of narrative inquiry used is based on researcher involvement and some active engagement with participants and additional sources of information. Involvement of participants depended on my ability to develop rapport and mutual respect with the dentists and dental hygienists participating in the study. In many types of inquiry (ethnography, grounded theory, and heuristic) the basis of obtaining information on personal experiences is based on the development of a strong relationship or bond formed between the investigator and the participant (DePoy & Gitlin, 2011). As Tedlock (2011) emphasized, when investigators interact with participants, the result is a better understanding of principles and behaviors of those interviewed.

Narrative Inquiry

The research is presented as a narrative inquiry. Narrative inquiry “encompasses the interdisciplinary study of the activities involved in generating and analyzing stories of life experiences” (Schwandt, 2007, p. 203). It is purposeful and practical in nature. Often, it includes an examination of the methodology and aim of research in a personal narrative or autoethnography. If successful, it will show underlying processes and make meaning of the experiences. (Appendix E-Protocol)

Narrative inquiry has been described as either a classical or an interpretive biography. An interpretive biography method meshes the experience of the research participant as well as the interviewer. As the researcher, I study the stories told and retell them through the lens of my experience (Creswell, 2003). The interviews reveal an accounting of the participants' experience, some relay their opinions, and some share their beliefs. As I examine the responses, centering them around a theme or themes, I have tried to connect meanings among the responses and link them to a common meaning (Creswell, 1998). I have tied the responses to my theoretical framework of transformative learning.

In this study, the narrative inquiry approach uncovers the preparation they made to become an educator and how they felt about the preparation or lack of preparation. The participants have similar teaching obligations, similar students, and similar challenges. Their attitudes towards continuing education as a means of learning, the apparent like or dislike of the professional development offerings at their institutions, and their desire or lack of desire for a formal education and another degree also becomes apparent by the answers to the interview questions.

Research Context

In the narrative inquiry, gathering information is entwined with the analysis of the information (DePoy & Gitlin, 2011). The collection and analysis “reciprocally inform each other” (DePoy & Gitlin, 2011, p. 214). The information-gathering process consists of four interrelated parts (Shaffir & Stebbins, 1991). These parts are “context selection, observing the meaning of the setting, upholding relationships, and removing oneself from the field” (Shaffir & Stebbins, 1991, p. 140). Context selection must be practical and propose an inquiry that is feasible. The researcher must be careful to have a broader focus; a narrow focus may limit the

scope of the responses (DePoy & Gitlin, 2011). Upon defining the context, the researcher must gain access by negotiation, identifying key individuals, and decide how my personal story may affect how the information is perceived. Insiders and outsiders will often view the acquired information differently. Should the researcher derive information unbeknownst to others, the ethics of confidentiality become an important consideration (DePoy & Gitlin, 2011). In this step, all data gathering should be designed to move the “outsider” to “insider.” DePoy and Gitlin (2011) refer to this as a “rich point” (p. 219). The rich point is that point when the researcher learns his/her assumptions may be skewed or incorrect.

Asking questions is a definitive method of inquiry. More specifically, asking for information from key individuals (novice educators) is the primary data collection procedure in this study. As the researcher, I may employ a specific “asking strategy” as an example of social exchange often for verification or clarification purposes. Interviews require direct contact with the participant who provides necessary information. To obtain valid information, I will form some semblance of a “relationship” with the participant based on an appropriate level of involvement. The interview, as the most powerful qualitative technique for inquiry is used in most studies. (Sharan Merriam, interview, April 3, 2007). “Qualitative research studies encompass a broad array of intellectual projects from those that seek to represent peoples’ lived experiences, perceptions, opinions, and beliefs, to those that aim to contribute to social justice work, to projects that trouble our understandings of topics. Thus, approaches to the design and conduct of qualitative interviews and data analysis are diverse” (Flick, Scott, & Metzler, 2014, p. 297).

Originally inquiry was used in the context of group discussions and the analysis of talk but later adopted for the interpretation of a variety of texts, especially biographical interviews, but also for semi-structured interviews (Flick et al., 2014, pp. 297-300).

Conceptual Framework

The paradigm of the dental community varies according to the degree awarded, professional title and perhaps where and how their education was obtained. The foundation for the variable entities is attributable to interpretivism. How the dental hygienist and dentist interpret their role as an educator is very different and combines two perspectives that may be incompatible- the RDH that desires additional formal learning and the dentist who is against further formal education. Both groups educate students in a similarly designed venue; each considers the patient's health and well-being to be of great importance. One can wonder why, then, are they are so different in attitude towards the delivery of knowledge and information? As a dental educator, I must wonder if the way I have constructed the needs of the novice educator and have analyzed the answers of the participants and if there is an objective or subjective view of reality in dental schools. The manner in which dental professionals move from clinician to educator is a complex reality. This research attempts to avoid an incomplete grasp of the conversion to educator and instead seeks to draw from a methodology that allows for an explanation.

The assumptions I have made concerning the reality of dental education are merely assumptions. These have been constructed over the last 10 years and are part of the experiential knowledge I have determined to be my reality. My reality could be called bias by some; but is a valuable part of the research conducted. Without a prior perception of what is important to dental educators, there would be no research concerning this concept of effectual and efficient

instruction. As the lone researcher in this study, I cannot distance myself from that which has prompted my questioning of exactly how one moves from clinician to educator. My personal experiences in dental education have become the foundation on which I built my research questions. This foundation should not mask awareness but neither should it be overwhelming; it should be the lens through which I look to find the existing patterns, relevant themes, and subsequent similarities and differences without adding my personal comments.

When I became an educator, some 10 years ago, I had a BS in dental hygiene and had been out of school since 1982 (only then I was taking a course to apply to dental school). The reality of a dental educator and what type of transformation was expected was built on my personal experience and nothing more. It was my personal revelation that dictated how I would proceed to become part of the academic community.

The choices for educational instruction for professionals has not varied in the venue. What existed then, still exists, though it has been affected by technological advances. The sites most often sought by my peers and I were continuing professional education (required by the Board of Dentistry), professional development, professionally organized meetings, and group workshops. Now, there are webinars, "go to meetings" and other means of synchronous online learning.

My goals for this research are to cover the topics relevant to conversion from clinician to educator in dentistry, to uncover any problems associated with the conversion, to reflect on possible solutions to expedite the process, and to assure those who may have a similar experience that it is a transformation. The literature review was, under these circumstances, simply a review and the information obtained from the literature was a background from which to pull information and not knowledge for the construction of the theory that informs my research. The

methods of conversion for the participants in the study are heuristic in nature and expose the problems of the participant's personal experience.

The understanding of my perception of the conversion experience may be seen as a deterrent, but having experienced the process, my subjectivity should be considered an asset. Particular pieces of information that may appear to be unconnected may be related. In conceptualizing what goes on in the process of practicing clinician becoming a dental educator, one can assume that outside influences of the particular institutions involved have no bearing on the individual's manner of conversion. Each clinician is treated as an individual free to control how his/her judgment affected their personal process of change. To assure my conceptual framework is intact and functioning, to assist in my research, I considered keywords that would be in the responses of the participants and then found all things that relate to this. My research is an interpretative approach to the reality of personal experience.

Research Setting

The research settings vary. Dentists were selected from multiple four-year public institutions; dental hygienists were selected from both two- and four-year institutions and may be from public schools or those that are privately owned. Multiple educational environments were considered, though I originally sought to select schools from the southeastern United States.

Population

The population studied consists of dentists and dental hygienists who have moved from a role in clinical practice to that of an educator. It is assumed that this population has few individuals with actual degrees in education. It is further assumed that these individuals may have participated in various forms of professional development and/or continuing professional education to obtain the skill set necessary to educate students.

The dental hygienists to be interviewed have a bachelor's degree or master's degree. The accrediting body for dental hygiene programs requires one-degree level above the degree to be conferred. Positions as a clinical director or program director require a master's degree as a minimum requirement. There are only 16 schools in the nation that offer a master's degree in dental hygiene; it is assumed most degrees of the Master's level will be in education, public health, health science administration, and possibly others similar in scope. The common denominator will be a license to practice dental hygiene.

The dentists interviewed were a D.D.S. or D.M.D. depending on the institution from which they graduated. Some may have a specialty license or a master's degree in a dental specialty. All with have a license to practice dentistry. They were selected from faculty directories, colleague referrals, visiting lecturers, and speakers and/or attendees at meetings.

Participants

The method of choosing participants was purposeful. As the simplest form of sampling each DDS and RDH have the same chance of being selected for an interview. This inquiry examines the experiences of the dentists and dental hygienists at various institutions of higher learning (University Dental Schools, Colleges of Allied Health Professions, Proprietary Colleges, Community Colleges, and Technical Schools). A listserv was used as the primary means of contact. The listserv for the dental hygienists was obtained from a colleague at ADHA; the request for dentists was sent to 10 colleagues who then sent the requests to the Academic Deans at multiple institutions. I originally asked for help from ADEA, who stated because of 20,000 members they were unable to honor a request from me; a friend at ADEA, however, made the suggestions I used to find the participants. The requests for participants specified the need for novice educators as those to be interviewed. I chose the first 26 responses as

participants. Participants were chosen based on availability and willingness to participate and those that responded first. I sought only those individuals that have been in academia for five years or less.

As a dental hygienist for 41 years, with 13 of those years in dental hygiene education, I have come in contact with many dentists and hygienists. I have served and continue to serve on multiple committees, have an active record of participation in my local and state dental hygienists' component groups, serve on the University Of Tennessee College Of Dentistry Alumni Board, and currently teach at the College of Dentistry. Active participation in ADEA and the previously mentioned professional groups have given me an extensive access to dental educators and dental hygiene educators. The participants for this study were chosen strictly by accessibility and willingness to participate. I sought an equal number of dentists, and dental hygienists as an equal mix was desired, but acceptance was based, in large part, on response to emails sent. The states I had hoped to choose from, because of my location in Tennessee, included Tennessee, Missouri, Florida, Kentucky, Arkansas, Mississippi, Texas, South Carolina, and North Carolina; I did not limit the participants to only these. Interviews were conducted in person (at National Meetings and schools) or by telephone. The interviews were recorded and transcribed. The ability to recreate this research will rest upon the demographics of the chosen participants, the institutions where they teach, and their willingness to share their experiences. Additionally, their pathways to academia will be of primary importance to replicate the study.

Confidentiality

Though there are some details in the descriptions, they have been altered for prevention purposes to allay fear of easy identification of the individual or their respective educational venue. However, their words, stories, and quotes are reported as they were spoken, without

changes. The person's pseudonym in the form of an initial will be used instead of *he* or *she* and *him* or *her* for the purpose of anonymity.

Example: Dr. A (DDS-A), Dr. B. (DDS-B), Dr. C (DDS-C).....additionally the institution where they are located will be given a pseudonym U of A, U of B, U of C...

The keys for establishing the assignment of these pseudonyms will remain in a locked file in my residence. After two years, they will be taken by me to the University of Tennessee shredder bin located on the 5th floor of the College of Dentistry. The bin is locked, and no one can access the materials within the bin. Interview notes, transcriptions, and recordings will be kept in the same manner and destroyed accordingly.

Data Collection

The interviews were audio-recorded and then transcribed. These recordings were the primary source of information for this study. These interviews did not exceed 45 mins (total time). These took place at the dental school or the ADEA, ADHA, and the TennDHA annual meetings (depending on the preference of the participant). Planning for those participants who could not be interviewed in person, a phone interview or use of Skype was sufficient. The interview guide (found in Appendix G) was utilized as a tool for note-taking. I anticipated and received full cooperation and accommodated the participants' preference for the interview setting. I determined that one interview conducted in a thorough manner would suffice.

Data Management

All physical data, including all written materials, notes, artifacts, and memos are kept in a locked file cabinet at the researcher's residence. All electronic and digital data is password protected. On a simple level, multiple types of data can be defined as "facts and statistics

collected together for reference and analysis” (Oxford, 2014). From an information science perspective, data can be defined more contextually in the scope of research to mean that it “is collected, observed, or created, for purposes of analysis to produce original research results” (Coursera, 2015). For this study, the data was collected during the interview.

Data Analysis

Information was researched from the American Dental Association, the American Dental Education Association, and the Continuing Education/Professional Development offices of the respective schools to find out what courses are available (including length, cost, and location). For trustworthiness, I viewed and/or assembled artifacts (i.e., certificates, diplomas). Those that were interviewed by phone were helpful in sending photos of certificates and diplomas when available. Data analysis revealed patterns, identifiable themes, relationships, explanations, interpretations, and/or generated theories. It involved synthesis, evaluation, interpretation, categorization, hypothesizing, comparison, and pattern finding. It involved what H. F. Wolcott calls “mind work.”

The analysis took place throughout the entire process; the study was shaped and reshaped as it continued, and the data has been converted into findings. As each researcher has his/her preferences, strengths, and weaknesses, and must establish the best course of action, I did the same. Wolcott (1990, 1994), Merriam (1998), and Stake (1995) have provided suggestions in their work for qualitative research analysis; I tend to think that certain statements and phrases from my participants are reflective of their thoughts on continuing professional education.

Theoretical sampling drives data collection. Theoretical sampling involves the researcher collecting, coding, and analyzing data; then deciding which step to take next.

An initial sample is taken as it is chosen by reasonable relevance to the problem being researched (Glaser & Strauss, 1967). Beyond mere analysis, coding was done to identify themes. It was accomplished in cycles to examine the link between sets of data and is initiated during collection and formatting of interview responses (Soldana, 2013). To effectively understand and explain data a systematic approach must be implemented. According to Winters, Cudney, and Sullivan (2010) coding as an approach is required to make sense of an overwhelming amount of information that requires organization so that the richness of the dialogue that is within it, is examined for themes, links, and relationships. A general form (Thomas, 2003) of content analysis was utilized to analyze the conversations between interviewer and participants. It consisted of three stages: deductive, inductive and integrative. Deductively the responses were coded according to the conceptual framework and the aims of the project. Inductively, the themes that emerged from the exchanges of information were added. In the integrative stage of data analysis, the qualitative data were examined for relationships among the themes and were then organized into a meaningful, conceptual scheme related to the education of dental professionals. The general inductive approach provides an easy method that is systematic for analyzing qualitative data that produces reliable and valid findings. Though it is thought that the general inductive approach is not always as strong as other analytic approaches for uncovering themes, it does provide a simple, straightforward approach for deriving findings in the context of semi-structured interview questions (Thomas, 2006). The purpose of using an inductive approach are to (a) condense data into a summary; (b) establish links between the research objectives and the summary findings; and (c) develop a framework of the underlying experiences that are evident in the original responses (Thomas, 2006). The

inductive analysis suggests approaches that specifically use detailed readings of data to derive concepts or themes made from the data by an evaluator or, in this case, the researcher. This understanding of inductive analysis is consistent with Strauss and Corbin's (1998) description: "The researcher begins with an area of study and allows the theory to emerge from the data" (p. 12).

A host of checklists for evaluating and reporting qualitative studies has been proffered (Boeije, van Wesel, & Alisic, 2011; Tong, Sainsbury, & Craig, 2007), but, beyond the idea that findings should be clear and concise, writers of qualitative health research papers have received little guidance on how to accomplish this and somewhat less on how to present their findings as valid and usable. A strategy for improving the reporting of these findings is to translate them into thematic statements, which may in turn be translated into the verbiage often used for intervention and implementation. In this case the use of these statements may influence institutions to look at their own ways of preparing educators and adjust or improve the offerings for faculty accordingly. Writers of qualitative health research reports might consider these strategies to better display the significance and actionability of the findings to a wider audience.

Areas where phrases and groups of words in responses are similar in context have been subsequently grouped together. This process of coding began after the first participant was interviewed. The interview responses were transcribed and transcription continued until all interviews were completed. I used a word or phrase that assigned a summative, essence capturing, and evocative attribute for a portion of language-based data (Saldana, 2013). Though, per Patton (2008), this type of data analysis is time-consuming, the result was a rich description and a recounting of experience which gives the reader a

clear and definitive understanding of the topic. I also found that, aside from the research, I enjoyed talking to each participant.

Trustworthiness, Bias, and Rigor

A major consideration in qualitative research is the researcher. I was the only individual conducting interviews for data gathering. Interviewing the novice dental educators and using them as investigative participants demanded that I ensure a valid protocol and use ethical strategies to assure the study remains credible, and the results are trustworthy. A critical issue for trustworthiness is known as a validity threat; according to Maxwell (2005), the most common threats in qualitative research are reactivity, researcher bias, and participant bias. Reactivity refers to the potential altering effects of the researcher's presence on the participants' behavior and statements (Maxwell, 2005). As I hold a position within my university as a department chair, which may be seen as a position of power, I was concerned that this would affect some participants. The closeness to the participant and the nature of the open-ended interview questions made engagement with the participant a concern. I attempted to allay any concerns the participants may have had and sought to set aside any preconceived ideas I may have had about the participant or the school where they teach. Researcher bias exists when observations and interpretations are adjusted by preconceptions of the researcher; I remained a neutral party and refrained from interjecting my opinion or using questions or comments that unwittingly conveyed how "I" might want the answers to be. Respondent bias occurs when participants are not truthful. Often, those one interviews will withhold information to protect their privacy, to avoid embarrassment, and to protect their positions (Maxwell, 2005). To assure this did not happen, I shared with each participant my plan for confidentiality; sharing with them my method of assigning pseudonyms and storage of all information. On the other hand, participants may

have tried to be helpful and possibly presented information that was what they believed I wanted to hear, rather than what occurred.

Rigor refers to attentiveness to methods; strategies used to increase the trustworthiness of the research findings. Several strategies for rigor were implemented within this project to negate the potential for bias or misinterpretation; consequently, the trustworthiness of the conclusions was maintained (Kanji, 2012). An awareness of such strategies will enable those that appraise the research a more comfortable and critical approach.

Strategies for rigor include but are not limited to (Burnard, Gill, Stewart, Treasure, & Chadwick, 2008; Maxwell, 2005; Padgett, 2008):

- **Pilot tests:** I have implemented a pilot study in the form of my residency project. I used a similar interview protocol with a smaller group of participants who met the research study's criteria for participation; I determined the questions worked as planned. This project gave me the impetus to expand to other schools to determine if the results would be the same. For the pilot study I received IRB approval as exempt from UTHSC and the University of Memphis. The article I submitted for publication was accepted and appeared in the *Journal of Dental Sciences*, July 2016 edition.
- **Data saturation:** This is the point at which no new or extraneous and impacting information is being generated. Saturation is completeness. I do not anticipate the use of an endpoint for data collection. Using an endpoint for data collection will increase the risk of missing information that may emerge if more data is gathered. I limited the number of participants to 26.

- **Triangulation:** This attempt to collect information from three or more sources and methods (e.g., interviews, observations, artifacts) that may provide a complete description and analysis of actions. The nature of my topic and the use of interviews does not indicate this would be an acceptable method for my study.
- **Member checking or respondent validation:** As the researcher, I sought substantiation of my findings by getting feedback from research participants. This important step protects against any known or unknown bias I might have and it rules out any possibility of misinterpretation or misrepresentation. When asked, I provided the participants with a copy of their interview transcript so they could confirm accuracy. I went over the notes I had made at the close of the interview with the participants to confirm I had been accurate.
- **Negative case analysis:** affirming a bias by looking for data that explicitly supports my beliefs; I will not engage in this type analysis.

As researchers, “we strive for a confluence of evidence that produces credibility that will allow us to feel confident about our observations, interpretations, and assumptions” (Eisner, 1991, p. 110). Constas (1992) states “questions concerning the credibility and status of qualitative inquiry are related to the privatization of qualitative analysis” (p. 253). As the researcher, my analysis will be available for public examination.

Trustworthiness began during the planning phase of the research and continued until the study was completed. Detailed description, matching findings to reality, validation strategies, and the theoretical framework are guidelines that were used to strengthen reliability and produce a study with a reliable conclusion. I feel I have delivered results that are believable and trusted.

According to Merriam and Simpson (2000), internal validity seeks to find if the investigator's findings are consistent with reality. Individuals construct this reality, and the "understanding" of reality is when another researcher interprets the same findings and arrives at the same conclusion.

Common to all research is the problem of internal and external validity. According to Merriam and Simpson (2000), there exist multiple methodological problems (Merriam & Simpson, 2000):

1. Selective sampling: Not every age group is represented and often those who avail themselves to the researcher are of above average intelligence.
2. Bias: Populations change with age.
3. Dropout: those removing themselves from the study may not follow a random pattern.
4. Testing instruments: concerning the dependent variable, some instruments and testing do not effectively measure the same attribute in all participants.
5. Generational effects: generations reflect their own unique cultural and age changes.

Though each of these are problematic, I did not encounter any of those listed.

Wolcott (1990) refers to as "correctness or credibility" (p. 126) in his assertion that "readers will not be offended if you do not claim to know everything" (p. 46). It is necessary to declare that data supports interpretations and attempt "thick description" (Geertz as cited in Stake, 2000). I do not know everything nor did I attempt to sway others into believing I do. I allowed the participants to answer for themselves and I can assure others that my data is correct and has not been manipulated.

Pilot Study

According to Yin (2009), a pilot study “will help you to refine data collection plans with respect to both the content of the data and the procedures to be followed.” (p. 92). A smaller version of the research project allowed me to anticipate how the interview questions work in practice and how the participants will interpret them. In the course of the pilot study, I found that many educators were unprepared, fearful, and felt “lost” when describing their personal experiences. The original study was in only one institution and only involved dentists; thus I was prompted to expand into other institutions and include dental hygiene educators to see if the same themes emerged. Qualitative research is both iterative and reflexive, with the pilot study, my residency project, it allowed for modification of the original design. It was advantageous to spend time “in the field” to develop a workable understanding of the subject to be studied. Having at one time in a similar position, the participants interview responses were of a personal concern as well as the opportunity to present findings to promote change within professional development or continuing education venues.

Subjectivity Statement

I tend to think that all qualitative research will be somewhat biased and value-laden. As a dental educator, I have found that formal education in adult learning is a necessity to teach and instruct. As a researcher, I am deeply aware of the problem I have researched. I am aware of what is offered in continuing professional education in my institution regarding teacher preparation. Though I hoped to avoid inserting my opinion in this study, I attempted to convey to the participants the need for clarification and/or a simplification of any statements that may be misinterpreted.

I confront (discuss) the insider/outsider issue as this may vary within the settings. As an insider, I might have been affected by the general political climate that exists within colleges in an institution. Being new to the UTHSC dental school helped me, as I am unaware of any other studies similar to mine that may have predisposed my selection of participants or the way in which I chose, to summarize, my findings.

My position, as previously stated, may have influenced the responses of some of the participants. My membership in professional organizations as trustee and President-Elect, my involvement in the curriculum, clinic, strategic planning, student status, and accreditation committees, my seat on the College of Dentistry Alumni Board, and the fact that I am deeply integrated into the formation of the Teaching and Learning Center may have affected the type of answers I received from participants. Before each interview, I spent a few minutes explaining why these comments will not in any way affect their position, nor will I betray their confidence and speak with others concerning their responses.

Risks and Benefits

Approval from the IRB at the University of Tennessee Health Science Center and the University of Memphis indicates a critical assessment of the research protocol. The IRB has examined the research plan, design, and methodology and has determined that no flaws exist that would put any one of the participants at unnecessary risk. Risk would also include research that would not lead to meaningful results. An appropriate safeguard for this research is the assurance that all responses are confidential (coded) and an appropriate data monitoring plan is in place. The IRB considers the professional qualifications of the principal investigator (me) and has assessed the potential gain to the individuals participating in the research. As the principal investigator, I have explained, prior to approval how this research might benefit those who have

participated. In this case, there may be institutional changes put into place that would increase, both quality and quantity, the preparation made to assure the novice educator is adequately prepared to teach.

Risks are minimized by ensuring the research has a reliable design, the participants are not exposed to any unnecessary risks, and that interviews are an appropriate method for obtaining data. Risk to the participants is minimal as no harm or discomfort occurred because of participation; any risk would be no more than that ordinarily encountered in the daily lives of the individuals interviewed. As a component of continuing review, I can report that no unanticipated problems or adverse events occurred during any of the interviews. As a benefit and an avoidance of risk (time away from class or clinic) the time spent in the interview was kept to a minimum and others were not affected by the participant's time devoted to the interview and away from the normal duties associated with teaching.

Replies to the questions were and are kept confidential and though there are descriptions of the participants, identifying the individuals would be extremely difficult. None of the participants were considered 'vulnerable' to coercion or undue influence. There was no physical or psychological harm to the participants by answering the interview questions. All matters of confidentiality were discussed with the participants prior to the interviews; none of the questions were considered of a sensitive nature or an invasion of privacy. Any access to certificates, diplomas or class syllabi is kept confidential as well. Every attempt was made to avoid any potential embarrassment within the participant's social group or learning institution.

Chapter Summary

In this chapter, the research methodology, the purpose of the study, the theoretical framework, analysis, and interpretation is discussed. I have examined my trustworthiness and my

bias and subjectivity. The following chapters will describe my findings and their correlation with the literature.

Chapter 4

Findings

Overview

The questions that were answered, in the interview guide, by the participants of the study allows one to look beyond *how, how often, how many...* to *why*. According to Rob Jenkins (2015), in an article that appeared in *The Chronicle of Higher Education*, there are four qualities that make a great teacher: personality, presence, preparation, and passion. Some of which, one may possess, but all may be developed. This study addresses the “preparation.” When preparing for a career in education, it is necessary to read extensively, attend conferences, conduct research, and practice your art. Most importantly, one should explore new advances in technology and pedagogy, reassess classroom performance, and abandon the practices that are not effective (Jenkins, 2015).

Many dental educators are thrust into teaching with little or no formal training in educational practices. It has been my experience that many dental educators love the profession but are not always fond of students; often referring to them as “entitled, irresponsible and disrespectful” (Karimbux, 2015, p.1135). No one is able to accurately depict how faculty will feel about their students; how well the individual will teach can be predicted based on experience. As new to education, these individuals can learn from those that mentor, those that are seasoned educators, and those that have devoted a large portion of time studying higher and adult education. Faculty development and continuing professional education should not be just for the novice, but should be part of the dental educators’ lifelong learning goals (Karimbux, 2015).

This research investigated the transition from clinician to educator of 13 registered dental hygienists and 13 dentists for a total of 26 clinicians. Each of the individuals interviewed had moved from an environment of strictly patient care to an institutional educational environment. All participants made this change within the last five years (2011-2016). The findings reported represent the individual's perceptions of their professional role, its relationship to their new role, the changes in personal identity, and their thoughts and opinions regarding their personal experience. My primary data collection method was open-ended interviews, for which I used an interview guide that I prepared. The participants provided supplementary data that sought to give substance to their personal accounts of their experiences. The use of the interview guide indicated that there was some structure to the interviews, even though they were treated as conversations during which I, as the interviewer, drew out detailed information and comments from the respondents. "One way to provide more structure than in the completely unstructured, informal conversational interview, while maintaining a relatively high degree of flexibility, is to use the interview guide strategy" (Patton as cited in Rubin & Babbie, 2001, p. 407). The social phenomenon studied was unique as typically health care programs do not require their faculty to have any educational preparation to teach; the educators in other adult and higher education venues must often have a degree to be deemed qualified to teach. Essentially, the responses of the participants regarding the transition from clinician to educator, indicate a need for some form of education prior to educating students. The types of learning the participants sought varied; the majority of dental hygiene educators saw a need for an additional degree (most often a master's) in education or dental hygiene education and the dental educators, as a whole, felt a mentor and/or continuing education would provide all that was required to be successful. Two dentists

felt no educational preparation was necessary; they cited an innate ability to teach as sufficient; one stated “you either have it [the ability to teach] or you don’t.”

Demographics

Thirteen dentists and 13 dental hygienists were interviewed for the research.

Demographically, the age range of the participants was from 26 to 71. In total, 9 males and 17 females were interviewed. All of the dentists graduated from four year universities with at least a Bachelor’s degree; all completed dental school with 11 attending public universities and 2 attending a private institution. The dental hygienists were varied according to schooling. Four had a Bachelor’s degree, 2 of which had originally received an Associate’s degree, but had completed the requirements for obtaining a Bachelor’s degree. All of the dental hygienists had either received a master’s degree (6), were enrolled in a master’s program (4), or applied (3) to further their education. Of the 26 interviewed, 19 were Caucasian, 6 were African American and 1 was unknown (she chose not to divulge that information). The states where they taught were varied; the ones represented were Arkansas (1- RDH), Arizona (1- DDS), California (2-DDS, 3RDH), Connecticut (1-RDH), Mississippi (1-DDS), Missouri (2-DDS), Florida (2-DDS, 1-RDH), Georgia (1-RDH), Idaho (1-RDH), Maryland (1-DDS), New York (2- DDS, 1-RDH), Tennessee (2-DDS, 1- RDH), Texas (2-RDH), and Washington (1-RDH) (see Table 1).

Table 1

Demographics

	Dentists	Dental Hygienists
Age Range	50-71	26-65
Sex	Male: 8	Male: 1
	Female: 5	Female: 12
Institution	4-year degree granting 11 Public, 2 Private	AS degree, BS degree, MS, MDH, MSDH and MEd 11 Public, 2 Proprietary
Ethnicity	9 Caucasian, 4 African -American	10 Caucasian, 2 African-American, 1 unknown
Locations	Arizona, California, Florida, Mississippi, Missouri, Maryland, New York, Tennessee	Arkansas, California, Connecticut, Florida, Georgia, Idaho, New York, Tennessee, Texas, Washington

After making email contact, these individuals were the first to respond. Any pattern to the response is coincidental; no attempt was made to solicit participants from one or multiple states.

Data Analysis Technique

In this research, the use of comparison reveals similarities and differences that give rise to academic categories. The groups considered were from various institutions, were all dentists/clinicians and dental hygienists/clinicians and transitioned within a relatively recent time frame (within the last five years). In the emerging analysis, it was uncovered that these individuals, though from several different backgrounds had indeed experienced very similar encounters.

The previously completed pilot study, which prompted this research, involved 12 individuals who were clinicians evolving into academicians. The comparison and resulting

similarities were uncovered in the beginning analysis during the interview process. The similar answers were indicative of the ability to compare the encounters as a group and not as isolated individuals. The comparative method, though considered by some as undisciplined and impressionistic, can be a systematic and rigorous approach for handling data (Merriam & Simpson, 2000).

The source of data was from semi-structured interviews consisting of open-ended questions addressing the role shift from clinician to an educator in dentistry. Such questioning allowed for detailed discussion between the participant and the researcher and when an interesting idea was proffered, additional lines of inquiry were established. The areas of discussion were: a) What happened; b) What could have happened; and 3) What is the best way for it to happen...based on personal experience? Establishing additional lines of inquiry allowed for exploration to a greater depth and breadth than if I had bound the participants by questions that were tightly structured. Each interview was informal and resembled conversation as opposed to a formal question and answer scenario.

As the individual researcher, I took notes and recorded the interviews. The recorder allowed for no distraction and allowed for a more holistic analysis. Holistic in that after the interview, while listening and not taking notes, I could pay attention to pauses, voice inflection, and subtle changes in tone. This allowed me to determine if a word or phrase was spoken louder than another or was spoken with emphasis; this could easily change the meaning or implication of the statement. No one objected to the recording of the responses. Those interviewed by phone were aware of the use of a recorder and were placed on a speaker option to allow for adequate recording. Additionally, the recorder was a convenience that allowed for accurate

transcription. Each phone interview was asked if he or she preferred to *Skype*. One participant preferred it, but it was abandoned when that individual experienced computer issues.

The analysis of interview transcripts was based on an inductive approach that was geared to identify a pattern by using thematic codes. “Inductive analysis means that the patterns, themes, and categories of analysis come from the data; they emerge out of the data rather than being imposed on them before data collection and analysis” (Patton, 1980, p. 306). A constructivist interpretive model supported this study. In keeping with this type of approach, the interpretation of previous events involving the novice educators provided the foundation for theory construction (Denzin & Lincoln, 2000).

Data were analyzed using the constant comparative method (Glaser & Strauss, 1967; Strauss & Corbin, 1990) where each line and sentence of the interview transcriptions were reviewed to determine appropriate coding. The codes were subject to comparison to establish similarities and patterns. Themes became apparent as a result of the combined process of becoming familiar with the responses and searching for consistent associations with the questions that were asked.

Revealing Themes

All the data collected, from interviews, were used to construct the following themes, common to the participants in this study, and developed during the analysis portion of the study. The themes concern continuing professional education as preparation for teaching and instruction and are:

1. Learning on My Terms
2. What’s in it For Me?
3. The Dental Educator Dilemma

4. The Educators' Acknowledgements

5. Identity as a Negotiated Experience

These themes developed as the verbatim transcriptions were categorized in the process of thematic analysis. The findings are presented here by these themes, with details of what each theme encompasses, and are illustrated by representative quotes from each of the participants. When quotes are used, some of the language associated with the conversation has been deleted, such as occasionally reducing the *um* and *er* and repetitive use of *you know* that often appears in the spoken language, but which produces difficult or annoying reading.

Normal transcription style omits *umms* and *uhs*, false sentence starts, and nervous ... *know*, *well*, *so*, and *such*, as well as poor grammar and word usage. Otherwise, the original phrasing and intent of the speaker are intact.

For anonymity, each participant has been given a pseudonym. The dentists are delineated by DDS and followed by a letter. The letter each has been assigned has no significance and is not cryptic. The letters were assigned based on the participant's response to the interview request. For instance, DDS-A is a dentist and was interviewed first, DDS-B is a dentist and was interviewed second, DDS-C is a dentist and was interviewed third, and so forth. The dental hygienists have been 'named' in a similar manner- RDH-1 is a registered dental hygienist and was interviewed as the first dental hygienist, RDH-2 is a registered dental hygienist and was interviewed second, and RDH-3 is a dental hygienist and was interviewed third.

Their institution affiliation has been assigned, though no number or letter has been assigned to the pseudonym which would indicate from which school they came. This information has been stored in a locked file with the transcriptions. For this research, their institution has no

bearing on the responses; the states have been listed to indicate the breadth of participants' residences.

The Participants- The Dentists

Some information about the participants (Table 2) may make the analysis of the responses easier to understand if the descriptions of the individuals accompany them. Though some of the interviews were face-to-face, and it was easy to observe the participants, 10 were done over the phone, making it impossible to make an observation about their personal appearance, movements and other personal attributes. The following descriptions were derived from the type of responses, how the participant responded, the manner of speaking, and the words chosen in the responses.

DDS- A: (Dr. A) is 55, and retired recently because of back and neck injuries. DDS-A stated that these injuries may not be exacerbated if Dr. A was not confined to patient treatment throughout the day. Dr. A has had no experience teaching and has taken no courses in preparation. Dr. A appears to be concerned more about the insurance coverage and benefit package associated with teaching than the actual instruction.

DDS-B (Dr. B) is 50, has had no teaching experience, but has taken a few courses in professional development. DDS-B is polite and considerate and when DDS-B wants to attend a class that takes place, DDS-B tells colleagues beforehand. DDS-B is considered young to have retired and anticipates teaching to be without the hassles of private practice. DDS-B is self admittedly not computer savvy.

DDS- C (Dr. C) is at retirement age, sold the practice and was just plain bored. DDS-C is hoping that teaching will give DDS-C "a reason to get up in the morning". DDS-C likes

controlling the schedule. DDS-C seems prone to dislike having someone dictate what should or shouldn't be done. DDS-C, when interviewed responded with clipped and succinct answers.

DDS- D (Dr. D) is the oldest participant. DDS-D was in private practice for 45 years; you can tell by the stories DDS-D shared, Dr. D truly misses his/her patients. DDS-D talks fondly about family, staff, and patients. DDS-D seems *old school*- it's best to find classes that don't overlap your time at work; seeking classes at night and on the weekend. One would think that was how DDS-D felt about continuing education during work time.

DDS-E (Dr. E) is concerned with money. Before I can finish asking a question, there is a money aspect to the answers to the interview questions. Dr. E has had two years of teaching experience at another institution. DDS-E wants to make sure any classes, continuing education, and or professional development are worth the time and effort and at the same time, someone else pays for it. You might get the idea that before DDS-E signs up for anything...E asks who will pay for it. DDS-E appears to be the type that will go to anything that is offered at no cost and at the school.

DDS-F (Dr. F) seems quiet and unassuming. DDS-F researched teaching before deciding to make a career change. DDS-F told me how F asked a lot of questions of peers regarding teaching and looks forward to seeing, coaching and guiding students. One response was "teaching? How hard can it be?"

DDS-G (Dr. G) is a little past retirement age. Dentist G is nice, polite, and gives thought to the interview responses. DDS-G has no teaching experience and seems the most nervous of all the dentists who have been interviewed. DDS- G was concerned about "something to do" during retirement. Dr. G said it would keep "me from following my spouse around all day."

DDS-H (Dr. H) left private practice three years ago at age 65 and started teaching parttime in the clinic. Dr. H is now transitioning to fulltime and admits “it will be different in the classroom than it was in the clinic.” Dr. H seems nervous and says “I am not prepared like my peers.” DDS-H mentions the benefit package as being ‘nice.’

DDS-I (Dr. I) is 61 years old, has no experience teaching and has taken no classes to prepare. Dr. I said consulting with others about teaching was not useful as none of them had taught dental students. DDS-I mentioned the benefit package and stated it would be a great motivator to teach; lower insurance premiums being very important in the decision-making process.

DDS-J (Dr. J) is 62, came to academia from private practice to school to teach. Dr. J knows very little about computers but has recently been signing up for professional development classes. Dr. J has no teaching experience but boasts of the ability to “roll with the punches”. Dr. J has a friend that teaches that was instrumental in convincing DDS-J to teach. DDS-J’s biggest fear is not being the boss.

DDS-K (Dr. K) is 61 years old. Dr. K was in the military, retired, and then went into private practice. DDS-K sold the practice to an associate a few years ago and has been the clinic dentist for a dental hygiene program for the last 18 months. Dr. K loves being with dental hygiene students, but wants more challenges. Dr. K’s teaching abilities have been that which was received on-the-job in the dental hygiene program. Dr. K wouldn’t mind going to a few classes but stated, “I don’t want or need another degree.”

DDS-L (Dr. L) is 65. Dr. L seems sad and reports the recent loss of a spouse. Because of being lonely, Dr. L’s children have encouraged DDS-L to return to work, travel, or take up a

hobby. Dr. L chose teaching and though admittedly apprehensive, is fairly excited about a new adventure. DDS-L has no experience teaching and has taken nothing in preparation.

DDS-M (Dr. M) is 67 and has been “phasing” out of private practice by cutting the working week shorter and shorter while adding more days for the associate in the practice to work. Dr. M is looking for a project that is fun and has chosen teaching. DDS-M has no experience in teaching nor any training or classes to prepare to teach. DDS-M said teaching should be fun and admitted being excited about being back “in school”.

Though the dentists varied in age and location, mannerisms, teaching preparation, and educational philosophies, there were similarities in they all mentioned the desire to teach in the dental school. All of the dentists were over the age of 50, which was also true for the pilot study. It was apparent that most made the decision post-retirement, were bored, were looking for a new adventure, and needed the insurance and /or benefit package. Emotion words spoken by the dentists were indicative of how they ‘felt’; words like *fear*, *apprehensive*, and *nervous* were indicative of emotional stress.

Within the 13 conversations with the dentists, I noticed that no one spoke of creating new knowledge, only passing along knowledge. Only one dentist mentioned collegiality, a few mentioned research, and no one mentioned the word “scholar”. Eleven of the 13 dentists referred to their position as flexible and cited that as being a desirable aspect of teaching as private practice demanded the practitioner was always available. Six of the 13 mentioned “variety” in job responsibilities which also differed in private practices. These responses were indicative of some degree of satisfaction with the existing academic positions.

A negative aspect mentioned by 8 dentists was the bureaucracy associated with an academic position. This often manifests itself by who is picked to attend a course and who is reimbursed for money spent in continuing education. Another aspect mentioned by seven of the dentists was the pay being at or below what a new graduate would make; the same mentioned a nice retirement and benefits package. It would seem that academic positions, as noted by the dentists interviewed have both positive and negative aspects. This mix of positive and negative may have possibly impacted the answers to the interview questions; those with an overall negative feeling may transfer that negativity to their responses and the same would be for the positive thinkers.

The Participants –The Dental Hygienists

The dental hygienists converting to education (see Table 2) were prone to “want to teach” for teaching sake. They made comments like “always wanted to teach”, “love school”, “can’t know too much”, and “I need another degree.” Most sought some type of educational venue before teaching or very shortly after the onset of a teaching career at a dental hygiene program. Phrases such as “lifelong learning”, “addressing standards”, in regards to assessment and competencies, indicated that the dental hygienists had a better understanding of what teaching entailed than the retiring dentists.

RDH-1 is 50 and had considered teaching for a while. Felt the best course was to take a few courses and see what teaching might involve. RDH-1 recently completed a Master’s of Science in Dental Hygiene and found a job teaching in an A.S. program. RDH 1 reports the hours are long, and the pay is marginal, but teaching is great.

RDH-2 is 28 years old and has been out of school for five years. RDH-2 has considered teaching as a career choice for a while. After finding a job, RDH-2 realized quickly that the

students expected much more than what RDH-2 could offer. RDH-2 has been reading about the different MS degree programs and has applied and enrolled in a program to aid in teacher preparation. RDH- 2 is excited about going back to school, feeling that maturity will help in the learning process.

RDH- 3 is 30 years old, mentioned having small children and has been teaching part-time for about a year. RDH-3 admits to trying to self-direct the learning but admits it was more than what could be handled and so has applied to a graduate program and is hoping to start next semester.

RDH-4 is 45 years old and has been working in private practice for twenty-years. Citing the “love of the profession”, RDH-4 wants to share the profession by teaching. RDH-4 has taken multiple professional development courses and has attended workshops in methodology. RDH-4 has taken multiple courses in continuing education but felt it was not sufficient. RDH-4 has recently enrolled in a master’s program saying multiple factors affected the decision- the institutional requirement, the need for learning, and the confidence that comes with a higher degree.

RDH-5 is 26 years old and has been out of school for three years. RDH-5 knew as a student that teaching was in the future. RDH-5 recently started a master’s program in education to hone teaching skills and learn about the theory that supports the “art” of teaching. RDH-5 hopes to be an inspiration to the students in the dental hygiene program.

RDH-6 is 48 years old. RDH-6 has worked in the same office since graduation; the dentist has recently retired. RDH-6 states, “Finding a job at 48 years old is challenging.” The jobs available pay the average wage for a dental hygienist that has recently graduated. RDH-6 has investigated teaching and found there are more jobs available for teaching than for clinical

hygiene. RDH-6 has been teaching for six months, has worked long hours, and has loved every minute of teaching and its subsequent preparation. RDH-6 is making a difference in the lives of the students. RDH-6 is applying to a Master's program and hopes to start next semester.

RDH-7 is 50 years old, has no teaching experience and has taken some professional development classes in technology saying that "students are more technologically advanced" than ever before. RDH-7 felt forced out of private practice when the dentist sold the practice. RDH-7 didn't particularly like the new dentist and began teaching part-time in the clinic of a nearby dental hygiene program. In order to teach in the classroom, the accrediting body associated with the school has requested that RDH-7 obtain another degree. RDH-7 is considering a new degree as a viable option and has applied to an online program.

RDH-8 is 60 years old and recently divorced. RDH-8 has always wanted to teach but the recent changes in lifestyle have prompted RDH-8 to consider the future. RDH-8 has stated that none of the private practices have offered any benefits. At this point in time, teaching appears to be the best option.

RDH-9 is 48 years old and has been plagued by back pain that has prompted a search for a new career choice. Last year, RDH-9 started teaching in a dental hygiene program and is very happy in this aspect of the profession. RDH-9 has taken only continuing education courses targeting educators but is prone to enter a master's program and obtain another degree. RDH-9 says the change has been "wonderful".

RDH-10 states "cleaning teeth is no fun" even though 32 is fairly young to feel this way. Ten years of private practice and interaction with less than stellar dentists prompted RDH-10 to seek a teaching position. The current position for RDH-10 is clinical instruction but will become

didactic as well in the spring semester. RDH-10 has applied to a Master's program and has been accepted and will start classes soon.

RDH-11 is 55 and has had no prior teaching experience before coming to this school. RDH-11 is enjoying the job and is happy with the career choice. RDH-11 had hoped other instructors would help with the adjustment to the new career; it seems the faculty were too busy and cannot find the time to help. RDH-11, who is also very busy, has applied to a Master's program and is waiting to see if there is an acceptance letter allowing RDH-11 to move forward.

RDH-12 is 30, loves teaching, and has taken some classes to get into dental school. RDH-12 has decided that teaching is possibly a better option. The love of teaching, the fondness for the students and the ability to grow professionally have added to RDH-12's commitment to teaching dental hygiene students.

RDH-13 is 49 years old and has been teaching for three years, RDH-13 returned to school and got a Master's in public health. It did not however, help with teaching methodology or theory. RDH-13 stated it helped in teaching a community dentistry class, but did not help with technique, only knowledge expansion. To be a good instructor, RDH-13 feels another degree will be necessary. RDH-13 confided that SACS accreditation recommended a degree in dental hygiene education. RDH-13 has applied to some schools and hopes to start soon. One may ask how I, as the researcher, could make observations by telephone or in conversation. Teaching is conversation. Conversation allows us to position ourselves individually, within a faculty, in leadership development, in curriculum management, as well as finding our 'place' within the institution (Aspland, Macpherson, Brooker, & Elliott, 1998). Conversation in this context could then be a "qualitative inquiry which has enhanced the current, conceptual and practical understandings of authentic collaborative research" (Aspland et al., 1998, p.8).

Conversations as a data collection method may add to the richness of the research and address interests of the participants in such a way as to be transformative and then possibly empowering (Aspland et al., 1998).

Considering the overall responses of the dental hygienists who did not respond consistently with answers falling into themes, the dental hygienists liked the intellectual challenges of teaching, saw the need for continued learning, and liked the diversity of responsibilities. The negative responses were addressing time management issues (5 participants), having to deal with unenthusiastic educators when you are new and enthusiastic (6 participants), and limited resources (5 participants).

Table 2

Participant Description

	Age, Experience, Gender, Ethnicity, State, School Type	Preparation and Thoughts	Interview type	Themes Addressed	Reasons for Leaving Practice	Additional Information
DDS-A	55, no, M, African American Maryland Private	CE-boring; felt it was unnecessary	Face-to face	1, 2, 3, 4, 5	Back problems	Pleasant to speak with; very candid and open with answers
DDS-B	50, no, F, Caucasian New York Public	Prof. Dev.uninspiring; hopes to learn from others Doesn't want to go back to school	Face-to face	1,	Sold practice	Hadn't planned on selling but the opportunity was there; trying to adapt to teaching- too young to retire
DDS-C	65, no, M, Caucasian Tennessee Public	CE/Prof. Dev.- Was okay, but, looking for another means of learning	Face-to face	1, 2, 3, 4	Sold practice	Easy going with his answers but has no desire for another degree

	Age, Experience, Ethnicity, State, School Type	Preparation and Thoughts	Interview Type	Themes Addressed	Reasons for Leaving Practice	Additional Information
DDS-D	71, no, M, African American Tennessee Public	CE- boring; hasn't tried anything else	Face-to face	1,3,	Retired	The oldest; self proclaimed "from the old school" of teaching
DDS-E	58, yes, M, Caucasian Arizona Public	CE/Prof. Dev. – Boring- needs an alternative approach to learning	Phone	1, 2	Sold practice	Been teaching the longest of the dentists; thinks there is much to be learned by "jumping right in"
DDS-F	61, yes, F, African American New York Private	ADEA- inspiring classes dedicated to teaching	Face-to face	1, 2	Taught part-time before retiring	Huge fan of ADEA, liked talking about what he had learned
DDSG	68, no, M Caucasian Missouri Public	CE- noncommittal	Phone	1, 2, 3	Retired	Looking for something to do with his time; not because of any fondness for teaching

DDSH	68, yes, F Caucasian Florida	CE- Boring; waste of time- hasn't attempted anything else...yet	Face-to face	1,2, 4	Taught part time while practicing before retiring	Not one to do something without considering multiple aspects of the decision
DDS-I	61, no, M Caucasian California Public	CE-Boring	Face-to face	1, 2, 4	Retired	Wasn't wanting to teach as much as needing a nice benefit package
DDS-J	62,no,M Caucasian California Public	Prof. Dev.-in technology good; may try another course	Face-to face	1,2, 3,	Retired	Friend suggested teach; thought, why not?"

	Age, Experience, Ethnicity, State, School Type	Preparation and Thoughts	Interview Type	Themes Addressed	Reasons for Leaving Practice	Additional Information
DDSK	61, yes, F Caucasian Missouri Public	OTJ training good; no need for any other classes	Phone	1, 3	Sold practice	Liked teaching in a dental hygiene program; said he knew more than hygienists
DDS-L	65, no, M Caucasian Florida Public	CE-Boring; nothing new; hasn't decide if other classes would be useful	Phone	1, 5	Retired, spouse died	Trying to alleviate boredom; had no hobbies
DDSM	67, no, F, African American Mississippi Public	CE-Didn't learn anything new; may look into other offerings	Face-toface	1, 2, 5	Retired	Teaching might be an adventure; very positive and upbeat
RDH-1	50, yes, F Caucasian Georgia Public	MSDH-exciting and scary	Face-toface	1,2, 3, 4, 5	Wanted to teach for a long time	Loves being both student and teacher; being the student gives her insight

RDH-2	28, no, M African American Tennessee Proprietary	CE- boring and nothing new, enrolled in MSDH	Face-to face	1, 2, 3,5	Wanted to teach	Thinks working with students is great fun; doesn't mind the hours
RDH-3	30, yes, F Caucasian Idaho Public	CE/Prof. Dev.Boring; learned nothing useful Applied to MSDH	Phone	1, 2, 4, 5	Wanted to teach	Loves everything about academia; had a teacher she loved-role model

	Age, Experience, Ethnicity, State, School Type	Preparation and Thoughts	Interview Type	Themes Addressed	Reasons for Leaving Practice	Additional Information
RDH -4	45, yes, F Unknown Florida Public	CE/Prof. Dev.- nothing new or useful; Applied to MSDH program	Phone	1,3	Started out teaching part- time first	Excited about school as a student; feels it will keep her young
RDH -5	26, yes, F Caucasian California Proprietary	Enrolled in MEd program	Phone	1,2, 3, 4, 5	Felt ill prepared to teach	Knew she wanted to teach; looking for a four year institution; not wild about proprietary education
RDH -6	48, no, F Caucasian Texas Public	Some CE which was nothing more than common sense	Face-to face	1, 2, 3, 4, 5	Enrolled in a Master's program to prepare	Couldn't find a job at 48; boss retired. Taught 6 months before deciding to go back to school
RDH -7	50, no, F Caucasian Washington Public	Technology classes- great information	Face-to face	1, 2, 3, 4, 5	Teaching in clinic only; should go back to school for classroom teaching assignments	Boss took in an associate who wanted to change the office; friend thought she would be great at teaching. Thinking about another degree
RDH -8	60, no, F Caucasian Connecticut Public	CE/Prof. Dev. nothing exciting	Phone	1, 2, 4	Recently divorced; can't decide if she wants to go back to school	Worried more about being able to be independent; looking for benefit package.
RDH -9	48, no, F Caucasian New York Public	CE- learned a lot at a workshop	Phone	1, 3, 4	Retired from private practice because of back problems	Had some back issues- knew it wasn't going to improve. Thought about teaching as a younger RDH and decide now was as good a time as any

	Age, Experience, Ethnicity, State, School Type	Preparation and Thoughts	Interview Type	Themes Addressed	Reasons for Leaving Practice	Additional Information
RDH -10	32, no, F Caucasian California Public	CE- boring Applied to MDH program	Phone	1, 2, 3, 4	Tired of cleaning teeth all day; no challenge	Looking for a change; really wants to make a difference for students
RDH -11	55, no, F Caucasian Arkansas Public	Mentor/teacher - learned quickly	Face-to face	1, 3, 4, 5	Wanted more guidance, it wasn't available applied to get MDH	Since there was a lot to learn, decided to return to school at the urging of her children.
RDH -12	30, no, F African American California Public	CE; taking courses for dental school, a few grad courses	Face-to face	1, 3, 4	Trying teaching to see if she likes it- it might be a better option	If teaching doesn't work out; will try to get into dental school (said she should have done that in the first place)
RDH -13	49, yes, F Caucasian Texas Public	CE was awful; MPH degree wasn't enough either	Face-to face	1, 2, 3, 4	Considering another degree; loves teaching	Taught part-time at first; got a master's degree but not in teaching. School doesn't require her to go back to school but she wants to.

Mezirow's Transformational Learning

Transformative learning, introduced by Jack Mezirow in 1978, has become “a comprehensive and complex description of how learners construe, validate, and reformulate the meaning of their experience” (Cranton, 1994, p. 22). Individuals are in a constant state of change. Changes take place in our personal and social lives so slowly that we fail to notice them,

especially as our thoughts about careers evolve. Two types of change occur: the gradual, unnoticed change and the sudden and powerful experience (Clark, 1993). Mezirow outlined transformational learning as it takes place in some variation of the following phases:

1. There exists a disorienting dilemma. In my research, this is the approach to the possible acceptance of a new career or role.
2. There is self-examination. This may be associated with feelings of fear, shame or guilt.
3. There is a critical assessment of epistemic, sociocultural, or psychic assumptions; an interpretive meaning.
4. There is a recognition of a connection between one's discontent and the process of transformation; an awareness of what is changed or different.
5. There is an exploration of options for new roles, relationships, and actions; one fights or embraces the change.
6. There becomes a course of action; one plans a course when acting on the change.
7. There is an acquisition of knowledge and skills for implementing one's course of action; this is often associated with accomplishment.
8. There is a provisional trying of new roles; the clinician to educator roles are explored.
9. There is a building of competence and self-confidence in new roles and relationships; this is often a feeling of acceptance.
10. There is a reintegration into one's life on the basis of new knowledge, role, and change; there is a new perspective

Depending on the situation and the individual, some phases may be dramatic and some may be disregarded. It is not a requirement to have *all* phases for transformational learning. The process begins with the “disorienting dilemma” – a choice of options – which must be resolved. The

dilemma is whether to reinforce the current perception of the individuals' role, or to begin the process of change and acceptance. All transformative learning involves "critical self-reflection, which results in the reformulation of a meaning perspective to allow a more inclusive, discriminating, and integrative understanding of one's experience" (Mezirow, 1990, p. xvi).

Per Alfred (2002), "social and cultural contexts shape what an adult needs and wants to learn, when and where the learning takes place, and how the learning is perceived" (p. 1). The culture of a dental school or dental hygiene program dictates how the clinician will convert to dental educator. In these "cultures" there exist differences in age, experiences, gender, sexual orientation, nationality, race, ethnicity, culture, language, socio-economic status, and physical and mental abilities. Each of these differences affects the transformational learning of the individual.

Tennant (1991) describes the learner experience as that which seems consistent with transformative learning:

[share] learning experiences establish a common base from which each learner constructs meaning through personal reflection and group discussion....The meanings that learners attach to their experiences may be subjected to critical scrutiny. The teacher may consciously try to disrupt the learner's world view and stimulate uncertainty, ambiguity, and doubt in learners about previously taken-for-granted interpretations of experience. (p. 197)

The following themes have been created based on the responses and reflections of the research participants.

Theme 1: Learning on My Terms

Each participant described finding and selecting continuing education courses, professional development offerings, in-service training, and other learning opportunities that would support didactic and clinical instruction. Their responses often included cost, workload, time away from the teaching arena, and any needs or barriers associated with the classes. Local meetings and other face-to-face meetings or conferences often occurred during or ran into work hours. Attending such offerings necessitated planning.

The participants reflected that they indeed sought continuing education venues as preparation to teach, and these were found to be desirous for learning as long as the conditions were just as the participants wanted. These courses must be readily available (online or face-to-face), offered frequently, at a convenient location, low cost or deemed reimbursable, convening at a time that required no schedule shifts, offered new information, and were considered engaging and not boring. Though the participants desired some type of continuing education, on their own terms, they often chose to not to fulfill their educational pursuit because the terms they set could not be met. The following responses endorse the preceding statements:

DDS- B: “Our school has a pretty good mix of available classes. I have learned to choose classes the first time they are offered. Anything offered during the time we are in the clinic, is not attended well, at least in my experience. I try to be considerate in planning to attend. I don’t want to add additional work to my peers. I let my co-workers know in advance about seminars or classes during the workday.”

DDS- C: “I like attending professional development courses and continuing education classes. I kind of think those offered at [my institution] would be designed to help us in our efforts. Often, I just couldn’t make it work with my schedule. If we all need it, we can’t cancel

our clinics. Sometimes the dentists that have been here longer get to go before me. That doesn't seem right. They should have gone before. I heard that classes here at school haven't always been so available...until lately."

DDS- D: "Though we have classes offered here at [u of #], I was prone to look for classes on weekends, evenings, and online. Unfortunately, there isn't a lot out there that specifically addresses the needs of the dental instructor. So I would choose the next best thing offered. I don't think it was an optimal situation, but I did make an effort."

DDS- E: "When I first started at the school, I really wanted to attend this boot camp on teaching, but it was a lot of money...that the school wouldn't pay for...and I didn't want to pay for it without getting reimbursed. I thought if they were really concerned about me being good at teaching...they'd at least pay for it. I try to attend things offered at school...but they don't always strike me as something I need to know."

DDS – F: "When I first started teaching...I was surprised to learn of how many things were offered to help us newbies. A few times I'd sign up for a class and find that others in my department had signed up too....we couldn't all go. Our chair got to choose who would go. I've gotten to go to a few classes...not always the subject matter I want though and often not very inspiring."

DDS – G: "I'd really prefer to go to a conference on teaching, where I can actually learn without distractionsit and learn, but those classes are more expensive and time is an issue. When these type classes are offered during breaks...it's easier to go then. I try to find meetings to attend at local, state and national meetings. National meetings [ADEA and ADA] have the most to choose from in the way of classes for educators."

RDH -1: “Sometimes I would sign up for a class and then ... even with planning...I wouldn't be able to go...you know someone calls in sick or is scheduled to be off at that time. Sometimes there is a webinar or webcast that you can access later, but I forget and with those... there isn't a good way to ask questions.”

RDH- 5: “I like attending classes about teaching...I wish I could have taken some *before* I started...when I was excited about teaching [smile]. I still enjoy it...I don't like classes that take me away from work and create stress for the others that I work with though. I can't enjoy it if my colleagues are overworked in the clinic because I was off.”

RDH – 6: “My job wanted me to have more than continuing education, so I had to look for advanced degree programs. I wanted something face to face...in a classroom... but it seems like everyone is online nowadays. I was excited to go back to school, until I realized how much I forgot.”

RDH – 11: “I saw an ad for teaching. Before I even applied for the position, knew I had no knowledge or background...to teach...so I looked for online classes...it wasn't like I could just take off from work to study for a job I wasn't sure I would get. I got it...the job.. and went back to school. I wish I could have just taken CE.”

RDH – 13: “My friends that teach said I would be more qualified for the job if I had an advanced degree. My degree is in public health. It has not prepared me at all for teaching, now I think I should get a degree in education. If there was a consistent offering of continuing education classes, I could take those. It just seems that very little professional development courses or continuing education classes deal with educator needs.”

This theme addressed the opportunities available for learning that all the educators mentioned, however, they were prone to use the opportunities that best fit with their needs. All

participants wanted scheduled classes, workshops, and programs that fit their schedule, were cost-effective, and met their learning styles. They also mentioned working through problems and barriers to make the best of less-than-stellar offerings. I expect that most of the preceding addresses phase 5 according to Mezirow; they were exploring options for a new role and choosing to embrace it, but on their terms. It seems as though the way they chose to embrace the role could be interpreted as a subtle rejection of the new role by their subtle attempts to find the continuing education that was a 'perfect fit'.

The majority, 8 of the dentists and 9 of the dental hygienists, also mentioned that often the classes were just "boring" or offered no new information that was useful for teacher preparation and were reluctant to spend time and money to learn nothing new. Once again, had the participants embraced the change as a reward or benefit to their career, the classes may have been less *boring*. Some examples:

DDS-A: "I went to a few classes in continuing education...that were at school. It wasn't very inspiring. It was actually boring. I remember wishing I had brought my power cord for my phone. Some of my friends that teach at the school with me said it's been that way for a few years....a boring instructor...nothing new to learn. I could "google" teaching and come up with better information."

DDS-B: "I signed up for some class that sounded like it would be great. Well...I have to tell you ...it was uninspiring. It was offered by the school so at least I didn't have to pay. You'd think that a course in teaching would have a great teacher. I haven't signed up for anything else. I learn more by watching other faculty."

DDS-E: “I have attended some CE classes...most of which were boring. They told us to flip a classroom...but the class we learned in wasn’t flipped. That doesn’t make any sense. I went to a class on power pointsthere were so many words on it and the teacher read it all to us. If that’s what the best do.... I’m good.”

DDS-J: “I like conferences... I am tired after working all day...I don’t want to put anything else on my plate. That’s why I would rather plan for and attend a conference...take time off...get away...see old friends....AND take a class or two.

RDH-4: “I was so excited to teach...I was determined to be better than my instructors. So, I signed up for some professional development courses. One class was devoted to “clickers”...really? What’s that got to do with anything? After a few more boring offerings...I opted to go back to school. I am having the best time working toward a degree. Every class I try to incorporate something I have learned that is new...or inspiring.”

RDH-6: “When I first starting teaching, I took a CE course on student participation...no...wait ...engagement. What a waste of time! The instructors had nothing to offer of real value. I was all just plain old common sense. Now, some of these instructors didn’t have a lot of personality...but they didn’t have a lot of information either.”

RDH-9: “I went to this one course and I swear I was comatose after the first hour. One of my friends said to avoid CE and look for workshops. I did... it was great...a lot of good ideas and personal stories. Now, I tell everyone...look for workshops for skill development.”

RDH-12: “I tried to attend a couple of classes [CE] at my college. The first one was pretty bad, the second was a little better. I decided to go to educator’s courses at the ADHA

Annual Meeting. To be honest some were good...and some...well ...not a lot better than school. I decided if I wanted to be a real educator...I would need a degree in education. Sounds drastic...but it works for me.”

The clinicians, as students, were prone to dislike involvement that coincides with the workday; most prefer to attend such offerings during times when work is suspended (i.e. breaks, lunch hours, after work). Supporting Lundberg’s (2003) causal model, “peer learning increases the effort students [dental clinicians] invest in learning, both in the group setting and individually” (p. 667). Tinto’s (1998) efforts speculate those in learning groups often spend more time on coursework than those who do not affiliate with peers in the learning process. Thus, the continuing education provided to faculty would be a better choice than merely allowing the individual to seek continuing professional education classes as individuals. These classes should be evaluated for ability to increase knowledge, facilitate learning, and inspire others.

As a dental educator, I have found that life-long learning is a core value of the dental profession. Both dentists and dental hygienists ascribe to lifelong learning; all states require continuing education requirements to maintain licensure. Those in education or seeking positions in education sought classes that would fulfill the requirements for licensure and aided them in their preparation to teach as long as it “fit”.

Theme 2: What’s in It for Me?

This theme speaks to the multiple methods through which required continuing education hours can be obtained, or through which in-service training or other workplace learning occurs, as long as it delivers some benefit to the attendee. The majority of the participants mentioned the various options their institution provided with an average of over twenty different types of courses or learning experiences that are prescribed hours for continuing professional education,

although they tended to provide technology courses and only one or two actually involved teaching. These classes were chosen based on the participants' individual needs; the reward factor was high. The motivating component to select these courses were the benefit each RDH or DDS would receive. When their comments were grouped together, the participants cited ADEA and ADA as well as their institution for resource availability. Some responses indicated that these were recognized as course providers that would offer quality instruction in the art of teaching. Each participant had their own preferences and picked classes based on their level of need and the benefit they offered.

The dental hygienists saw opportunities in classes as a means to 'move up the educational ladder' and the same courses may be discounted by the dentists as providing no real benefit or reward when attending. (Appendix I and Appendix J offer examples of possible professional continuing education). These offerings were chosen by the participants based on what the ultimate reward would be for attending.

Face-to-face meetings were universally liked by many participants. All of them spoke enthusiastically about their liking of face-to-face meetings with speakers and a chance to network with other dental professionals especially those who taught at other institutions. The networking aspect of continuing education offered more of a one-to-one approach of knowledge exchange. Participants spoke of new idea exchange in meetings with others and their fondness to learn informally by conversation and networking opportunities. Several of the participants mentioned attending events such as these because of a referral from a more seasoned instructor who was successful with students. Whether the face-to-face meetings were multi-day or one day or less, the participants liked to attend this type of classes. Networking is an acceptable means of making

contacts and would also be useful for those seeking positions at other schools or entrance into graduate programs.

DDS-B: “Annual meetings for CE are always fun...I like to go to those but we have to take turns being away... in my department. If it’s not too far away from me then its easier and not so expensive. Even if I don’t go to the educator stuff, the CE is always good and it helps with teaching if it’s on a subject matter or technique that I teach. I actually learn something that benefits my students and me”. DDS- B considers this as merely fun and seeks the benefit of an easy and inexpensive alternative which would not necessarily benefit his teaching skill in a short trip away from the clinic.

DDS-K: “The best opportunities that I have found are at professional meetings, ADA, ADEA. There are state meetings too. I try to go to the Greater New York Meeting. It’s around Thanksgiving so not always easy to plan a trip at that time.” DDS-K may see the benefit of a course offering attached to a short vacation.

DDS-M: “The ADEA annual meetings offer classes that are good. A plus is seeing other dentists that are teaching. We tell stories about our experiences or some new technique we’ve learned. I like that better than courses at the school. These classes are just for dental folks that teach.”

The dental hygienists (12 of 13) were more interested in classes that would lead to another degree, citing this as a requirement for obtaining and/or maintaining a position in academia. These responses indicate some level of benefit associated with obtaining another degree. Most dental hygiene programs promote according to the additional degrees awarded and the particular educational classes offered by the American Dental Education Association; ADEA recognized as

the organization offering more courses in methodology and considered the benchmark for continuing education. The obtaining of a graduate degree as a benefit for the dental hygienist was found in these responses:

RDH-1: "I'm really excited about going back to school but I am also a little scared. I'm fifty and I don't want to be the oldest or the dumbest. I'm kind of happy another degree is required for my job. It made me push forward."

RDH-3: "I had an incredible teacher when I was in hygiene school...I want to be like her. I want to learn how to be the best teacher...and be a great role model. I like the thought of going back to school...now that I'm a little older and mature ...I might learn a little more. Another degree may mean a promotion, too."

RDH-6: "I taught for six months ...just to see if I liked it. I took some courses as continuing education. I didn't like that. It wasn't really designed for educators. I realized if I was going into teaching...I needed to get a different set of skills to be good at it. I'm excited to go back to school. If I get another degree, I go in as an Assistant Professor and not Instructor"

RDH-11: "I was so lucky to have a great mentor. She was so inspiring and told me to go back to school and get another degree but my kids convinced me. It was a good decision. I'd rather get the degree and get more money."

The dentists (9 of 13) were less interested in attending classes before starting in the academic community; most feeling that the DDS or DMD and years (average 38 years) of private practice would be adequate preparation and extraneous education or another degree would offer them no real benefit. Phrases I heard were, "I don't need another degree", "I don't want to go back to school", "another degree won't make me a better instructor", "I got help from

colleagues... teaching isn't rocket science, I'm not going to get any more degrees." Most of these responses indicate that there was no real benefit to the dentist. The DDS does not typically receive promotion and /or tenure based on additional degrees, but rather publications, service, and teaching awards are factors for advancement.

The dental hygienists may see advancement in the local and state organizations, make new contacts which may be helpful and are able to attend sessions by educators recognized in their field.

RDH-7: "The instructors I began to teach with told me to go to get my CE credits by attending bigger meetings [national]. They were right... a lot of information and groups focused on my same interests."

RDH-9: "I'm fairly involved in our ADHA component. I usually go to the Annual session...It was in Pittsburgh this year. I took a few classes. I try to find someone that my friends have heard and liked."

RDH-11: "I used to go to the ADHA meeting every year...even before teaching. Last year, it was in Nashville and I took some courses for educators...they were good. I think the best part if you go to meetings like that are the workshops...they're small groups...it doesn't feel like a class and I learn as much from the other attendees."

RDH-13: "I like the annual meetings the best. I can't always go...it gets really expensive and all the school pays for is registration. I know they have educator tracks and though I haven't been to any of those classes, all the offerings at these meetings are good...of course they have the budget to get really well known speakers."

Networking in its best form offers the novice an opportunity to learn in a social environment, allows for formation of relationships, and classes at these sessions are considered far better than meetings attended locally. Many educators return home with more than what was learned in classes.

Taking courses at a college is always an option and offers more reward to the attendees. When considering multiple options to prepare for a career in a professional healthcare institution or in a dental school or dental hygiene program, the opinions were mixed regarding a return to college for an additional degree. Participants felt that an advantage would be interaction with educators who are professors and had the knowledge that would help them the most. Most dentists that were participants (11) felt the actual thought of being *in* school while teaching a full load of classes was not an exciting proposition nor did it provide any real reward. The dentists were primarily against an additional academic endeavor with responses that indicated no real reward:

DDS- H: “I have a DDS...if I wanted an extra degree or more I would prefer it be in dentistry. My preference would be as CE at a meeting...I have options that way.”

DDS – I: “I have absolutely no desire to go back to school....not at this point in my life. Any new information I get will be from journals or single meeting courses. I just don’t recognize the lure of any other classes, probably just me though.”

DDS- J: “I am tired after working all day...I don’t want to put anything else on my plate. That’s why I would rather plan for and attend a conference...take time off...get away...see old friends....AND take a class or two.”

DDS- E: When I first started teaching, I thought about going back to school. Maybe an online course...something relatively convenient...but definitely don't want to go back to school...it won't help with promotion or tenure.”

DDS –M: “I admit I might not know what I'm doing as far as teaching....but I do NOT want to go back to school....in a cost to benefit analysis....not a good idea. I like professional development when it's at school and no additional cost. I occasionally learn something new...that's a bonus.”

Dental Hygienists were not mixed in their opinions. Every dental hygienist (13) saw an amazing benefit of going back to school. Additional responses were:

RDH -6: “I would absolutely love to go back to school. There is so much I would like to learn. “When I got this job the advertisement said the ideal person would be willing to go back to school.”

RDH-3: “There is no obstacle for me to return to school...I think I would really enjoy going back to school...I know I would probably learn a lot more going back to school than just going to conferences.”

RDH- 8: “School might be fun...a least more than when I was younger and not focused on a career choice at that time. Not as much pressure as when I was younger”

RDH -13: “Going back to school would definitely work for me...it would be empowering to be confident in my classroom. I think I would learn the most there.”

Professional development activities, provided by the institution, as an option were not considered adequate by the dental hygienists interviewed. Dental hygiene programs associated with a two-year college or technical school were not always privy to professional development offerings.

RDH – 6: “We have a requirement to take a prescribed number of courses offered through our school...but they are online and rarely teach me something I don’t already know.”

RDH – 8: “Our school bought into some program that gives us accessible modules to take...they aren’t very good. I heard they are provided to meet an accreditation standard in educational methodology. I take them, but only because it is required.”

DDS-J: “ I like the professional development opportunities offered, I always come away with something I didn’t know...it’s not always useful...but something I didn’t know.” Four-year institutions, as a whole, provide calendars listing professional development opportunities. These are easy to access for the educator, and usually, classes are announced by a listserv email to all faculty. During the conversations within the interviews, nine of the participants mentioned ‘teaching and learning centers’ established to help the educators. Such centers were established as cost effective ways to assure their faculty is prepared and have access to individuals who are considered “experts” in teaching.

In summary, the benefit or reward associated with educational offerings was a key factor for choosing particular classes or choosing not to attend. The dentists and dental hygienists were split in class offerings as a reward/benefit motivator; dental hygienists saw only the benefit and dentists saw *no* benefit or substantial gain. Depending on the individual, the potential gain, for the hygienists, was a motivating factor, and though not dramatic, it did prompt a course of action (Phase six, according to Mezirow). When one acts on a change, it can be positive- the pursuit of an additional degree, or it may be negative- the failure to seek formal education. Negative and positive actions can be interpreted as an act in response to change. When one is often faced with

change, new approaches will help the individual to cope, survive or thrive (Scheele, 2015). In this case, both dentist and dental hygienist have be allowed to take charge of their meaning making. The dental hygienists are “making meaning with a self-transforming mind” (Kegan & Lahey, 2009, p.27).

Theme 3: The Dental Educator Dilemma

Mezirow’s first phase in transformative learning, the disorienting dilemma, is evident in this theme. Trends in professional education suggest the quality of the teaching skills used has a serious impact on student learning outcomes (Hendricson & Kleffner, 2002). The literature concerning health care education provides a significant amount of information related to teaching, especially in the form of instructor observation (Hendricson & Kleffner, 2002; Taylor et al., 2000; Wilkerson & Irby, 1998). Participants expressed the desire to be a “good” teacher. Several mentioned descriptive words such as “competent, skillful, effective, and passionate” when describing their desired level of obtaining teaching skill sets. All participants mentioned words like “fearful, incompetent, scared, ill prepared, stupid, clueless, and overwhelmed” when discussing how they felt entering academia without preparation.

The dilemma concerning adequate preparation is evident in the following responses:

DDS- A: “I felt like a fish out of the water. Teaching is a lot different than working on a patient.”

DDS- D: “I was scared to death of my students. I have no clue why. Standing in front of them and having them think I had all answers...was shocking.”

RDH – 8: “I was an excellent clinician but a poor teacher....I felt like that anyway. I guess I never thought about there being a difference or that I had no real “authority” or “training” to teach.”

RDH -9: “I really had to think twice about whether I could do this [teach]. It didn’t take long to realize I was ill-prepared and just knowledge of the subject doesn’t make you a teacher....a good one anyway.”

DDS – C: “I can honestly say I had no idea what I was thinking when I thought to teach would be easy. It is necessary to go into the class with the right set of tools. If you haven’t had any preparation it’s like roasting marshmallows on a toothpick....somebody is going to get burned.”

DDS – K: “I was so overwhelmed by what I didn’t know...that what I *did* know seemed useless. I had no idea how to relay the information, or what I was supposed to do. After a few classes about teaching, I could have made a check list of all my mistakes.”

DDS – J: “I felt like I should have had a degree in education instead of dentistry.”

RDH- 10: “I just muddled through [chuckle] I don’t know how I made it.”

RDH – 11: “I was seriously unprepared.”

RDH – 12: “Even though I took several classes to prepare for teaching, I really was afraid of how my students would perceive my ability. I remember thinking I should have taken more classes to prepare.”

RDH – 7: “I remember thinking...what if I can’t answer their questions...I will look stupid, and they will have little respect for me. I wish I knew how this works. It always looks easy when I am able to observe others.”

DDS – G: “I just assumed because I was a great clinician, I would be able to teach what was part of my normal routine...but soon I realized what I had done without thinking, required a lot of thinking to teach it.”

Uncertainty, as to what to expect in the new environment, was of utmost concern. Most participants recognized the need for a new skill set but until getting into the institution had no idea what was necessary to feel prepared. Therein lies the dilemma. This phase though typically characterized by guilt and/or shame can also project the emotion of fear. Though most participants persevered, they admittedly agreed they wanted to make a difference in the lives of their students. This was not an easy task as they constantly taught, had scores of advisees, had multiple meetings to attend and served on multiple committees; in addition, they had expectations to produce research and seek grants. In comparison, learning to teach was just “one more thing.”

Adults have a significant presence in higher education. These educators as students bring varied and complex life experiences to the learning environment. Only by considering personal meaning in learning will institutions promote the incorporation of new knowledge into existing conceptual knowledge of the world (Kasworm, 2003). In my experience, students have well defined expectations as to how they *want* to learn. If the educator fails to perform to their expectation, they often refer to the educator as ill-prepared and so place the blame of ineffectual learning as incompetent teaching. All participants expressed a desire to be an effectual teacher and may be motivated to move forward as a result of fear or the avoidance of guilt or shame.

Theme 4: The Educators' Acknowledgment

This acknowledgment addresses phase four, that is a recognition of discontent. Each has admitted to needing support, guidance and someone to direct them. The actual acknowledgment of this need is indicative of phase seven, that lends one knowledge for implementing the plan for accomplishing a role change.

The majority of participants expressed their need of a guide, or someone to support them as they traveled the path from clinician to educator. This acknowledgement that dentists and dental hygienists did not want to confront the potential barriers without help or the admission that such an individual would provide a smoother transition is evidenced in the following responses:

DDS – A: “A mentor can help as well as guide you in the right direction. They wouldn’t make you feel embarrassed by asking questions.”

DDS – C: “If I had a mentor, I would have saved an enormous amount of time spent searching in the wrong places for what I needed. It’s hard being new at teaching but almost as bad trying to acclimated.”

DDS – I: “I think if I had had a mentor, I would have been better prepared in shorter amount of time...that would have saved time and money.”

RDH – 3: “Boy...a mentor surely would have helped me. I hated asking random instructors, based on availability, questions that I was unsure if they knew the correct answer. It makes you feel better to know others have had the same feelings.”

RDH – 13: “Even if I had a mentor...not to teach me to teach...but just someone to answer fairly basic questions...I think I would have gotten into the swing of things faster.”

DDS – H: “I hated asking my chair questions....I didn’t want him to think he had hired the wrong person...a mentor would have been nice.”

RDH - 6: “I taught at another school, so I didn’t feel completely unprepared...I just felt lost...it was a different environment. A mentor could have *showed me the ropes*.”

RDH – 7: “I don’t know if a mentor is what you would call it...I just latched on to a

colleague. I asked so many questions. She was so patient and kind. Maybe I just needed someone to be nice to me?”

A mentoring and supportive relationship in an academic institution is different from that in the other organizations with respect to its duration as well as individual and organizational outcomes (Erdem & Omuris, 2014). It can be considered a unique method to develop human resources (Erdem & Aytemur, 2008). The process of mentoring contributes to the academic development of the mentees and empowers them to learn the ways of the institution as well as the ways of the academician. The research suggests that an efficient mentoring process will increase the self-confidence and motivation of the mentees. Increased levels of career satisfaction, institutional commitment and high academic performance are the most commonly emphasized outcomes and are considered both reward and benefit (Allen, Russell, & Maetzke, 1997; Ensher, Thomas, & Murphy, 2001). Moreover, a long-term mentoring relationship facilitates the socialization of the mentees to the university culture; and also, promotes a positive attitude toward the academic climate and professional identity (Mansson & Myers, 2012). Mentees may incorporate the traces of such relationship into their teaching philosophy throughout their academic careers.

Kram (1983) identified four basic stages of mentoring as initiation, cultivation, separation and redefinition. Most research on mentoring focuses on the initiation and cultivation phases. These phases emphasize the importance and benefit of the relationship. With the separation phase, the mentee's dependence on the mentor decreases; however, the relationship develops into a peer relationship or friendship during the redefinition phase (Kram, 1983; Mansson & Myers, 2012). It may not be easy to rapidly create and maintain the peer relationship that complements

the mentoring process for those in the university setting, however the mentoring relationship is one that was desired by 96% of the participants.

Theme 5: Identity as a Negotiated Experience

According to Mezirow's phases of transformative learning, the negotiated experience may indeed span through more than one phase. Consider phase five, an exploration of options, *the phase of options for a new role, relationship, and action*, when looking at these groups. Both, through the identity search has come to a decision regarding self-concept. The dental hygienists have embraced and moved toward a new role as educator and have felt the change in as much as they have verbalized it. The dentists have resisted the change and remained in their previous role. Resistance to change is also a decision made by self-assessment, which is phase four. Such an identity shift, by the dental hygienists, lends one to look at phase eight- the provisional trying of a new role. According to their responses, there has been a critical examination of self, resulting in a transformative reassessment of meaning perspective and subsequently a discriminating, and integrative understanding of the experience has resulted (Mezirow, 1990).

The scholarly identity is one beyond the role of clinician. Dental educators/scholars are dentists and dental hygienists who see the discipline of dentistry as a whole, seek further knowledge development, test educational models from a dental perspective, incorporate values relevant to the profession of dentistry, see research questions as part of the "whole" of dentistry, have a sense of belonging to a scholarly group, apply knowledge of research design, methodologies and statistics to guide the scientific process, and use evidence to support their educational topics (Walsh, Ortega, & Heckman, 2016). The study participants reflected that as they transitioned from practitioner to educator, that they then actively chose what their identity

would be. There was a clear distinction between the dentists and the dental hygienists as to what their choice was. For example, when asked about their identity.

RDH- 1: “I started seeing myself as an educator of dental hygiene students instead of a practicing dental hygienist when I saw the light in one of my student’s eyes...when she ‘got it’.”

RDH-2: “I have always thought of myself as a teacher. As dental hygienists, we are constantly teaching our patients about the latest advances in dentistry...now we are teaching dental hygiene students.”

RDH-3: “One of my students introduced me as her instructor in the clinic...then I knew I wasn’t just the girl at the dentist office who cleaned teeth. I was proud and glad of the choices I made to get to this point.”

RDH-5: “When I think of a teacher...I tend to think of an older, seasoned person with a plethora of information...but I think of myself as an educator. I think that relies on quality of experience not years of experience...but the minute I stepped behind the podium and said my name is.... I felt it.”

RDH-6: “I am not sure I have felt it...that educator feeling. I haven’t introduced myself like that yet. I can’t wait to have that feeling! It’s still pretty new to me and I would like to say, as a means of introduction, I am a dental hygiene educator. I wonder how ingrained you have to be...to feel that way?”

RDH- 7: “The first time I was introduced as faculty...I felt like an educator. My program director introduced me as full-time faculty and mentioned the courses I would be teaching...I knew it was real and it gave me a real feeling of accomplishment”

The following responses from the dentists do not lend one to believe a new identity is present in this group, nor is it openly sought after. They were adamant that they were and would always be a dentist with no intention of role change.

DDS-A: “No matter, I’m still a dentist...I didn’t go to school to be a teacher ... I mean it’s like ...I’m a dentist...if I wasn’t that then I wouldn’t be teaching either.”

DDS- J: “I will always be a dentist. I want to be introduced as a dentist. If you said ‘this is Dr, J., he teaches at the dental college’ ...that would be okay. I don’t think I will ever really see myself as a teacher.”

DDS-L: “This teaching stuff is really new to me. I wonder if I will ever get to a point that I will really feel like faculty or if I will be confident in a new role.”

DDS- M: “Well...it was my first class eval [evaluation]...I thought ...wow! I’m an instructor...hmmm...not a very good evaluation though...ha ha. Seriously, I realized then that my new role was how I saw myself and how my students saw me. It was a good feeling.”

DDS-C: “Since this was never my first choice as a career, I doubt I will ever see myself as an educator...I tend to think of myself as a dentist that teaches. Since this was never my first choice as a career, I doubt I will ever see myself as an educator...I tend to think of myself as a dentist that teaches. I want to think of myself as a dentist that maybe shares knowledge instead of a teacher.”

Just as students’ progress through their studies, moving from novice to expert, the novice educator hoping to be successful must move to competency in the university; with these groups the dental hygienists embrace the learning by moving forward in pursuit of a formal education and the dentist must achieve this level of competency by becoming one who is capable of sharing

his /her expertise instead of becoming a ‘teacher’. It is essential that this process of transitioning from clinician to educator or the clinician who teaches be purposively supported from the outset of the program; other faculty should position themselves to guide these novice instructors.

Faculty should critically examine current educational strategies and design new approaches to more effectively integrate the practice and education worlds, thereby enhancing the process and producing dental educators who are efficient, effectual, competent and passionate about their teaching.

It is not necessary for these individuals to have a “term” for what they are, the feeling of empowerment, confidence, and knowledge may support the feeling of a developed identity.

There were several items addressed that did not actually fall into any of the themes that were uncovered. These responses of note were both positive and negative. Time management, administration issues, and lack of resources were negative issues that were uncovered in conversations. None of these are effortlessly altered to make the transformation of clinician to educator any easier. Lack of teaching skills, becoming a mentor, and student behavioral issues and interactions can be addressed by the institution and remedied by providing positive, experiential offerings to aid the new educator as he/she attempts to integrate into academia.

Chapter Summary

This chapter investigated the findings from the study. Profiles of the participants and their approach to teaching and learning were examined. The five themes that developed from the analysis were presented. These were (1) Learning on My Terms, (2) What’s in It for Me, (3) The Dental Educator Dilemma, (4) The Educator’s Acknowledgement, and (5) The Negotiated Identity. The themes were reinforced and illustrated by quotes from the participants.

According to Merriam (2001), there are five basic assumptions that address the adult learner: 1) an independent individual directing his or her own learning; 2) life experiences serve as a resource for further learning; 3) learning needs change as roles change; 4) the need for immediate application of new knowledge; and 5) internal motivation. All the participants are adults. Each has finished school; each having a degree and a license and a vocation or career. As each may choose to become a different version of themselves, there is the probability of an increased awareness of independence, self-awareness, and mission. The continuing education experiences of these individuals must address these fundamental needs of the adult individual. Though adults may have deeper life experiences from which to draw, the need for positive learning experiences to enrich their careers is a necessity and should address autonomy, freedom, and growth (Knowles, 1984).

From the data, the dental hygienists have prepared for their new role as educator by wanting and pursuing another degree. The dentists, as participants, saw no need for additional formal learning or the pursuit of a more formal education. Though the disorienting dilemma was the same for both groups, once again the paths they chose split. Both groups, the dentist and the dental hygienists, were concerned with the benefit and potential reward for making the transition to educator. The resulting identity remained unchanged for the dentist and became new for the dental hygienist. The only mitigating factor for agreement in the transition process was the acknowledgement that support, guidance, and direction is needed and welcomed by both groups.

Chapter 5

Summary, Discussion, Implications, and Conclusions

Overview of the Problem

This research study came from the background of examining the dental clinicians (dentist and hygienist) that transition to educator. The preparation that is necessary to fulfill the new role has been addressed. Ongoing professional learning and choices of continuing professional education have been considered as adequate means of preparation. These continuing education venues included courses before becoming an educator, during the transition of such, and after the change has been implemented. While professional development courses are available, they are not always convenient or address a need. Professional development classes are created and rooted in adult learning theories, exploring the actual experiences of previous converts. Clinicians in professional learning classes provide an interconnectedness between the intersection of adult learning theories, their use in continuing education, and their ability to provide necessary topics for an adequate transition. The transition has been considered as a transformational experience.

A literature review found examples and exploration of the experience of clinicians participating in continuing education and lifelong professional learning, particularly as that experience relates to adult learning theories and strategies. Dentists and dental hygienists may be taking preparation courses without understanding the benefits that theories of adult learning can offer to their lifelong professional learning.

It is essential that this process of transitioning from clinician to scholar be purposively supported from the outset of the conversion. Faculty must critically examine current educational strategies and design new approaches to more effectively integrate the clinical practice and

academic worlds, thereby enhancing the educational offerings in dentistry. Dentists and dental hygienists should be taught their skills but also be equipped to contribute to the knowledge of the discipline of dentistry. Ill-prepared educators cannot produce this type graduate. Is continuing education a substitute for an academic discipline of teaching? Perhaps continuing education when following a prescribed course set by the institution may be a reasonable substitute. Continuing education offerings taken under the direction of a mentor or guide could reasonably produce the type educator desired as stated by dental clinicians.

The dentists are, and wish to continue as, dentists in their new role as educators concerned only with the path of least resistance as the way to settling into the new role. The dental hygiene educators feel another degree is necessary to feel confident in the ways they teach. Accrediting bodies prefer additional classes in methodology and subject matter and perhaps the dental hygiene educators feel that without the additional degree and subsequent instruction they are not qualified to teach.

Though the groups were split in their responses in four of the five themes, these may be attributed to factors not considered in this study. Age, gender, previous educational experiences, ethnicity, and socioeconomic status may affect the responses received and were not considered as weighted factors.

Review of Methodology

An instrumental qualitative case study using narrative inquiry, grounded in an epistemology of constructionism and a theoretical perspective of interpretivism, was designed to explore the research problem. A purposeful sample of dentists and dental hygienists in multiple educational environments was chosen. The way in which I first contacted the participants was

slightly altered when I realized ADEA would not offer the use of their listserv and was then prompted to seek participants in a similar manner, though not as I had planned.

Review of Findings

Data was analyzed using thematic analysis. Themes are phrases that identify what a unit of data is about and further what it means. It may be directly observable or underlying an event. Themes in this study are descriptions within the culture of dental education, starting with open coding done by hand and categorizing until five themes became apparent. I believe the basic theme is integrative and encompasses the five theories that were uncovered with coding. This type coding, according to Saldana (2013) is appropriate for all qualitative studies especially one of this type that attempts to explore the participant's beliefs, identity development, and experiences.

These five themes concerning continuing education and the impact on providing adequate means for transitioning the clinician were: 1) Learning on My Terms, 2) What's in It For Me, 3) the Dental Educator Dilemma, 4) the Educators' Acknowledgement, and 5) the Identity as a Negotiated Identity. These themes were described in Chapter 4 and illustrated with representative quotes from the participants.

Discussion

This final chapter offers a discussion of the research questions regarding the findings and their connection to the literature. The implications for dental clinicians who become educators are discussed in terms of the literature reviewed for related continuing education and transformative learning. The chapter concludes with recommendations for future study and research. Perhaps it is prudent to promote research in faculty development and continuing professional education and to concentrate on multiple factors relevant to teaching as opposed to

satisfying the needs of individual faculty members. Programs within an institution reflect the needs of the institution and are often not necessary for those who may later leave the institution; the knowledge is “situated” (Lave & Wenger, 1991).

The research questions in this study guided the initial inquiry and framed the analysis of findings in Chapter 4. The findings from the data, as verbal responses, were described in five themes, clarified with illustrative quotes from the participants. The following section discusses the implications of the findings and their connection to the literature, and are organized by research question.

Question 1: In what ways are dentists and dental hygienists able to convert their clinical expertise to an educator method of instruction?

The participants in this study expressed methods of identifying knowledge and skills they needed, and a variety of ways for obtaining knowledge and expertise. A desire to be competent, knowledgeable and effectual was often mentioned. One method of identifying knowledge and skill sets was through the method currently used for training educators at the individual schools; that method being absent or ineffectual at best. Hicks et al. (2013), after their research on faculty development programs, suggested career transition workshops to aid the clinician in the movement from private practice to the educational institution. They further suggested that such an endeavor would offer guidance to those new to academic dentistry. For those that felt the offerings were inadequate, suggested additional topics for the professional development presentations were collegiality, academic preparation, academic responsibilities, and career planning. Those that would be best qualified to instruct the novice educators would be those faculty members that have transitioned from private practice, military, and public health sectors

(Hicks et al., 2013). Additional training in interprofessional education and a network of interested and committed colleagues would provide the new dental educator with the assistance and support they need.

Further research is required to address the measurable outcomes within two communities: those that have participated in faculty development initiatives and those who were on boarded in the traditional “trial by fire” methodology.

Question 2: In what ways does continuing professional education help clinicians become teachers, instructors, and educators?

This question produced multiple answers. Continuing professional education was found by the dentists to be more than sufficient as a means of “training.” Though a few felt it was unnecessary, the vast majority felt any adult education theory and methodology could be presented in continuing education workshops, presentations, seminars, conferences, and webinars. The participants varied in their preferences of which of the previously mentioned venues would be best; the most preferred offerings were face-to-face meetings with the ability to network with others.

The dental hygienists, as participants, felt that continuing education was alright as an update or refresher, but all that were interviewed (13) felt a Master’s degree was the path of choice. Three mentioned the desire to obtain a doctorate in education or health administration. All dental hygienists interviewed would choose to return to school for adequate preparation and as a requirement for their institutional position.

To determine if the participants were required to have extra training in adult learning theory, advertisements for teaching positions in dental and dental hygiene programs were monitored for three months and of those that were posted in multiple online venues (Higher Ed,

ADEA, ADHA, ADA, Indeed.com), only the positions for dental hygiene faculty required a history of educational methodology. The advertisements for dental faculty merely “preferred some teaching experience” and there was no requirement for an additional degree. It would seem that dental hygiene educators as a whole are more prepared to teach at the onset than their dental faculty counterparts.

I visited each of the websites previously listed and found three hundred and eighty-four requests for new faculty. The listings for dental faculty as Assistant or Associate Professor expressed the need for ‘experience in teaching’ as being preferred but not required. “Those with experience or graduate degrees” may be given an advantage over those who did not was often stated in the posting for the position. Dental hygiene advertisements for faculty required a degree above the degree that was offered by the program of the student at graduation. Most of the listings stated the ability to further their education was important. Experience in teaching was required for every dental hygiene educator position that was found.

Question 3: How do the dentist and dental hygienist develop his or her professional identity as an educator?

During the interviews and subsequent conversations produced by such, the subject of identity was broached. A majority of the dental hygienists were aware of a new identity when taking classes, pursuing their higher degree, when they were introduced as educators, and/or when in receipt of the student class evaluation. It is different for everyone, the moment you first think of yourself as a different entity than what is on your license.

The dentists typically, experience no significant identity change, and continue to perceive themselves as dentists first and then educators. Even their student evaluations were perused, but

the majority felt it was not a reliable indicator of their educational abilities; the dentists felt it more important to concentrate on the most recent developments in evidence-based dentistry.

The workplace environment greatly influences the faculty development that occurs during the transformative learning process. The organization and culture of the institution had a serious impact on the perceptions the participants had on the new identity as an educator. When the interview responses gravitated to institutional activities, the dentists were less concerned with attending offered classes than dental hygienists. The majority (nine) of the dentists felt it was more important to study journals than to actively participate in ongoing continuing education that addressed aspects of teaching. The dental hygienists (twelve) felt the need to participate in ongoing continuing education to reinforce knowledge, update skills, and study the newest methodologies available for effective teaching skill development. More often, the dental hygienists expressed a desire to learn but also to create collegial networks and develop collegial relationships. The dental hygienists also related the need for teaching excellence to be thought of as part of scholarly activity. Two dental hygienists mentioned the need for a teaching portfolio as part of their eligibility for promotion.

Findings and the Theoretical Framework

Based on review of the data in this study, it would seem that the dental hygiene educators were prone to want to return to an educational environment, obtain another degree, and become educators and not just clinical dental hygienists. It appears, as they shared stories of a new identity, that they had indeed experienced a transformation. Others may feel that this change could be called a transition, however, within the self-perception of these individuals there is first, a disorienting dilemma (the first stage of Mezirow's theory)- the need to reinvent themselves for a successful career. A self-examination that determined clinical skills were not all that were

needed resulted in an analytical assessment of a previous skill set to exploring options to move smoothly into a new role (the eighth stage of Mezirow's theory). This process, though somewhat uncomfortable, could be symptomatic of a "meaning perspective transformation" (Mezirow, 1978, p. 11). Mezirow stated:

...the structure of psychocultural assumptions within which new experience is assimilated to past experience. It is a way of seeing yourself and your relationships. More than that, it establishes the criteria that determine what you will experience- criteria for identifying what you will find interesting, for deciding which problems are of concern to you, for determining what you are prepared to learn and from whom, for determining values, for setting priorities for action, and for defining the meaning and direction of self-fulfillment and personal success. (p. 11)

The dentists who became educators were retired, retirement age, or had a physical malady that encouraged their exit from private clinical practice. The majority of the dentists responded similarly to each other. Summarizing their responses with a few phrases would be *quick and easy, great reward, increased benefit, no increased output*. Dentists do not want change without benefit and even then, according to their responses, the change should not be drastic nor affect any other part of their environment.

Beyond the self-examination (the second stage of Mezirow's theory) is the realization that competence and self-confidence will be much needed attributes to be successful as an educator. There exists within the self-assessment, the need for a plan, an active goal to secure and develop the knowledge and skills to be efficient and effective (the sixth stage of Mezirow's theory). The dental hygiene educators who preferred a more formal learning environment may present a reflective response if interviewed after completion of a formal learning program (the tenth and

seventh stages of Mezirow's theory). At this point, there may be more instances of challenges, discomfort, and self-evaluation (King, 1997).

Summary

This study, as a qualitative endeavor, was chosen to procure a realistic view of the real world experience of dental and dental hygiene educators that cannot be understood or experienced in numerical data and statistical analysis. It has allowed me to "see" the perspective of the individuals interviewed through immersion in a situation (my personal transformation) and as a result of direct interaction with them; I found that this ability to transform from clinician to educator has its similarities in multiple dental programs. It is hoped that the results yielded will help develop an increased understanding of what practicing clinicians need and want when working to become educators. Additionally, it is my feeling that further research is needed to implement change in the current ways these individuals are educated. I am hopeful that research such as this will affect change in the educational programs designed to develop moreover, support dental and dental hygiene faculty and as a positive consequence will affect the dental and dental hygiene students' quality of their educational experience.

If the dental educator is to be recognized as a professional educator, the individual must be actualized and any faculty development offered must be embedded into the fabric of the institution where they teach. Faculty development and continuing professional education are essential to developing and/or improving the educational expertise of dental and dental hygiene educators. Beyond measurable outcomes, the qualitative research component is necessary to understand the educators' perceptions and understandings of the process or, in some situations, the lack of process.

Implications for Practice

In contrast to quantitative research, the qualitative research product is often presented as an analytical generalization concerning an experience derived from participant responses (Polit & Beck, 2010). I am challenged as a scientific researcher to analyze and propose a solution. This research prompted me, as the researcher, to allay to the reader what is important, what is to be believed, and what an acceptable outcome might be because it is scientific research. The implications I derive may vary among those in similar positions or it may be very similar, depending on multiple factors such as location, demographics, and experience. I feel it is necessary to make this statement as some may feel there is a different result than what I have found to be right and true.

The participants in this study were very adept at relaying their individual experiences. Their responses seemed open and honest. Considering the multiple institutions involved, it is apparent that ill-prepared dental and dental hygiene educators are a commonality in dental education. The participants' statements placed no blame on any individual, institution, or department. The responses and conversations were matter of fact, though some were prone to voice their opinion of what they thought might be an optimal experience.

The majority of those interviewed are striving to become better educators, though the manner in which they may reach that point varies. While, I sought to determine if continuing professional education was an adequate means of preparation, I was surprised to find that the participants had multiple ideas of how this may be accomplished. I was pleasantly surprised to find how important this subject was to those interviewed. Whether the preparation is professional development courses, continuing education, onboarding procedures, or another degree is not as important as the stated need to be prepared.

Novice educators provided insight into their perceptions of educator preparation based on their personal experiences. Based on the findings of this study, there are practical implications:

1. Dental educators value experiences that improve their teaching strategies, practical knowledge, or boost their confidence.
2. Dental educators desire more time with colleagues to conduct ongoing and informal dialogue to support their application of new learning.
3. Dental educators desire greater input in developing a professional development plan at the individual level based on previous clinical and/or teaching experience as opposed to large group offerings.
4. Dental educators experience barriers to educational preparation related to lack of time and money.
5. Dental educators prefer individuals for support and guidance as they apply new learning because they often sought colleagues who provided advice and practical information.
6. Dental educators may miss the value of professional development experiences that occur beyond in-service days because they equate these offerings dull or boring venues with little or no value.

Implications for Future Research

According to Steinart et al. (2006), rigorous research regarding current initiatives in faculty development must be ongoing. There is a need for long-term studies tracking dental faculty development and the attention to detail of the opportunities available to faculty. Such research would uncover institutional cultures promoting and supporting programs concerned with leadership, organizational goals and values, and the overall mission of the institution. Further study would uncover the realistic and measurable outcomes of the most effective and efficient means available for those clinicians moving to academia. ADEA has been and remains concerned about the faculty shortage plaguing most dental schools. They have an ongoing

platform designed to call attention to the national need for qualified dental faculty (Rogér et al., 2008). Such platforms addressing institutional needs for qualified educators will continue until dental and dental hygiene schools report filled positions and graduates successful in regional clinical boards and national board examinations.

A quantitative study, going forward may be indicative of how widespread these attitudes are. A simpler questionnaire, with a Likert scale response would be a quicker method of obtaining valuable information. Wanting to know why and enjoying the engagement part of the interview process may prompt others, like I, to stay with a qualitative method.

Conclusions

It is unclear what impact current dental faculty will have on student learning outcomes. Through the literature, it has been determined that the body of current dental educators should consist of adequate numbers (quantity) and a wide variety of faculty possessing subject matter knowledge, pedagogical prowess, and educational commitment (Shepherd et al., 2001). Should the current faculty not possess a scholarship of teaching and learning, we would have educators concerned with the discipline of their choice and not the professionalism of the discipline or the optimal care of the individual. It would seem a mentality of “each educator with his/her own agenda” and not a shared goal of producing the dentists and dental hygienists that would promote scholarly activity, evidence-based research, and a future of proficient clinicians would be the norm. Educators in dentistry, as in any professional field, must step up and demand the type continuing education and professional development opportunities that will convert them to the educators of the future. Their goal should be procuring better than adequate preparation for teaching in both clinical and didactic studies. Such a demand could be reinforced by studies like this and the addition of quantitative research to produce data to force the hand of institutions to

promote change, maintain and uplift well-prepared educators, and the ultimate creation of healthcare professionals committed and prepared to meet any challenge to provide for society.

A qualitative study of 26 individuals new to dental education may not promote or produce significant change but, continued research addressing the quality of education provided to professional students may surely enlighten institutions as to impending needs. Such enlightenment may additionally produce change and change is needed to adequately solve the problem of ill-prepared instructors that merely go through the motions of teaching. Hopefully, future research will reinforce the need for educator preparation. The future of our society is dependent on those healthcare professionals that care for us and subsequently the ways that they are taught.

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Appendix A: Brief Descriptions of the Participants (*Example*)

Participant	Age	Teaching Experience; Training/Education	Background
Dr. A	55	None, None	left private practice because of back issues
Dr. B	50	None, Prof. Dev	took a few professional dev. courses for computer use...not teaching; sold practice, tired of the hassle
Dr. C	65	None, None	Sold practice and got bored; decided to teach
Dr. D	71	None, None	Retired; Associate has the practice; Selfproclaimed "old school"
Dr. E	58	PT; Prof. Dev. and CE	Had an opportunity to get out of private practice; spent 2 years at another school,
Dr. F	61	Some random lectures; went to ADEA workshops	Decided to teach before leaving private practice
Dr. G	68	None, None	Retired; wanted to do something else
Dr. H	68	PT; CE	Just switched to FT; left Private practice.
Dr. I	61	None, None	Recently retired; wanted a benefit package
Dr. J	62	None, Prof. Dev. Courses mainly for technology	Recently retired, friend recommended teaching; hard not to be the boss
Dr. K	61	OTJ training, worked at an Assoc. degree program for DH	Sold his practice to an associate; checked DH patients at a proprietary school before teaching DDS students
Dr. L	65	None, None	Retired for 3 years, wife died and was bored
Dr. M	67	None, None	Retired for 2 years thought teaching would be fun
RDH1	50	Yes, MSDH	Professes to loving school, Started teaching and realized more education would be necessary
RDH2	28	No, Enrolled in MSDH	Says she always wanted to teach
RDH3	30	PT; Prof. Dev/CE	Loves teaching; applied to MSDH program
RDH4	45	PT, Prof. Dev/CE	Enrolled in MSDH program said CE wasn't enough
RDH5	26	FT, Advanced degree started	Recently enrolled in Master's program because what was known was not enough
RDH6	48	None, none	Boss retired and trying to find a job at 48 was hard; went back to school pursuing a master's degree; teaching for 6 months

RDH7	50	None, Prof. Dev in technology	Left private practice when new associate came; teaching part-time in clinic; has to go back if she wants to teach didactic
RDH8	60	None, none	Always wanted to teach; recently divorced; looking for benefits
RDH9	48	None, some cont. ed.	Retired because of back problems
RDH10	32	None, none	Applied to MEd program; tired of cleaning teeth
RDH11	55	None, OTJ training from another RDH at a small program	Clinical teacher; applied to MDH program; realized teaching was hard and other instructors don't have time to help her
RDH12	30	None, none	Taking prereqs to get into dental school; needs some classes to help with teaching, applied to take some MS classes to see if teaching will be right
RDH13	49	PT, classes for MPH	Taught PT recently moved to FT, went back to school recently finished MS program in Public health, wasn't enough to help with teaching...loves teaching so wants to go back to school

Appendix B APPROVAL LETTER: UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER

THE UNIVERSITY OF TENNESSEE
Health Science Center



Institutional Review Board
910 Madison Avenue, Suite 600
Memphis, TN 38163
Tel: (901) 448-4824

June 16, 2015

Lynn S Russell, RDH, M.Ed.
UTHSC - COD - Dental Hygiene
C209 Dunn Dental Building
875 Union Avenue
Memphis, TN 38163-2110

Re: 15-03930-XM

Study Title: Converting Clinician to Educator: Preparation for Student Engagement in Dental Education via Continuing Professional Education

Dear Dr. Russell:

The Administrative Section of the UTHSC Institutional Review Board (IRB) has received your written acceptance of and/or response dated 06/15/2015 08:55:04 AM CDT to the provisos outlined in our correspondence of 06/12/2015 concerning the application for the above referenced project. The IRB determined that your application is eligible for **exempt** review under 45CFR46.101(b)(1) in that it involves research conducted in established or commonly accepted educational settings and 45CFR46.101(b)(2) in that the study/project involves eligible research using educational tests, surveys, interview procedures, or observation of public behavior. In accord with 45 CFR 46.116(d), informed consent may be altered, with the cover statement used in lieu of an informed consent interview. The requirement to secure a signed consent form is waived under 45 CFR 46.117(c)(2). Willingness of the subject to participate will constitute adequate documentation of consent. Your application has been determined to comply with proper consideration for the rights and welfare of human subjects and the regulatory requirements for the protection of human subjects. Therefore, this letter constitutes full approval of your application (version 1.0), consent cover statement and interview script, stamped approved by the IRB on 06/16/2015 for the above referenced study. **The UTHSC IRB stamped-approved consent statement must be used to enroll prospective subjects in the study.**

In the event that volunteers are to be recruited using solicitation materials, such as brochures, posters, web-based advertisements, etc., these materials must receive prior approval of the IRB.

Any alterations (revisions) in the protocol, consent cover statement, or interview script must be promptly submitted to and approved by the UTHSC Institutional Review Board prior to implementation of these revisions. In addition, you are responsible for reporting any unanticipated serious adverse events or other problems involving risks to subjects or others in the manner required by the local IRB policy.

Institutional Review Board
910 Madison Avenue, Suite 600
Memphis, TN 38163
Tel: (901) 448-4824

November 11, 2016

Lynn S Russell, RDH, M.Ed.
UTHSC - COD - Dental Hygiene
C209 Dunn Dental Building

Re: 15-03930-XM

Study Title: Converting Clinician to Educator: Preparation for Student Engagement in Dental Education via Continuing Professional Education

Dear Dr. Russell:

The Administrative Section of the UTHSC Institutional Review Board (IRB) reviewed your application for revision of your previously approved project, referenced above.

The IRB determined that your revision application is eligible for expedited review under 45 CFR 46.110(b)(2), and that your study remains eligible for **exempt** status under 45CFR46.101(b)(1) in that it involves research conducted in established or commonly accepted educational settings and 45CFR46.101(b)(2) in that the study/project involves eligible research using educational tests, surveys, interview procedures, or observation of public behavior. The attached revisions to your project were approved as complying with proper consideration of the rights and welfare of human subjects.

In the event that volunteers, either subjects or patients, are to be recruited by means other than usual and standard patient care practices, the Board must approve of any such solicitation materials (i.e., advertising copies or posters, etc.)

Any alterations (**revisions**) in the research project must be submitted to and approved by the UTHSC Institutional Review Board prior to implementation of these revisions.

Sincerely,



Signature applied by Donna L Stallings on 11/11/2016 11:24:42 AM CST

Donna Stallings, CIM
IRB Administrator
UTHSC IRB



Terrence F. Ackerman, Ph.D.
Chairman
UTHSC IRB

Attachment: Revisions

Appendix C: IRB APPROVAL LETTER: UNIVERSITY OF MEMPHIS

Date: 10-17-2016

IRB #: 3868

Title: CONVERTING CLINICIAN TO EDUCATOR: PREPARATION FOR STUDENT ENGAGEMENT IN DENTAL EDUCATION VIA CONTINUING PROFESSIONAL EDUCATION

Creation Date: 9-19-2016

End Date:

Status: Null

Principal Investigator: Lynn Russell

Review Board:

Sponsor:

Study History

Key Study Contacts

Member Lynn Russell	Role Primary Contact	Contact Isrssell@memphis.edu
Member Lynn Russell	Role Principal Investigator	Contact Isrssell@memphis.edu

Appendix D: Consent Form

Consent to Participate in a Research Study

Converting Clinician To Educator: Preparation In Dental Education By Continuing Professional Education

Why Are You Being Invited To Take Part In This Research?

You are being invited to take part in a research study about continuing professional education and workplace learning and how it relates to your transition into academic life. You are being invited to take part in this research study because you have come to be an educator after being a clinician. If you volunteer to take part in this study, you will be one of about 25 people to do so.

Who Is Doing the Study?

The person in charge of this study is Lynn Russell, RDH, MEd (*Lead Investigator*) of University of Memphis Department of Higher and Adult Education. I am being guided in this research by my advisor. I am a dental hygienist who went from full-time clinical practice to a full-time position teaching dental hygiene students. I had a difficult transition and am curious how others felt with regard to continuing education as being helpful.

What Is The Purpose Of This Study?

The purpose of this research is to understand the experience and perspectives of dental educators and if continuing professional education is sufficient training to aid in the transitional process. By doing this study, I hope to learn how dental clinicians prepare for a career in education. Topics that may prove to be important are: professional development, continuing education, mentoring, and training workshops.

Are There Reasons Why You Should Not Take Part In This Study?

If you have been a practicing dentist or dental hygienist and have made the move to teaching in your discipline you are eligible to participate. There are no reasons not to take part in the study.

Where Is The Study Going To Take Place And How Long Will It Last?

The research procedures will be conducted at the University where I am employed, the

ADEA Program Directors Conference in New Orleans, LA, the ADHA National Meeting in Pittsburgh, PA, and by phone.

You will need to come to an office space that you and I will agree upon. Each visit will take about 30 minutes to 1 hours. The total amount of time you will be asked to volunteer for this study is between two and three hours maximum.

What Will You Be Asked To Do?

You will be asked to sit for one interview lasting between 30 minutes to one hour. The type of interview I have chosen is semi- structured. I will ask questions and your answers may or may not prompt additional questions. We will be discussing the time you spent preparing to teach...what was helpful and what was not. The interview will include continuing professional education and workplace learning, such as in-services or other training. These interviews will be recorded. I may ask to look at documents you have related to continuing professional education or learning experiences at work.

What Are the Possible Risks And Discomforts?

To the best of my knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life.

You may interpret some questions I ask as personal; I assure you that your answers are specifically for my research and in no way, will affect your performance evaluation.

Will You Benefit from Taking Part In This Study?

There is no guarantee that you will get any benefit from taking part in this study. However, you may gain a better understanding of the benefits of continuing education to prepare you to teach or we may uncover the fact that it was inadequate and there are better ways to prepare for didactic and clinical instruction. Your willingness to take part, however, may, in the future, help colleges and universities prepare their new faculty for teaching.

Do You Have to Take Part In The Study?

If you decide to take part in the study, it should be because you want to volunteer.

You will not lose any benefits or rights you would normally have if you choose not to volunteer.

You can stop at any time during the study and will not lose any benefits.

What Will It Cost You to Participate?

There are no costs associated with taking part in the study.

Will You Receive Any Rewards or Compensation for Taking Part In This Study?

You will not receive any rewards or payment for taking part in the study.

Who Will See the Information That You Offer?

Every effort will be made to respect your anonymity.

Data reported will be aggregated among all participants in the study. When I write about the study to share it with other researchers, I will write about the combined information we have gathered. You will not be personally identified in any written materials. I may publish the results of this study; however, I will keep your name and other identifying information confidential. I will make every effort to prevent any

individual who is not on my dissertation committee and /or involved outside my research team from knowing about your participation. Your answers will be stored in a locked file cabinet in my residence, and will be accessible only to me. Any electronic records will be password protected or encrypted and accessible only to me as the primary investigator. All data will be destroyed three years after the completion of the study. I will keep private all records that identify you to the extent allowed by law. I may be required to show information which identifies you to people who need to be sure the research has been done correctly; these would-be individuals from the University of Memphis.

Can Your Taking Part in The Study End Early?

Should you decide to take part in the study you have the right to decide at any time that you no longer want to continue. You will not be treated differently if you decide to stop taking part in the study.

If you decide to stop taking part in the study, contact me, Lynn Russell, at

██████████ or lrusse20@uthsc.edu.

What if you have questions, suggestions, concerns, or complaints?

Before participation, please ask any questions that might come to mind. Later, if you have questions, suggestions, concerns, or complaints about the study, you can contact the investigator, Lynn Russell, at 901-337-0512. If you have any questions about your rights as a volunteer in this research, contact the Institutional Review Board staff at the University of Memphis or UTHSC.

What happens to my privacy if I am interviewed?

Individually identifying information, such as your name, will not be used in connection with this study nor will your institution. Other details may be altered to protect privacy. All results and all recordings from this study will be disguised by using a pseudonym. This pseudonym will be used on all of the submitted documents. Only the lead investigator will keep the key code that links your name with the pseudonym.

What else do you need to know?

Should you have any questions, contact the lead investigator, Lynn Russell lrusse20@uthsc.edu

Signature of participant

Date

Printed name of participant

Appendix E

Data Collection

Timeline and Protocol

- I. Before beginning
 - A. Calendar for interviews and observations
 - B. Appointments: times and reminders
 - C. Create pseudonym assignments- Store in locked file
 - D. Create log sheet: Date, method, pseudonym, transcription identifiers
 - E. Data Management Plan:
 1. Code sheet
 2. Transcription with notes
 3. Data manipulation/identification: coding
 4. Establish and store passwords for digital file storage
 - F. Develop observation guide
 - G. Interviews
 1. Journal for field notes: observation, comments, descriptions, distractions, follow-up suggestions
 2. Procedures:
 - a. How data was collected
 - b. How decisions were made for collection and analysis
 3. Memos: Analysis
 4. Memos: Personal
 - H. Schedule interviews
 1. Reminder calls

2. Arrange availability, check recorder, print necessary papers I. Things to remember:

1. Recorder
 2. Batteries
 3. Paper, journal, guides, pencils, pens
 4. Water and snacks
 5. Consent forms
 6. Interview guide- unstructured and semi-structured cues
 7. Observation Guide
- J. Post- Interview
1. Expand on notes using observed information
 2. Place dates and times within paper
 3. Verify information as needed (specifics during the interview)
- K. Member check
- L. Transcription

II. Analysis

- A. Coding- categories and participants
- B. Follow- up
- C. Review

Appendix F

Hello, my name is Lynn Russell. I am a doctoral student at the University of Memphis in the Leadership Department. My area of interest is Adult Education. I am also on faculty in the College of Dentistry, where I am the Chair of the Dental Hygiene Department. I am conducting qualitative research for my dissertation on the experiences the dentist (or dental hygienist) has had while converting from private practice to dental educator. I am inviting you to participate because you have made this transition. It is my hope that my results may affect changes in the way universities prepare their new faculty for the classroom or for clinical instruction.

Participation in this research includes an interview which can be done over the phone or in person, depending on your location. If you agree to participate in the interview about your experience, it will take no more than forty – five minutes of your time. Your interview time can be scheduled according to a time that will be best for you.

If you have any questions or would like to participate in the research, I can be reached at 901-██████████ or you may email me at lrusse20@uthsc.edu.

Appendix G

Semi-Structured Interview Guide

<p>Observer: <i>Thank you for sitting down with me to share your personal experiences and opinions about your role in academia. This is my recorder and, as we discussed, I am going to record our session. This is to help me accurately remember what is said. It is not meant to gather information for any other purpose than to help me with my research. Is that okay? I am also going to make a few notes (for the same reasons). I know your time is valuable, and I just want to reiterate my thanks. (Turn on recorder).</i></p> <p><i>Let's get started. I am conducting an interview today (give date) with _____ here at the _____, on (date)_____. This conversation is being recorded and _____ has consented to this.</i></p>	
<p>Question 1: Background</p> <p><i>Could you give me a brief background of your dental experience? (graduation, private practice, and how you came to teach here in the college)</i></p>	
<p>Question 2: Current</p> <p><i>Could you briefly describe your role here?</i></p>	
<p>Question 3: <i>Would you describe any training you had either before you started teaching or after....and was any of it significant in helping you prepare for this role?</i></p> <p><i>What class or course stood out as being helpful to you?</i></p>	

<p>Question 4: <i>What would you think would be adequate training for the novice instructor?</i></p>	
<p>Question 5: <i>Could you tell me about a mentor you have had and how exactly that person helped you acclimate to the university?</i></p>	
<p>Question 6: <i>How has your professional identity been altered?</i></p>	
<p>Question 7: Describe to me the moment you began to see yourself as an educator.</p>	
<p>Question 8: Share an experience of a “high point” you have experienced as an educator. How about a “low point”?</p>	
<p>....., <i>thanks for taking the time to speak with me. Do you have any questions? Is there anything you would like to add that we did not talk about today? I will be developing an outline and making some notes that I will review with you, in order to make sure I was accurate in my writing. Thanks again.</i></p>	

Appendix H

Sample of Coding (Researcher use)

1st: letters- DDS=dentist, RDH=dental Hygienist;

2nd: Letter assignment and number assignment (anonymity) and
interview position

4th: S= Semi-structured interview

5th: Location- O-office, S –School, M- Meeting

6th Themes 1, 2,3,4,5

DDSA1SO135: Dentist 1, first to be interviewed, semi-structured, in the DDS office. Addressed
themes 1, 3, and 5

RDH113SM 12345: Dental Hygienist 1, 13th interview, Semi structured, meeting. Themes 1,
2,3,4,5

Appendix I

(included to represent the small number of continuing education courses concerned with educational theory or methodology)

CPE Courses at ADA

Find a Dental CE Course by going to The American Dental Association Website

<http://www.ada.org/en/ccepr/find-ce-courses/#sort=relevancy>

Continuing Education Recognition Program providers offer 20,000+ courses annually. ADA members and non-members searching for continuing dental education courses can access the CERP Provider Course Listing. The searchable database provides information about courses offered by ADA CERP recognized providers.

Publication of course information does not constitute an evaluation, endorsement, or acceptance of course content by the ADA or the Commission for Continuing Education Provider Recognition (CCEPR), nor should it be construed as a guarantee by the ADA or the CCEPR of the accuracy of the content of any particular listing. Responsibility of the content of each listing rests with the provider that supplies the information.

Persons interested in a particular course are advised to contact the CE provider directly for further information and details regarding the course listed.

On June 6, 2016, there were 1816 courses listed. For Educators 2 were listed

Subject Area	Number of courses
General Dentistry	171
Infection Control and Dental Waste Management	131
Esthetic Dentistry	116

	Number of courses
Special Care Dentistry	114
Implantology	96
Periodontics	87
Anesthesia, Oral Sedation and Pain Control	75
Practice Management and Risk Management	75
Restorative Dentistry	74
Oral Pathology	70
Endodontics	61
Oral Radiology, Imaging and Photography	61
Prosthodontics	58
Pediatric Dentistry	52
Pharmacology and Therapeutics	52
Diagnosis and Treatment Planning	50
Orthodontics	49
Ethics and Law	46
Oral and Maxillofacial Surgery	40
Dental Materials/Biomaterials	37
Biomedical Sciences	34
Courses for Allied Dental Staff	33
Emerging Technologies in Dentistry	30
Cariology and Caries Management	28
Occlusion	28
Geriatric Dentistry	27

Subject Area	Number of Courses
Medical Emergencies in the Office	27
Dentist Health and Wellness	25
Oral Health Communication and Literacy	18
TMJ/TMD and MPD	14
Regulatory Compliance	12
Evidence-Based Dentistry	9
Preventive Dentistry	7
Community Oral Health	5
Emergency Disaster Preparedness/Forensics	5

Dates: 1/1/2016 - 1/1/2017

City: Boston, Helsinki, Los Angeles, Sydney, Vancouvermore

State: Alabama, Arizona, British Columbia, California, Connecticut, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts.....more

Country: Abu Dabai, Australia, Canada, Czech Republic, Egypt.....more

Cruise/Travel Destination: Africa, Alaska/Inner Passage, Asia, Central America, Europe...more

Course Provider: A2Z Dental Company, Academy - Dental Learning and OSHA Training, Academy of Laser Dentistry.....more

Course Type: Self-Study, Lecture and Participation, Lecture, Live Internet-based (Web seminars and webcasts), Self-Study/
Publications (print format)

Audience: Dentists, General Practitioner, Dental Hygienist, Dental Assistant, Specialist, Dental Lab Technician

Example (only 2 for educators)

8th Annual Oral Pathology Institute for Educators

Subject Area: Oral Pathology

Dates: July 14, 2016 To July 16, 2016

Location: Chapel Hill, North Carolina

Cost: 725 for All

Course Provider: University of North Carolina School of Dentistry for Educators you will receive an update in the recognition and management of oral pathologic lesions as well as valuable tips to enhance your teaching skills.

Course Website: <http://www.dentistry.unc.edu/cde/>

Concepts and Educational Strategies for the Radiology Educator

Subject Area: General Dentistry

Dates: July 11, 2016, 12:00 AM To July 14, 2016

Location: Chapel Hill, North Carolina

Cost: 850 for Dentist, 795 for Allied

Course Provider: University of North Carolina School of Dentistry

Course Type: Lecture

Description: This activity is designed as an interactive experience to allow dental educators to update their dental radiology concepts and apply this information using various learning strategies. **Course Website:**

<http://www.dentistry.unc.edu/cde/>

Appendix J (included to represent courses offered to aid the novice educator)

Course Offerings through ADEA

American Dental Education Association

Take Advantage of ADEA's Professional Development Opportunities

Advance Your Dental Education Career through ADEA's Professional Development Programs

ADEA offers the best continuing education programming to help you keep up-to-date in the ever evolving field of dental education.

Whether you're looking to expand your teaching skills, enhance your leadership abilities, or learn about the latest research.

ADEA has programs and resources that will help you meet your professional goals.

ADEA's professional development opportunities enable you to:

- Develop new teaching skills and refresh current competencies.
- Keep up-to-date on best practices in the classroom and in curriculum development.
- Learn how to incorporate the latest technologies into your teaching.
- Explore inter-professional education.
- Maintain licensure.

Take advantage of ADEA's numerous collaborative and self-directed learning opportunities.



Leadership Development Opportunities



Collaborative Learning Experiences



Self-Directed Learning Experiences



Professional Development Resources



Scholarships and Fellowships

For more detailed information, visit www.adea.org. If you have questions about ADEA professional development programs, please call (202) 289-7201 or email opd@adea.org.

Advances in Educational Methods for Allied Health Educators

Example:

This ADEA/Colgate/AAL Institute for Allied Health Educators (IAHE) course is divided into five live online, evening sessions, held on June 22, June 29, July 6, July 13 and July 20, 2016.

Each session begins at 8:00 p.m. Eastern Time, and lasts approximately 90 minutes. Assignments are provided before and after each session.

The course orientation will be held on June 15, 2016 from 8:00 - 9:00 p.m. Eastern Time.

ADEA gratefully acknowledges the generous, [exclusive support from Colgate](#) for the ADEA/Colgate/AAL IAHE.

Advances in Educational Methods will cover:

Using technology in teaching

- Identify strategies for determining the appropriate use of technology that will result in enhancing your teaching and learning environment.
- Discuss the importance of creating a learner-centered environment where students are encouraged to be selfdirected learners and problem solvers.

Classroom assessments

- Describe current assessment methods -- including test construction and analysis -- available to assess competence in health professional students.
- Given a competency domain, identify the strengths and weakness of the various assessment methods used to determine competence.

Academic honesty and classroom civility

- Structure the classroom and curriculum to maximize students' engagement and their motivation to perform well honestly.
- Assess strategies for classroom management.

Evidence-based practices in teaching

- Explore resources to identify relevant research.
- Use research articles to develop step-by-step directions for educational methodology improvements.

Conflict management

- Assess your conflict style and test different approaches to hypothetical situations.
- Explore and apply strategies for **managing conflict in a positive manner**.

Cost:

Tuition for Advances in Educational Methods is \$350.

CE Information:

Participants can complete the assignments to earn 20 CE (ADA CERP) credits for each ADEA/Colgate/AAL IAHE course, or they can choose to audit, getting full access to the materials but without completing the work or receiving the CEUs. The tuition remains the same regardless of this.

The American Dental Education Association is an ADA Continuing Education Recognition Program (CERP) Recognized Provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry.

The American Dental Education Association designates this activity for 20 continuing education credits.

Revitalizing Curriculum & Calibrating Faculty

Dates: Oct 05-Nov 09, 2016

Venue: Five live online evening sessions

Location: Learning Event, Online

This **ADEA/Colgate/AAL Institute for Allied Health Educators (IAHE)** course is divided into five live online evening sessions, held on October 12, October 19, October 26, November 2 and November 9, 2016.

Each session begins at 8:00 p.m. Eastern Time, and lasts approximately 90 minutes. Assignments are provided before and after each session.

The course orientation will be held on October 5, 2016 from 8:00 - 9:00 p.m. Eastern Time.

ADEA gratefully acknowledges the generous, [exclusive support from Colgate](#) for the ADEA/Colgate/AAL IAHE.

Revitalizing Curriculum & Calibrating Faculty will cover:

Creating a flipped classroom

- Provide an overview of the flipped classroom model, identifying advantages and role of faculty as facilitators.
- Apply the concepts of a flipped classroom by combining the basic sciences with clinical care, including utilization of evidence-based learning, cases and reflective exercises.

Faculty calibration

- Define faculty calibration and its importance to clinical practice.
- Review a variety of methods for faculty calibration.

Curriculum design and management

- Define curriculum mapping and how mapping relates to student assessment.
- Compare curriculum mapping and course sequencing for optimal student success.

Designing hybrid courses

- Explore several course management learning systems and imbedded features that can be used to develop a hybrid course.
- Discuss strategies to modify existing courses into blended learning experiences for both the students and faculty.

Faculty motivation

- Explore best practices as they relate to faculty motivation and team-building.
- Apply motivational techniques to better engage peers in an effort to motivate fellow faculty.

Cost: Tuition for Revitalizing Curriculum & Calibrating Faculty is \$350.

ADEA Teaching Resources

Below is a compilation of resources about teaching, assessment, curriculum design, learning, competency-based education, teaching with technology, and more.

ADEA Curriculum Resource Center

Critical Thinking Skills Toolbox

Resources for Teaching

ADEA weTeachSM

MedEdPORTAL

Professional Development

- ADEA Leadership Institute
- ADEA Leadership Institute Alumni Association (ADEA LIAA)
- Allied Dental Faculty Leadership Development Program
- ADEA Faculty Development Programs
- ADEA/AAL Programs
- ADEA Listservs

ADEA Scholarships, Awards and Fellowships

- ADEA Academic Dental Careers Fellowship Program (ADEA ADCFP)
- For Students
- For Dental Educators
- For ADEA Leadership Institute Fellows
- For Dental Schools

Teaching Resources

- ADEA weTeach®
- ADEA Curriculum Resource Center (CRC)
- Critical Thinking Skills Toolbox
- Resources for Teaching