CHARACTERISTICS OF EFFECTIVE TEACHERS IN THE

AIR FORCE'S SQUADRON OFFICER COLLEGE

Except where reference is made to the work of others, the work described in this dissertation is my own or was done in the collaboration with my advisory committee. This dissertation does not include proprietary or classified information.

_____
Kevin T. O'Meara

Certificate of Approval:

_____	_____
Marie F. Kraska Mildred Chesire Fraley Distinguished Professor Educational Foundations, Leadership and Technology	Jill Salisbury-Glennon, Chair Associate Professor Educational Foundations, Leadership and Technology
_____	_____
Paris Strom Associate Professor Educational Foundations, Leadership and Technology	Joe F. Pittman Interim Dean Graduate School

CHARACTERISTICS OF EFFECTIVE TEACHERS IN THE AIR FORCE'S SQUADRON OFFICER COLLEGE

Kevin T. O'Meara

A Dissertation

Submitted to

the Graduate Faculty of

Auburn University

in Partial Fulfillment of the

Requirements for the

Degree of

Doctor of Philosophy

Auburn, Alabama
August 4, 2007

CHARACTERISTICS OF EFFECTIVE TEACHERS IN THE

AIR FORCE'S SQUADRON OFFICER COLLEGE

Kevin T. O'Meara

_____
Signature of Author

_____
Date of Graduation

The views expressed in this study are those of the author and do not reflect the official policy or position of the United States Air Force, the Department of Defense, or the United States government.

DISSERTATION ABSTRACT

CHARACTERISTICS OF EFFECTIVE TEACHERS IN THE

AIR FORCE'S SQUADRON OFFICER COLLEGE

Kevin T. O'Meara

Doctor of Philosophy, August 4, 2007
(M.A., Webster University, 2000)
(B.A. University of Texas at Dallas, 1993)

121 typed pages

Directed by Jill Salisbury-Glennon

The present study investigated the degree to which Squadron Officer School Class 07D students perceived the characteristics of effective teachers by ranking of each of the 28 characteristics identified on the Teacher Behaviors Checklist (TBC) (Buskist, Sikorski, Buckley, and Saville, 2002; Keeley, Smith, Buskist, 2006). This was done in order to assess whether there were any statistically significant differences in the total scores of male and female students. The frequency with which students responded to the choices for each item on the Likert-type scale used to score the TBC was assessed.

The study investigated the degree to which Squadron Officer College instructors assigned to Squadron Officer School perceived that they possessed the characteristics of effective teachers, as determined by the TBC (Buskist, et al., 2002; Keeley, et al., 2006). This was done in order to assess whether there were any statistically significant differences between the students' and instructors' perceptions of the characteristics of effective teachers.

Two hundred and sixty one students and 20 instructors completed the TBC (Buskist, et al., 2002; Keeley, et al., 2006.), recording their perceptions of the 28 characteristics on the instrument by using the 5-point Likert-type scale provided. The data were analyzed using descriptive statistics and independent samples t-tests.

Results from the statistical analysis indicated that no statistically significant difference existed between the total mean scores on the TBC between male and female students. Results from statistical analysis indicated that no statistically significant difference existed between the total mean scores between teachers and students.

This study demonstrated that students and teachers, regardless of the nature of the student, perceive that the characteristics of effective teachers should be present in teachers to a high degree, and are present in the teachers at Squadron Officer School. Also, the TBC showed promise for continued use in measuring the characteristics of effective teachers in instructional settings outside the traditional college or university environment such as Squadron Officer College.

ACKNOWLEDGEMENTS

The author would like to express gratitude to the advisory committee members for this study. Special thanks to Dr. Jill Salisbury-Glennon, who served as chairperson, for the proximal goals which greatly aided in keeping the project moving, to Dr. Marie F. Kraska for her guidance and assistance in the methodological framework and statistical analysis, and to Dr. Paris Strom for his theoretical expertise and suggestions for improvements to the manuscript.

Acknowledgement is given to the faculty and staff of the Department of Educational Foundations, Leadership, and Technology at Auburn University for their encouragement, instruction, and assistance throughout the author's coursework and study, particularly the bluebird team; War Eagle!

Thanks are also given to the faculty, staff, and leadership at Squadron Officer College for support and participation in the study, particularly to George and Royce for their tireless assistance and support.

Special thanks to the author's family, who offered unlimited support, timely encouragement, and understanding throughout the duration of this study.

Style manual or journal used: Publication Manual of the American Psychological Association, 5th Edition.

Computer software used: SPSS 15, AMOS 7.0,Windows XP, and Microsoft Word 2000

TABLE OF CONTENTS

LIST OF TABLES xi

I. INTRODUCTION 1

Background of the Study 1
Statement of the Problem 3
Purpose of the Study 4
Research Questions 5
Null Hypotheses 5
Overview of Methods 6
Significance of the Study 7
Limitations 10
Definitions of Terms 10

II. LITERATURE REVIEW 12

Characteristics of Effective Teachers 14
History of Research into the Characteristics of Effective Teachers 16
Establishing the Characteristics of Effective Teachers 18
Measuring Effective Characteristics 21
Benefits of Effective Teaching Characteristics 32
Certification Training Program Attention to Effective Teaching Characteristics 33
Teacher Behaviors Checklist for Adult Military Instructors 36
The Adult Learner in the Military Educational Setting 38
The Adult Learner 38
The Military Educational Setting 38
Conclusion 41
Research Questions 43
Null Hypotheses 43

III. METHODOLOGY 44

Participants 46
Instrumentation 47
Procedures 49
Faculty Development—Fundamentals of Instruction 51

Research Design 53

IV. RESULTS 55

Research Questions 56
Null Hypotheses 57
Descriptive Statistics 57

V. SUMMARY, DISCUSSION, CONCLUSIONS, AND IMPLICATIONS 71

Summary of the Study 71
Summary of Results 73
Discussion 75
Conclusions 76
Implications 77
Limitations 79
Recommendations for Future Research 79

REFERENCES 81

APPENDICES 91

Appendix A: Human Subjects Approval Auburn University 92
Appendix B: Squadron Officer College Human Subjects Approval 94
Appendix C: Informed Consent Notification Students 98
Appendix D: Informed Consent Notification Teachers 101
Appendix E: Teacher Behaviors Checklist 104

LIST OF TABLES

Table 1. Summary of Desirable Teacher Characteristics and practices 21
Table 2. Master List of Teacher Traits 22
Table 3. Characteristics of Ideal and Best College Teachers, and Characteristics Important to Superior College Teaching, as Seen by College Students 25
Table 4. Descriptive Traits Associated With Lowman's (1995) Four Categories of Characteristics 26
Table 5. Teacher Behaviors Checklist 28 Teacher Qualities 28
Table 6. Descriptive Statistics for Student and Teacher Responses as a Group .. 58
Table 7. Descriptive Statistics for Student Responses on the TBC 60
Table 8. Descriptive Statistics for Teacher Responses on the TBC 62
Table 9. Frequency of Responses to the TBC by Students and Teachers as One Group 64
Table 10. Frequency of Responses to the TBC by Students 66
Table 11. Frequency of Responses to the TBC by Teachers 68

CHAPTER I: THE NATURE OF THE STUDY

Introduction

This study investigated the degree to which Squadron Officer School Class 07D students perceive the characteristics of effective teachers by ranking of each of the 28 characteristics identified on the Teacher Behaviors Checklist (TBC) (Buskist, Sikorski, Buckley, and Saville, 2002; Keeley, Smith, Buskist, 2006). This was done in order to assess whether there were any statistically significant differences in the total scores of male and female students. Also, students, teachers, and the combined group of students and teachers were assessed regarding the frequency with which they responded to the choices for each item on the Likert-type scale used to score the TBC. The study also investigated the degree to which Squadron Officer College instructors assigned to Squadron Officer School perceive that they possess the characteristics of effective teachers, as determined by the TBC (Buskist, et al., 2002; Keeley, et al., 2006.). This was done to assess whether there were statistically significant differences between the students' perceptions of the characteristics of effective teachers, and instructors' perceptions of the characteristics of effective teachers.

Background

Squadron Officer College, at Maxwell Air Force Base in Montgomery, Alabama, developed and fielded an instructor development program as a result of the Air Force's

Academic Instructor School being disbanded in an effort to save manpower dollars at Air University and across the Air Force. This move from a centralized to decentralized instructor development program has generated interest on the part of Squadron Officer College leadership and staff members regarding the degree to which the characteristics of effective teachers are being developed in teachers assigned to Squadron Officer School and Air and Space Basic Course instructor duty. One element of the Fundamentals of Instruction program is to develop or reinforce the characteristics of effective teachers in program participants, which is strongly supported by the existing literature.

Research into the development of the characteristics of effective teachers by Darling-Hammond and Brasford (2005) noted that teacher variables outweigh even student socio-economic status in terms of student achievement in the classroom (Lasley, Siedentop, & Yinger, 2006). A cursory review of the literature suggests that the relationship between effective teaching characteristics and cognitive student outcomes has been established (Muijs, Campbell, Kyriakides, & Robinson, 2005). To affect change in the practice of teacher education, programs charged with developing teachers must take into account the beliefs, attitudes, and characteristics that pre-service teachers bring with them into programs (Hart, 2002). Pajares (1992) noted that beliefs about teaching are formed well before the pre-service teacher enters college. The teacher education program that the student encounters either reinforces or challenges these beliefs throughout the developing teacher's participation in the teacher education program (Lortie, 1975). As theory indicates that students can and do learn through the example of their teachers (Polk, 2006), the importance of developing the characteristics

most often associated with effective teachers as part of the teacher education process has been clearly established.

While there has been some research conducted into the characteristics of effective teachers in K-12 settings, higher education settings, teacher education programs, and nursing education programs, there remains a paucity of research into the characteristics of effective teachers in military educational settings.

Given the paucity of research into the characteristics of effective teachers in military training and educational settings, the purpose of the study was to ascertain the degree to which the Squadron Officer College instructors perceived they possessed the characteristics of effective teachers as compared to student scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006), and the degree to which male and female students differ in total scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006).

Statement of the Problem

The limited amount of research regarding the development of the characteristics of effective teachers in teacher education and training programs, as well as a lack of studies that measure effective teaching characteristics in adult educational settings suggested the problem to be investigated. The lack of research relating specifically to the development of effective military teachers and instructors is immediately evident as little to no studies have been conducted in this area that were identified for this literature review.

This review has indicated that, prior to 1960; research regarding effective teaching characteristics was primarily focused on the perspective of the administrator or

supervisor (Cruickshank, 1986), and lacked the valuable input and perspective of colleagues, students, and other stakeholders in the education process. Currently, the population focus of effective teaching characteristics studies seems to be traditional students in the college/university setting.

The focus of this study was to determine the degree to which the Squadron Officer College (SOC) instructors perceived they possessed the characteristics of effective teachers as compared to student scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006), and the degree to which male and female students differ in total scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006).

Purpose of the Study

Given the paucity of research into the characteristics of effective teachers in military training and educational settings, the purpose of the present study will be to ascertain the degree to which the Squadron Officer College (SOC) instructors perceived they possessed the characteristics of effective teachers as compared to student scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006), and the degree to which male and female students differ in total scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006).

Research Questions

The following research questions were formulated for this study:

1. What are the descriptive statistics associated with each of the items on the TBC for (a) all participants as a group, (b) student participants as a group and (c) for teachers as a group?
2. With what frequency do (a) all participants as a group, (b) student participants as a group, and (c) teachers as a group respond "always, sometimes, frequently, rarely, never" on the TBC?
3. To what extent are there statistically significant differences between the total scores of male and female students on the TBC?
4. To what extent is there a statistically significant difference between total scores on the TBC for student perceptions of the characteristics of effective teachers and teacher perceptions of the characteristics of effective teachers?

Null Hypotheses

The following null hypotheses were tested at the .05 level of significance:

$H_{01:}$ There is no statistically significant difference between the total scores of male and female students on the TBC.

$H_{02:}$ There is no statistically significant difference between student and teacher total scores on the TBC.

Overview of Methods

The Teacher Behaviors Checklist TBC (Buskist, et al., 2002; Keeley, et al., 2006) was administered to Squadron Officer College faculty members assigned to teach at Squadron Officer School, and was also administered to students attending Squadron Officer School Class 07D, at Maxwell Air Force Base, Montgomery, Alabama.

To answer research question one (a, b, & c), descriptive statistics will be calculated to determine the performance on each item on the TBC. The researcher presented the minimum and maximum score for each item, as well as the mean score and standard deviation. These statistics were presented for the student and teacher administration results of the TBC (Buskist, et al., 2002; Keeley, et al., 2006), as well as the combined group of teachers and students.

To answer research question two (a, b, & c), descriptive statistics were used to determine the frequency and percentage of student, teacher, and the combined group of students and teachers responses to each of the choices on the 5-point Likert-type scale, which are; "always, sometimes, frequently, rarely, and never," from the TBC (Buskist, et al., 2002; Keeley, et al., 2006).

To answer research question three, an independent samples t-test was used to compare total scores of male and female students on the TBC (Buskist, et al., 2002; Keeley, et al., 2006). This statistical procedure indicated to the researcher whether there were statistically significant difference in the total mean scores for male and female students or whether the differences in the total mean scores were due to chance (Pallant, 2005). The results of this procedure allowed the researcher to ascertain whether to reject or fail to reject null hypothesis one.

To answer research question four, an independent samples t-test was used to compare total mean scores of teachers as a group and students as a group on the TBC (Buskist, et al., 2002; Keeley, et al., 2006). This statistical procedure indicated to the researcher whether there was statistically significant differences in the total mean scores for teachers and students, or whether the differences in the total mean scores were due to chance (Pallant, 2005). The results of this procedure allowed the researcher to determine whether to reject or fail to reject null hypothesis two.

Significance of this Study

This study investigated the degree to which Squadron Officer School Class 07D students perceived the characteristics of effective teachers by ranking of each of the 28 characteristics identified on the Teacher Behaviors Checklist (TBC) (Buskist, Sikorski, Buckley, and Saville, 2002; Keeley, Smith, Buskist, 2006). This was done in order to assess whether there were any statistically significant differences in the total scores of male and female students. Also, students were assessed as to the frequency with which they responded to the choices for each item on the Likert-type scale used to score the TBC. The present study investigated the degree to which Squadron Officer College instructors assigned to Squadron Officer School perceived that they possessed the characteristics of effective teachers, as determined by the TBC (Buskist, et al., 2002; Keeley, et al., 2006.). This was done in order to assess whether there were statistically significant differences between the students' perceptions of the characteristics of effective teachers, and instructors' perceptions of the characteristics of effective teachers. The implications of this research offer utility to the Squadron Officer College leadership

and custodians of the faculty development program, the researchers who developed the TBC (Buskist, et al., 2002; Keeley, et al., 2006), the students and faculty of Squadron Officer College and Squadron Officer School, and the United States Air Force.

For the Squadron Officer College leadership, the importance of this research can be linked to the overall program evaluation process at Squadron Officer College (SOC OI 36-13, Program Evaluation, 2007), which ensures the effectiveness and value of the education programs at Squadron Officer College. This research offers leadership an indication regarding the degree to which the teachers at Squadron Office College possess the characteristics of effective teachers, and the degree to which there are differences between student and teacher perceptions regarding the characteristics of effective teachers, and to what degree there are differences between male and female student perceptions regarding the characteristics of effective teachers. Also, the study offers insight into the extent to which the Fundamentals of Instruction program is accomplishing stated program objectives with regard to the development of the characteristics of effective teachers. Additionally, as part of Air University, Squadron Officer College is accredited by the Commission of Colleges of the Southern Association of Colleges and Schools (SACS), which allows Air University schools to award associate and master's degrees. Air University achieved regional accreditation in June 2004, effective at the beginning of the 2004 calendar year. Research studies such as the present study are important to Squadron Officer College and Air University as this and other studies aid in demonstrating to SACS visitors how the school evaluates whether or not programs and courses are achieving the desired objectives.

For custodians of the Fundamentals of Instruction program, the implications of this study are that this research may offer practical data points for determining the strengths and weaknesses of the Fundamentals of Instruction program with regard to the development of the characteristics of effective teachers. These data and related analysis offers program custodians the opportunity for program change or stability based on empirical research as opposed to opinion or speculation.

For the researchers who developed the TBC (Buskist, et al., 2002; Keeley, et al., 2006), this research extends the body of knowledge on the instrument beyond the college classroom instructor into a population and discipline that has not previously been studied using the checklist. This study aids in addressing how well the Teacher Behaviors Checklist will generalize to other disciplines outside of psychology (Keeley, et al., 2006), and addresses several limitations noted by Keeley, et al. (2006) by offering additional reliability and validity data with a unique population and sample of students and instructors in a different setting than previous studies. The present study also offers checklist developers (Buskist, et al., 2002; Keeley, et al., 2006) additional data regarding the utility of the Teacher Behaviors Checklist as an evaluative instrument.

For the students and faculty of Squadron Officer College this research ensures the viability of the college's overall faculty development program by addressing the importance of the deliberate development of the characteristics most often associated with effective teachers in programs that certify or train faculty and instructors. Given the paucity of research regarding the development of the characteristics of effective teachers at this level of education (Lasley, Siedentop, and Yinger, 2006), and that the link between teacher variables and cognitive student outcomes has been established (Muijs, Campbell,

Kyriakides, & Robinson, 2005), the importance of this research to both faculty and students is significant (Davis & Thomas, 1989) with regard to student success in Squadron Officer School.

Limitations

An obvious limitation of in the study is the small number of available instructors which comprise the sample for the administration of the Teacher Behaviors Checklist for the faculty surveyed portion of the study. Unfortunately, there are a limited number of faculty members at any one time assigned to the Squadron Officer School, of which only an undetermined percentage may elect to participate in the study. Although this group will remain consistently small in comparison to the student sample, this study does make it possible to begin the process of developing normative data for this instrument with the faculty sample, offering some opportunity to mitigate the smaller sample size.

An additional limitation is the absence of a pretest/posttest design associated with the Fundamentals of Instruction program at Squadron Officer College. This design was an original part of this study, but Fundamentals of Instruction class cancellations made the number of instructors available too low to collect viable data within the confines of this study.

Definition of Terms

The adult learner is defined as one who has achieved certain milestones in three distinct life-categories; 1) the status of age, defined as having reached 25 years of age or older, 2) the status of maturity and developmental complexity acquired through life

responsibilities, perspectives, and financial independence, and 3) the status of responsible and often-competing sets of adult roles, reflected through work, family, community, and academic commitments (Kasworm, 2003).

Professional Military Education is defined as that portion of military education that: 1) provides the nation with military personnel skilled in the employment of aerospace power in the conduct of war and small scale contingencies (e.g. peacekeeping, humanitarian assistance); 2) provides Air Force personnel with the skills and knowledge to make sound decisions in progressively more demanding leadership positions within the national security environment; and 3) develops strategic thinkers and war fighters (Air Force Instruction 36-2301, Professional Military Education (PME), 2002).

Air University is a major component of Air Education and Training Command and is the Air Force's center for professional military education. Air University provides the full spectrum of Air Force education, from pre-commissioning to the highest levels of professional military education, including degree granting and professional continuing education for officers, enlisted and civilian personnel throughout their careers (AU Web Site, 2007).

Squadron Officer College is designed to educate company grade officers on the basic concepts of modern-day air and space warfare and essentials of military leadership. Commissioned as an AU college in February 2000, Squadron Officer College is composed of two educational schools: the Air and Space Basic Course and Squadron Officer School (AU Web Site, 2007).

CHAPTER II: LITERATURE REVIEW

What all the great teachers appear to have in common
Is love of their subject, an obvious satisfaction in
arousing this love in their students, and an ability to
convince them that what they are being taught is deadly serious.
(Epstein, 1981)

Most learners are quickly able to discern effective from ineffective teachers. What are the qualities or characteristics that separate effective from ineffective teachers? Are there intangible qualities that some effective teachers have, which are not quantifiable? Or, are there qualities and characteristics that can, in fact, be identified, measured, and developed in future teachers and instructors? W. R. Miller and M. F. Miller (2005) write that an instructor's personal characteristics certainly do come through in the classroom setting, and that the instructor's attitudes, values, and communication style all influence the way learners respond. Further, an instructor's professional behavior can serve to model behavior expected in the field of practice.

Over the course of the last century, researchers have conducted numerous studies and published a plethora of books and articles in an attempt to establish those characteristics which seem to be consistently present in effective teachers and instructors (Charters & Waples, 1929; Hart, 1936; Feldman, 1976; Reynolds & Elias, 1991).

Additionally, studies have consistently been able to establish a relationship between the presence of effective teacher characteristics, and student achievement (Fenstermacher and Richardson, 2005; Berliner, 2005; Lasley II, Siedentop, & Yinger, 2006) in the classroom, which would seemingly indicate that the effective characteristics of the teacher can be considered essential to good teaching (Berg & Lindseth, 2004). As the body of research supports the presence of a consistent relationship between the characteristics of effective teachers and student achievement (Davis & Thomas, 1989), it is a reasonable expectation that teacher certification and instructor development programs would examine and cultivate those techniques that aid in the development of effective characteristics. The vast majority of research into the characteristics of effective teachers has focused on either K-12 educational settings or teachers in college or university settings. Although there are teachers at other levels of education, such as vocational and technical education, continuing education programs, and military education and training, there is a paucity of research into the characteristics of effective teachers in any other educational settings beyond K-12 and higher education.

Squadron Officer College, at Maxwell Air Force Base in Montgomery, Alabama, has recently fielded a teacher development program as a result of the Air Force's Academic Instructor School being disbanded in an effort to save manpower dollars at Air University. This move from a centralized to decentralized instructor development program has generated interest on the part of Squadron Officer College leadership as to what degree the new Fundamentals of Instruction program is effectively training and educating instructors for Squadron Officer School and Air and Space Basic Course classrooms. This research offers leadership an indication as to what degree the teachers

at Squadron Office College possess the characteristics of effective teachers, and to what degree there are differences between student and teacher perceptions regarding the characteristics of effective teachers. Also, the study may offer insight as to whether the Fundamentals of Instruction program is accomplishing stated program objectives with regard to the development of the characteristics of effective teachers. One element of the Fundamentals of Instruction program is to develop or reinforce the characteristics of effective teachers in program participants. Given the paucity of research into the characteristics of effective teachers in military training and educational settings, the purpose of the present study will be to determine to what degree the Squadron Officer College instructors perceive they possess the characteristics of effective teachers as compared to and student scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006), and to what degree do male and female students differ in total scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006).

Characteristics of Effective Teachers

An examination of the literature regarding the characteristics of effective teachers first requires a brief review of effective teaching as determined by scholarly research. The intent of this brief examination of effective teaching, prior to reviewing the literature regarding the characteristics of effective teachers, is to clearly identify what empirical research has established effective teaching to be, as well as establishing an accepted methodology for measuring effective teaching.

White and Burke (1993) assert that, while scholars have attempted to address teacher effectiveness for decades, empirical research that distinguishes competent from

incompetent teachers remains in its infancy. However, various definitions by some e.g., (Cruickshank, 1986; Glasser, 1990; Fenstermacher & Richardson, 2005) have established some preliminary definitions for effective teaching. An effective teacher can be described as a teacher who is judged by significant others to have met their expectations. These significant others can include students, parents, colleagues, administrators, and the public at large (Cruickshank, 1986). This definition establishes a research-based precedent for surveying students and colleagues regarding the presence of the characteristics of effective teachers.

White and Burke (1993) further assert that to assess an effective teacher, an identifier must be added which specifies in what area the teacher is being evaluated or judged for effectiveness. Clearly, some teachers will be more effective in some settings than in others, and be more effective with some content and not with other content. Therefore, White & Burke (1993) assert that to clearly establish what an effective teacher is the definition must be operationally defined to specifically include the situation and time period in which the teaching has occurred.

Glasser, (1990) offers that an effective teacher is the teacher who is able to motivate all students to achieve quality work in school. This definition focuses on persuasion on the part of the teacher and management of the students with an almost Deming-like approach to quality in the classroom. Glasser (1990) contends that students will strive to achieve academically, because this will satisfy their personal needs, and they will discover during the process that doing quality school work is in their best interest. This definition is not without merit, but focuses too much on the quality perspective and is highly dependant on the self-realization of the student. Although the

demonstration of leadership by the teacher in the classroom is an important characteristic (White, 2001), the focus is on leadership in isolation. The more pointed issue for this review of literature will be to examine what characteristics, including the ability to lead or persuade (Glasser, 1990, White, 2001), has empirical research determined are consistently present in effective teachers at the higher education level.

In a study developed to examine the distinctions between good teaching and successful teaching, Fenstermacher and Richardson (2005) assert that good teaching is teaching that is made up of the logical acts of teaching (defining, demonstrating, modeling, explaining, correcting), the psychological acts of teaching (caring, motivating, encouraging, rewarding, punishing, planning, evaluating), and the moral acts of teaching (showing honesty, courage, tolerance compassion, respect, fairness). When these characteristics are combined with student achievement, then the result is quality teaching (Fenstermacher and Richardson, 2005; Berliner, 2005). To continue the examination of the characteristics of effective teachers, it is necessary to examine the major research studies conducted on this topic.

History of Research into the Characteristics of Effective Teachers

Many professions have a history of research into the "effective" characteristics within a given field. Business offers an excellent example of popular approaches to the examination of effective leadership and management characteristics and techniques; some which are enduring, and some which do not last much beyond the information commercial or book publication. In recent decades, business leaders have examined and popularized the *One-Minute Manager* (Blanchard & Johnson, 1982), *In Search of*

Excellence (Peters & Waterman, 1982), and Stephen Covey's *Seven Habits of Highly Effective People* (Covey, 1989), to name just a few. In these cases, and in many others, the real issue is the examination of those characteristics which seem to be consistently present in those who are successful in business enterprises as managers or leaders.

Education has an equally strong tradition of research into the characteristics of effective teachers, of which there are several notable studies that are relative to this review of literature. The studies examined in this review will be those which have focused on establishing those characteristics which are consistently present in teachers who are effective in the classroom, methodological processes which have been used to identify and measure for those characteristics associated with effective teachers, and studies which have elucidated the cognitive or academic benefits students might receive from teachers who possess those characteristics which have been identified with teachers who are effective in practice.

From a macro perspective, the Study Group on the Conditions of Excellence in American Higher Education of the U.S. Department of Education (1984) began work to formulate principals for improving higher education, followed by the American Association of Higher Education Task Force (1987) which published one of the few statements about university teaching that is nationally recognized, but not identified with a single group of researchers (Rotenberg, 2005). The best practices statements (AAHE, 1987) bear striking similarities to the characteristics most often identified when surveying students regarding the characteristics of effective teachers (McKeachie, 1969; Feldman 1976; Lowman, 1995; Buskist, Sikorski, Buckley, and Saville, 2002; and Keeley, Smith, Buskist, 2006). The practices suggested by the AAHE were to; 1) Encourage student-

faculty contact (be approachable), 2) Encourage cooperation among students (promote class discussion), 3) Encourage active learning (stimulating, creative, interesting), 4) Give prompt feedback, 5) Emphasize time on task (punctuality, manages class time), 6) Communicate high expectations (realistic expectations, promotes critical thing), 7) Respect diverse talents and ways of learning (realistic expectations, cares for students (AAHE, 1987).

Cruickshank (1986) has asserted that two broad approaches to conducting research into the characteristics of effective teachers reflect different eras in the history of educational research. The first approach, which generally seems to be found in studies conducted prior to 1960, focused on identifying the characteristics of effective teachers who were considered outstanding in the field in the view of the teachers' administrators and supervisors. However, the advent of social learning indicated that students learn by observing models (Bandura, 1963). Thus, as Cruickshank (1986) indicated, following this period of enlightenment, researchers focused their efforts toward identifying those characteristics in specific teacher behaviors that were present when students were found to be achieving in schools. This link between identifying teacher characteristics as described by specific behaviors is later adopted in the development of the TBC (Buskist, et al., (2002); Keeley, et al., (2006)), which is the instrument used to measure for the presence of the characteristics of effective teachers in this study.

Establishing the Characteristics of Effective Teachers

As recently as the early 1990's, educational research seemed to struggle with establishing and rating effective teacher characteristics. White and Burke (1993) write

that establishing teacher effectiveness based on rating scales of teacher characteristics was difficult and not overly successful. Prior to that, Biddle and Ellena (1964) note that, essentially, research had been unable to provide solutions for educators in selecting, training, or evaluating teacher effectiveness. McKeachie (1969) stated that little enough is known about instructor characteristics, and called for additional studies into teacher characteristics, addressing issues such as a teacher's ability to see the subject matter from the perspective of the student, possessing the flexibility to conceptualize the subject matter to the student, demonstrating a commitment to the practice of teaching, possessing the ability to nurture, and a willingness to listen to students. These teacher characteristics that were addressed by McKeachie (1969) can be readily identified in later studies by Feldman (1976), Lowman (1995), Buskist, Sikorski, Buckley, and Saville (2002), and Keeley, Smith, Buskist, (2006).

Biaocco and DeWaters (1998) assert that, although educational researchers are often in disagreement with regard to whether it is even possible to define what the characteristics of distinguished teachers are (Cronin, 1992; Weimer, 1993), researchers continue to conduct studies which analyze, classify, or report on the characteristics of effective teachers (Lowman, 1996; McCabe & Jenrette, 1990; Biaocco & DeWaters, 1998). However, with some body of research supporting the positive benefits of the characteristics of effective teachers, educational research continues to identify and measure the characteristics of effective teachers (Davis & Thomas, 1989; Polk, 2006).

Although the focus of this review of literature is targeted toward the characteristics of effective teachers at the college and university level, it is interesting to note that similar studies investigating the characteristics of effective K-12 teachers have

generated characteristics very similar to those identified in studies of higher education teachers. According to Davis and Thomas (1989), an effective teacher in the K-12 classroom setting will demonstrate the following characteristics; 1) they have strong interpersonal skills, such as empathy and respect, 2) they are accepting and caring toward students, 3) express interest and enthusiasm, 4) listen to students/effectively communicates, 5) gives positive feedback, 6) provides help when needed, 7) stays current with teaching methodology. These characteristics closely correlate with those provided by other studies examining the characteristics of effective teachers at the college and university level (Feldman, 1976; Lowman, 1995; Biaocco & DeWaters, 1998; Buskist, Sikorski, Buckley, and Saville, 2002; Keeley, Smith, & Buskist, 2006).

Although admittedly drawn from a far lengthier list, Polk (2006) identified ten basic characteristics of effective teachers: good prior academic performance, communication skills, creativity, professionalism, pedagogical knowledge, thorough and appropriate student evaluation and assessment, self-development or lifelong learning, personality, content area knowledge, and the ability to model concepts in the appropriate content area. Although it would be difficult to argue with the positive benefits of the characteristics in Polk's list, the list is drawn from personal experience and professional relationships. Polk makes no claim toward the comprehensiveness of the list of basic characteristics, but merely relates that effective teachers might typically exhibit some combination of these traits (Polk, 2006). However, to move the body of knowledge forward, an examination of studies which have identified and rigorously tested for these and other traits and characteristics of effective teachers is required.

Measuring Effective Characteristics

In 1929, A. S. Barr produced a report on *Characteristic Differences of Good and Poor Teachers*. In this study, Barr compiled a list of good and poor teacher behaviors or characteristics, ultimately resulting in a list of 18 desirable teacher characteristics and practices (Barr, 1929; Beecher, 1949). Evaluative criteria were solicited from 106 school superintendents, which resulted in 20 criteria for evaluation (Barr, 1929; Beecher, 1949). Barr was quick to point out the minimal importance of the findings of the study, and the lack of critical significance in the data, yet the list this study arrived at, presented in Table 1, is not overly different than many effective characteristics lists produced in current research.

Table 1

A. S. Barr (1229) Summary of Desirable Teacher Characteristics and Practices

1. Ability to stimulate interest	2. Wealth of commentarial statements
3. Attention to pupils while reciting	4. Effective organization of subject matter
5. Well-developed arguments	6. Use of illustrative materials
7. Provision for individual differences	8. Effective methods of appraising work of pupils
9. Freedom from disciplinary difficulties	10. Knowledge of subject matter
11. Knowledge of objectives of education	12. Conversational manner in teaching

(table continues)

Table 1 (continued)

13. Frequent use of children's experiences	14. Positive attitude
15. Skill in asking questions	16. Definite directions for studying
17. Skill in measuring results	18. Willingness to experiment

Also in 1929, Charters and Waples conducted a study in which the stated purpose of the study was to provide a comprehensive description of the duties and traits of teachers so that a basis could be established for determining what teachers should be taught. In this study (Charters & Waples, 1929; Beecher, 1949), data were collected from administrators, teachers, parents, students, representatives of teaching agencies, and professors of education; a sample closely approximating the description of significant others best able to judge whether teaching expectations are met developed in a previous subsection of this review. The result of this study was a master list of 25 teacher traits, which are included in Table 2.

Table 2

Charters and Waples (1929) Master List of Teacher Traits

1. Adaptability	2. Attractiveness	3. Breadth of Interest	4. Carefulness
5. Considerateness	6. Cooperation	7. Dependability	8. Enthusiasm

(table continues)

Table 2 (continued)

9. Fluency	10. Forcefulness	11. Good Judgment	12. Health
13. Honesty	14. Industry	15. Leadership	16. Magnetism
17. Neatness	18. Open-mindedness	19. Originality	20. Progressiveness
21. Promptness	22. Refinement	23. Scholarship	24. Self-Control
25. Thrift			

In 1960, Ryans conducted a study concerned not only with the problem of establishing the characteristics of effective teaching, but also with the problem of measuring the characteristics of effective teaching. Ryans (1960) randomly sampled 6,000 teachers from 1,700 schools in 450 school districts, across 48 states, finding that the three highest factors in teacher effectiveness at the elementary level were personality traits. Measures for this study were gathered from several sources, including trained observers, principals and supervisors, as well as the self reports of teachers themselves (Ryans, 1960). Interestingly, the characteristics of elementary school teachers were not cognitive-type variables, but social-emotional type variables, which can be expected from an elementary school setting (White & Burke, 1993). Not surprisingly, there was a significant difference observed in the intercorrelations of these characteristics among elementary school teachers and secondary school teachers (White & Burke, 1993; Ryans, 1960).

Using the method of synthesizing studies in which researchers had higher education students list the characteristics believed to be essential to effective college-level teaching; Feldman (1976) identified 19 dimensions (Table 3) gathered from 49 studies that asked students to either, 1) specify the attitudes and behaviors they felt were most important for superior teaching; 2) describe the ideal teacher by indicating the characteristics they felt were important to good teachers; or 3) describe the best teacher they ever had (Feldman, 1976). The resulting table of characteristics, Feldman posits (1976) are what form the students' impressions of effective teaching. In this landmark synthesis, Feldman (1976) asserts that researchers and practitioners alike have long attempted to specify both attitudinal and behavioral characteristics which could be considered indicative of effective teachers. In this synthesis, Feldman (1976) recognizes that students have the most contact time with college teachers (Riley, Ryan, & Lifshitz, 1950), but are considered equally as both dependable and undependable sources for opinions regarding teaching and teachers (Greenwald & Gillmore, 1997).

Feldman addressed potential differences in the characteristics reported by different groups of students by noting that some differences were noticed between male and female students (1976), but the differences were not noted to be significant, nor were they consistent across studies. Feldman also points out that little, if any differences were noted between the characteristics preferred by males and females in several of the 49 studies used in this synthesis (Crawford & Bradshaw, 1968; Gadzella, 1967, 1968b; Grasha, 1975; Lehmann, 1966; and Mueller, Roach, & Malone, 1971).

Table 3

Feldman's (1976) Characteristics of Ideal and Best College Teachers, and Characteristics Important to Superior College Teacher, as Seen by College Students

1. Stimulation of Interest	8. Concern with Class Progress	15. Nature/Quality of Feedback
2. Instructor Enthusiasm	9. Clarity of Objectives	16. Encouragement of Questions
3. Subject Matter Knowledge	10. Value of Course Material	17. Intellectual Challenge
4. Intellectual Expansiveness	11. Usefulness of Supplementary Materials	18. Concern/Respect for Students
5. Instructor Preparation	12. Course Difficulty	19. Availability/Helpfulness
6. Clarity Understandability	13. Instructor Fairness	
7. Speaking Skills	14. Classroom Management	

Lowman (1995) conducted a study in which the attempt was to categorize and code the characteristics of excellent teachers (Biaocco & DeWaters, 1998). Using over five hundred nomination forms submitted for chancellor-sponsored teaching awards between the years 1989-1991, Lowman coded all adjectives and descriptive words used in each nomination (Lowman, 1995). The words were counted, and 39 words appeared

ten or more times and were selected for analysis (Lowman, 1995). Eighty percent of the nomination submissions used for analysis were from student submissions. From this study, Lowman identified two dimensions of excellent teachers; intellectual excitement and interpersonal rapport (Lowman, 1995), which closely model Bales' (1950) definition of task and maintenance behaviors used to teach leaders to functionally manage a group (Bales, 1950; Bales and Slater, 1950). From these two dimensions, four categories of characteristics emerge; 1) intellectual excitement, 2) interpersonal rapport, 3) commitment to teaching, and 4) effective motivation (organization of the course according to Biaocco and DeWaters, 1998) (Lowman, 1995; Biaocco & DeWaters, 1998). Under each of these categories of characteristics, Lowman (1995) lists those descriptive traits which loaded under the four various categories and are included at Table 4.

Table 4

Descriptive Traits Associated with Lowman's (1995) Four Categories of Characteristics

Intellectual Excitement			
Enthusiastic	Interesting	Engaging	Stimulating
Knowledgeable	Clear	Prepared	Creative
Inspiring	Organized	Energetic	Lectures Well
Humorous	Exciting	Fun	Communicative

(table continues)

Table 4 (continued)

Interpersonal Concern			
Concerned	Friendly	Interested	Personable
Caring	Accessible	Respectful	
Available	Approachable	Understanding	
Effective Motivation			
Helpful	Challenging	Demanding	Motivating
Encouraging	Fair	Patient	
Commitment to Teaching			
Dedicated	Committed		

There appears to be a significant degree of consistency between the characteristic traits used to describe the four categories of excellent teachers in Lowman's (1995) study and the 28 items representative of teacher qualities used by Buskist, Sikorski, Buckley, and Saville (2002) in the development of the TBC. Of the 28 items on the TBC, included at Table 5, (Buskist, et al., 2002), 16 of the items are clearly represented in Lowman's (1995) list of descriptive traits of excellent teachers. Of the 12 items not represented verbatim, only two of the items on the TBC, "technologically competent" and "presents

current information" do not have a suitable substitute word from Lowman's (1995) list of traits.

Table 5

Teacher Behaviors Checklist (Buskist, et al., 2002; Keeley, et al. 2006) 28 Teacher Qualities

Accessible	Presents Current Information
Approachable/Personable	Professional
Authoritative	Promotes Class Discussion
Confident	Promotes Critical Thinking/Intellectually
Creative and Interesting	Stimulating
Effective Communicator	Provides Constructive Feedback
Encourages and Cares for Students	Punctuality/Manages Class Time
Enthusiastic about Teaching and Topic	Rapport
Establishes Daily and Academic Term	Realistic Expectations of Students/ Fair
Goals	Testing and Grading
Flexible/Open-Minded	Respectful
Good Listener	Sensitive and Persistent
Happy/Positive Attitude/Humorous	Strives to be a Better Teacher
Humble	Technologically Competent
Knowledgeable about Subject Matter	Understanding
Prepared	

The striking similarities between these two lists, collected from different samples of students, from different universities, and several years apart, would seem to indicate a significant consistency in student sample ratings of the characteristics of effective teachers, which has been supported by replication studies utilizing the TBC (Mowrer, Love, & Orem, 2004; Schaeffer, Epting, Zinn, & Buskist, 2003; Keeley, Smith, & Buskist, 2006).

Buskist, Sikorski, Buckley, and Saville (2002) expanded on the method of listing characteristics by adding behaviors associated with the characteristics. Mowrer, Love, & Orem (2004) further extended the research on the effectiveness of the TBC in measuring the characteristics of effective teachers by addressing whether students' ranking of teacher characteristics differed significantly based on the nature of the student. They found little difference in the characteristics perceived as important for effective teaching among the categories of students tested, and validated the consistency of findings across a variety of institutions (Mowrer, Love, & Orem, 2004; Schaeffer, Epting, Zinn, & Buskist, 2003; Keeley, Smith, & Buskist, 2006).

In a similar line of research, Peters and Levy (2002) sought to better understand undergraduates' views of their best college courses, focusing on three distinct domains identified from their review of the literature; the course, the professor, and the student's role in the course (Greenwald, 1997; Marsh & Roche, 1997; McKeachie, 1997; Peters & Levy, 2002). The instrument used in the study by Peters and Levy (2002) was a one-page questionnaire, comprised of three sections and 24 items. Participants used a 4-point Likert-type scale ranging from 1 (strongly agree) to 4 (strongly disagree) to rate how well or how much each of the 24 characteristics affected their view of the college course

(Peters & Levy, 2002). Of the 24 items on the questionnaire, 14 related to the students' perceptions of the characteristics of the instructors being rated (Peters & Levy, 2002). From this portion of the questionnaire, student perceived that professors in the best college courses possessed the following characteristics; sense of humor, excited about the course material, entertaining, caring attitude, variety in teaching techniques, communicates well, not arrogant, fair, approachable, and made the students feel smart (Peters & Levy, 2002). These findings are consistent with previous research regarding the characteristics of teachers of the best college courses (Long & Sparks, 1997, Mueller, Roche, & Malone, 1971; Murray, 1983; Waters, Kemp, & Pucci, 1988), and the characteristics identified are consistent with studies focusing expressly on the characteristics of effective teachers (Feldman, 1976; Lowman, 1995; Biaocco & DeWaters, 1998; Buskist, Sikorski, Buckley, and Saville, 2002; Mowrer, Love, & Orem, 2004; Schaeffer, Epting, Zinn, & Buskist, 2003; Keeley, Smith, & Buskist, 2006). Of the ten characteristics identified by Peters and Levy (2002), nine characteristics are represented by the TBC (Buskist, et al., 2002; Keeley, et al., 2006), with the only characteristic not represented directly being "making the student feel smart" (Peters & Levy, 2002). However, this characteristic would seem to be indirectly represented on the TBC (Buskist, et al., 2002; Keeley, et al., 2006) by the items "Promotes Critical Thinking/Intellectually" and "Realistic Expectations of Students/ Fair".

Although the similarities in findings between the questionnaire developed by Peters and Levy (2002) and the TBC (Buskist, et al., 2002; Keeley, et al., 2006) are striking, there are some limitations to the Peters and Levy (2002) line of research and questionnaire for this study into the characteristics of effective teachers. Primarily, Peters

& Levy (2002) are interested in the components of a successful student-centered college course. One of the components of a successful college course are the characteristics of the college professor. The results of the study by Peters and Levy (2002) can be considered supportive of the effectiveness of the student-provided characteristics of effective teachers found on the TBC (Buskist, et al., 2002; Keeley, et al., 2006), but their questionnaire is also not considered viable for this study because of the absence of the behavioral anchors which are found on the evaluative version of the TBC (Keeley, et al., 2006).

In a descriptive study of nursing students' perceptions of the characteristics of effective or ineffective instructors, Berg and Lindseth (2004) found that teaching methods, personality, and presentation of course materials emerged as the primary characteristics of an effective instructor, with personality being most important to the students surveyed. Using a questionnaire which asked student to identify characteristics which could be used to label instructors as effective or ineffective, the researchers identified ten characteristic themes that emerged from their data analysis (Berg & Lindseth, 2004). The characteristics identified for effective teachers in this study were; 1) Easy to get along with/personal, 2) Teaches at student knowledge level/gives outlines/provides feedback, 3) Explains material/creative, 4) Concerned/relates to student needs, 5) Wants students to succeed/likes teaching, 6) Willing to listen/respectful/patient, 7) Knowledgeable of course material/current, 8) Takes time to answer questions/office hours/willing to meet outside class, 9) Explains material/clear expectations/identifies important material, 10) Treats students fairly (Berg & Lindseth, 2004).

As with Peters and Levy (2002), striking similarities can be noted in the characteristics of effective teachers provided by the students in the Berg and Lindseth (2004) study, and the characteristics provided by students in the development of the TBC (Buskist, et al., 2002; Keeley, et al., 2006). Also similar in the Berg and Lindseth (2004) study is the presence of descriptors or behaviors which identify the characteristics, which is also noted in the evaluative version of the TBC. These similarities indicate a significant degree of consistency in student-provided characteristics of effective teachers, despite the nature of the undergraduate degree the students are pursuing as the Berg and Lindseth (2004) sample consisted of undergraduate nursing students from the Midwest, and the Keeley, Smith, and Buskist (2006) sample consisted of psychology students from a major university in the South.

Benefits of Effective Teaching Characteristics

Assuming the number of studies conducted and articles written are as numerous as previously stated, what benefit can be achieved from yet another effective teaching characteristics study? From the macro perspective, Dyer (2002) writes that the current research into effective teaching demonstrates that high quality teachers result in high quality schools. Additional support is found in an American study by the National Commission on Teaching and America's Future (1996), which states that with regard to student achievement; the teacher is a more significant factor than any other school resource. In fact, Darling-Hammond and Brasford (2005) note that teacher variables outweigh even student socio-economic status in terms of student achievement in the classroom (Lasley, Siedentop, & Yinger, 2006). If the focus of current research trends is

any type of indicator, then it would seem that the link between effective teaching characteristics and cognitive student outcomes has been established (Muijs, Campbell, Kyriakides, & Robinson, 2005).

Certification/Training Program Attention to Effective Teacher Characteristics

For teachers, support from employers and campus administrators is necessary in the development of effective teacher characteristics (Polk, 2006), and is also necessary for improvements in student achievement (Smith & Haack, 2000; Trimble, 2003). Support from employers and campus administrators can be identified as a permeating factor in high-performing schools (Langer, 2000), and should be considered as a requirement for those certification/training programs that wish to produce high performing teachers with effective teacher characteristics.

Attention to the purposeful development of the characteristics of effective teachers should be a concern for those who train or teach pre-service teachers and instructors as Pajares (1992) noted that a student's beliefs about teaching are already well formed by the time a student begins college. These behavior-impacting beliefs are often self-perpetuating and persevering, even when the student is presented information that contradicts their beliefs (Pajares, 1992; Walls, Nardi, von Minden, & Hoffman, 2002). Research into teacher education presents strong data to indicate that the characteristics pre-service teachers bring with them greatly influence their development as both students and practitioners of teaching (Minor, Onwuegbuzie, Witcher, James, 2002; Cater, 1990; Day, Calderhead, & Denicolo, 1993; Witherell & Noddings, 1991). These conceptions regarding the characteristics of effective teachers appear to focus more on the affective

issues than on cognitive issues (Walls, Nardi, von Minden, & Hoffman, 2002; Reeves, Kazelskis, 1985).

Often, teacher preparation programs focus on the mechanical aspects of the teaching profession, and all but ignore issues affecting the development of positive personal characteristics. This is particularly true for teachers of gifted students (Feldhusen, 1997), but has specific applicability for the development and training of teachers who instruct at any level of the educational process. Chan (2001) specifically addresses this issue in writing that the development of philosophical, professional, and personal characteristics conducive to effective teaching should not be neglected in teacher preparation programs. This is certainly not a new concept, as Gaff (1979) addresses this notion by writing that teaching involves a complex set of attitudes, knowledge, skills, motivations, and values. The improvement of teaching and learning requires institutions to be aware of the complexities involved (Gaff, 1979). Despite research emphasizing the importance of developing the characteristics of effective teachers, institutions of higher learning do not seem to be working to effect change in their teacher education or faculty development programs.

Some teacher preparation programs ask students to identify the characteristics of effective teachers, and compare the results to textbook definitions and examples, thereby raising pre-service teacher awareness of gaps in the characteristics they identified with those provided by the curriculum (Minor, Onwuegbuzie, Witcher, James, 2002).

With regard to teachers in higher education, Biaocco & DeWaters (1998) note that the greatest investment made by colleges and universities are in their faculty. However, little attention is paid to developing the characteristics of effective teachers

during the faculty development process. Lasley, Siedentop, and Yinger (2006) note that although there is no shortage of research into teacher education, there remains a paucity of research into the details of how teachers are prepared, including the development of the characteristics of effective teachers. In fact, many disciplines do not even offer methods for teaching to new instructors as part of their core knowledge base (Biaocco & DeWaters, 1998). Unfortunately, the current emphasis on graduate study is often lacking in any transfer of pedagogical skills or techniques, disparaging efforts by potential college faculty to develop themselves as teachers (Travis, 1995; Eble, 1983; & Slevin, 1993). Problems can be identified in faculty development failures and inconsistencies, perhaps because the current model of faculty development at colleges and universities is that development programs are additive rather than transformational (Biaocco & DeWaters, 1998).

Biaocco and DeWaters (1998) note there is a growing trend among some institutions to include character as an evaluative criterion with regard to promotion, tenure, or renewal. However, they express some concern with the potential ambiguity of such a criterion. As previously emphasized, the research into the characteristics of effective teachers has been addressed (Charters & Waples, 1929; Hart, 1936; Feldman, 1976; Reynolds & Elias, 1991) broadly for decades, but if colleges and universities are going to begin using characteristics as part of an evaluative process, this places renewed emphasis on developing methods for identifying and measuring the characteristics of effective teachers using instruments such as the TBC (Buskist, et al., 2002; Keeley, et al., 2006).

To affect change in the practice of teacher education, programs developing teachers must take into account the beliefs, attitudes, and characteristics pre-service teachers bring with them into programs (Hart, 2002). Pajares (1992) noted that beliefs about teaching are formed before the pre-service teacher enters college. The teacher education program the student encounters either reinforces or challenges these beliefs throughout the teacher education program (Lortie, 1975).

Teacher Behaviors Checklist for Adult Military Instructors

The Teacher Behaviors Checklist is a 28-item student inventory developed by Buskist, Sikorski, Buckley, and Saville, (2002), then modified into an evaluative instrument by Keeley, Smith, and Buskist (2006), at Auburn University. The Teacher Behaviors Checklist was designed to provide behavioral anchors for characteristic personality descriptors that are often found in the effective teacher characteristics literature (Keeley, et al., 2006). In developing the items for the checklist, the researchers asked students to list the qualities of effective teachers, and then asked another group of students to provide behaviors relative to the qualities or characteristics (Keeley, et al., 2006). This method of students furnishing the lists of qualities or characteristics determined to be most associated with effective teachers is consistent with the methodology noted by Feldman (1976) in his synthesis of studies of characteristics considered to be essential to effective college teaching. Although similar in process to the studies examined by Feldman (1976), what is different are the behavioral anchors provided by another sample of students to enable those taking the inventory to recognize what the characteristics listed might look like in practice (Keeley, et al., 2006).

In replication studies using the TBC (Keeley, et al., 2006), students and faculty showed strong agreement in rating the top 10 qualities and behaviors from the 28 items developed; findings which were replicated at the community college (Schaeffer, Epting, Zinn, & Buskist, 2003) and traditional university setting (Wann, 2001).

Mowrer, Love, & Orem (2004) explored whether students' views of effective teacher characteristics were different based on grade point average, year in school, size of the school, level of motivation degree to which the student perceived college as a challenge, and found little difference in the characteristics perceived as important for effective teaching. These findings would seem to offer support for the notion that the nature of the student would not significantly affect a student's views on the characteristics of effective teachers. This is further reinforced by Feldman (1993), who asserts that teacher ratings of college professors show little or no effect based on student gender, and Basow (2000), who notes that research into the question of gender bias in student ratings, has, at best, provided mixed reviews. It is possible to posit that the behavioral anchors associated with the TBC (Keeley, et al., 2006), may actually mitigate potential bias based on the nature of the student.

With regard to the consistency of the replications mentioned (Buskist, et al., 2002; Schaeffer, et al., 2003; Wann, 2001), the Teacher Behaviors checklist would seem to show good promise for use in measuring for the characteristics of effective teachers in instructional settings outside the traditional college or university setting, such as the teachers and students at Squadron Officers College at Maxwell Air Force Base in Montgomery, Alabama.

The Adult Learner in a Military Educational Setting

The Adult Learner

As adult learners return to colleges and universities in search of higher education, it is important for those institutions to understand both who these adult students are, as well as why they are returning to school.

With regard to answering the question of who are these students, Kasworm (2003) defines the adult learner as one who has achieved certain milestones in three distinct life-categories. The first is one who represents the status of age, which she defines as having reached 25 years of age or older. The second is one who has achieved the status of maturity and developmental complexity which has been acquired through life responsibilities, perspectives, and financial independence. The third is one who has achieved the status of responsible and often-competing sets of adult roles, which are reflected through work, family, community, and academic commitments (Kasworm, 2003).

As to the question of why these adult learners are returning to centers of higher education, the answer seems to lie in the shifting demands of a market-based economy, rapidly changing technology, and a growing understanding of the importance of college credentials for some degree of work stability (Kasworm, 2003; Kohl & LaPidus, 2000).

The Military Educational Setting

Within the military setting, education can be considered either military education, or military training. Training is typically very specific and technical or vocational in nature, while education is typically focused on professional development issues dealing

with more abstract concepts such as leadership or ethics. Air Force Instruction 36-2301, Professional Military Education (PME) (2002), defines PME as that portion of military education that: 1) provides the nation with military personnel skilled in the employment of aerospace power in the conduct of war and small scale contingencies (e.g. peacekeeping, humanitarian assistance); 2) provides Air Force personnel with the skills and knowledge to make sound decisions in progressively more demanding leadership positions within the national security environment; and 3) develops strategic thinkers and war fighters. For the Air Force, most of the officer corps and a portion of the enlisted corps professional military education that occurs is at Maxwell Air Force Base in Montgomery, Alabama, and is accomplished by the organizations that fall under the leadership of Air University.

Air University is a major component of Air Education and Training Command and is the Air Force's center for professional military education. Air University provides the full spectrum of Air Force education, from pre-commissioning to the highest levels of professional military education, including degree granting and professional continuing education for officers, enlisted and civilian personnel throughout their careers. The university's Professional Military Education (PME) programs educate airmen on the capabilities of air and space power and its role in national security. These programs focus on the knowledge and abilities needed to develop, employ, command, and support air and space power at the highest levels. Specialized Professional Continuing Education (PCE) programs provide scientific, technological, managerial, and other professional expertise to meet the needs of the Air Force. Air University conducts research in air and space power, education, leadership, and management. The university also provides citizenship

programs and contributes to the development and testing of Air Force doctrine, concepts and strategy (AU Web Site, 2007).

For the purposes of this study, this review will focus on officer professional military education, specifically utilizing those officers attending Squadron Officer College's Squadron Officer School. The Squadron Officer College is designed to educate company grade officers on the basic concepts of modern-day air and space warfare and essentials of military leadership. Commissioned as an AU college in February 2000, SOC is composed of two educational schools: the Air and Space Basic Course and Squadron Officer School (AU Web Site, 2007).

Squadron Officer School is designed to teach the essence of military leadership, air and space doctrine, international security issues, and communication skills. Students are not only exposed to these new concepts, they are required to apply these lessons in a variety of complex experiential learning exercises (AU Web Site, 2007). Squadron Officer School conducts seven classes a year (A - G), and each class has approximately 450 students and lasts five weeks. Captains with at least four and less than seven years of total active federal commissioned service, who are not in a failed or deferred promotion status, are eligible to attend SOS. Department of Defense (DOD) civilians in the grade of GS-9 and above with at least three years of continuous civil service are also eligible to attend (SOS Web Site, 2007).

As completion of Squadron Officer School is a requirement for those who wish to remain competitive for promotion to the rank of Major, and the attendance opportunity is approximately 80%, successful completion of the school is considered highly desirable and almost a necessity by those who are able to attend. With that in mind, there are some

similarities in adult learners in a traditional higher education setting and adult learners in a professional military educational setting. The demographics of who these learners are could be considered quite similar, and will be discussed in Chapter III of this study. There are also similarities in the question of why these learners are turning to advanced education as each is attempting to enhance their professional competitiveness. However, for officers, continued retention in the military depends on successful promotion to the next higher grade. Since the completion of Squadron Officer School is required to remain competitive for promotion, the consequences of not attending or doing poorly in the course are professionally catastrophic for the officer.

Conclusion

The problem found with the current body of knowledge regarding the characteristics of effective teachers is the paucity of research regarding the development of the characteristics of effective teachers in teacher education and training programs, as well as the lack of studies that measure effective teaching characteristics in an adult educational setting. The lack of research relating specifically to the development of effective military teachers is immediately evident as little to no studies have been conducted in this area that were discovered for this literature review.

This review has indicated that, prior to 1960; research regarding effective teaching characteristics was primarily focused on the perspective of the administrator or supervisor (Cruickshank, 1986), and lacked the valuable input and perspective of colleagues, students, and other stakeholders in the education process. Currently, the

population focus of effective teaching characteristics studies seems to be traditional students in the university setting.

As theory indicates that students can and do learn through the example of their teachers (Polk, 2006), the importance of developing characteristics most often associated with effective teachers as part of the teacher education process seems to be clear.

The following research questions were formulated for this study:

1. What are the descriptive statistics associated with each of the items on the TBC for (a) all participants as a group, (b) student participants as a group and (c) for teachers as a group?
2. With what frequency do (a) all participants as a group, (b) student participants as a group, and (c) teachers as a group respond "always, sometimes, frequently, rarely, never" on the TBC?
3. To what extent are there statistically significant differences between the total scores of male and female students on the TBC?
4. To what extent is there a statistically significant difference between total scores on the TBC for student perceptions of the characteristics of effective teachers and teacher perceptions of the characteristics of effective teachers?

Null Hypotheses

The following null hypotheses were tested at the .05 level of significance:

$H_{01:}$ There is no statistically significant difference between the total scores of male and female students on the TBC.

$H_{02:}$ There is no statistically significant difference between student and teacher total scores on the TBC.

CHAPTER III: METHODOLOGY

Chapters One and Two of this study provided a theoretical framework for the study, stated the background for the problem investigated, stated the research problem, the purpose of the study, the research questions and null hypotheses, an overview of the methods used in the study, the significance and limitations of the study, and a review of the related research and literature. This chapter describes the participants, instrumentation, procedures, and the research design of the present study, as well as a description of the collection and analysis of the data.

The present study investigated the degree to which Squadron Officer School Class 07D students perceived the characteristics of effective teachers by ranking each of the 28 characteristics identified on the Teacher Behaviors Checklist (TBC) (Buskist, Sikorski, Buckley, and Saville, 2002; Keeley, Smith, Buskist, 2006). This was done in order to assess whether there were any statistically significant differences in the total scores of male and female students. Also, the frequency with which students responded to the choices for each item on the Likert-type scale used to score the TBC. The present study also investigated the degree to which Squadron Officer College instructors assigned to Squadron Officer School perceived that they possessed the characteristics of effective teachers, as determined by the TBC (Buskist, et al., 2002; Keeley, et al., 2006.). This was done in order to assess whether or not there were differences between the students'

perceptions of the characteristics of effective teachers and instructors' perceptions of the characteristics of effective teachers.

Research Questions

The following research questions were formulated for this study:

1. What are the descriptive statistics associated with each of the items on the TBC for (a) all participants as a group, (b) student participants as a group and (c) for teachers as a group?
2. With what frequency do (a) all participants as a group, (b) student participants as a group, and (c) teachers as a group respond "always, sometimes, frequently, rarely, never" on the TBC?
3. To what extent are there statistically significant differences between the total scores of male and female students on the TBC?
4. To what extent is there a statistically significant difference between total scores on the TBC for student perceptions of the characteristics of effective teachers and teacher perceptions of the characteristics of effective teachers?

Null Hypotheses

The following null hypotheses were tested at the .05 level of significance:

$H_{01:}$ There is no statistically significant difference between the total scores of male and female students on the TBC.

$H_{02:}$ There is no statistically significant difference between student and teacher total scores on the TBC.

Participants

The student population for this study consisted of students attending Squadron Officer School Class 07D at Maxwell Air Force Base in Montgomery, Alabama. The teacher population for this study consisted of instructors assigned to Squadron Officer School, also at Maxwell Air Force Base, who were selected by the Air Force to perform duties as flight commanders during the instructional period consistent with Class 07D.

The student population consisted of 447 students, of which 369 (83%) were male and 78 (17%) were female. Within this student population, 411 (92%) students were on active duty in the Air Force, 2 (.5%) were members of the Air National Guard, and 13 (3%) were members of the Air Force Reserve. Also included in the student population were 22 (5%) international students. The instructor population consisted of 37 instructors, of which 32 (86%) were male and 5 (14%) were female. All instructors were on active duty while assigned to Squadron Officer School. The gender distribution represented by the students and instructors in this sample closely approximates the Air Force population gender distribution found in active duty officers, with 56,005 (81.8%) males and 12,428 (18.2%) females comprising the 68,483 active duty officers currently serving (IDEAS, 2007).

To be eligible to attend Squadron Officer School, officers must be at the point in their careers where they are between four and seven years of commissioned service in the Air Force. Air Force civil service civilian employees in the pay grades GS-9 through GS-12 are also eligible to attend Squadron Officer School. Students in the Squadron Officer School course are studying subject matters such as leadership, problem solving, military studies, international securities studies, and effective communication. Of the 447 surveys

administered, 217 were required for the researcher to achieve a 95-percent level of confidence to make reliable inferences (Isaac & Michael, 1997). Two hundred sixty one students returned completed instruments for a 58% return rate.

Instrumentation

Permission to use the Teacher Behaviors Checklist was obtained by the principal investigator from Keeley and Buskist (Keeley, Smith, & Buskist, 2006) via personal communication with each at Auburn University in Auburn, Alabama.

The Teacher Behaviors Checklist is a 28-item student inventory that was originally developed by Buskist, Sikorski, Buckley, and Saville, (2002). The instrument was then modified into an evaluative instrument by Keeley, Smith, and Buskist (2006), at Auburn University. The Teacher Behaviors Checklist (Buskist, et al., 2002; Keeley, et al., 2006) was designed to provide behavioral anchors for characteristic personality descriptors that are often found in the effective teacher characteristics literature (Keeley, et al., 2006). In developing the items for the checklist, these researchers asked students to list the qualities of effective teachers, and then asked another group of students to provide behavioral descriptors relative to the qualities or characteristics (Keeley, et al., 2006). This method of students furnishing the lists of qualities or characteristics determined to be most associated with effective teachers is consistent with the methodology noted by Feldman (1976) in his synthesis of studies of characteristics considered to be essential to effective college teaching. However, the instrument developed by Keeley, Smith, and Buskist (2006) extends the research by Feldman (1976) through the addition of behavioral anchors that were provided by another sample of

students. This enables those taking the inventory to better understand what the characteristics listed might actually look like in practice (Keeley, et al., 2006).

In replication studies using the TBC (Buskist, Sikorski, Buckley, and Saville, 2002; Keeley, Smith, Buskist, 2006), students and faculty showed strong agreement in rating the top 10 qualities and behaviors from the 28 items developed; findings which were replicated at both the community college (Schaeffer, Epting, Zinn, & Buskist, 2003) and traditional university setting (Wann, 2001).

Mowrer, Love, & Orem (2004) explored whether students' views of effective teacher characteristics were different based on grade point average, year in school, size of the school, level of motivation, and degree to which the student perceived college as a challenge, and found little difference in the characteristics perceived as important for effective teaching. These findings would seem to offer support for the notion that the nature of the student would not significantly affect a student's views on the characteristics of effective teachers, making this instrument a good candidate to use in a completely different setting with a completely different type of student. This is further reinforced by Feldman (1993), who asserts that teacher ratings of college professors show little or no effect based on student gender, and Basow (2000), who notes that research into the question of gender bias in student ratings, has, at best, provided mixed reviews. It is possible to posit that the behavioral anchors associated with the TBC (Buskist, et al., 2002; Keeley, et al., 2006), may actually mitigate potential bias based on the nature of the student.

With regard to the consistency of the replications mentioned (Buskist, et al., 2002; Schaeffer, et al., 2003; Wann, 2001), the TBC (Buskist, et al., 2002; Keeley, et al., 2006)

would seem to show good promise for use in measuring for the characteristics of effective teachers in instructional settings outside the traditional college or university setting, such as the teachers and students at Squadron Officers College at Maxwell Air Force Base, in Montgomery, Alabama.

The TBC (Buskist, et al., 2002; Keeley, et a., 2006) used in the present study were modified slightly with permission from Keeley, obtained via verbal communication, and are included in Appendix E. The versions modified for the present study include a demographic section (Section I) which asks participants to indicate gender and whether they are active duty Air Force, Air National Guard, Air Force Reserve or Air Force Civil Service. Section II of the modified version provides participants with the opportunity to make comments if desired, and Section III consists of the 28-item inventory of characteristics and behavioral descriptors. The 5-point Likert-type scale descriptors used to rate the characteristics listed were also modified on the TBC (Buskist, Sikorski, Buckley, and Saville, 2002; Keeley, Smith, Buskist, 2006) used for this study. The checklist developed and used by Keeley, et al. (2006) began with "Dr. _____", and the descriptors used in this study began with "I", if the checklist was administered to a faculty member, or "My instructor", if administered to a student.

Procedures

A Human Subjects request separate from the Auburn University Office of Human Subjects Research protocol submission was required by Squadron Officer College to conduct external research utilizing Squadron Officer College faculty and students as a survey sample (SOC OI 36-13, Program Evaluation, 2007). Approval from the Squadron

Officer College commandant and Air University Survey Control number are included in Appendix B.

Student TBC (Buskist, et al., 2002; Keeley, et a., 2006) surveys were administered by the principal investigator just prior to student attendance of an afternoon group lecture at Squadron Officer School. The survey administration occurred during week three of the five week-long Squadron Officer School Class 07D course, at approximately the mid-point of the course. All 447 potential student participants were given an overview and explanation of the study utilizing PowerPoint slides, and then an informed consent notification was made available to each student. As mandated by the Auburn University Institutional Review Board (IRB), all participants were informed that their participation was voluntary; that they did not have to participate in the study, and that their decision regarding participation would have no bearing on their performance in the course. If they elected to participate, student participants were provided with a paper copy of the TBC (Buskist, et al., 2002; Keeley, et al., 2006) and asked to complete the 28-item inventory using the 5-point Likert-type scale provided with the checklist. Participant responses to each of the 28 items were recorded directly on their copy of the checklist and collected by the researcher upon completion. The 5-point Likert-type scale for the TBC (Buskist, et al., 2002; Keeley, et al., 2006) was displayed as a slide during the completion of the checklist to prevent participants from having to flip their page back and forth to determine the response they desired

The faculty TBC (Buskist, et al., 2002; Keeley, et al., 2006) was administered to each faculty member electronically by the principal researcher, along with the informed consent notification. This administration of the instrument occurred during the third week

of SOS Class 07D. SOS faculty members were provided on overview of the study and completion instructions should they desire to participate. Participants were asked to print the electronic copy of the TBC (Buskist, et al., 2002; Keeley, et al., 2006) and respond to each of the 28 items on the inventory by marking their responses directly on their printed paper copy of the checklist. Participants were asked to reflect on their own effective teaching characteristics and rate themselves using the 5-point Likert-type scale provided on the instrument. The scale ranged from 5 (always; indicated by A) to 1 (never; indicated by E), with a midpoint of 3 (sometimes; indicated by C). As mandated by the Auburn University Institutional Review Board, all participants were informed that they did not have to participate in the study. The principal investigator went to each squadron within the Squadron Officer School organization to pick up completed surveys.

Of the 261 surveys returned, 207 were completed by males, 54 were completed by females. Of the 261 survey participants, 247 were active duty officers, 12 were Air Force Reserve officers, and 2 were Air National Guard officers. Squadron Officer School Class 07D did not have any Air Force Civilian students.

The TBC was also administered to 37 instructors performing duties as flight commanders during SOS Class 07D. Those assigned to teach at SOS are required to attend a ten-day Fundamentals of Instruction course which is designed to develop pedagogical skills and effective teaching techniques and characteristics. Of the 37 surveys administered to faculty, 20 were returned, for a 54 percent return rate. Of the 20 faculty who completed the Teacher Behaviors Checklist, 17 were male, 3 were female, and all were serving in the Air Force on active duty.

.

Faculty Development--Fundamentals of Instruction

The Air Force's Academic Instructor School was the program utilized by the Air Force to train and educate all Air Force Reserve Officer Training Corps and Professional Military Education instructors. However, as a result of Air Force directed requirements to reduce manpower expenses, Air University elected to close Academic Instructor School and to decentralize the training of instructors by empowering the individual schools to train their own cadre of instructors. Squadron Officer College's response to that requirement was the development of the Fundamentals of Instruction course.

The Fundamentals of Instruction course was developed by members of the Directorate of Education and Curriculum at Squadron Officer College. All newly assigned instructors to Squadron Officer College, whether they are teaching at Squadron Officer School or Air and Space Basic Course, are required to complete the ten-day Fundamentals of Instruction course before they can begin to serve as a classroom instructor.

New faculty can come from any number of career fields within the Air Force, and although some may be volunteers for instructor duty, many are non-volunteered into the assignment. In the course, new faculty are presented with information regarding instructional principles and concepts for the craft of teaching such as, the characteristic traits of competent teachers, classroom management techniques, ideas on how to personalize lesson plans, techniques for public speaking, questioning skills and strategies, methods for presenting curriculum, assessment and evaluation principles, the domains of learning, and the Air Force's use of Instructional Systems Design.

After completing the Fundamentals of Instruction course, the new faculty members go to their respective schools and squadrons and receive additional school-specific training regarding the curriculum unique to that school.

Research Design

The TBC (Buskist, et al., 2002; Keeley, et al., 2006) was administered to Squadron Officer College faculty members assigned to teach at Squadron Officer School, and was also administered to students attending Squadron Officer School Class 07D, at Maxwell Air Force Base, Montgomery, Alabama.

To answer research question one, descriptive statistics were calculated to identify the minimum and maximum scores, the mean score, and standard deviation for each group of respondents, which included the student and teacher results on the TBC (Buskist, et al., 2002; Keeley, et al., 2006), and the combined group of teachers and students.

To answer research question two descriptive statistics were calculated to identify the frequency and percentage of responses from each group of respondents, which includes student and teacher and combined group responses to each of the choices on the 5-point Likert-type scale, which are; "always, sometimes, frequently, rarely, and never" from the TBC (Buskist, et al., 2002; Keeley, et al., 2006).

To answer research question three, an independent samples t-test was used to compare total mean scores of male and female students on the TBC (Buskist, et al., 2002; Keeley, et al., 2006). This statistical procedure reveals whether there was a statistically significant difference in the total mean scores for male and female students or whether

the differences in the total mean scores was due to chance (Pallant, 2005). The results of this procedure allowed the researcher to either reject or fail to reject null hypothesis one.

To answer research question four, an independent samples t-test was used to compare total mean scores of the teachers as a group and the students as a group on the TBC (Buskist, et al., 2002; Keeley, et al., 2006). This statistical procedure will reveal whether there was a statistically significant difference in the total mean scores for teachers and students, or whether the differences in the total mean scores is due to chance (Pallant, 2005). The results of this procedure were used to allow the researcher to determine whether to reject or fail to reject null hypothesis two.

CHAPTER IV: RESULTS

The first three chapters of this study presented an introduction to the research problem, a description of the purpose and significance of the study, a review of the research related to the characteristics of effective teachers, and the methods and procedures used to collect and analyze the data collected in the study. This chapter presents the statistical analyses of the data.

Descriptive statistics were calculated in order to ascertain how individual items on the Teacher Behaviors Checklist (TBC) (Buskist, et al., 2002; Keeley, et al., 2006) were rated by both teacher and student participants. Further, frequency data are also included in this chapter.

Parametric statistical results compared the total and individual item mean scores of male and female student survey participants to determine whether or not there was a statistically significant difference in the mean scores on the TBC between male and female student participants (Buskist, et al., 2002; Keeley, et al., 2006), and are included in this chapter. Parametric statistical results compared the total mean scores of teacher and student participants to determine whether or not there was a statistically significant difference in the mean scores on the TBC between student and faculty participants (Buskist, et al., 2002; Keeley, et al., 2006), and are included in this chapter.

The impetus for this study was the paucity of research regarding the development of the characteristics of effective teachers in teacher education and training programs, as

well as the lack of studies that measure effective teaching characteristics in adult educational settings. The lack of research relating specifically to the development of effective military teachers and instructors is immediately evident as few studies have been conducted in this area that were discovered by the principal researcher.

Given the paucity of research into the characteristics of effective teachers in military training and educational settings, the first purpose of this study was to ascertain the degree to which the Squadron Officer College (SOC) instructors perceived that they possessed the characteristics of effective teachers as compared to the student scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006). Second, to ascertain the degree to which male and female students differed in total scores on the TBC was also investigated (Buskist, et al., 2002; Keeley, et al., 2006).

The following research questions were formulated for the present study:

1. What are the descriptive statistics associated with each of the items on the TBC for (a) all participants as a group, (b) student participants as a group and (c) for teachers as a group?
2. With what frequency do (a) all participants as a group, (b) student participants as a group, and (c) teachers as a group respond "always, sometimes, frequently, rarely, never" on the TBC?
3. To what extent were there statistically significant differences between the total scores of male and female students on the TBC?
4. To what extent was there a statistically significant difference between total scores on the TBC for student perceptions of the characteristics of effective teachers and teacher perceptions of the characteristics of effective teachers?

Null Hypotheses

The following null hypotheses were tested at the .05 level of significance:

$H_{01:}$ There is no statistically significant difference between the total scores of male and female students on the TBC.

$H_{02:}$ There is no statistically significant difference between student and teacher total scores on the TBC.

Descriptive Statistics

The first research question was: What are the descriptive statistics associated with each of the items on the TBC for (a) all participants as a group, (b) student participants as a group and (c) for teachers as a group?

To answer the first research question, descriptive statistics were calculated to obtain the minimum and maximum scores on the 5-point Likert-type scale for the TBC (Buskist, et al., 2002; Keeley, et al., 2006), as well as the mean score and standard deviation for each item for the combined group, students, and teachers. The results for the combined group are displayed in Table 6, results for the students are displayed in Table 7 and for teachers in Table 8.

Table 6

Descriptive Statistics for Student and Teacher Responses as a Group (N=281)

Item	Minimum	Maximum	Mean	Std. Dev.
1—Accessible	2	5	4.56	.642
2—Approachable	3	5	4.66	.545
3—Authoritative	1	5	4.05	.831
4—Confident	2	5	4.68	.524
5—Creative	3	5	4.47	.655
6—Communicator	3	5	4.62	.580
7—Encourage/Care	2	5	4.32	.714
8—Enthusiastic	3	5	4.54	.626
9—Est. Goals	1	5	4.04	.869
10—Flexible	2	5	4.28	.785
11—Listener	2	5	4.42	.703
12—Happy/positive	2	5	4.27	.768
13—Humble	2	5	4.31	.732
14—Knowledgeable	3	5	4.68	.559
15—Prepared	2	5	4.60	.565
16—Current Info	2	5	4.43	.635

(table continues)

Table 6 (continued)

Item	Minimum	Maximum	Mean	Std. Dev.
17—Professional	2	5	4.05	.837
18—Class Discuss.	1	5	4.31	.757
19—Critical Think	2	5	4.41	.755
20—Feedback	2	5	4.46	.649
21—Punctual	1	5	4.42	.719
22—Rapport	2	5	4.32	.726
23—Realistic	1	5	4.50	.703
24—Respectful	3	5	4.60	.607
25—Sensitive	1	5	4.16	.804
26—Strive Improve	2	5	4.41	.692
27—Tech Comp.	1	5	4.13	.809
28—Understanding	2	5	4.38	.687

Table 7

Descriptive Statistics for Student Responses on the TBC (N=261)

Item	Minimum	Maximum	Mean	Std. Dev.
1—Accessible	2	5	4.54	.634
2—Approachable	3	5	4.66	.540
3—Authoritative	1	5	4.02	.836
4—Confident	2	5	4.68	.519
5—Creative	3	5	4.48	.647
6—Communicator	3	5	4.64	.561
7—Encourage/Care	2	5	4.31	.717
8—Enthusiastic	3	5	4.54	.634
9—Est. Goals	2	5	4.04	.860
10—Flexible	2	5	4.25	.793
11—Listener	2	5	4.43	.691
12—Happy/positive	2	5	4.24	.776
13—Humble	2	5	4.29	.738
14—Knowledgeable	3	5	4.73	.499
15—Prepared	3	5	4.62	.537
16—Current Info	2	5	4.44	.639

(table continues)

Table 7 (continued)

Item	Minimum	Maximum	Mean	Std. Dev.
17—Professional	2	5	4.03	.831
18—Class Discuss	2	5	4.29	.740
19—Critical Think	2	5	4.42	.758
20—Feedback	2	5	4.45	.652
21—Punctual	1	5	4.43	.728
22—Rapport	2	5	4.31	.735
23—Realistic	2	5	4.53	.653
24—Respectful	3	5	4.60	.609
25—Sensitive	2	5	4.18	.765
26—Strive Improve	3	5	4.41	.683
27—Tech Comp.	1	5	4.12	.808
28—Understanding	2	5	4.35	.694

Table 8

Descriptive Statistics for Teacher Responses on the TBC (N=20)

Item	Minimum	Maximum	Mean	Std. Dev.
1—Accessible	2	5	4.75	.716
2—Approachable	3	5	4.55	.605
3—Authoritative	3	5	4.40	.681
4—Confident	3	5	4.65	.587
5—Creative	3	5	4.30	.733
6—Communicator	3	5	4.30	.733
7—Encourage/Care	3	5	4.40	.681
8—Enthusiastic	4	5	4.60	.503
9—Est. Goals	1	5	4.05	.999
10—Flexible	3	5	4.55	.605
11—Listener	2	5	4.20	.834
12—Happy/positive	3	5	4.50	.607
13—Humble	3	5	4.55	.605
14—Knowledgeable	3	5	3.90	.718
15—Prepared	2	5	4.30	.801
16—Current Info	3	5	4.25	.550

(table continues)

Table 8 (continued)

Item	Minimum	Maximum	Mean	Std. Dev.
17—Professional	2	5	4.25	.910
18—Class Discuss	1	5	4.50	.946
19—Critical Think	3	5	4.20	.696
20—Feedback	3	5	4.55	.605
21—Punctual	3	5	4.30	.571
22—Rapport	3	5	4.40	.598
23—Realistic	1	5	4.10	1.119
24—Respectful	3	5	4.65	.587
25—Sensitive	1	5	3.85	1.182
26—Strive Improve	2	5	4.40	.821
27—Tech Comp.	3	5	4.20	.834
28—Understanding	4	5	4.70	.470

The second research question was: With what frequency do (a) all participants as a group, (b) student participants as a group, and (c) teachers as a group respond "always, sometimes, frequently, rarely, never" on the TBC?

To answer the second question, descriptive statistics were calculated to determine with what frequency students, teachers, and the combined group of students and teachers responded to the choices available from the 5-point Likert-type scale on the TBC

(Buskist, et al., 2002; Keeley, et al., 2006). The combined group frequency results are displayed at Table 9, student frequency results are displayed at Table 10, and teacher frequency results are displayed at Table 11.

Table 9

Frequency of Responses to the TBC by Students and Teachers as One Group (N=281)

Item	Always *N* / %	Frequently *N* / %	Sometimes *N* / %	Rarely *N* / %	Never *N* / %
1—Accessible	178/63.3	82/29.9	17/6	2/.7	
2—Approachable	195/69.4	6976/27	10/3.6		
3—Authoritative	93/33.1	119/42.3	60/21.4	8/2.8	1/.4
4—Confident	199/70.8	76/27	5/1.8	1/.4	
5—Creative	157/55.9	99/35.2	25/8.9		
6—Communicator	188/66.9	79/28.1	14/5		
7—Encourage/Care	129/45.9	113/40.2	38/13.5	1/.4	
8—Enthusiastic	164/58.4	103/36.7	14/5		
9—Est. Goals	92/32.8	116/41.3	64/22.8	8/2.8	1/.4
10—Flexible	129/45.9	108/38.4	37/13.2	7/2.5	
11—Listener	148/52.7	108/38.4	20/7.1	5/1.8	

(table continues)

Table 9 (continued)

Item	Always	Frequently	Sometimes	Rarely	Never
	N / %	*N* / %	*N* / %	*N* / %	*N* / %
12—Happy/positive	126/44.8	108/38.4	43/15.3	4/1.4	
13—Humble	131/46.6	107/38.1	42/14.9	1/.4	
14—Knowledgeable	203/72.2		65/23.1	13/4.6	
15—Prepared	179/63.7	93/33.1	8/2.8	1/.4	
16—Current Info	141/50.2	120/42.7	19/6.8	1/.4	
17—Professional	98/34.9	108/38.4	67/23.8	8/2.8	
18—Class Discuss	131/46.6	113/40.2	32/11.4	4/1.4	1/.4
19—Critical Think	154/54.8	93/33.1	28/10	6/2.1	
20—Feedback	153/54.4	106/37.7	21/7.5	1/.4	
21—Punctual	152/54.1	100/35.6	26/9.3	2/.7	1/.4
22—Rapport	133/47.3	107/38.1	40/14.2	1/.4	
23—Realistic	168/59.8	92/32.7	16/5.7	4/1.4	1/.4
24—Respectful	188/66.9	75/26.7	18/6.4		
25—Sensitive	107/38.1	118/42	51/18.1	3/1.1	2.7
26—Strive Improve	148/52.7	102/36.3	30/10.7	1/.4	
27—Tech Comp.	106/37.7	110/39.1	61/21.7	3/1.1	1/.4
28—Understanding	137/48.8	115/40.9	27/9.6	2/.7	

Table 10

Frequency of Responses to the TBC by Students (N=261)

Item	Always	Frequently	Sometimes	Rarely	Never
	N / %	*N* / %	*N* / %	*N* / %	*N* / %
1—Accessible	161/61.7	82/31.4	17/6.5	1/.4	
2—Approachable	183/70.1	69/26.4	9/3.4		
3—Authoritative	83/31.8	111/42.5	58/22.2	8/3.1	1/.4
4—Confident	185/70.9	71/27.2	4/1.5	1/.4	
5—Creative	148/56.7	91/34.9	22/8.4		
6—Communicator	179/68.6	71/27.2	11/4.2		
7—Encourage/Care	119/45.6	105/40.2	36/13.8	1/.4	
8—Enthusiastic	152/58.3	95/36.4	14/5.4		
9—Est. Goals	85/32.6	107/41	61/23.4	83.1	
10—Flexible	117/44.8	101/38.7	36/13.8	7/2.7	
11—Listener	140/53.6	99/37.9	18/6.9	41.5	
12—Happy/positive	115/44.1	100/38.3	42/16.1	4/1.5	
13—Humble	119/45.6	100/38.3	41/15.7	1/.4	
14—Knowledgeable	199/76.2	55/21.1	7/2.7		

(table continues)

Table 10 (continued)

Item	Always	Frequently	Sometimes	Rarely	Never
	N / %	*N* / %	*N* / %	*N* / %	*N* / %
15—Prepared	170/65.1	84/32.2	7/2.7		
16—Current Info	135/51.7	107/41	18/6.9	1/.4	
17—Professional	88/33.7		102/39.1	64/24.5	7/2.7
18—Class Discuss	118/45.2	107/41	32/12.3	4/1.5	
19—Critical Think	147/56.3	83/31.8	25/9.6	6/2.3	
20—Feedback	141/54	99/37.9	20/7.7	1/.4	
21—Punctual	145/55.6	88/33.7	25/9.6	2/.8	1/.4
22—Rapport	124/47.5	97/37.2	39/14.9	1/.4	
23—Realistic	159/60.9	85/32.6	14/5.4	3/1.1	
24—Respectful	174/66.7	70/26.8	17/6.5		
25—Sensitive	101/38.7	109/41.8	48/18.4	3/1.1	
26—Strive Improve	137/52.5	95/36.4	29/11.1		
27—Tech Comp.	97/37.2	104/39.8	56/21.5	3/1.1	1/.4
28—Understanding	12347.1	109/41.8	27/10.3	2/.8	

Table 11

Frequency of Responses to the TBC by Teachers (N=20)

Item	Always	Frequently	Sometimes	Rarely	Never
	N / %	*N* / %	*N* / %	*N* / %	*N* / %
1—Accessible	17/85	2/10		1/5	
2—Approachable	12/60	7/35	1/5		
3—Authoritative	10/50	8/40	2/10		
4—Confident	14/70	5/25	1/5		
5—Creative	9/45	8/40	3/15		
6—Communicator	9/45	8/40	3/15		
7—Encourage/Care	10/50	8/40	2/10		
8—Enthusiastic	12/60	8/40			
9—Est. Goals	7/35	9/45	3/15		1/5
10—Flexible	12/60	7/35	1/5		
11—Listener	8/40	9/45	2/10	1/5	
12—Happy/positive	11/55	8/40	1/5		
13—Humble	12/60	7/35	1/5		
14—Knowledgeable	4/20	10/50	6/30		

(table continues)

Table 11 (continued)

Item	Always *N* / %	Frequently *N* / %	Sometimes *N* / %	Rarely *N* / %	Never *N* / %
15—Prepared	9/45	9/45	1/5	1/5	
16—Current Info	6/30	13/65	1/5		
17—Professional	10/50	6/30	3/15	1/5	
18—Class Discuss	13/65	6/30			1/5
19—Critical Think	7/35	10/50	3/15		
20—Feedback	12/60	7/35	1/5		
21—Punctual	7/35	12/60	1/5		
22—Rapport	9/45	10/50	1/5		
23—Realistic	9/45	7/35	2/10	1/5	1/5
24—Respectful	14/70	5/25	1/5		
25—Sensitive	6/30	9/45	3/15		2/10
26—Strive Improve	11/55	7/35	1/5	1/5	
27—Tech Comp.	9/45	6/30	5/25		
28—Understanding	14/70	6/30			

To answer the third research question, the following null hypothesis was formulated to ascertain whether or not there were statistically significant differences in

the total mean scores of males and females. The null hypothesis was tested at the .05 level of significance. The null hypothesis was stated as follows:

$H_{01:}$ There is no statistically significant difference between the total scores of males and females on the TBC.

Results of the independent samples t-test indicated that there was no statistically significant difference in total scores for males (M=122.82) and females (M=124.37); t(80.76)= -1.026, p=.30. The magnitude of the differences in the means was very small (eta squared = .004). This value was not statistically significant at the .05 level.

To answer the fourth research question, the following null hypothesis was formulated to ascertain whether or not there were statistically significant difference in the total mean scores of students and teachers. The null hypothesis was tested at the .05 level of significance. The null hypothesis was stated as follows:

$H_{02:}$ There is no statistically significant difference between student and teacher total scores on the TBC.

Results of the independent samples t-test indicated that there was no statistically significant difference in total scores for students (M=123.14) and teachers (M=122.35); t(279)= -.355, p=.72. The magnitude of the differences in the means was very small (eta squared = .045). This value was not statistically significant at the .05 level.

CHAPTER V:

SUMMARY, DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

The first four chapters of this study presented an introduction to the research problem, a description of the purpose and significance of the study, a review of the research related to the characteristics of effective teachers, and the methods and procedures used to collect and analyze the data used in the present study, as well as a statistical analyses of the data. This chapter presents a summary of the study, summary of the results, discussion, conclusions, implications for future research, and recommendations for practical applications.

.

Summary of the Study

The impetus for this study was the paucity of research regarding the development of the characteristics of effective teachers in teacher education and training programs, as well as the lack of studies that measure effective teaching characteristics in adult educational settings. The lack of research relating specifically to the development of effective military teachers and instructors is immediately evident as few studies have been conducted in this area that were discovered by the principal researcher.

This review has indicated that, prior to 1960; research regarding effective teaching characteristics was primarily focused on the perspective of the administrator or supervisor (Cruickshank, 1986), and lacked the valuable input and perspective of

colleagues, students, and other stakeholders in the educational process. Currently, the population focus of effective teaching characteristics studies seems to be traditional students in the traditional college/university setting.

Given the paucity of research into the characteristics of effective teachers in military training and educational settings, the first purpose of the present study was to determine to what degree the Squadron Officer College (SOC) instructors perceive that they possessed the characteristics of effective teachers as compared to the student scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006). Second, the degree to which male and female students differed in total scores on the TBC was also investigated (Buskist, et al., 2002; Keeley, et al., 2006).

The following research questions were formulated for the present study:

1. What are the descriptive statistics associated with each of the items on the TBC for (a) all participants as a group, (b) student participants as a group and (c) for teachers as a group?
2. With what frequency do (a) all participants as a group, (b) student participants as a group, and (c) teachers as a group respond "always, sometimes, frequently, rarely, never" on the TBC?
3. To what extent were there statistically significant differences between the total scores of male and female students on the TBC?
4. To what extent was there a statistically significant difference between total scores on the TBC for student perceptions of the characteristics of effective teachers and teacher perceptions of the characteristics of effective teachers?

Null Hypotheses

The following null hypotheses were tested at the .05 level of significance:

$H_{01:}$ There is no statistically significant difference between the total scores of male and female students on the TBC.

$H_{02:}$ There is no statistically significant difference between student and teacher total scores on the TBC.

Summary of Results

The present study investigated the degree to which Squadron Officer School Class 07D students perceived the characteristics of effective teachers by ranking of each of the 28 characteristics identified on the Teacher Behaviors Checklist (TBC) (Buskist, Sikorski, Buckley, and Saville, 2002; Keeley, Smith, Buskist, 2006). This was done in order to assess whether there were any statistically significant differences in the total scores of male and female students. Also, students were assessed as to the frequency with which they responded to the choices for each item on the Likert-type scale used to score the TBC. The present study also investigated the degree to which Squadron Officer College instructors assigned to Squadron Officer School perceived that they possessed the characteristics of effective teachers, as determined by the TBC (Buskist, et al., 2002; Keeley, et al., 2006.). This was done in order to assess whether there were differences between the students' perceptions of the characteristics of effective teachers, and instructors' perceptions of the characteristics of effective teachers.

The findings of this research indicated that teachers at Squadron Officer College and students at Squadron Officer School Class 07D have rate highly the perceptions of

the degree to which they possess the characteristics of effective teachers, as measured by the TBC (Buskist, et al., 2002; Keeley, et al., 2006). Out of a possible score of 140, teachers had an overall mean score of 122.35 and students had an overall mean score of 123.14, indicating that the student perceptions of the ideal teacher with the characteristics of effective teachers was slightly higher than the teacher's perceptions of the degree to which they possessed the characteristics of effective teachers. The findings of this research also indicate the male and female students have generally positive perceptions regarding the characteristics of effective teachers. From a possible of 140, the mean score for males was 122.82 and the mean score for females was 124.37.

Two null hypotheses were developed for this study. The first null hypothesis addressed the statistical significance of gender on the total mean score of students. The first null hypothesis was tested using an independent samples t-test. The null hypothesis was tested at the .05 level of significance and stated that:

$H_{01:}$ There is no statistically significant difference between the total scores of males and females on the TBC.

There was no statistically significant difference in total means scores for males (M=122.82) and females (M=124.37), with a p=.30. The magnitude of the differences in the means was very small (eta squared = .004), explaining less than one percent of the variance. Although females scored higher on the TBC as a group, the difference was not statistically significant by gender. The researcher failed to reject the null hypothesis for gender. Results indicate that both male and female students have a generally high perception of the value of the characteristics of effective teachers as measured by the TBC (Buskist, et al., 2002; Keeley, et al., 2006).

The second null hypothesis addressed the statistical significance of differences between student and teacher mean scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006). The second null hypothesis was tested using an independent samples t-test. The null hypothesis was test at the .05 level of significance and stated that:

$H_{02:}$ There is no statistically significant difference between student and teacher total scores on the TBC.

There was no statistically significant difference in total mean scores for students (M=123.14) and teachers (M=122.35), p=.72. The magnitude of the differences in the means was very small (eta squared = .045), explaining only 4.5 percent of the variance. Although students, as a group, scored slightly higher than teachers, the difference was not statistically significant. The researcher failed to reject the null hypothesis regarding differences between student and teacher scores on the TBC (Buskist, et al., 2002; Keeley, et al., 2006). Results indicate that student perceptions of the degree to which the ideal teacher would possess the characteristics of effective teachers are slightly higher than teacher self-assessed perceptions of the degree to which they possess the characteristics of effective teachers, but the gap between the two groups is not statistically significant.

Discussion

There were no statistically significant differences between the groups examined for perceptions regarding the characteristics of effective teachers using the TBC (Buskist, et al., 2002; Keeley, et al., 2006). There were differences in group total mean scores, but these differences were not statistically significant at the .05 level of significance. Generally, in this study, female students scored higher than male students, possibly

indicating that female students place a higher degree of value on certain characteristics on the TBC (Buskist, et al., 2002; Keeley, et al., 2006). As a group, students scored higher than teachers, possibly indicating that the students' ideal teacher would, to a high degree, possess the characteristics of effective teachers, while teacher self-assessments indicate a value for the characteristics of effective teachers, but still have some room for development to reach the level established by the student scores.

Conclusions

To the extent that the data collected for this study were valid and reliable and the assumptions of the study were appropriate and correct, conclusions may be made. Based on the limitations outlined in Chapter I, and on the findings, the following conclusions are made. There was no statistically significant difference in the perceptions of male and female Squadron Officer School Class 07D students regarding the characteristics of effective teachers, as measured by the TBC (Buskist, et al., 2002; Keeley, et al., 2006). Although the gender difference noted could perhaps be attributed to the individual characteristics listed on the TBC (Buskist, et al., 2002; Keeley, et al., 2006) an analysis of the data indicates that the difference can be attributed only to chance. These findings would seem to corroborate Mowrer, Love, & Orem (2004), who explored whether students' views of effective teacher characteristics were different based on grade point average, year in school, size of the school, level of motivation degree to which the student perceived college as a challenge, and found little difference in the characteristics perceived as important for effective teaching. These findings would seem to offer support for the notion that the nature of the student would not significantly affect a

student's views on the characteristics of effective teachers. This is further reinforced by Feldman (1993), who asserts that teacher ratings of college professors show little or no effect based on student gender, and Basow (2000), who notes that research into the question of gender bias in student ratings, has, at best, provided mixed reviews. It is possible to posit that the behavioral anchors associated with the TBC (Keeley, Smith, & Buskist, 2006), may actually mitigate potential bias based on the nature of the student.

There was no statistically significant difference in the perceptions of teachers and students regarding the characteristics of effective teachers as measured by the TBC (Buskist, et al., 2002; Keeley, et al., 2006). Although a difference was noted between the two groups, the difference can be attributed only to chance. The results of the comparison between student and teachers indicated a high degree of similarity between the two groups, offering support for the use of instruments generated from student-provided characteristics of effective teachers. Additionally, the results demonstrated some consistency with prior research that used a different subject population. For example, Berg and Lindseth's (2004) sample consisted of undergraduate nursing students from the Midwest, Keeley, Smith, and Buskist's (2006) sample consisted of psychology students from the South. Despite the different samples among the studies, findings were relatively consistent.

Implications

The present study demonstrated that, consistent with research findings outlined in Chapter II, stakeholders in the educational process value the characteristics of effective teachers as an essential element in education. Utilizing the Teacher Behaviors Checklist

(TBC) (Buskist, et al., 2002; Keeley, et al., 2006), this study has demonstrated that students and teachers, regardless of the nature of the student, perceive that the characteristics of effective teachers should be present in ideal teachers to a high degree, and that these characteristics are present in the teachers at Squadron Officer Colleges Squadron Officer School. Based on the ease with which participants in this study were able to complete the TBC (Buskist, et al., 2002; Keeley, et al., 2006), the instrument would seem to show good promise for continued use in measuring for the characteristics of effective teachers in instructional settings outside the traditional college or university setting, such as Squadron Officer College faculty and students.

This researcher firmly believes that characteristics found in effective teachers contribute significantly to the learning process, regardless of the academic setting, and that those participants in the process value these characteristics, independent of the nature of the participants.

The results of this study yield implications for those involved in the teacher education and development process, particularly for Squadron Officer College, in which the teacher development process is so brief and the background of incoming teachers is diverse and unique to the individual. The ripple effect of each teacher assigned to Squadron Officer College is tremendous, and the need to attend to the development of the characteristics of effective teachers in Squadron Officer College is supported by this study.

Limitations

This study only assessed one class of Squadron Officer School students and the faculty teaching during this class. An extension of data collection to the Air and Space Basic Course faculty and students and additional Squadron School students and teacher is also recommended. A longitudinal research design may yield data with higher power.

An additional limitation is the absence of a pretest/posttest design associated with the Fundamentals of Instruction program at Squadron Officer College. This design was an original part of this study, but Fundamentals of Instruction class cancellations made the number of instructors available too low to collect viable data within the confines of this study.

Another limitation to the study was the manual collection and entry of the data. Electronic collection and entry would provide greater convenience to participants and the researcher, and eliminate the potential for data entry errors.

Recommendations for Future Research

Future research in this area should focus on the Fundamentals of Instruction course taught at Squadron Officer College in an attempt to isolate the effects of this teacher development course on teacher perceptions of the degree to which they possess the characteristics of effective teachers before and after completing the course. As the numbers of students in each Fundamentals of Instruction course are low, and dependent on the assignment processes of the Air Force, a longitudinal approach to this line of research is recommended.

Follow-up studies should be conducted over several Squadron Officer School classes as well in an attempt to determine which variables affect instructors' perceptions of the degree to which they possess the characteristics of effective teachers as measured by the TBC (Buskist, et al., 2002; Keeley, et al., 2006). Similar to Keeley, Smith, and Buskist (2006), a factor analysis of data from a follow-up study would be effective in determining the construct of the instrument based on the results of the military participants.

Continued use of the TBC (Buskist, et al., 2002; Keeley, et al., 2006) is recommended, as the instrument has shown good promise for continued use in measuring the characteristics of effective teachers in instructional settings outside of the traditional college or university setting, such as Squadron Officer College faculty and students.

REFERENCES

Air Force Instruction 36-2301. (2002). *Professional Military Education*. OPR: HQ USAF/DPDEE. Certified by HQ USAF/DPDE.

Air University Web Site. (2007). http://www.maxwell.af.mil/au/facts.asp. Maxwell Air Force Base, Montgomery, AL.

American Association for Higher Education Task Force on Best Practices in Higher Education. (1987). *AAHE Principles*. AAHE Bulletin.

Bales, R. F. (1950). *Interaction process analysis: a method of study for the study of small groups*. Reading, Mass.: Addison-Wesley.

Bales, R. F. & Slater, P. E. (1955). Role differentiation in small decision-making groups. In T. Parsons and others (Eds.), *Family socialization and interaction process*. New York: Free Press.

Bandura, A. (1963). S*ocial learning and personality development*. New York: Holt, Rinehart, and Winston.

Barr, A. S. (1929). *Characteristic differences in the teaching performance of good and poor teachers of the social studies.* Bloomington, IL: Public School Publishing

Basow, S. A. (2000). Best and worst professors: gender patterns in students' choices. *Sex Roles*, 43 (5/6), 407-417.

Beecher, D. E. (1949). *The evaluation of teaching: backgrounds and concepts*.

Syracuse University Press.

Berg, C. L. & Lindseth, G. (2004). Students' perspectives of effective and ineffective nursing instructors. *Journal of Nursing Education*, 43 (12), 565-568.

Berliner, D. C. (2005). The near impossibility of testing for teacher quality. *Journal of Teacher Education*, 56 (3), 205-213.

Biaocco, S. A. & DeWaters, J. N. (1998). *Successful college teaching: problem solving strategies of distinguished professors*. Needham Heights, MA: Allyn & Bacon.

Biddle, B. & Ellena, W. (1964). S*ocial learning and personality development*. New York: Holt, Rinehart, and Winston.

Blanchard, K. H. & Johnson, S. (1982). T*he one-minute manager*. New York: Morrow.

Buskist, W., Sikorski, J., Buckley, T., & Saville, B. K., (2002). Elements of master teaching. In S. F. Davis & W. Buskist (Eds.) *The teaching of psychology: essays in honor of Wilbert J. McKeachie and Charles L. Brewer* (pp. 27-39). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Carter, K. (1990). Teachers' knowledge and learning to teach. In W. R. Houston (Ed.), *Handbook of research on teacher education* (pp. 291-310). New York: MacMillan.

Chan, D. W. (2001). Characteristics and competencies of teachers of gifted learners: the hong kong teacher perspective. *Roper Review*, 23 (4), 197-212.

Charters, W. W. & Waples, D. (1929). *The commonwealth teacher-training study*. Chicago: The University of Chicago Press.

Covey, S. R. (1989). *The seven habits of highly effective people*. New York: Simon and Schuster.

Crawford, P. L. & Bradshaw, H. L. (1968). Perceptions of characteristics of effective university teachers: a scaling analysis. *Educational and Psychology Measurement*, 28, 1079-1085.

Cronin, T. E. (1992). On celebrating college teaching. *Journal on Excellence in College Teaching*, 3, 149-168.

Cruickshank, D. (1986). Profiles of an effective teacher. *Educational Horizons*, 64, 80-86.

Darling-Hammond, L. & Bransford, J. (2005). *Preparing Teachers for a Changing World*. San Francisco: Jossey-Bass.

Davis, G. A. & Thomas, M. A. (1989). *Effective Schools and Effective Teachers*. Needham, Mass.: Simon & Schuster, 147-149.

Day, C., Calderhead, J., & Denicolo, O. P. (1993). *Research on Teacher Thinking: Understanding Professional Development*. Washington, D. C.: The Falmer Press.

Dyer, J. (2002). Characteristics and behaviors of effective social education teachers: a discussion with primary social education students at Deakin University. *Ethos P-6*, 10 (3), 8-10.

Eble, K. E. (1983). *The Aims of College Teaching*. San Francisco: Jossey-Bass.

Epstein, J. (1981). *Masters: Portraits of Great Teachers* (p. xiii). New York: Basic Books.

Feldhusen, J. F. (1997). Educating teachers for work with talented youth. In N. Colangelo & G. A. Davis (Eds.), H*andbook of gifted education* (pp. 547-552). Boston: Allyn & Bacon, 2d Ed.

Feldman, K.A. (1976). The superior college teacher from the students' view. *Research in Higher Education*, 5, 243-288.

Feldman, K. A. (1993). College students' views of male and female college teachers: part ii—evidence from students' evaluations of their classroom teachers. *Research in Higher Education*, 34, 151-211.

Fenstermacher, G. D. & Richardson, V. (2005). On making determinations of quality in teaching. *Teachers College Record*, 107 (1), 186-215.

Gadzella, B. M. (1967). Student view of an ideal professor. *College Student Survey*, 1, 7-8, 21.

Gadzella, B. M. (1968b). The ideal professor as viewed by New Paltz freshmen. *Report No. 9*. New Paltz, N.Y.: Office of Institutional Research, State University College, New Paltz.

Gaff, J. G. (1979). The United States of America: toward the improvement of teaching. In David C. B. Teather (Ed.) *Staff development in higher education: an international review and bibliography* (pp. 232-247). London: Nichols Publishing Co.

Glasser, W. (1990). *The Quality School*. New York: Harper Row.

Grasha, A. F. (1975). The role of internal instructor frames of reference in the student rating process. *Journal of Educational Psychology,* 67, 451-460.

Greenwald, A. G. (1997). Validity concerns and usefulness of student ratings of instruction. *American Psychologist*, 52, 1182-1186.

Greenwald, A. & Gillmore, G. (1997). No pain, no gain? The importance of measuring course workload in student ratings of instruction. *Journal of Educational Psychology*, 89, 743-751.

Hart, J. R. (2002). *Teachers and Teaching: Current Issues*. New York: Nova Science Publishers.

Hart, P. (1948). *Teachers' Thinking in Environmental Education: Consciousness and Responsibility*. New York: Peter Lang.

Interactive Demographic Analysis System (IDEAS) (2007). Air Force Personnel Center website. www.afpc.randolph.af.mil.

Issaac, S. & Michael, W. B. (1995*). Handbook in Research and Evaluation for Education and the Behavioral Sciences*. (3rd Ed.). San Diego: Educational and Industry Testing Services.

Kasworm, C. E. (2003). Setting the stage: adults in higher education. *New Directions for Student Services*, 102, 3-10.

Keeley, J., Smith, D., & Buskist, W. (2006). The Teacher Behaviors Checklist: factor analysis of its utility for evaluating teaching. *Teaching of Psychology*, 33 (2), 84-91.

Kohl, K. J. & LaPidus, J. B.(eds.). (2000). *Postbaccalaureate Futures: New Markets, Resources, Credentials*. Phoenix: Oryx Press.

Langer, J. A. (2000). Excellence in English in middle and high school: how teachers' professional lives support student achievement. *American Educational Research Journal*, 37 (2), 397-349.

Lasley II, T. J., Siedentop, D., & Yinger, R. (2006). A systematic approach to enhancing teacher quality: the Ohio model. *Journal of Teacher Education*, 57 (13), 13-21.

Lehmann, I. J. (1966). The college faculty as perceived by graduates and non-graduates. *Journal of Educational Measurement*, 3, 169-173.

Long, J. D. & Sparks, W. L. (1997). Behaviors perceived as facilitating or inhibiting the teaching-learning process. *Journal of Instructional Psychology*, 24, 196-201.

Lortie, D. (1975). *Schoolteacher: A Sociological Study*. Chicago: University of Chicago Press.

Lowman, J. (1995). *Mastering the Techniques of Teaching*. (2nd Ed.) San Francisco: Jossey-Bass.

Lowman, J. (1996). Characteristics of exemplary teachers. In M. D. Svinicki & R. J. Menges (Eds.), *Honoring exemplary teaching* (pp. 33-40). San Francisco: Jossey-Bass.

Marsh, H. W. & Roche, L. A. (1997). Making students' evaluations of teaching effectiveness effective: the critical issues of validity, bias, and utility. *American Psychologist*, 52, 1187-1197.

McCabe, R. H. & Jenrette, M. S. (1990). Leadership in action: a campus-wide effort to strengthen teaching. In P. Seldin & Associates (Eds.), *How administrators can improve teaching: moving from talk to action in higher education* (pp. 181-198). San Francisco: Jossey-Bass.

McKeachie, W. J. (1969). *Teaching Tips: A Guidebook for the Beginning College Teacher*. Lexington, Mass.: D. C. Heath and Company.

McKeachie, W. J. (1997). Student ratings: the validity of use. *American Psychologist*, 52, 1218-1225.

Miller, W.R. & Miller, M.F. (2005). *Hints for the Highly Effective Instructor: Survival Skills for the Technical Trainer*. Homewood, IL: American Technical Publishers, Inc.

Minor, L. C., Onwuegbuzie, A. J., Witcher, A. E., & James, T. L. (2002). Pre-service teachers' educational beliefs and their perceptions of characteristics of effective teachers. *The Journal of Educational Research*, 96 (2), 116-127.

Mowrer, R. R., Love, S. S., & Orem, D. B. (2004). Desirable teaching qualities transcend the nature of the student. *Teaching of Psychology*, 31 (2), 106-108.

Mueller, R. H., Roach, P. J., & Malone, J. A. (1971). College students' views of the characteristics of an "ideal" professor. *Psychology in the Schools*, 8, 161-167.

Muijs, D., Campbell, J., Kyrakides, L., & Robinson, W. (2005). Making the case for differentiated teacher effectiveness: an overview of research in four key areas. *School Effectiveness and School Improvement*, 16 (1), 51-70.

Murray, H. G. (1983). Low-inference classroom teaching behaviors and student ratings of college teaching effectiveness. *Journal of Educational Psychology*, 75, 138-149.

Pajares, M. F. (1992). Teachers' beliefs and educational research: cleaning up a messy concept. *Review of Educational Research*, 62, 307-332.

Pallant, J. (2005). *SPSS Survival Manual*. Open University Press: McGraw Hill Education.

Peters, W. W. & Levy, G. G. (2002). Undergraduates' views of best college courses. *Teaching Psychology*, 29 (1), 46-48.

Peters, T. J. & Waterman, R. H. (1982). *In Search of Excellence: Lessons from America's Best-run Companies*. New York: Harper & Row.

Polk, Jeremy A. (2006). Traits of effective teachers. *Arts Education Policy Review*, 107 (4), 23-29.

Reeves, C. K. & Kazelskis, R. (1985). Concerns of pre-service and in-service teachers. *Journal of Educational Research*, 78, 267-271.

Reynolds, A. & Elias, P. (1991). *What is Good Teaching? A Review of the Literature*. Princeton: Educational Testing Service.

Riley, J. W., Ryan, B. F., & Lifshitz, M. (1950). *The Student Looks at his Teacher: an Inquiry into the Implications of Student Ratings at the College Level.* New Brunswick, N. J.: Rutgers University Press.

Rotenberg, R. L. (2005). *The Art and Craft of College Teaching: A Guide for New Professors and Graduate Students* (pp. 26-30). Chicago: Active Learning Book.

Ryans, D. G. (1960). *Characteristics of Teachers: Their Description, Comparison, and Appraisal*. Washington, D.C.: American Council on Education.

Schaeffer, G., Epting, K., Zinn, T., & Buskist, W. (2003). Student and faculty perceptions of effective teaching: a successful replication. *Teaching of Psychology*, 30, 133-136.

Slevin, J. F. (1993). Finding voices in the culture of silence. *Liberal Education*, 79 (2), 4-9.

Smith, M. V. & Haack, P. (2000). The long view of lifelong learning. *Music Educators Journal*, 87 (3), 28-33.

Squadron Officer College Operating Instruction 36-13, *Program Evaluation* (2007).

Squadron Officer School Web Site. (2007). http://sos.maxwell.af.mil/sosselection.htm. Maxwell Air Force Base, AL.

Study Group on the Conditions of Excellence in American Higher Education. (1984). *Involvement in Learning: Realizing the Potential of American Higher Education*. Washington, D.C.: U.S. Department of Education.

Travis, J. E. (1995). Models for improving college teaching: a faculty resource. *ASHE-ERIC Higher Education Report No. 6.*

Trimble, S. (2003). Research-based classroom practices and student achievement. *Middle School Journal*, 35 (1), 52-58.

U.S. National Commission on Teaching and America's Future. (1996). *What Matters Most: Teaching for America's Future*.

Walls, R. T., Nardi, A. H., von Minden, A. M., & Hoffman, N. (2002). The characteristics of effective and ineffective teachers. *Teacher Education Quarterly*, Winter, 39-48.

Wann, P. D. (2001, January). Faculty and student perceptions of the behaviors of effective college teachers. *Poster Presentation at the National Institute for the Teaching of Psychology*. St. Petersburg Beach, FL.

Waters, M., Kemp, E., & Pucci, A. (1988). High and low faculty evaluations: descriptions by students. *Teaching of Psychology*, 15, 203-204.

Weimer, M. (1993). *Improving Your Classroom Teaching*. Newbury Park, CA: Sage.

White, W. F. (2001). The search for the truth about "good" teaching. *Education*, 116 (1), 70-73.

White, W. F. & Burke, C. M. (1993). Effective teaching and beyond. *Journal of Instructional Psychology*, 20 (2), 167-176.

Witherell, C. & Noddings, N. (1991). *Stories Lives Tell: Narrative and Dialogue in Education*. New York: Teaching College Press.

APPENDICES

APPENDIX A

HUMAN SUBJECTS APPROVAL

AUBURN UNIVERSITY

AUBURN

UNIVERSITY

Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Telephone: 334-844-5966
Fax: 334-844-4391
hsubjec@auburn.edu

April 27, 2007

MEMORANDUM TO: Kevin T. O'Meara
Education Foundations, Leadership and Technology

PROTOCOL TITLE: "Characteristics of Effective Teachers in Squadron Officer College's Faculty"

IRB AUTHORIZATION NO: 07-100 EP 0704

APPROVAL DATE: April 24, 2007
EXPIRATION DATE: April 23, 2008

The above referenced protocol was approved by IRB Expedited procedure under 45 CFR 46.110 #7. You should report to the IRB any proposed changes in the protocol or procedures and any unanticipated problems involving risk to subjects or others. Please reference the above authorization number in any future correspondence regarding this project.

If you will be unable to file a Final Report on your project before April 23, 2008, you must submit a request for an extension of approval to the IRB no later than April 9, 2008. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to April 23, 2008, you must suspend the project immediately and contact the Office of Human Subjects Research for assistance.

A Final Report will be required to close your IRB project file. You are reminded that you must use the stamped, IRB-approved information letter (enclosed) when you consent your participants.

If you have any questions concerning this Board action, please contact the Office of Human Subjects Research at 844-5966.

Sincerely,

Peter W. Grandjean, Chair
Institutional Review Board for the Use of Human Subjects in Research

Enclosure

cc: Dr. Jose R Llanes
Dr. Jill Salisbury-Glennon

APPENDIX B

SQUADRON OFFICER COLLEGE

HUMAN SUBJECTS APPROVAL

Office	Action	Last Name/Rank/Date
SOC/DES (Maj Shugart)	Coord	Shugart/Maj/14 Mar 07
SOC/DEO (Capt Pope)	Coord	Pope/Capt/19 Mar 07
SOC/DE (Lt Col Neal)	Coord	Neal/Lt Col/20 Mar 07
SOS/CCO (Capt Graves)	Coord	Graves/Capt/29 Mar 07
SOS/CV (Lt Col Schauber)	Coord	Schauber/Lt Col/29 Mar 07
SOS/CC (Col Tallent)	Coord	tallent/Col/29 Mar 07
SOC/CCEA (SSgt Montillano)	Coord	montillano/SSgt/3 Apr 07
SOC/EA (Dr. Dasinger)	Coord	Dasinger/civ/3 Apr 07
SOC/CCE (Capt Casey)	Coord	Casey/Capt/4 Apr
SOC/CC (Col Trask)	Approve	Trask/Col/4 Apr 07

----------STAFF SUMMARY

AO: Dr. Arden Gale, DESV, 3-9436

SUSPENSE: 30 Mar 31

1. PURPOSE. Obtain SOC/CC approval for criteria for research involving surveying SOS Class 07D students to be conducted by Major Kevin O'Meara.

2. BACKGROUND. Major O'Meara is a SOC sponsored doctoral candidate for a Ph.D. in Educational Psychology from Auburn University. He anticipates returning to head SOC's Faculty Development Department (DEF) upon completion of his doctoral studies. His doctoral research is focused on determining the effectiveness of DEF's Fundamentals of Instruction (FOI) program in developing characteristics of effective teachers for FCs.

3. DISCUSSION. Major O'Meara has successfully proposed this research to his doctoral committee at Auburn University and obtained approval for this research from the Auburn University Institutional Review Board. The data collection will entail (a) a pre and post administration of a paper and pencil survey of 28 questions to FCs attending FOI (Classes 07D and 07E) and API (Class 07D) and (b) a one time administration of a paper and pencil survey of 28 questions to students attending SOS Class 07D about mid-way through the course. This can be done with a minimum of disruption by scheduling an additional 15 minutes for this data collection when the students are attending a lecture in Polifka. Major O'Meara will be responsible for the data collection. Upon completion

of the research Major O'Meara will report the results to SOC leadership. Details of the research are described by Major O'Meara in the attached memo.

4. VIEWS OF OTHERS. N/A

5. RECOMMENDATION. SOC/CC approve the collection of data in SOS Class 07D to support the research proposal of Major Kevin O'Meara.

//signed/aug/14 Mar 07//

ARDEN U. GALE

GS-13, DESV

Chief, Evaluations, SOC

3-9436

From:	"OMailia Shawn P Civ AU/CFAB" <Shawn.OMailia@maxwell.af.mil>	Saturday - April 7, 2007 3:19 PM
To:	"Kevin O'meara" <omearkt@auburn.edu>	
Subject:	RE: FW: eSSS Major Kevin O'Meara research proposal	
Attachments:	Mime.822 (4122 bytes)	[Save As]

Sir, please the following AU Survey Control Number and Expiration Date for the Teaching Behaviors Checklist: AU SCN 07-008 Expiration Date 31 Dec 2007.

Good luck with your research search. Please let me know if I can be of further assistance.

v/r

Shawn O.

Mr. Shawn P. O'Mailia
Chief, Institutional Research
Air University (AU/CFAI)
55 LeMay Plaza South
Maxwell AFB AL 36112-5944

(334) 953-4151 * (DSN) 493-4151
shawn.omailia@maxwell.af.mil

APPENDIX C

INFORMED CONSENT NOTIFICATION

STUDENTS

1856 2006
AUBURN UNIVERSITY
Sesquicentennial

EDUCATIONAL FOUNDATIONS

LEADERSHIP AND TECHNOLOGY

INFORMATION SHEET
for a Research Study Entitled
--- Characteristics of Effective Teachers in Squadron Officer College Faculty ---

You are invited to participate in a research study designed to determine to what degree the Squadron Officer College (SOC) Fundamentals of Instruction (FOI) program develops effective teacher characteristics in new instructors as determined by the Teacher Behaviors Checklist (TBC). This study is being conducted by Maj Kevin T. O'Meara, under the supervision of Dr. Jill Salisbury-Glennon, Associate Professor, Educational Foundations, Leadership, and Technology Department, Auburn University, Alabama. I hope to learn about the strengths and weaknesses of the FOI program with regard to effective teacher characteristics in order to effect any necessary program changes based on data and research as opposed to impressions or whims. You were selected as a possible participant because your selection for faculty duty will afford you first-hand exposure to the FOI course.

If you decide to participate, I will provide you with a TBC and scantron form and ask you to complete a brief demographic inventory and then respond to a 28-item inventory in which you will assess to what degree you possess the described characteristics. This inventory is expected to take no longer than 15 minutes for you to complete. No unreasonable risks or discomforts are anticipated by your participation in this study.

No direct monetary benefit should be expected from your participation in this study. However, it can be expected that any data obtained from this study will be used to support reinforcing or changing the FOI program as necessary.

Any information obtained in connection with this study that can be identified with you will remain anonymous. Information collected through your participation may be used to fulfill an educational requirement for a Ph.D. in Educational Psychology, published in a professional journal, and/or presented at a professional meeting. If so, none of your identifiable information will be included. You may withdraw from participation at any time, without penalty, and you may withdraw any data which has been collected about you, as long as that data is identifiable.

Your decision whether or not to participate will not jeopardize your future relations with Auburn University, SOC, or the USAF.

Owing much to the past, Auburn's greater debt is ever to the future.

4036 Haley Center, Auburn, Alabama 36849-5221; Telephone: 334-844-4460; FAX: 334-844-3072

www.auburn.edu

If you have any questions I invite you to ask them now. If you have questions later, contact me at omearkt@auburn.edu, or at (334)312-4278, and I will be happy to answer them. You will be provided a copy of this form to keep.

For more information regarding your rights as a research participant you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone
(334)-844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

4/24/07

Investigator's signature Date

KEVIN T. O'MEARA

Print Name

The Auburn University
Institutional Review Board
has approved this document for use
from 4/23/07 to 4/23/08
Protocol # 07-100 EP 0704

APPENDIX D

INFORMED CONSENT NOTIFICATION

TEACHERS

EDUCATIONAL FOUNDATIONS

LEADERSHIP AND TECHNOLOGY

1856 2006

AUBURN UNIVERSITY

Sesquicentennial

INFORMATION SHEET
for a Research Study Entitled
--- Characteristics of Effective Teachers in Squadron Officer College Faculty ---

You are invited to participate in a research study designed to determine to what degree the Squadron Officer College (SOC) Fundamentals of Instruction (FOI) program develops effective teacher characteristics in new instructors as determined by the Teacher Behaviors Checklist (TBC). This study is being conducted by Maj Kevin T. O'Meara, under the supervision of Dr. Jill Salisbury-Glennon, Associate Professor, Educational Foundations, Leadership, and Technology Department, Auburn University, Alabama. I hope to learn about the strengths and weaknesses of the FOI program with regard to effective teacher characteristics in order to effect any necessary program changes based on data and research as opposed to impressions or whims. You were selected as a possible participant because your selection to attend Squadron Officer School (SOS) as a student affords you the unique perspective to observe and determine to what degree you perceive the characteristics of effective teachers in your flight commanders

You do not have to participate in this survey to participate in this course.
If you decide to participate, I will provide you with a TBC and ask you to complete a brief demographic inventory and then respond to a 28-item inventory in which you will assess to what degree you have observed the characteristics listed and described in your flight commander. This inventory is expected to take no longer than 15 minutes for you to complete. No unreasonable risks or discomforts are anticipated by your participation in this study.

No direct monetary benefit should be expected from your participation in this study. However, it can be expected that any data obtained from this study will be used to support reinforcing or changing the FOI program as necessary and thereby improving the quality of instruction provided to new faculty members and future SOS students.

Any information obtained in connection with this study and that can be identified with you will remain anonymous. Information collected through your participation may be used to fulfill an educational requirement for a Ph.D. in Educational Psychology, published in a professional journal, and/or presented at a professional meeting. If so, none of your identifiable information will be included. You may withdraw from participation at any time, without penalty, and you may withdraw any data which has been collected about you, as long as that data is identifiable.

Your decision whether or not to participate will not jeopardize your future relations with Auburn University, SOC, or the USAF.

Owing much to the past, Auburn's greater debt is ever to the future.

4036 Haley Center, Auburn, Alabama 36849-5221; Telephone: 334-844-4460; FAX: 334-844-3072

www.auburn.edu

If you have any questions I invite you to ask them now. If you have questions later, contact me at omearkt@auburn.edu, or at (334)312-4278, and I will be happy to answer them. You will be provided a copy of this form to keep.

For more information regarding your rights as a research participant you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone
(334)-844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

4/24/07

Investigator's signature Date

KEVIN T. O'MEARA

Print Name

The Auburn University
Institutional Review Board
has approved this document for use
from 4/24/07 to 4/23/08
Protocol # 07-100 EP 0704

APPENDIX E

TEACHER BEHAVIORS CHECKLIST

The Teacher Behavior Checklist

Instructions: On the back of this sheet are 28 teacher qualities and the behaviors that define them. Please rate yourself on the extent to which you believe you possess these qualities and exhibit the corresponding behaviors by writing the appropriate letter in the item number box preceding each item quality and list of behaviors.

Please use the following scale for your ratings.

A = I always exhibit/have exhibited these behaviors reflective of this quality

B = I frequently exhibit/have exhibited these behaviors reflective of this quality

C = I sometimes exhibit/have exhibited these behaviors reflective of this quality

D = I rarely exhibit/have exhibited these behaviors reflective of this quality

E = I never exhibit/have exhibited these behaviors reflective of this quality

In addition, please use the space below on this side of the page to write any comments regarding your teaching. These comments may include both what you find positive and negative about teaching.

Section I. Demographics

Please check the appropriate box

Male_____ Female_____

Active_____ Guard_____ Reserve_____ Civilian_____

Section II. Comments

Section III. Teacher Behaviors Checklist

Item	Teacher Qualities and Corresponding Behaviors
1	*Accessible* (Posts office hours, gives out phone number, and e-mail information)
2	*Approachable/Personable* (Smiles, greets students, initiates conversations, invites questions, responds respectfully to student comments)
3	*Authoritative* (Establishes clear course rules; maintains classroom order; speaks in a loud, strong voice)
4	*Confident* (Speaks clearly, makes eye contact, and answers questions correctly)
5	*Creative and Interesting* (Experiments with teaching methods; uses technological devices to Support and enhance lectures; uses interesting, relevant, and personal examples; not monotone)
6	*Effective Communicator* (Speaks clearly/loudly; uses precise English; gives clear, compelling examples)
7	*Encourages and Cares for Students* (Provides praise for good student work, helps students who need it, offers bonus points and extra credit, and knows student names)
8	*Enthusiastic about Teaching and about Topic* (Smiles during class, prepares interesting class activities, uses gestures and expressions of emotion to emphasize important points, and arrives on time for class)
9	*Establishes Daily and Academic Term Goals* (Prepares/follows the syllabus and has goals for each class)
10	*Flexible/Open-Minded* (Changes calendar of course events when necessary, will meet at hours outside of office hours, pays attention to students when they state their opinions, accepts criticism from others, and allows students to do make-up work when appropriate)
11	*Good Listener* (Doesn't interrupt students while they are talking, maintains eye contact, and asks questions about points that students are making)
12	*Happy/Positive Attitude/Humorous* (Tells jokes and funny stories, laughs with students)
13	*Humble* (Admits mistakes, never brags, and doesn't take credit for others' successes)
14	*Knowledgeable About Subject Matter* (Easily answers students' questions, does not read straight from the book or notes, and uses clear and understandable examples)
15	*Prepared* (Brings necessary materials to class, is never late for class, provides outlines of class discussion)
16	*Presents Current Information* (Relates topic to current, real life situations; uses recent videos, magazines, and newspapers to demonstrate points; talks about current topics; uses new or recent texts)
17	*Professional* (Dresses nicely [neat and clean shoes, slacks, blouses, dresses, shirts, ties] and no profanity)
18	*Promotes Class Discussion* (Asks controversial or challenging questions during class, gives points for class participation, involves students in group activities during class)
19	*Promotes Critical Thinking/Intellectually Stimulating* (Asks thoughtful questions during class, uses essay questions on tests and quizzes, assigns homework, and holds group discussions/activities)
20	*Provides Constructive Feedback* (Writes comments on returned work, answers students' questions, and gives advice on test-taking)
21	*Punctuality/Manages Class Time* (Arrives to class on time/early, dismisses class on time, presents relevant materials in class, leaves time for questions, keeps appointments, returns work in a timely way)
22	*Rapport* (Makes class laugh through jokes and funny stories, initiates and maintains class discussions, knows student names, interacts with students before and after class)
23	*Realistic Expectations of Students/Fair Testing and Grading* (Covers material to be tested during class, writes relevant test questions, does not overload students with reading, teaches at an appropriate level for the majority of students in the course, curves grades when appropriate)
24	*Respectful* (Does not humiliate or embarrass students in class, is polite to students [says thank you and please, etc.], does not interrupt students while they are talking, does not talk down to students)

25	*Sensitive and Persistent* (Makes sure students understand material before moving to new material, holds extra study sessions, repeats information when necessary, asks questions to check student understanding)
26	*Strives to Be a Better Teacher* (Requests feedback on his/her teaching ability from students, continues learning [attends workshops, etc. on teaching], and uses new teaching methods)
27	*Technologically Competent* (Knows now to use a computer, knows how to use e-mail with students, knows how to use overheads during class, has a Web page for classes)
28	*Understanding* (Accepts legitimate excuses for missing class or coursework, is available before/after class to answer questions, does not lose temper at students, takes extra time to discuss difficult concepts)

The Teacher Behavior Checklist

Instructions: On the back of this sheet of 28 teacher qualities and the behaviors that define them. Please rate your ideal instructor on the extent to which you believe she (or he) would possess these qualities and exhibit the corresponding behaviors.

Please use the following scale for your ratings by bubbling in the corresponding space in your scantron for each question/item number.

A = My instructor always exhibits/has exhibited these behaviors reflective of this quality

B = My instructor frequently exhibits/has exhibited these behaviors reflective of this quality

C = My instructor sometimes exhibits/has exhibited these behaviors reflective of this quality

D = My instructor rarely exhibits/has exhibited these behaviors reflective of this quality

E = My instructor never exhibits/has exhibited these behaviors reflective of this quality

In addition, please use the space below on this side of the page to write any comments regarding your ideal instructor. These comments may include both what you find positive and negative about your idea of teaching.

Section I. Demographics

Please check the appropriate box

Male_____ Female_____

Active_____ Guard_____ Reserve_____ Civilian_____

Section II. Comments

Section III. Teacher Behaviors Checklist

Item	Teacher Qualities and Corresponding Behaviors
1	*Accessible* (Posts office hours, gives out phone number, and e-mail information)
2	*Approachable/Personable* (Smiles, greets students, initiates conversations, invites questions, responds respectfully to student comments)
3	*Authoritative* (Establishes clear course rules; maintains classroom order; speaks in a loud, strong voice)
4	*Confident* (Speaks clearly, makes eye contact, and answers questions correctly)
5	*Creative and Interesting* (Experiments with teaching methods; uses technological devices to Support and enhance lectures; uses interesting, relevant, and personal examples; not monotone)
6	*Effective Communicator* (Speaks clearly/loudly; uses precise English; gives clear, compelling examples)
7	*Encourages and Cares for Students* (Provides praise for good student work, helps students who need it, offers bonus points and extra credit, and knows student names)
8	*Enthusiastic about Teaching and about Topic* (Smiles during class, prepares interesting class activities, uses gestures and expressions of emotion to emphasize important points, and arrives on time for class)
9	*Establishes Daily and Academic Term Goals* (Prepares/follows the syllabus and has goals for each class)
10	*Flexible/Open-Minded* (Changes calendar of course events when necessary, will meet at hours outside of office hours, pays attention to students when they state their opinions, accepts criticism from others, and allows students to do make-up work when appropriate)
11	*Good Listener* (Doesn't interrupt students while they are talking, maintains eye contact, and asks questions about points that students are making)
12	*Happy/Positive Attitude/Humorous* (Tells jokes and funny stories, laughs with students)
13	*Humble* (Admits mistakes, never brags, and doesn't take credit for others' successes)
14	*Knowledgeable About Subject Matter* (Easily answers students' questions, does not read straight from the book or notes, and uses clear and understandable examples)
15	*Prepared* (Brings necessary materials to class, is never late for class, provides outlines of class discussion)
16	*Presents Current Information* (Relates topic to current, real life situations; uses recent videos, magazines, and newspapers to demonstrate points; talks about current topics; uses new or recent texts)
17	*Professional* (Dresses nicely [neat and clean shoes, slacks, blouses, dresses, shirts, ties] and no profanity)
18	*Promotes Class Discussion* (Asks controversial or challenging questions during class, gives points for class participation, involves students in group activities during class)
19	*Promotes Critical Thinking/Intellectually Stimulating* (Asks thoughtful questions during class, uses essay questions on tests and quizzes, assigns homework, and holds group discussions/activities)
20	*Provides Constructive Feedback* (Writes comments on returned work, answers students' questions, and gives advice on test-taking)
21	*Punctuality/Manages Class Time* (Arrives to class on time/early, dismisses class on time, presents relevant materials in class, leaves time for questions, keeps appointments, returns work in a timely way)
22	*Rapport* (Makes class laugh through jokes and funny stories, initiates and maintains class discussions, knows student names, interacts with students before and after class)
23	*Realistic Expectations of Students/Fair Testing and Grading* (Covers material to be tested during class, writes relevant test questions, does not overload students with reading, teaches at an appropriate level for the majority of students in the course, curves grades when appropriate)
24	*Respectful* (Does not humiliate or embarrass students in class, is polite to students [says thank you and please, etc.], does not interrupt students while they are talking, does not talk down to students)

25	*Sensitive and Persistent* (Makes sure students understand material before moving to new material, holds extra study sessions, repeats information when necessary, asks questions to check student understanding)
26	*Strives to Be a Better Teacher* (Requests feedback on his/her teaching ability from students, continues learning [attends workshops, etc. on teaching], and uses new teaching methods)
27	*Technologically Competent* (Knows now to use a computer, knows how to use e-mail with students, knows how to use overheads during class, has a Web page for classes)
28	*Understanding* (Accepts legitimate excuses for missing class or coursework, is available before/after class to answer questions, does not lose temper at students, takes extra time to discuss difficult concepts)