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# STUDENT PERCEPTIONS OF MOTIVATIONAL BEHAVIORS OF INSTRUCTORS IN A MILITARY SETTING

by

Anthony Antoline

B.S., Southern Illinois University Carbondale, 1992

M.S., Southern Illinois University Carbondale, 1997

A Dissertation
Submitted in Partial Fulfillment of the Requirements for the
Doctor of Philosophy Degree

Department of Workforce Education and Development
in the Graduate School
Southern Illinois University Carbondale
June 2005

# Dissertation Approval

The Graduate School
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I hereby recommend that the dissertation prepared under my supervision by

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AN ABSTRACT OF THE DISSERTATION OF

Anthony Antoline, for the Doctor of Philosophy degree in Workforce Education and Development, presented on June 2, 2005, at Southern Illinois University at Carbondale.

TITLE: STUDENT PERCEPTIONS OF MOTIVATIONAL BEHAVIORS OF INSTRUCTORS IN A MILITARY SETTING

MAJOR PROFESSOR: Dr. John Washburn

The purpose of this study was to contribute to the body of literature concerning teaching effectiveness within professional military education. More specifically, the study assessed the extent to which United States Air Force Air and Space Basic Course instructors exhibit motivational behaviors and whether those behaviors influence student achievement.

The population for this study consisted of all students enrolled in Air and Space Basic Course (ASBC) a school located in Squadron Officers College at Air University, Maxwell AFB, in the January class of 2005. ASBC was chosen as it graduates the largest number of military officer students in a year. The student population is composed of 1st and 2nd Lieutenants. A random sample of 302 students was selected to participate in the study.

The study used a descriptive research design. Data were collected to identify the demographics of the sample, students' perceptions of an instructors motivational characteristics, student final examination scores, and student

academic drive.

As a result of this study, it was determined that students' perceptions of their instructor's motivational characteristics seemed to influence their academic achievement. Of clarity, organization, and enthusiasm, organization had the most positive effect on a student's final examination score. Further, an instructor's overall motivation ability had a significant correlation when related to the instructor's overall effectiveness.

Recommendations for the study include focusing on faculty selection and faculty development practices in military settings, using study research instruments as assessment and evaluation tools for potential instructors, and conducting further research to include exploring the interaction of variables concerning student motivation and the instructor's motivational behaviors.

"The views expressed in this document are those of the author and do not reflect the official policy or position of the United States Air Force, Department of Defense, or U.S. Government"

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Thank you, is not enough

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# CHAPTER ONE

# INTRODUCTION

## Nature of the Study

Teachers play a pivotal role in their commitments to students and their learning. Good teachers learn from their experiences and identify new ways to be effective in the classroom, as they manage and monitor their students.

The issue of teacher effectiveness has been one of the most studied areas in higher education, and it is the topic of more than 2,000 articles written in the past 70 years (Ory & Ryan, 2001). However, questions remain about what teacher effectiveness is and how it should be measured.

Teacher effectiveness is defined in several ways. Markley (2002) offered the following: teacher effectiveness is having adequate knowledge of the techniques and methods that are related to the profession and must increase student learning over the course of the year. Sullivan (2001) offered a simple definition: "teacher effectiveness is that learning has occurred."

The investigation of attributes that make a teacher successful in the classroom is still of interest to those in the field of education. Greenwald and Gillimore (1997) make the point that teaching is multidimensional, that

be examined to see if the instructor is being effective in the classroom?

Trying to pinpoint what makes an instructor "good" is a matter of opinion (Centra, 1975). When asked, students may give examples of teacher attributes, such as enthusiasm, availability, and sensitivity. Administrators also identify attributes of importance for effective teachers when evaluating or hiring them.

Teachers themselves may give a variety of responses to what makes them effective in the classroom. Feldman (1988) compared the opinions of college faculty with those of college students as to which teacher characteristics resulted in good teaching. Faculty and students agreed on nine points. They include:

1. Knowledge of the subject/discipline;
2. Course preparation and organization;
3. Clarity and understandability;
4. Enthusiasm for subject/teaching;
5. Sensitivity to and concern with students' level and learning progress;
6. Availability and helpfulness;
7. Quality of examinations;
8. Impartiality in evaluating students; and
9. Overall fairness to students. (Feldman, 1988, p. 317)

Brashamp, Brandenburg, and Ory (1984) acknowledged most studies of teacher effectiveness emphasize qualities such as knowledge and organization of the subject matter, and personal qualities, such as motivation and attitudes, that aid the learning process. When personal qualities are emphasized, effective instructors are described as enthusiastic, energetic, approachable, open, imaginative, and possessing a sense of humor.

When teaching skills and mastery of subject matter are emphasized, effective instructors are described as being masters of the subject matter, being organized, emphasizing important concepts, and having the ability to clarify ideas. Teaching skills include maintaining positive relationships, having the ability to motivate students, having the ability to pose and elicit useful questions and examples, being creative or imaginative, and being reasonable and fair.

Markley (2002) noted that one area of measuring teacher effectiveness that has been ignored is that of using student achievement as a measure for successful instruction. Because of recent legislation, as in the No Child Left Behind Act (USDE, 2002), many states are examining the issue of teacher quality, which is a fundamental issue of the new law.

Darling-Hammond (1990) described how fully prepared teachers are more effective in the classroom. Students demonstrate larger achievement

advances than students whose teachers were not fully prepared. Fully prepared teachers were more effective than unprepared teachers in knowing how to (a) guide and further individual student learning, (b) individualize student learning, (c) plan productive lessons, and (d) diagnose student problems.

Fully prepared teachers had an in-depth knowledge of content and how it can be taught effectively so that students learn. More than 100 research studies reviewed in 1992 by Darling-Hammond provided evidence that fully prepared teachers were more effective (NCATE, 2004). More recent studies confirmed these conclusions.

To identify core elements of a teacher's behavior, a good summary of the literature is found in *Models for Effective Teaching* (Pritchard, Watson, Karlease, & Paquin, 1998). There are disparate views on what constitutes effective teaching.

One study by Pritchard et al. (1998) summarized four different approaches used to identify the characteristics of effective teaching. They are (a) surveys of students, faculty, and alumni, (b) summaries of research, (c) theories of leading researchers, and (d) statistically identified factors. Three characteristics (organization, communication, and fairness) were identified as important for all four approaches of Pritchard's investigation. Additionally, three of the four approaches recognized

rapport, clarity, enthusiasm, flexibility, and workload as effective teaching characteristics (Pritchard et al., 1998).

Of the characteristics found to be important in Pritchard et al.'s study, enthusiasm, clarity, and organization have also been identified as motivational (Wlodkowski, 1985). Enthusiasm, clarity, and organization surfaced as part of an investigation into motivation in the classroom. Wlodkowski (1985) described skills for instructors who are good at motivating their students, particularly adult students. Those instructors have skills such as expertise, empathy, enthusiasm, and clarity.

Wlodkowski (1985) reported that knowing the material and being prepared to convey it through instructional means characterize expertise. Enthusiasm is showing that the instructor cares about what is being taught and expresses that commitment with the appropriate degree of emotion, animation, and energy. Clarity is the ability to be understood in presentation; the teacher has the ability to explain the topic several ways in order to help students comprehend the material. Empathy is included in the list of skills and is the ability to put oneself in the student's position.

Wlodkowski (1985) further maintained that if an instructor exhibits all of these behaviors, the students would be motivated and the learning process improved. For the purpose of this study, the definition of a

motivational teacher included aspects of Wlodkowski's research, specifically enthusiasm and clarity.

Further, organization has been suggested (Worrell & Kutherbach, 2001) as a behavior necessary for an instructor to be motivational. Organization describes how the instructor presents the material in a logical, orderly fashion.

The abilities and observable behaviors of organization, enthusiasm, and clarity are an important part of delivering curricula to students. To be successful, the delivery of curricula must yield results that are both needed for course completion and applicable to the students in the future.

The Armed Services hire 365,000 people in more than 4,100 different job paths, most of which have to undergo some type of training (Office of the Secretary of Defense, 2004). Everyone who joins the military will find himself or herself involved with some aspect of professional military education and training. Predicting whether a student will be successful is an issue that has long interested those who work in the field of education, both civilian and military.

Educational results are under constant scrutiny in a military setting. Much of military readiness is dependent upon success within the classroom. Air University, which is the headquarters for Air Force military education, is composed of 12 schools whose mission is to further airmen's education

and training (USAF, 2003). Teacher effectiveness may be a key factor in whether or not airmen receive the training and education that can make them contributing members of the Air Force.

Faculty development is a key part of teacher effectiveness. Faculty development for the Air Force used to be delivered at the Academic Instructors School, often referred to as the "Teachers College of the Air Force." Civilian and military educators have recognized the Academic Instructors School, AIS, for its leading role in developing new techniques for teacher training (USAF, 1998). A measure of the school's success is the more than 51,000 graduates who have taught in every school the Air Force operates from Air War College to Basic Training. The last Academic Instructor School class graduated on 3 October 2003, and the school was closed.

The closing of AIS now dictates faculty development is the responsibility of 12 individual schools within the Air Force's Air University, each having to create its own faculty development department. After the Air Force decentralized its faculty development entity, as much as two weeks of faculty development was eliminated from the instructor preparation program. The instructor position within the Air Force is not a primary job designation. Most instructor positions are special duty assignments that last only three years. In some circumstances, these

positions are filled with staff who do not volunteer to become instructors. They may or may not be motivated to become effective instructors. They may or may not understand classroom behaviors that students find motivating.

McKeachie (2002) stated motivation is important in holding student attention. By holding student attention, the teacher is allowed to deliver the content more efficiently and effectively. Having effective, motivating teachers is the goal of any educational institution, military or civilian. If the institutions have teachers with these qualities, they will help students achieve a greater level of success. This study examines more closely the issue of teacher motivation and its relationship to student achievement in a military setting.

## Purpose of the Study

The purpose of this study was to contribute to the body of literature concerning teaching effectiveness within professional military education. More specifically, the study assessed the extent to which United States Air Force Air and Space Basic Course instructors exhibit motivational behaviors and whether these behaviors influence student achievement. For this study, motivational behaviors included the characteristics of clarity, enthusiasm, and organization.

## Statement of the Problem

What are the relationships between student perceptions of selected instructor motivational behaviors and the academic achievement of students?

## Research Questions

1. To what extent does a relationship exist between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization?
2. To what extent is the relationship between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization moderated by:
    a. Student motivation,
    b. Rank,
    c. Gender,
    d. Commissioning source (method of entry into service), and
    e. Time in service.

3. To what extent does a relationship exist between student perceptions of an instructor's overall motivational rating and the instructor's overall effectiveness rating?

## Limitations

The limitations of the study include the following:

1. Participation in the study was voluntary.
2. Those airmen who chose to participate may perceive teacher effectiveness differently than those who chose not to participate.
3. The study was limited to students and teachers who were assigned by the Air Force to attend Squadron Officers College.
4. The sample composition was not adjusted to equally distribute demographic data.

## Delimitations

1. No attempt was made to determine whether an instructor had received any faculty development certification from sources other than the Air Force.
2. No attempt was made to account for race, learning styles, grade point average, or mental abilities of the students.
3. No attempt was made to examine other educational institutions within Air University such as Air War College, Air

Command and Staff College, The Community College of the Air Force and Airman Leadership School.

4. No attempt was made to ask any individual other than students about the instructor behaviors within the classroom.
5. This was a descriptive study with correlations drawn from data. One weakness of the non-experimental method that was utilized for this study is that the information may be incomplete or presents a limited part of the issue (Best & Kahn, 2002).
6. Students' school dates differ for reasons associated with worldwide deployment consideration and may change the normal population composition.
7. Only one class cycle of 2005 participated in the investigation. Generalizing to a whole school year will not be possible.
8. The sample composition was not adjusted to equally distribute demographic data.

## Definition of Terms

*Achievement motivation* - attainment of realistic but challenging goals, and advancement in the job (McClelland, 1985).

*Clarity* - the ability to provide a way for learners to comprehend what is being taught; ensuring most learners can understand the content.

*Class rank* - standing within the class peer group based on examination scores, leadership evaluations.

*Enthusiasm* - expressing commitment with the appropriate degrees of emotion, animation, and energy when presenting a lesson.

*Instructor* - the term instructor within the military is synonymous with teacher in the civilian community.

*Low-inference behaviors* - those teacher behaviors for which occurrence in the classroom situation can be objectively observed and counted.

*Organization* - presenting material in a logical, structured manner that corresponds to the lesson content.

*Student academic achievement* - the score of the final summative exam in which the minimum passing grade is 70 percent.

*Student perceptions* - opinions about an event formed by observing and participating in the event.

*Teacher effectiveness* - the teacher's ability to organize and execute courses of action necessary to bring about the desired results.

*Teacher motivation* - behaviors that are exhibited by an instructor that promote within the student the behaviors of clarity, enthusiasm, and organization.

## Significance of the Study

There is an opportunity to monitor and develop curriculum to improve instructors with the decentralization of the AIS faculty development school in the Air Force. One step in that evolution is ensuring that Air Force instructors possess the characteristics that have been shown to make instructors successful. Another element that furthers the need for investigation is that Air Force officers remain in a teaching assignment for an average of three years. This cycle merits the observation and evaluation of current teacher effectiveness within the military setting because of a constant influx of new faculty members and need for on-going faculty development efforts.

The Air Force may be able to use this type of information in the placement of faculty members in specific jobs within the school. Not all positions within the schools have the instructor designation; curriculum designers and administrative positions are also available and may be filled by those who are not suited for classroom instruction.

# CHAPTER TWO

# REVIEW OF RESEARCH AND RELATED LITERATURE

## Introduction

The purpose of the study is to contribute to the body of literature concerning teaching effectiveness within professional military education. More specifically, the study will assess (a) the extent to which U.S. Air Force Squadron Officer School instructors possess motivational behaviors and (b) whether those behaviors influence student achievement. For this study, motivational behaviors include the characteristics of clarity, enthusiasm, and organization.

## Statement of the Problem

What are the relationships between student perceptions of selected instructor motivational behaviors and the academic achievement of students?

The study is designed to address the following research questions:

1. To what extent does a relationship exist between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization?

2. To what extent is the relationship between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization moderated by:
   a. Student motivation,
   b. Rank,
   c. Gender,
   d. Commissioning source (method of service entry), and
   e. Time in service.
3. To what extent does a relationship exist between student perceptions of an instructor's overall motivational rating and the instructor's overall effectiveness rating?

## Review of Literature

The review of literature for this study is concentrated in four areas. The first section examines how teacher effectiveness fits into the classroom process. The second section explores the role of motivation in the classroom. The third section examines which behaviors exhibited by teachers are considered effective and motivational. The fourth section reviews teacher evaluations, characteristics, and behaviors described in the literature.

Most of the literature considered for this study focuses on research in public schools and university educational settings. Literature focused on teacher effectiveness in a military setting is limited; therefore, the review of literature concentrates on research in civilian settings.

## Teacher Effectiveness: A Model for Success

Carroll (1963) observed classroom behaviors of students and teachers. Carroll's systematic research of the classroom environment was focused on improving student achievement, and it provided the basis for research to determine what variables make American classrooms successful. Many studies today focus on what has been studied in the past, such as the classroom environment and the qualities of the teacher and the student (e.g., Jencks et al., 1972, McKeachie, 2002).

Nothing caused more research in what makes students learn than the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983). Despite increased funding for research in education and increasing knowledge of what makes classroom instruction successful, major concerns were raised about how these practices were being employed. The National Commission insisted that teachers should shape school improvement, not merely be teachers. The report prescribed that teachers should impart knowledge and skills to students as well as help

them. *A Nation at Risk* caused significant concern even though substantial school improvement had been achieved in the 20th century.

During the 1980s, several models were developed that investigated teaching and learning processes of students to improve classroom instruction. Along with the work of Carroll, one of the early models discussing classroom success was Bloom's (1971) Mastery Learning model. Bloom noted in a traditional school setting that students' ability to learn subject matter (i.e., IQ) was one of the best predictors of academic success. However, he also noted that if a student's time on the subject was not held constant for all learners, then a student's mastery of prerequisite skills was more important than the student's aptitude. Mastery Learning is based upon two basic principles: (a) Students need to be given enough time to learn, and (b) students must be provided quality instruction.

Quality instruction was described by Bloom as:

1. Organize subject matter into manageable components
2. Develop specific learning Objective for each component
3. Develop both formative and summative evaluation
4. Cluster teaching strategies with enough time, practice, and formative feedback that each student could reach the desire level of mastery. (Bloom, 1971, p. 43)

Carroll's and Bloom's works were foundational for later models. Many of these models considered the variable of test scores as an important issue (e.g., Cruickshank, 1985; Proctor, 1984). Proctor's model first considered school social climate as important, including attitudes, norms, beliefs, and prejudices of the school system. Several factors within the school system were found to be relevant.

One factor was students' characteristics, such as race, gender, socio-economic status, and past academic success. Student characteristics were also found to influence teacher attitudes and efficacy. This was later supported by Woolfolk and Hoy's (1990) research that demonstrated that student characteristics influence a teacher's belief about how successful the student could be and how motivated the teacher was about teaching.

Proctor's model cited the variables of human interaction with the school process as important, including administrators, teachers, and students. If those interacting projected high learning expectation, and if they provided quality education using corrective feedback and good teaching strategies, then student learning and student self-expectancy increase.

While Proctor's model took all of the school into consideration, Cruickshank's (1985) model is more classroom- and teacher-focused. Three variables of importance to the model were product, process, and presage.

Product is the learning done by the student, which results in a change of behavior. Process is the interaction of the student and teacher. Presage is focused solely on the teacher and takes into account teacher intelligence, experience, success, and similar teacher-based characteristics.

Gage and Berliner's (1992) model of the learning process extended Cruickshank's model by focusing on variables that the teacher designs and delivers to the student. First, the researchers sought to define quality instruction. Quality instruction includes a cyclical set of tasks. A teacher begins with objectives to teach the student and ends up with some form of evaluation. The teacher's instruction links the objectives to the evaluation and is based upon the teacher's knowledge of the student's characteristics and how best to motivate the learner. If the evaluation is not satisfactory, then the teacher must again cover the material in which the student was deficient. Then the cycle begins once gain.

Although several researchers were investigating the range of factors that were connected with achievement issues, others sought to develop models for teachers and focused on effective teacher practices (e.g., Hunter, 1994; McKeachie, 2002; Slavin, 2003).

Huitt (2003) combined many of the earlier models into his own model that portrayed how students learn. He focused on four categories:

1. Context: All those factors outside of the classroom that might influence the teaching and learning.
2. Input: Those qualities or characteristics of teachers and students that they bring with them to the classroom.
3. Classroom process: Teacher and student behaviors in the classroom and other variables such as environment and student teacher relationships.
4. Output: Simply the measure of the student learning taken place. (Huitt, 2003)

Huitt (2003) also developed a graphic (Figure 1) that illustrates major categories of variables that factor into making learning effective. Also, the roles of teachers in making the classroom effective are shown in Huitt's model.

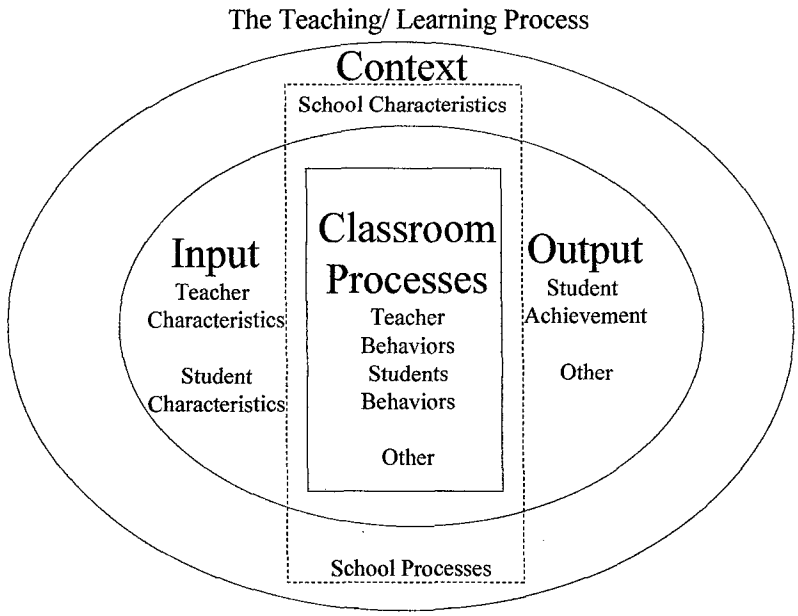


*Fig. 1.* Huitt's model of the teaching-learning process.

As shown in Figure 1, Huitt believed that teachers have an impact within several areas. Classroom processes include all variables that occur in the classroom. Huitt (2003) outlined three categories of teacher behavior: planning, management, and instruction. Planning refers to all of the activities the teacher might complete to get ready to teach students. Management refers to controlling what happens within the classroom. Instruction refers to guiding student learning.

One of the most important concepts to come out of the educational psychology arena during the last 30 years was the idea that the classroom variables associated with teachers are most directly linked to the students'

success (Rosenshine & Stevens, 1986). Huitt's model of planning, management, and instruction illustrated how teacher variables are used to influence student success. Motivational characteristics of teachers have been identified as variables that have an effect on students (Wlodkowski, 1985).

Other aspects of Huitt's model should be noted. The pre-existing attitudes, knowledge, and skills of both students and teachers are important; they constitute a category that Huitt labeled "Input." Teacher characteristics can be divided into several areas for consideration, including teacher's values, beliefs, knowledge, thinking and communication skills, performance skills, and personality.

Student characteristics are a significant factor as well. Many areas that have been identified as having an impact are included in Huitt's model: study habits, motivation, learning style, cogitative, socioemotional, and morale character development.

## Theoretical Framework of Motivation in Teacher Effectiveness

Researchers normally consider three sources of motivation in students: choice, effort, and persistence. Students who have all three of these characteristics normally will do well in a setting in which the students actually apply the elements. Why students choose to apply them in some areas and not in others has been the subject of many theories McKeachie (2002).

McClelland, Atkinson, Clark, and Lowell (1953) stated that motivation may be developed early when parents set high standards and reward achievement. Students may differ in the degree to which they choose to achieve, and their decision to achieve is likely based upon their situations at the time.

Mitzel (1960) presented a conceptual scheme for classroom teaching that featured motivation as a crucial factor. Motivation was further investigated by Dunkin and Biddle (1974), who developed an outline that was useful in classifying types of variables in the investigation of teaching. Dunkin and Biddle's taxonomy highlighted four major categories of variables. The categories are then further segmented into subcategories as follows:

1. Prestige variables, which relate to the background characteristics of teachers and may be explored to see their impact on teaching:
    a. Teacher formative experiences,
    b. Teacher training experiences,
    c. Teacher properties, which include traits such as personality, intelligence, attitude. and motivation.
2. Context variables, which relate to the variables a teacher must adjust:

a. Pupil formative experiences;

b. Pupil properties: which include traits such as personality, intelligence, attitude, and motivation;

c. Properties of the classroom and community;

d. Classroom contexts.

3. Process variables, which relate to what teacher and pupils actually do within the classroom, specifically all of the observed classroom behaviors of teacher and pupils:

a. Teaching classroom behaviors, i.e., clarity, probing, enthusiasm, and teacher talk,

b. Pupil behavior,

c. The interaction between student and teacher,

d. Observed changes in student behavior.

4. Product variables, which relate to the outcomes of teaching:

a. Immediate pupil growth,

b. Long-term pupil effect. (Dunkin & Biddle, 1974, p. 46)

Research on effective teachers places a strong emphasis on identifying observable characteristics. Teacher behaviors to be reliably observed and measured rather than inferred must be operationalized behaviorally. Measurable teaching behaviors have been described as low inference (Murray, 1983).

High-inference questions, such as "Is the instructor clear?" or "Is the instructor enthusiastic?" do not communicate information about what effective teachers actually do in the classroom; thus, they are less useful to teachers from an analytic or corrective standpoint (Murray, 1983). Low-inference teaching behaviors are those that can be identified using very little inference or judgment on the part of the observer.

Students will be affected by a teacher's motivational behaviors in different ways. Extrinsically motivated students are likely to get involved with activities for external rewards, such as grades, approval from others, and recognition received for their efforts. Students driven by internal rewards are considered intrinsically motivated. These students tend to engage in activities for the value of the activity alone. Both types of motivation can affect how any one student may approach an endeavor. Students, particularly in the college setting, tend to be intrinsically motivated and are more likely to use cognitive strategies such as elaboration and organization, resulting in a deeper processing of the topic being learned (Pintrich & Schunck, 1996).

Where a student's motivation originates depends upon whether the student finds the activity of value and whether the student can actually expect to succeed. Knowles, Holton, and Swanson (1998) discussed how

Vroom's (1995) theory of expectancy could be applied in the educational arena. Individual motivation can be determined by:

1. Valence: the value the person places on the outcome;
2. Instrumentality: the probability that the valued outcomes will be received given that certain outcomes have occurred; and
3. Expectancy: the belief a person has that a certain effort will lead to outcomes that are rewarding. (Knowles, Holton, & Swanson, 1998, p. 149)

Not only how much value students place on a task, but how the students orient themselves within an environment both influence how the students are motivated. If students seek mastery of a subject or merely want to perform well in the class, it tells something about how students orient their thinking and how they approach the task (Knowles, Holton, & Swanson, 1998).

Determination of inherent student motivation within a situation could give insight into whether students perform well because they are already motivated. One tenet of the proposed study is that if the instructor demonstrates motivational behaviors, then students will be motivated to learn. Social learning theory (Bandura, 1977) emphasizes the importance of observing and modeling the behaviors, attitudes, and emotional reactions of others. Bandura (1977) stated:

> Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action. ( p. 22)

Social learning theory explains the behavior of teacher and students in terms of continuous mutual interaction among cognitive, behavioral, and environmental influences. The process core to observational learning is as follows: (a) attention, including modeled events (distinctiveness, affective valence, complexity, prevalence, functional value) and observer characteristics (sensory capacities, arousal level, perceptual set, past reinforcement); (b) retention, including symbolic coding, cognitive organization, symbolic rehearsal, and motor rehearsal; (c) motor reproduction, including physical capabilities, self-observation of reproduction, and accuracy of feedback; and (d) motivation, including external, vicarious, and self- reinforcement (Bandura, 1977).

## Behaviors Associated with Motivation

One study of enthusiasm and motivation in the classroom was the Dr. Fox Lecture (Naftulin, Ware, & Donnelly, 1973). The Dr. Fox Lecture has been replicated in several different settings (Kaplan, 1974) and has yielded

results concerning the effect of teacher enthusiasm on students in a classroom (Meier & Feldhusen, 1979). Students were told that Dr. Michael Fox, an instructor at Southern Illinois University (SIU), had developed a 20-minute lesson videotape and agreed to let the students evaluate it. Four videotapes were displayed in four different classrooms simultaneously. Students were assigned randomly to view the taped sessions. Each group was approximately the same size and was composed of students from the SIU Educational Psychology Department.

Proctors administered the materials for 16 sessions. Dr. Fox was an actor who had recorded each of the four tapes using a different level of expressiveness and enthusiasm. The results of the student evaluations indicated that (a) an enthusiastic presentation resulted in increased learning when student motivation was low, (b) lessons that were more cognitively demanding resulted in higher student achievement than less-demanding lessons, and (c) highly expressive presentations garnered higher student ratings than less expressive lectures, regardless of the amount of content. The results of the experiment were reflective of what McKeachie (2002) described as ways to make the use of the lecture method more effective. Teachers should be enthusiastic about their subject.

The effect of expressiveness was again shown to be of consequence in a study by Murray and Lawrence (1980). They hypothesized that teachers can benefit from taking speech and drama training.

Previous writers have suggested areas of focus for improving instruction with techniques similar to those used by actors to communicate ideas and emotion on stage. They included voice, projection, proper variation in loudness and pitch, movement and gesture, and effective use of pausing, eye contact, and facial expressions.

Murray (1983) and others have shown that one factor that sets one instructor apart from another is expressive behavior, such as vocal variation, eye contact, and movement and gestures, which serve to maintain students' attention to the material being presented. The element of enthusiasm is only one variable that comprises motivation in the classroom; these motivation elements have an effect in the classroom and increase students' ratings of the effectiveness of the teacher.

The principles of enthusiasm, clarity, and organization associated with effectiveness recur in studies of teacher characteristics. Wlodkowski (1985) suggested a set of skills for instructors who are good at motivating their students, particularly adults. Wlodkowski described the skills of motivating instructors as expertise, empathy, enthusiasm, and clarity.

Expertise is knowing the material and being prepared to convey it through instructional means. Enthusiasm is showing that the instructor cares about what is being taught and expresses that commitment with the appropriate degree of emotion, animation, and energy. Clarity includes the ability to be understood and, if the material is not clear in the initial presentation, to provide additional methods to aid comprehension of the material. Empathy, as it is included in the model, is the ability to put oneself in the students' position. Wlodkowski (1985) maintained that if the instructor exhibits all of the behaviors, he/she would motivate students and improve the learning process.

Another study that has implications regarding motivation is one in which the researchers sought to identify teacher personality characteristics that correlated with high teacher-effectiveness ratings (Murray & Rushton, 1990). The study was conducted in the Department of Psychology at the University of Ontario. Forty-six faculty members (40 men and 6 women) with a variety of teaching experiences and tenure statuses took part in the study. The types of classes that were offered ranged from beginning freshman courses through and including the doctoral level and were divided into six categories based on the student population.

Murray and Rushton (1990) explained that teacher effectiveness varied substantially across different types of courses for a given instructor.

Teaching effectiveness as rated by students in each type of course could be predicted with accuracy from the colleagues' rating of the classroom teacher's personality. The personality traits that contributed to effective teaching differed for various course types.

One result from the study indicated that different courses suit different personalities; for example, lecturers need to be engaging with their audience. Those who use the Socratic method need to be patient and willing to listen to other points of view. Gage and Berliner (1992) said it best:

> Just as plays and movies require casting [because] not every actor is suitable for every role, so teaching methods require matching with the strengths and weaknesses of the teacher. If a teacher's personality is unsuited for lecturing, it will be much more worth while for that instructor to choose a method other than lecturing than to try to learn to use the method effectively. (p. 260)

The quote illustrates the point that teacher effectiveness has to include an element of adaptability. Further, the researchers asked whether motivational behaviors of teachers can be used the same way and are viewed in the same way in every class. The authors were examining teaching specialties to see what characteristics were viewed as effective in specific topical areas.

O'Toole, Spinelli, and Wetzel (2000) authored a study with the purpose of determining the similarities and differences in attitudes of faculty and students on factors that influence student learning. The study was conducted in a business-class setting at the university level. Both students and faculty felt that the instructor provided a major input to student learning. Students and faculty agreed on the high importance of instructional dimensions (behaviors) of (a) stimulation of interest in the subject, (b) enthusiasm for teaching, (c) communication skills, and (d) course organization.

Patrick, Hisley, and Kempler (2000) explored the effects of teacher enthusiasm on (a) students' intrinsic motivation and the students' motivation to learn the content of the course and (b) students' psychological vitality. One question was how teachers could endeavor to promote students' intrinsic motivation. One school of thought is that students' intrinsic motivation can be stimulated by the mere perception that the teacher is intrinsically motivated as well.

Ninety-three undergraduate students in an introductory and intermediate level psychology class at a small liberal arts college participated in Patrick, Hisley, and Kempler's (2000) study. All were given a questionnaire to measure student perceptions of their own motivation as well as their teachers' classroom behaviors and strategies. It was

administered at the end of the semester, and the students were allowed to take it home and return it later.

Teacher enthusiasm was significant ($p = .017$) with promoting students' interest and keeping them alert and energized. It was also the single strongest predictor of intrinsic motivation. Other factors that had a significant of ($p < .05$) were knowledge of the subject and clarity of presentation.

A study developed within a medical school setting by Beckman, Lee, Rohren, and Pankratz (2003) investigated the quality of teaching on general internal medicine hospital services at the Mayo Clinic. Although resident physicians identified strengths and weaknesses of teachers on general internal medicine hospital services, the researcher questioned whether residents' evaluations are sufficient for evaluating the teaching performances of attending physicians.

In the Mayo clinic study, an instrument was developed for the purpose of peer review, with the possibility of utilizing the instrument as an objective component in a complete system of peer evaluation. Evaluators observed enthusiasm as an element of effective teaching and included enthusiasm in the instrument to assess enthusiasm. Teacher enthusiasm was found to be among the most significant items.

Motivational characteristics may influence international students differently. In a study by Trice and Harris (2001), 62 American and 51 Bulgarian undergraduate students completed surveys of their perceptions of the importance of the student, teacher, and government in education. For the role of teacher, Americans endorsed good relationships with students and enthusiasm as the most important qualities, while Bulgarian students ranked knowledge as the most important and enthusiasm as the least important. American students ranked knowledge behind both enthusiasm and relationships with students. The inconsistent view of enthusiasm as an element of motivation should at least be brought to the faculty's attention and be considered if the international community makes up the majority of the classroom (Trice & Harris, 2001).

The specific motivating characteristics of clarity, organization, and enthusiasm become evident in a review of the literature (Pritchard, Watson, Karlease, & Paquin, 1998) regarding models for effective teaching. There are disparate views on what constitutes effective teaching.

One study summarized four different sources of information that had been used to identify the characteristics of effective teaching. These were (a) surveys of students, faculty, and alumni, (b) summaries of research, (c) theories of leading researchers, and (d) statistically identified factors. Table

1 shows all four sources of information and what characteristics are associated with effective teaching.

Table 1

*Effective Teaching Characteristics*

| Characteristics | Surveys | Summaries | Theories | Factors |
|---|---|---|---|---|
| Organization | X | X | X | X |
| Communication | X | X | X | X |
| Fairness | X | X | X | X |
| Rapport | X | | X | X |
| Clarity | X | X | | X |
| Enthusiasm | X | X | | X |
| Flexibility | X | X | X | |
| Workload | | X | X | X |
| Course impact | | | X | X |
| Motivation | X | | X | |
| Student relationship | | X | X | |
| Encouragement of independent thinking | | X | X | |
| Progressive attitude | X | | | |
| Knowledge of subject | | X | | |
| Atmosphere conducive to learning | | | X | |

Only three of the characteristics (organization, communication, and fairness) were identified as important in all four information sources. When only three of the four sources were used, then rapport, clarity, enthusiasm, flexibility, and workload were seen as important (Pritchard, Watson, Karlease, & Paquin, 1998).

## Student Evaluations of Teachers and Uses of Such Evaluations

Students are in a unique position to assess a variety of factors concerning effective instruction. Student evaluations can play a significant part in being able to determine whether a teacher is effective or not. How much emphasis is placed on the evaluations and whether they are a valid source of information can be a concern. Scriven (1995) identified several sources of validity for student ratings of instruction. They include:

1. students' ratings of their own increased knowledge and comprehension;
2. perceived changes in motivation toward (a) the subject taught, (b) a career associated with the subject, and (c) further learning in that subject area;
3. observed teacher behavior relevant to competent teaching, such as punctuality;
4. identification of teaching style indicators, such as enthusiasm;
5. test evaluation; and
6. student consumerism; that is, information not relevant to competent teaching, but important to other students, such as textbook cost, attendance policy, or homework. (Scriven, 1995, p. 1)

With the validity of evaluations becoming more accepted, the use of the resulting information from evaluations comes into question. Rifkin (1995)

established the key purpose of evaluations is formative; that is, facilitating (a) faculty development and (b) self-improvement.

Student evaluations are also used for summative purposes and often play a role in tenure, promotion, reappointment, and salary decisions. Regardless of the purpose of student evaluations, formative or summative, their use implies belief in the following principles:

1. learning is an active process and student involvement is an integral part of that process;
2. student characteristics and behaviors impact perception of, and interaction with, the teacher;
3. teachers view their teaching with regard to the paradigms of their students in order to facilitate change and build for growth;
4. teachers recognize that students can make important contributions to the teaching-learning process; and
5. the teaching-learning process is dynamic and should change over time and with context. (Stockman & Amann, 1994, p. 4)

The major contention of student ratings of instructor quality as a measurement of teacher effectiveness is whether those measurements are valid or whether bias might cloud the data. Research conducted in the 1970s was the most critical of these data and their uses. The research debate of how to use

student evaluations actually spanned 25 years, with the most research within this area peaking in the 1980s (Greenwald, 1997).

The question of instrument validity is a critical aspect of measuring teacher motivation in that one of the best ways to measure teacher motivation is to ask the students. Over a semester, the student has an opportunity to observe the instructor in the classroom setting over time. This extended observation time allows students to see instructors perform at their best and worst.

Harrison, Ryan, and Moore (1996) suggested that college students have insight into how they make judgments concerning their instructors because they have a grasp of the factors they consider important. Students have the ability to make fair judgments about teaching effectiveness.

One other issue that has developed within the university setting is the use of evaluations. Will evaluations be actively considered in possible classroom improvement strategies? Might the rating make a difference in tenure and promotion decisions for university faculty? Collection of data that are not being used for some purpose is a waste of time and perpetuates the perception of interest (Harrison, Ryan, & Moore, 1996).

Greenwald and Gillimore (1997) noted that teaching is multidimensional, a composite of various techniques and talents. To rate an instructor without taking all of the variables of teaching into consideration may leave a substantial possibility for bias in teacher evaluations to occur.

With all of the different tasks instructors may have, is it possible for students to evaluate them successfully? Researchers and instructors (Abrami & d'Apollonia, 1991; Cashin & Downey, 1992; Marsh & Roche, 1993) agreed that teaching is a composite activity consisting of a variety of elements (e.g., clarity, enthusiasm, organization) and formative diagnostic evaluations need to imitate these areas. To further illustrate this point, Marsh's (1982) questionnaire, the Students' Evaluations of Educational Quality (SEEQ), contains 33 evaluation items. The SEEQ is divided into nine subgroups, including rapport, clarity, and workload (Marsh, 1982).

With so many elements to consider when evaluating teachers, it would be conceivable that bias by students and administrators could be a potential problem. Many university faculty members insist that student evaluations are biased by factors that they believe are not related to effective teaching (Marsh & Overall, 1979).

Faculty members employed at a major university were asked to select from a listing of 17 characteristics they believed would cause bias to student evaluations (Worthington & Wong, 1979). Eight characteristics were chosen by more than 50% of the faculty: Course difficulty, 72%; grading leniency, 68%; instructor popularity, 63%; prior student interest, 62%; course workload, 60%; class size, 60%; reason for taking course, 55%; and grade point average, 53%. These same faculty members indicated a need for quality feedback regarding

effective teaching, but regarded student evaluations with uncertainty and had negative feelings about other strategies such as self-evaluation and classroom visitation.

The second-highest rated characteristic that was viewed to promote bias was grading leniency (Worthington & Wong, 1979), which was described as follows:

> The implications of findings reported are considerable and it is suggested that the validity of student evaluations of instructors must be questioned seriously. It is clear that an instructor who inflates grades will be much more likely to receive positive evaluations. (p. 774)

Negative sentiment about student evaluations was highlighted in a study by Davis (1995). The study acknowledged that regardless of the prolific use of student evaluations in the university system over the last 30 years, many instructors still hold hostile feelings toward student evaluations. L'Hommedieu, Menges, and Brinko (1997) stated many teachers do not even use student evaluations.

The research of Abrami (1990) suggested that student ratings of a given instructor are sufficiently consistent to be useful. Student ratings have gained substance and acceptance as a measure of teaching effectiveness in the North American university setting (Abrami, 1990). The ratings can provide reliable and valid information on aspects of instructor teaching.

Ratings tend to only be slightly affected by extraneous variables such as class size, severity of grading, and content quantity. Ratings are highly correlated among alumni, colleagues, and individuals who have been trained to observe classroom behavior (Drucker & Remmers, 1951).

Ratings were significantly correlated ($r = .719$, [Marsh, 1984]) with objective measures of teaching effectiveness and student performance on standardized tests (Marsh, 1984; Murray, 1983). Student ratings add a valuable component to the range of feedback for the evaluation of effective teaching. Based on the work of Marsh and Roche (1997) student evaluations are summarized as:

1. multidimensional;
2. reliable and stable;
3. chiefly a function of the instructor who teaches the course rather than the course;
4. relatively valid against a variety of indicators of effective teaching;
5. rather unaffected by a variety of variables hypothesized as potential biases (e.g., grading leniency, class size, workload, prior subject interest); and
6. useful in improving teaching effectiveness when coupled with appropriate consultation. (Marsh & Roche, 1997, p. 146)

Marsh and Bailey (1993) examined the rating reports of 123 instructors during a 13-year period. Ratings for each instructor included at least two undergraduate and two graduate courses; all subject matter areas were included in the investigation. Marsh and Bailey questioned whether teachers' profiles would remain stable over time and across courses. The conclusions from their analyses point toward high consistency and stability, as measured by the Students Evaluation of Education Quality (SEEQ), of the profile of the same instructor over time, regardless of the course taught.

Such consistency and stability should help teachers be more confident about using evaluations as a feedback source. Rifkin (1995) stated that the key purpose of student evaluation is formative, that is, facilitating faculty development and self-improvement by purposefully using student-generated feedback to modify behavior and instructional techniques over which the faculty member had control.

As McKeachie (1997) explained, the burden of appropriate use of evaluative tools falls to the department's personnel committee. The personnel committee should never be concerned with comparing teachers, but rather should use student evaluations to measure teaching effectiveness.

Research has indicated that the most effective use of instructional feedback is leading to improvement in teaching and occurs when faculty are

assisted by professional faculty development consultants in interpreting the feedback (L'Hommedieu et al., 1997; March & Roche, 1993).

Many colleges and universities see portfolios as a more credible means of assessment. A teacher portfolio would include a narrative section that identifies the teacher's goals and philosophy of education. In partnership with peers and department chairs, teachers describe their responsibilities, performance standards, course syllabi, instructional techniques, professional development, and self-improvement activities. In addition to the narrative, evidence of teaching effectiveness and student achievement should be included within the portfolio (Defina, 1996; McKeachie, 2002; Rifkin, 1995).

## Summary of Literature

The summary of the review of literature addresses several areas. In the first section, teacher effectiveness, several researchers outlined areas of focus that need to be taken into account when considering whether teaching is successful. These areas are teacher characteristics and teacher behaviors.

In the second section, regarding the theoretical framework of motivation in teacher effectiveness, teacher motivational qualities were introduced as possible areas of importance, with process variables being discussed. These variables related to what teachers and students actually do within the classroom, specifically all of the observed classroom behaviors of teachers and students. This was further supported by Huitt's model.

The third section, research of teacher behaviors associated with motivation, continually cited enthusiasm, clarity, and organization as often-mentioned factors when teacher effectiveness and motivational behaviors were investigated. Most articles dealing with teacher effectiveness and teacher characteristics use some type of measure to assess these variables.

The fourth section, student evaluations of teachers, included methods to determine teacher qualities that are desirable in the classroom. Research supported that belief that student evaluations are valid and relatively free of bias. This makes student evaluations an important source of information, both in formative and summative situations when teachers are concerned.

# CHAPTER THREE

# METHODS AND MATERIALS

The purpose of the study is to contribute to the body of literature concerning teaching effectiveness within professional military education. More specifically, the study assessed the extent to which U.S. Air Force Squadron Officer School instructors possess motivational behaviors and whether those behaviors influence student achievement. For this study, motivational behaviors included the characteristics of clarity, enthusiasm, and organization.

## Statement of the Problem

What are the relationships between student perceptions of selected instructor motivational behaviors and the academic achievement of students?

## Research Questions

1. To what extent does a relationship exist between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization?
2. To what extent is the relationship between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational

behaviors with respect to instructor clarity, enthusiasm, and organization moderated by:

a. Student motivation,

b. Rank,

c. Gender,

d. Commissioning source (method of entry into service), and

e. Time in service.

3. To what extent does a relationship exist between student perceptions of an instructor's overall motivational rating and the instructor's overall effectiveness rating?

## Research Procedures

For this study, a descriptive methodology was chosen to gather primary data. The research design selected for this study is non-experimental, which is normally used when independent variables are chosen rather than manipulated or changed by the investigator (Borg & Gall, 1989).

In an effort to collect data that address the study's research questions, a self-report survey was chosen. The survey methodology was selected because it would be flexible and useful in collecting primary data (Babbie, 1990). Data of this type are chiefly collected for a specific research investigation (Alreck & Settle, 1995).

## Subjects

The population for this study consisted of all students enrolled in Air and Space Basic Course (ASBC), a school located in Squadron Officers College at Air University, Maxwell AFB, in the January class of 2005. ASBC was chosen because it graduates the largest number of military officer students in a year. The student population is made up 1st Lieutenants (O2) and 2nd Lieutenants (O1).

In Squadron Officers College, the same faculty development department trains all of the instructors and follows the same faculty development plan. The lieutenants number approximately 800 per class. Each class generally meets for seven hours each day, Monday through Friday, and lasts four weeks. The instructors that were rated by the officers numbered approximately 58.

## Instrument Development

To assemble the survey instrument to be used to collect data from the study population, several existing instruments were used. These instruments were chosen to allow the researcher to identify the variables of interest.

For this study, the methodology included collected data from four different sources. Those sources include:

1. the data with respect to the demographics of the 302 Air Force students selected in the sample;
2. the Teacher Behavior Inventory (TBI) developed by Murray (1983) and utilized by Worrell and Kutherbach (2001). The TBI, which

utilized 22 separate items, was used to address the student perceptions of an instructor's motivational characteristics;

3. the students' final examination scores for the Air and Space Basic Course collected from records at Maxwell Air Force Base;
4. the Academic Achievement Motivation Test (AAMT) (Russell, 1969). The AAMT gave the researcher an indication of student academic drive and addressed the second research question of this study. Student academic drive is the student motivation to perform well within the academic setting (Russell, 1969).

## Motivation Characteristics of Instructors

To address the motivational characteristics of the instructors, the study utilized 21 items from the Teacher Behavior Inventory (TBI) developed by Murray (1983) and implemented by Worrell and Kutherbach (2001). The first research question focused on the student perceptions of motivational behaviors of instructors.

The TBI was selected to determine students' perceptions of instructor motivational characteristics such as clarity, enthusiasm, and organization. This instrument was chosen because Worrell and Kutherbach (2001) also investigated the characteristics of clarity, enthusiasm, and organization. Questions 1, 6, 9, and 17 of the TBI allowed the students to rate the instructor's clarity. Questions 2, 8, 10, 14, and 18 measured students' perceptions of the instructor's enthusiasm.

Finally, questions 3, 5, 12, 13, and 16 described the studentd' opinions of the instructor's organization. The instrument's reliability (Worrell, 2001) cited for the three sections of enthusiasm, clarity, and organization ranged from .72 to .81.

Data for the third research question was collected through the use of TBI questions 21 and 22. This was intended to determine whether a correlation existed between overall teacher effectiveness rating and the overall motivational rating. Permission to use the short form TBI was obtained from Dr. Worrell for this study (Appendix A).

## Motivation of Students

A second instrument was incorporated into the survey, the Academic Achievement Motivation Test (AAMT) (Russell, 1969). This instrument gave the researcher an indication of student academic drive and was used to address the second research question. This element is a factor in considering the impact the instructor's motivational characteristics had on student achievement. The student may be highly motivated in an educational setting, and thus the instructor's motivational characteristics (clarity, organization, and enthusiasm) may have less of an impact on the student and final examination grade.

The AAMT is a 31-item questionnaire. The questions are answered *yes* or *no*; the instrument's reliability was cited as having a Cronbach's Alpha of .718, and the Spearman-Brown split-half coefficient measured .945 (Russell, 1969). The AAMT yields a score on a 31-point scale. For this study, a score of 28-31 on the

AAMT is considered highly motivated, 27-23 is considered motivated, 22-19 is considered average motivation, and below 19 is considered low motivation. The AAMT was chosen because it was developed to specifically measure motivation in an academic setting. All attempts were made to find Dr. Ivan Russell. The university where he conducted his study did not have any forwarding information about Dr. Russell. The other parts of research question two were addressed by demographic questions and more clearly defined the sample of student officers.

## Survey Instrument

The instrument used in this study consisted of three parts (see Appendix B). Part A of the survey was devoted to the TBI and elicited students' opinions on three specific characteristics: clarity, enthusiasm, and organization. Dr. Worrell, from the University of California at Berkeley, was contacted for his input on an added 22nd item to address student's impression of the instructor's overall motivational abilities.

Part B of the survey was devoted to demographics such as gender, rank, and commissioning source. Members of the Air Force's Squadron Officers College had direct input into which variables would be investigated. The College's leadership was interested in determining whether there are differences based on the method of entry of new airmen into the Air Force, such as Reserve

Officer Training Corps (ROTC) versus the Air Force Academy, and how they affect new airmen in different aspects of their career.

Part C consisted of the Academic Achievement Motivation Test. This measures student motivation in an academic setting. Regarding a student's score on the final examination, above 70% equals successful grade attainment, below is failing. The final score was correlated to the student's motivation ratings of the instructor. The research instrument and accompanying cover letter was submitted to the Human Subjects Committee (HSC at SIUC) for approval on 10/29/04; the study was approved on 12/1/04 (see Appendix C). Surveys were coded to match student response with the respective final examination score. The U.S. Air Force's Chief Program Evaluation Department approved this procedure (Appendix B). The Squadron Officers College provided the researcher with the final examination score of each student.

The survey was administered as a pilot test to the student population of the Southern Illinois University Air Force Reserve Officer Training Corps Aerospace program. The cadets meet once a week for a leadership laboratory to interact and execute leadership curriculum while being observed by the cadre. Participation was voluntary, and anonymity was affirmed to all 84 students. Eleven females and 73 males participated in the pilot test. The cadets were asked to make any suggestions that would help improve the survey and make it readily understandable.

The TBI and AAMT were administered during the pilot test, and all but five cadets had finished within 20 minutes; the final five completed before 25 minutes had expired. Few took the opportunity to recommend any modifications, stating, "The survey was easy to understand." Three comments about the AAMT mentioned that several of the questions seemed redundant. As a result, no major changes were made in the survey instrument.

## Data Collection Procedures

To obtain a random sample of lieutenants in the population (n = 725), every third class (the Air Force term for class is flight) was chosen until a sample of 300 was reached. The researcher traveled to Maxwell Air Force Base, the location of Air University and the Squadron Officers College, to administer the questionnaire. The questionnaire was administered in February 2005, one day before the final examination during a preparation hour in which all of the students are available.

The chosen flights, approximately 14 students each, were assembled, and the survey was administered to 300 students. The cover letter information and instructions were read while the students followed along. The instructions and the cover letter were also displayed on the overhead projection system. A student had the option to terminate his or her participation in the survey at anytime. The survey took 25 minutes to complete. When the questionnaires were

completed, the data were entered and analyzed using the Statistical Package for the Social Sciences (SPSS).

## Treatment of Data

The variables in this study were (a) motivational characteristics of the instructor, (b) student's rank, (c) time in service, (d) gender, (e) commissioning source, and (f) student motivation. The variable was the student's score on the final course examination. A score above 70% equals successful grade attainment, below is failing.

Table 2 shows the relationship between the study research questions, survey items, and the statistical treatment of data.

Table 2

*Instrument Items and Statistical Analysis by Research Question*

| Research Question | Instrument and Items | Statistical Analysis |
|---|---|---|
| To what extent does a relationship exist between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization: | | Spearman Rho Correlation |
| clarity? | TBI 1,6,9,17 | |
| enthusiasm? | TBI 2,8,10,14,18 | |
| organization? | TBI 3,5,12,13,16 | |
| To what extent is the relationship between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization moderated by: | | Spearman Rho Correlation |
| Academic achievement motivation of the student? | AAMT 1-31 | |
| Rank | TBI 26 | |

(table continues)

| | | |
|---|---|---|
| Gender? | TBI 23 | |
| Commissioning source? | TBI 25 | |
| Time in service? | TBI 24 | |
| To what extent does a relationship exist between student perceptions of the instructors' overall motivational rating and the overall instructors' effectiveness rating? | TBI 21, 22 | Spearman Rho Correlation |

The first research question examines students' perceptions of the instructor's motivational behaviors. This was compared statistically to the final grade the student attained to determine whether a relationship existed between the instructor's motivational characteristics and each student's final test grade.

The second research question divided the sample into groups. Rank, time in service, gender, commissioning source, and student motivation were analyzed separately to examined significant differences among the groups.

The final research question examined how the overall effectiveness rating of the instructor and the overall motivation rating of the instructor compared. Did a correlation exist between the student's perception of instructor effectiveness and the students' perceptions of the motivational abilities of the instructor? Given the sample size and the acceptable confidence level of making

a Type I or Type II error based on the non-experimental educational environment, a significance level of ($p < .05$) was used in the study.

Data were checked for accuracy as entered and then checked again by reexamining every tenth survey with the corresponding data in the program. Descriptive statistics were generated and presented, and correlations were calculated using the Spearman Rho Correlation procedures of Statistical Package for the Social Sciences (SPSS).

Table 2 shows which questions were used data to address each of the research questions. The type of statistical analysis for each question is also described.

## Summary

In summary, a survey instrument (Appendix B) was used to measure students' perceptions of their instructor's characteristics of enthusiasm, clarity, and organization and how these characteristics interact with the variables of student achievement. Differences were highlighted among groups formed from the sample with the input of the Squadron Officer College leadership on which variables were important. One variable that was studied is defined by the AAMT. This survey determines students' motivational drive within the educational setting. This helped to establish how much influence an instructor has on a student's performance.

This chapter reviewed the process of administering the survey, including identifying the target population, procedures, and data collection. Methods for statistically analyzing the data were also explained in this chapter.

# CHAPTER FOUR

# ANALYSIS OF DATA

## Introduction

The purpose of this study was to contribute to the body of literature concerning teaching effectiveness within professional military education. More specifically, the study assessed the extent to which United States Air Force Air and Space Basic Course instructors exhibit motivational behaviors and whether those behaviors influenced student achievement. For this study, motivational behaviors included the characteristics of clarity, enthusiasm, and organization.

## Research Questions

Respondents provided data to address the following research questions:

1. To what extent did a relationship exist between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization?
2. To what extent did the relationship between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization moderated by:

a. Student motivation,

b. Rank,

c. Gender,

d. Commissioning source (method of entry into service), and

e. Time in service.

3. To what extent did a relationship exist between student perceptions of an instructor's overall motivational rating and the instructor's overall effectiveness rating?

## Methodology

Data collected for this study were obtained from a random sample of Lieutenants enrolled in the January 2005 class of Air and Space Basic Course at the U. S. Air Force Squadron Officer College at Maxwell Air Force Base (n = 725). Every third flight (the Air Force term for class is flight) was chosen until a sample of 302 had been selected. A flight is made up of approximately 14 students each. For this study, the methodology included collected data from four different sources. Those sources include:

1. data regarding the demographics of the 302 Air Force students selected in the sample;
2. the Teacher Behavior Inventory (TBI) developed by Murray (1983) and utilized by Worrell and Kutherbach (2001). The TBI, which

utilized 22 separate items, was used to address the student perceptions of an instructor's motivational characteristics;

3. the students' final examination scores for the Air and Space Basic Course collected from records at Maxwell Air Force Base;
4. the Academic Achievement Motivation Test (AAMT) (Russell, 1969). The AAMT gave the researcher an indication of student academic drive and addressed the second research question of this study. Student academic drive is the student motivation to perform well within the academic setting (Russell, 1969).

The 22 items of the TBI and the 31 items of the AAMT were combined to create a survey used in this study. Also included in the survey were various questions designed to collect demographic information from the sample.

The researcher traveled to Maxwell Air Force Base, the location of Air University and the Squadron Officer College, to administer a survey developed to measure students' perceptions of an instructor's motivational characteristics. The survey was administered to students enrolled in Air and Space Basic Course (ASBC), in February 2005, during a morning preparation hour in which all of the selected students were available.

The chosen participants from the flights were assembled and the survey administered. The cover letter information describing the purpose of the study as well as the instructions were read to students and displayed on an overhead

projection system. Each student had the option to terminate participation in the study at any time. No student chose to terminate participation in the study. Before beginning discussion of the study research questions and results, it is important to describe demographic data to classify the respondents included in the sample.

## Demographic Data

The respondents were asked a series of questions that sought to determine the demographic composition of the sample. Table 3 shows respondents' rank, gender, commissioning source, and time in service.

Most of the participants were 2nd Lieutenants, 291 (96.4%). The number of males that made up the sample, 224 (74.2%), substantially outnumbered females. The majority of respondents (66.9%) were commissioned through Reserve Officer Training Corps (ROTC). Most of the group (82.1%) had 1-24 months of time in service. One group of lieutenants, 49 (16.2%), had more time in service than lieutenants normally have. Because it is possible for enlisted (non-officer) personnel to become officers, the researcher hypothesized that the number of personnel in the sample who have more time in service than lieutenants normally have were primarily individuals who were chosen to attend Officer Training School and became officers later in their Air Force careers.

Table 3

*Subjects' Demographic Characteristics*

| Characteristic | Frequency | Percentage |
|---|---|---|
| Rank | | |
| 2d Lieutenant | 291 | 96.4 |
| 1st Lieutenant | 11 | 3.6 |
| Total | 302 | 100.0 |
| Gender | | |
| Male | 224 | 74.2 |
| Female | 78 | 25.8 |
| Total | 302 | 100.0 |
| Commissioning source | | |
| OTS | 61 | 20.2 |
| ROTC | 202 | 66.9 |
| AFAC | 32 | 10.6 |
| Other | 7 | 2.3 |
| Total | 302 | 100.0 |
| Time in service (months) | | |
| 1-24 | 248 | 82.1 |
| 25-48 | 5 | 1.7 |
| 49 and above | 49 | 16.2 |
| Total | 302 | 100.0 |

Table 4 presents the students' rankings and percentage of the students' responses pertaining to their perceptions of the instructor's motivational behaviors with regard to clarity, organization, and enthusiasm. This table was created and statistics computed to better indicate the breadth of the sample. Most of the responses to the TBI tended to gravitate consistently to the upper limits of the scale. As a result, statistics were computed to describe the sample more accurately.

The Cronbach's alpha, a coefficient for internal consistency of a survey, was calculated for this survey, taking into account the three categories of clarity, organization, and enthusiasm. Combining the three into a combined motivation score yielded .836. Colosi (1997) explained that Cronbach's alpha splits all the questions of an instrument every possible way and computes correlation values for them. The output generated is Cronbach's alpha, and similar to a correlation coefficient, the closer it is to one, the higher the reliability estimate. A high Cronbach's alpha means that student ratings were consistent among the categories. If students rated an instructor high in one clarity item, all clarity items tended to be rated in a similar fashion. As a result of this computation it was determined the internal consistency of this survey was within the acceptable range.

Table 4

*Subjects' Perceptions of Instructor's Motivational Behaviors: Clarity, Organization, and Enthusiasm*

| | Mean | Almost Never % | Rarely % | Sometimes % | Often % | Almost Always % |
|---|---|---|---|---|---|---|
| Clarity items | | | | | | |
| 1. Gives several examples of each concept | 3.87 | 0.7 | 2.0 | 26.5 | 51.0 | 19.9 |
| 6. *Fails* to define new or unfamiliar terms | 2.05 | 29.1 | 49.0 | 13.6 | 4.0 | 4.3 |
| 9. Repeats difficult ideas several times | 4.02 | 0.3 | 3.0 | 21.9 | 44.0 | 38.8 |
| 17. Explains subjects in familiar, everyday language | 4.31 | 0.0 | 1.0 | 13.2 | 39.7 | 46.0 |
| Organization items | | | | | | |
| 3. Uses headings or subheadings to organize lesson | 4.14 | 0.3 | 3.6 | 17.2 | 39.1 | 39.7 |
| 5. Puts outline of lesson on blackboard or overhead | 4.39 | 3.0 | 4.3 | 7.9 | 19.9 | 64.9 |
| 12. Gives preliminary overview of lesson at beginning | 4.45 | 1.0 | 3.3 | 7.3 | 26.2 | 62.3 |
| 13. Explains how each topic fits into course as a whole | 3.71 | 1.0 | 8.3 | 29.1 | 44.7 | 19.9 |
| 16. Periodically summarizes points previously made | 3.97 | 0.0 | 5.3 | 21.2 | 44.4 | 29.1 |
| Enthusiasm items | | | | | | |
| 2. Speaks in a dramatic or expressive way | 3.88 | 1.7 | 7.0 | 25.2 | 33.8 | 32.5 |
| 8. Gestures with hands or arms | 4.28 | 0.3 | 1.3 | 14.2 | 38.4 | 45.7 |
| 10. Uses facial gestures or expressions | 4.16 | 0.7 | 6.0 | 15.2 | 33.4 | 44.7 |
| 14. Tells jokes or humorous anecdotes | 4.08 | 2.0 | 5.3 | 16.9 | 34.8 | 41.1 |
| 18. Smiles or laughs when teaching | 4.37 | 0.7 | 2.0 | 10.3 | 33.8 | 53.3 |
| Overall items | | | | | | |
| 21. This instructor is an effective teacher | 4.26 | 1.0 | 4.6 | 12.3 | 31.5 | 50.7 |
| 22. This instructor is motivating with regard to subject matter | 4.00 | 2.0 | 4.3 | 21.2 | 36.4 | 35.1 |

An examination of Table 4 shows that there were several items where a large percentage of the sample rated "almost always." More than 60% of the students felt the instructors outlined and presented an overview of the lesson most of the time. A large percentage of students rated "almost always" for item 17, (46%). In this item, it was clear that most of the respondents' instructors explained subject matter in everyday language. Ratings were somewhat more mixed with respect to respondents' view of the instructors explaining how each topic fit into the course as a whole. Only 19.9% of the respondents rated this item as "almost always."

## Results According to Research Questions

The first research question of this study focused on the students' perceptions of the motivational characteristics of instructors. To what extent did a relationship exist between the academic achievement of students and their perceptions of their instructor's classroom motivational behaviors? The 22-item short form of the TBI was used to determine the students' perception of their instructor's motivational characteristics (clarity, enthusiasm and organization). These were then related to the student's final examination score.

In order to determine whether a relationship existed between instructor motivational characteristics (clarity, enthusiasm, and organization) and student achievement, descriptive statistics were computed. Table 5 displays the average student final examination score. Table 5 also displays the average student ratings

with respect to motivational behaviors of their instructors in the three areas of clarity, organization, and enthusiasm. This is based on a five-point rating scale of Almost Never, Rarely, Sometimes, Often, and Almost Always. Finally, the table displays the average combined motivation score based on the students' perception of the instructor.

Table 5

*Student Final Examination Grade and Instructor Characteristic Scores*

| Characteristics | Mean | Median | Mode | SD |
|---|---|---|---|---|
| Examination score (100 max) | 89.40 | 92.00 | 89.00 | 7.983 |
| Clarity (20 max) | 16.15 | 16.00 | 16.00 | 2.246 |
| Organization (25 max) | 20.68 | 21.00 | 20.00 | 3.092 |
| Enthusiasm (25 max) | 20.76 | 21.00 | 25.00 | 3.501 |
| Combined Motivation (C, O, E combined) (70 max) | 57.59 | 58.00 | 58.00 | 7.398 |

There were 100 points possible for the final examination score. The arithmetic mean of the final examination (89.40) was very close to the score most students achieved. Students' responses were coded 1 through 5, and all clarity items were added together. The process was duplicated for items concerning enthusiasm and organization. An instructor could receive a score for clarity ranging from 3-20, enthusiasm 3-25, and organization 3-25. Summing all three categories of the motivational behaviors yielded a combined motivation score from 9-70. More students (mode) gave their instructors a maximum rating of 25

in the category of enthusiasm than in the categories of clarity or organization. The average score (20.76) for enthusiasm was similar to the other categories.

These scores were correlated to each student's final examination grade to see if the student's perception of their instructor's motivational behavior affected the student's academic achievement. Presented in Table 6 is data regarding whether the students' perception of an instructor's motivational characteristics (clarity, organization, and enthusiasm) correlated with the students' final examination grade.

Table 6

*Spearman's Correlation of the Relationship of Instructor Motivation to Academic Achievement*

| Characteristics | Mean | SD | $r_s$ | *p* |
|---|---|---|---|---|
| Clarity (20 max) | 16.15 | 2.246 | .109 | .059 |
| Organization (25 max) | 20.76 | 3.501 | .113 | .049* |
| Enthusiasm (25 max) | 20.68 | 3.092 | .074 | .199 |
| Motivation Combined (70 max) (C, O, and E combined) | 57.59 | 7.398 | .116 | .045* |

* $p<.05$

The students' responses for the Kolmogorov-Smirnov test are less than $\alpha$ (.05) for the motivational categories (.000). It can be concluded these data are not normally distributed; therefore, Pearson's Product Moment Correlation could not be utilized because of the abnormal distribution of the responses. It was

appropriate to use a non-parametric calculation (Spearman rho) of statistical significance when determining whether clarity, organization, and enthusiasm were correlated with the students' final examination grades.

Using a Spearman-rho bivariate correlation at the determined statistical significance level of 0.05 for the study, organization (.049) had an impact on the students' final examination grade, more so than enthusiasm and clarity. Organization relates to the order, introduction, and logic of the lesson. When the combined motivation scores were considered, they also were statistically significant, (.045), when correlated to the students' final examination score.

Because instructor organization was related to student academic achievement, the researcher examined this category more closely (see Table 4). It appears the instructors were exhibiting behaviors associated with using headings and subheadings to arrange the lesson. Instructors' were displaying the outline and giving overviews as a means of better organizing the instruction. Also, when the instructor periodically summarized points made, as well as explained how topics fit into the course as a whole, student final examination scores seemed to be higher.

The next research question for this study explored the specific groups within the sample. Did a demographic group yield significance when their perceptions of the instructor's motivational behaviors (clarity, organization and enthusiasm) were correlated with their final examination grade? The researcher

selected several demographic variables to more clearly identify responses from specific groups within the sample. Those independent variables included rank, gender, commissioning source, time in service, and student motivation. The demographic variables associated with rank, gender, commissioning source, and time in service are data that could be collected directly from the students participating in the study.

Depicted in Table 7 is the correlation between the subjects' perception of the instructors motivation (clarity, organization and enthusiasm) and student final examination score by demographic group. A Spearman-rho computation was used to correlate the subjects' characteristics with instructor's motivation scores and the final examination score. The reader will recall in research question one there was a discussion of instructor motivational characteristics and final examination grades. In that research question it was determined that the category of organization and the combined score of organization, clarity, and enthusiasm were significant when related to the students' final examination grade.

With respect to Table 7, the following analysis of the demographic data was computed. Removing the small number of higher-ranking 1st Lieutenants from the group, clarity (.043) became significant for 2nd Lieutenants as well as organization (.019) and combined motivation (.024).

Table 7

*Spearman's Correlation of Subjects' Perceptions of Instructor Motivation Characteristics to Final Examination Score by Demographic Group*

| Characteristics | N | Clarity $r_s$ | *p* | Enthusiasm $r_s$ | *p* | Organization $r_s$ | *p* | Comb. Motiv. $r_s$ | *p* |
|---|---|---|---|---|---|---|---|---|---|
| Rank | | | | | | | | | |
| 2d Lieutenant | 291 | .119 | .043* | .085 | .149 | .138 | .019* | .132 | .024* |
| 1st Lieutenant | 11 | -.332 | .319 | -.232 | .493 | -.302 | .366 | -.448 | .167 |
| Gender | | | | | | | | | |
| Male | 224 | .124 | .064 | .153 | .022* | .143 | .032* | .165 | .013* |
| Female | 78 | .047 | .684 | -.112 | .328 | .012 | .917 | -.032 | .780 |
| Commissioning source | | | | | | | | | |
| OTS | 61 | .020 | .881 | .025 | .847 | -.001 | .996 | .010 | .937 |
| ROTC | 202 | .124 | .079 | .115 | .103 | .143 | .042* | .154 | .029* |
| AFAC | 32 | .031 | .865 | -.032 | .860 | .279 | .122 | .100 | .585 |
| Other | 7 | .333 | .465 | -.138 | .769 | .114 | .807 | -.083 | .860 |
| Time in service (months) | | | | | | | | | |
| 1-24 | 248 | .092 | .149 | .072 | .261 | .077 | .230 | .095 | .137 |
| 25-48 | 5 | .872 | .054 | .900 | .037* | .900 | .037* | .872 | .054 |
| 49 and above | 49 | .068 | .641 | .004 | .976 | .136 | .350 | .073 | .617 |

* $p<.05$

Male ratings showed statistically significant correlations between enthusiasm (.022), organization (.032), and combined motivation (.013) and their final grades. Females showed no statistically significant correlation between any of the instructor's motivating factors and their final examination grade. Upon closer examination, the females on average rated the instructor lower by a half of a percentage point in every category.

Data for those with ROTC as a commissioning source was statistically significant for the motivational characteristic of organization (.042). The reader will recall that the combined motivation (organization, clarity, and enthusiasm) was statistically significant with respect to student achievement. An even stronger correlation existed when one examines those with ROTC as a commission source of (.024). Commissioning sources including Officer Training School, Air Force Academy, and other sources showed no correlation between any of the instructor's motivating characteristics and their final examination grade.

The individuals with a time in service between 25 and 48 months showed significant differences for the categories of enthusiasm and organization, though this group had a small number of individuals available (n = 5) for analysis. No other area within the time-in-service demographic showed correlation between any of the instructor's motivating factors and their final examination grade.

These groups included 1-24 months, the majority (n = 248), and the 49 months and above category (n = 49).

In order to assess student motivation, a second instrument, the Academic Achievement Motivation Test (AAMT) (Russell, 1969), was incorporated into the survey. The AAMT gave the researcher an indication of student academic drive. The AAMT yields a score on a 31-point scale. For this study, a score of 28-31 on the AAMT was considered highly motivated, 27-23 was considered motivated, 22-19 was considered average motivation, and below 19 was considered low motivation.

As a result of administering the Academic Achievement Motivation Test (AAMT) to all students in the sample, an average score was computed. For all of the students in the sample, the average was 21.77. In the AAMT, this score suggests the students were motivated, but not to a great degree.

Presented in Table 8 is the extent to which a student's academic drive affected the student final examination score. Again, a Spearman-rho bivariate correlation was used to determine whether a relationship existed. It was thought that if the students were academically motivated the instructor's motivational behaviors would have less of an affect on the student's final examination grade. Conversely, if the student had average or low motivation the instructor motivational ability would have an impact on the student final examination grade.

Table 8

*Spearman's Correlation of Subjects' Achievement Motivation to Final Examination Score*

| Achievement motivation | N | Clarity $r_s$ | $p$ | Enthusiasm $r_s$ | $p$ | Organization $r_s$ | $p$ | Comb. Motiv. $r_s$ | $p$ |
|---|---|---|---|---|---|---|---|---|---|
| Highly motivated | 7 | .314 | .495 | -.167 | .721 | .167 | .720 | .083 | .859 |
| Motivated | 137 | .101 | .241 | .046 | .590 | .139 | .105 | .096 | .265 |
| Average motivation | 102 | .036 | .718 | .069 | .488 | .053 | .596 | .075 | .455 |
| Low motivation | 56 | .120 | .377 | .020 | .882 | .081 | .555 | .063 | .645 |

* $p<.05$

Students were divided into four groups based upon their academic drive described by the AAMT motivation scale. This scale can describe student motivation at four levels: highly motivated, motivated, average, and low motivation. From the four groups, there was no significant difference between the students' perceptions of their instructor motivational characteristics when correlated with the final examination score.

The next aspect of the study considered whether students' measure of their instructor's overall motivational ability correlated with the students' rating of the instructor's effectiveness. Two items on the TBI were used to address this question. The researcher contacted Dr. Frank Worrell from the University of California at Berkeley for his input in regard to this assessment. Item 21 of the TBI was used to provide an overall rating for instructor effectiveness. Item 22 was used to address students' impressions of the instructor's overall motivational behaviors. Research question three was designed to investigate to what extent a relationship existed between student perceptions of an instructor's overall motivational ability and the instructor's overall effectiveness; see Table 9.

Table 9

*Spearman' Correlation of Relationship of Overall Motivational Ability with Instructor Effectiveness*

| Characteristics | $r_s$ | *p* |
|---|---|---|
| Instructor overall motivation to Instructor overall effectiveness rating | .727 | .000* |

* $p<.05$

The students' rating of the instructor's effectiveness when compared to the students' motivational rating of the instructor showed significance at the ($p$=.05), indicating a relationship between instructor motivational behaviors and the instructor's perceived effectiveness (.000).

The average of item 21 for the entire sample showed the rating for effectiveness at (4.26) was higher than the average for the 22nd item for instructor motivational ability (4.00). This suggests that the students thought the instructors on average were more effective than motivating.

## Summary

Chapter Four was a presentation of data to address the three research questions for this study. The chapter examined data with respect to the relationship between academic achievement and instructor's motivational behaviors. The demographic makeup of the students was examined to discern if any differences were present among groups within the sample. In addition, the researcher investigated the possible existence of a relationship between

instructor motivational behaviors and how effective the instructor was perceived to be by the students.

# CHAPTER 5

# SUMMARY, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

## Summary

The purpose of this study was to contribute to the body of literature concerning teaching effectiveness within professional military education. More specifically, the study assessed the extent to which United States Air Force Air and Space Basic Course instructors exhibit motivational behaviors and whether those behaviors influenced student achievement. For this study, motivational behaviors included the characteristics of clarity, enthusiasm, and organization. This chapter presents a summary of the study with findings, conclusions, discussion of results, recommendations for organizations preparing instructors for the classroom, and recommendations for future research.

The investigation of attributes that make a teacher successful in the classroom is applicable to those in the field of education. Greenwald and Gillimore (1997) noted that teaching is multidimensional, that is, teaching is a composite of various techniques and talents. So, what can be examined to see if the instructor is being effective in the classroom?

Enthusiasm, clarity, and organization surfaced as part of an investigation into instructor effectiveness and influenced motivation in the classroom. Wlodkowski (1985) described skills for instructors who are good at motivating their students, particularly adult students. Those instructors have skills such as

expertise, empathy, enthusiasm, and clarity. Further, organization has been suggested (Worrell & Kutherbach, 2001) as a behavior necessary for an instructor to be motivational. Organization describes how the instructor presents the material in terms of a logical, orderly fashion. McKeachie (2002) stated motivation is important in holding student attention. By holding student attention, the teacher is allowed to deliver the content more efficiently and effectively.

Students will be affected by a teacher's motivational behaviors in different ways. Extrinsically motivated students are likely to get involved with activities for external rewards, such as grades, approval from others, and recognition received for their efforts. Students driven by internal rewards are considered intrinsically motivated. These students tend to engage in activities for the value of the activity alone. Both types of motivation can affect how any one student may approach an endeavor. Students, particularly in the college setting, tend to be intrinsically motivated and are more likely to use cognitive strategies such as elaboration and organization, resulting in a deeper processing of the topic being learned (Pintrich & Schunck, 1996).

The principles of enthusiasm, clarity, and organization associated with effectiveness recur in studies of teacher characteristics. Wlodkowski (1985) suggested that the skills of being enthusiastic, clear, and organized are important for instructors who want to motivate their students, particularly adults.

The problem of this research was to determine if relationships exist between student perceptions of selected instructor motivational behaviors and the academic achievement of students. The research design chosen for this study was descriptive in nature. The survey methodology was selected to collect data from students enrolled in Air and Space Basic Course (ASBC), a school located in Squadron Officers College at Air University, Maxwell AFB.

Data collected for this study were obtained from a random sample of Lieutenants enrolled in the January 2005 class of Air and Space Basic Course at the U. S. Air Force Squadron Officer College at Maxwell Air Force Base (n = 725). Every third flight (the Air Force term for class is flight) was chosen until a sample of 302 had been selected. A flight is made up of approximately 14 students each.

The researcher traveled to Maxwell Air Force Base, the location of Air University and the Squadron Officer College, to administer a survey developed to measure students' perceptions of an instructor's motivational characteristics. The survey was administered to students enrolled in Air and Space Basic Course (ASBC), in February 2005, during a morning preparation hour in which all of the selected students were available.

For this study, the methodology included collected data from four different sources. Those sources include:

1. the data with respect to the demographics of the 302 Air Force students selected in the sample;

2. the Teacher Behavior Inventory (TBI) developed by Murray (1983) and utilized by Worrell and Kutherbach (2001). The TBI, which utilized 22 separate items, was used to address the student perceptions of an instructor's motivational characteristics;
3. the students' final examination scores for the Air and Space Basic Course collected from records at Maxwell Air Force Base;
4. the Academic Achievement Motivation Test (AAMT) (Russell, 1969). The AAMT gave the researcher an indication of student academic drive and addressed the second research question of this study. Student academic drive is the student motivation to perform well within the academic setting (Russell, 1969).

The survey questions were focused on the independent variables in this study: (a) motivational characteristics of the instructor, (b) student's rank, (c) time in service, (d) gender, (e) commissioning source, (f) student motivation. The dependant variable was student academic achievement as measured by their final examination score.

Demographics, such as gender, rank, time in service, and commissioning source, were analyzed. Most of the participants were 2nd Lieutenants (291, 96.4%). The number of males who made up the sample, 224 (74.2%), substantially outnumbered females. The majority of the respondents (66.9%) were commissioned through Reserve Officer Training Corps (ROTC). Most of the

group had 1-24 months (82.1%) of time in service. One group of lieutenants, 49 (16.2%), had more time in service than Lieutenants normally have; because it is possible for enlisted (non-officer) personnel to become officers, the researcher hypothesized that the number of personnel in the sample who have more time in service than lieutenants normally would have were primarily individuals who were chosen to attend Officer Training School and become officers later in their Air Force career.

Research Question 1 addressed the extent to which a relationship existed between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization. The categories of organization and the combined total motivation score were confirmed to be significant at the .05 level.

Research Question 2 addressed the extent to which a relationship existed between the academic achievement of USAF Air and Space Basic Course students and their perceptions of their instructor's classroom motivational behaviors with respect to instructor clarity, enthusiasm, and organization moderated by demographic variables.

The analysis of the demographic data showed ratings for the categories of organization and combined motivation were significant when correlated to final examination scores. Removing the small number of higher-ranking 1st

Lieutenants from the group, clarity (.043), organization (.019) and combined motivation (.024) scores were significant.

Male ratings showed significant correlation for enthusiasm (.022), organization (.032), and combined motivation (.013) with students' final examination scores. Females reported no relationship between any of the instructors' motivating factors and their final examination grade. Data for those with ROTC as a commissioning source paralleled the total sampled significance for organization (.042); however, their combined motivation score (.024) was highly correlated.

Student academic drive was an additional factor in considering the impact the instructor's motivational characteristics had on student achievement. By administering Academic Achievement Motivation Test (AAMT), to students in the sample, an average score was computed. This provided the researcher with an indication of the student's academic drive or motivation. For all of the students in the sample the average was averaged 21.77. In the AAMT this score suggested the students were motivated but not to a great degree.

The students were classified into four groups based upon their academic achievement as described by the AAMT's motivation scale. This scale can describe students' motivation from highly motivated, motivated, average, and low motivation. Among the four groups, there was no significant difference

between students' perceptions of their instructor motivational characteristics when correlated to the final examination score.

Research Question 3 addressed the extent to which a relationship existed between student perceptions of an instructor's overall motivational ability and the instructor's overall effectiveness rating. The students' ratings of the instructor's effectiveness when compared to the students' motivational rating of the instructor were significant at the .05 level, indicating relationship between instructors' motivational characteristics and their perceived effectiveness (.000).

## Conclusions and Discussion

The following conclusions are based on the study findings.

First, students enrolled in the January class of the Air and Space Basic Course at the U. S. Air Force Squadron Officer College at Maxwell Air Force Base find the assigned instructors generally motivating. The students' perception of their instructors' motivational characteristics seem to influence their academic achievement. Organization was the most significant element of motivation, however all the factors of clarity, organization, and enthusiasm combined produced a positive effect on the student's final grade. This finding is consistent with literature in the field. The motivational characteristics an instructor displays in the classroom have a relationship to academic achievement.

Also, clarity, organization, and the combined motivation score are important when considering the Second Lieutenants' (O1) final examination

score. Removing the small number of First Lieutenants (O2) from the sample changed the relationship of clarity so that there was a significant relationship between clarity and student academic achievement. Typically, the higher-ranking officers (1st Lieutenants) are chosen to be class leaders and spend more time with the instructors. This increased time, by design, allows more opportunity for clarification, so the class leaders are able to communicate the instructor's thoughts to the class. The increased time spent with the instructor might reduce the need for clarification for these students during the scheduled class period.

Third, when gender was considered, males responded to enthusiasm. The categories of enthusiasm as well as organization and the combined motivational scores became significant when student achievement was correlated with the student perception of their instructor's motivational characteristics.

Females were more critical of their instructor's motivational abilities than males. All of the categories for instructor motivation were, on average, rated lower by the female portion of the sample. Hence, the instructor may not have had as much of an effect on the females in the sample. Additional research will be necessary to draw conclusions concerning these data. Does the fact there are more male instructors in the military influence female perception of instructor motivational ability?

Fourth, when commissioning source was examined, for those who commissioned through Reserve Officer Training Corps (ROTC), the category of organization was significant as well as the combined motivation score. Officer Training School (OTS) and the United States Air Force Academy (AFAC) are structured, regimented environments that try to mirror military culture. The OTS and AFAC individuals may be more acclimated to a military school environment, and clarity may not be as important to them as it is to the ROTC students.

Fifth, instructor motivation was related to instructor effectiveness. Analysis of the data revealed the student's rating of the instructor's overall motivational ability had a highly significant correlation when related to the instructor's overall effectiveness rating. The ratings describing the instructors overall motivational ability (4.00) were generally lower than the rating for effectiveness (4.26). This may be an indication of instructor motivation being a portion of instructor effectiveness, but other factors and behaviors add to a student's impression of how effective an instructor is.

## Recommendations

Based on the findings of this study, the following recommendations are made:

1. Military teaching institutions should consider the following concerning faculty development practices.

a. Teaching in many instances is a non-voluntary assignment and instructor motivational behaviors have an influence on the students and the instructor's overall effectiveness. Hence, with regard to selection of instructor, instructors that are motivating in the classroom can enhance the learning process and those that are not motivating may have a negative impact on student achievement.

b. The study could aid in the development of a teaching behavior profile to identify potential instructors that could fit into the current Air Force teaching competencies requirements.

c. Military faculty development may emphasize the pedagogical and cognitive aspects of instruction. It is apparent from the study that affective behaviors associated with motivation need to emphasized and developed. Curriculum for faculty should be developed to enhance elements of motivation.

Military teaching institutions could use the survey:

2. as an evaluation tool for potential instructors to ensure they exhibit some motivational behaviors that students respond to positively;

3. as a post test to determine if the faculty development program has been successful in improving the motivational skills of the prospective instructor.
4. as a formative feedback instrument to identify areas for instructor improvement.

Future research could include:

1. exploring the interaction of variables concerning student motivation and the instructor's motivational behaviors;
2. identifying other key areas of effective teaching and incorporating those areas into the survey to judge their impact on student achievement;
3. introducing faculty development opportunities to see if the ratings from the students increase as well as their academic achievement;
4. changing the population to include public institutions with a more diverse population and possibly different values concerning effective and motivational instructors;
5. adding an open-ended comments section on how to improve the instructor's motivational qualities within the classroom setting;

6. conducting a follow-up study with the same population to try to establish trends of student perceptions concerning the faculty's motivational behaviors;
7. conducting a study that adds a section that allows the instructors to rate themselves to determine whether there are similarities between the student's opinions and instructors;
8. expanding the study to different Air Force schools to determine if there are differences among student's responses, which may highlight differences in the faculty development process.

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# APPENDICES

# APPENDIX A

## HUMAN SUBJECTS COMMITTEE APPROVAL

**Southern Illinois University-Carbondale**

Human Subjects Committee
Research Development and Administration
Woody Hall C214
Carbondale IL 62901-4709
Phone - 618.453.4533
Fax - 618.453.8038

To: Anthony Antoline

From: Anthony Cuvo, Ph.D.
Chair, SIUC Human Subjects Committee

Anthony J. Cuvo

Date: November 4, 2004

Re: *Student Perceptions of the Motivational Behaviors Exhibited by Effective Instructors in a Military Setting*

The referenced study has been reviewed and approved by the SIUC Human Subjects Committee.

This approval is valid for one (1) year from the approval date; you must request an extension to continue the research after that date.

Also note that any future modifications to your protocol must be submitted to the Committee for review and approval prior to their implementation.

Your Form A approval is enclosed. Best wishes for a successful study.

AJC:kr

Enclosure

cc: Dr. John S. Washburn

# APPENDIX B

## UNITED STATES AIR FORCE SURVEY APPROVAL

**DEPARTMENT OF THE AIR FORCE**
**HEADQUARTERS AIR FORCE PERSONNEL CENTER**
**RANDOLPH AIR FORCE BASE TEXAS**



29 NOVEMBER 2004

MEMORANDUM FOR CAPTAIN ANTHONY ANTOLINE

FROM: AFPC/DPAFFA

SUBJECT: Request for Survey Approval

We have reviewed the Teachers Behavior Inventory and the Academic Achievement Motivation Scale and approved its use with SOC graduates in a Air University class in 2005. We have assigned a Survey Control Number (SCN) of USAF SCN 04-114. Assignment of the SCN is contingent upon the following modifications to the Academic Achievement Motivation Scale.

Ref item13: The item should read: "The person who makes the highest grade ..." Also, the next line "Would you stay home from a social event or athletic contest to study?" should be a separate numbered item.

The survey is valid through 31 May 2005. Please ensure that the SCN and expiration date appear within the survey, survey instructions or appropriate web site.

With regard to the survey and its associated results, it is important to draw your attention to the provisions of the Freedom of Information Act (FOIA). Under the FOIA, the public can request the results of your survey. Furthermore, if the results will be released outside the Air Force, please follow proper approval procedures through Public Affairs before the results are released.

Questions or concerns can be directed to me at DSN 665-2448 or louis.datko@randolph.af.mil. We wish you much success with your data collection effort.

//Signed//

LOUIS M. DATKO
Chief, Air Force Survey Program

# APPENDIX C

# SURVEY INSTRUMENT

**Instructor characteristics: Estimate how often your instructor(s) displays the following behaviors:**

| | Almost Never | Rarely | Sometimes | Often | Almost Always |
|---|---|---|---|---|---|
| 1. Gives several examples of each concept. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Speaks in a dramatic or expressive way. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Uses headings or subheadings to organize lesson. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Addresses individual students by name. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Puts outline of lesson on blackboard or overhead. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Fails to define new or unfamiliar terms. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Provides opportunity for participation. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Gestures with hands or arms. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Repeats difficult ideas several times. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Uses facial gestures or expressions. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. Asks questions of individual students. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. Gives preliminary overview of lesson at beginning of class. | ☐ | ☐ | ☐ | ☐ | ☐ |

| | Almost Never | Rarely | Sometimes | Often | Almost Always |
|---|---|---|---|---|---|
| 13. Explains how each topic fits into course as a whole. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. Tells jokes or humorous anecdotes. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15. Encourages questions and comments. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 16. Periodically summarizes points previously made. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 17. Explains subject in familiar, everyday language. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18. Smiles or laughs when teaching. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19. States teaching objectives. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 20. Friendly, easy to talk to. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 21. This instructor is an effective teacher. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 22. This instructor is motivating with regard to the subject matter. | ☐ | ☐ | ☐ | ☐ | ☐ |

Demographics:

23. M ☐ F ☐

24. Time in Service? _____(round to the nearest month)

25. Commissioning source? OTS ☐ ROTC ☐ AF Academy ☐ Other_____

26. Current Rank? 1stLt ☐ 2ndLt ☐

27. Current Flight Ranking? _____

General comments about this instrument or topic: _____

**With regard to yourself, respond to the following questions/statements "Yes" or "No"**

| | | |
|---|---|---|
| 1. Should students set their goals as high as they can easily reach? | Yes ☐ | No ☐ |
| 2. Does it bother you if another student makes a better grade than you? | Yes ☐ | No ☐ |
| 3. Would you rather be a leader in a small school than just another student in a large school? | Yes ☐ | No ☐ |
| 4. Does failure discourage you from trying hard the next time? | Yes ☐ | No ☐ |
| 5. You should select your friends from among those whose goals are generally as high as your own. | Yes ☐ | No ☐ |
| 6. Would you like to take a school subject in which no tests are given? | Yes ☐ | No ☐ |
| 7. Do you often compare your work with work of others? | Yes ☐ | No ☐ |
| 8. Are you usually on time with written assignments? | Yes ☐ | No ☐ |
| 9. Do you believe, "Win or lose, who cares?" | Yes ☐ | No ☐ |
| 10. Do you try to make better grades than other students in your class? | Yes ☐ | No ☐ |
| 11. Rewards should be given regardless of effort or achievement. | Yes ☐ | No ☐ |
| 12. Would you, or do you enjoy being one of the class leaders? | Yes ☐ | No ☐ |
| 13. The person who makes the highest grade on the test should receive a reward. | Yes ☐ | No ☐ |
| 14. Would you stay home from a social event or athletic contest to study? | Yes ☐ | No ☐ |
| 15. Do you stick to an assignment until it is completed even though it is dull and boring to you? | Yes ☐ | No ☐ |
| 16. If you lost several times consecutively, would you quit trying? | Yes ☐ | No ☐ |
| 17. Would you prefer to enroll in a course in which no grade is given? | Yes ☐ | No ☐ |
| 18. Would you enter a contest with other students knowing you had a very slight chance of winning? | Yes ☐ | No ☐ |
| 19. In high school, do you think school letters should be given out for high grades as well as athletics? | Yes ☐ | No ☐ |
| 20. If you had to choose between taking part in a contest or being one of the judges, would you choose to be a judge? | Yes ☐ | No ☐ |
| 21. Do you think that you enjoy trying to do well in a school subject more than other students in your class? | Yes ☐ | No ☐ |
| 22. Would you prefer to sit in the back of a classroom? | Yes ☐ | No ☐ |
| 23. Rewards earned are worth more than those that come without effort. | Yes ☐ | No ☐ |
| 23. The more people who seek the same goal the harder you try for it. | Yes ☐ | No ☐ |
| 24. What parents expect for their children is more important than a child's wants. | Yes ☐ | No ☐ |
| 26. Your friend stopped running when it became evident that he was losing the race. Would you have stopped running under this situation? | Yes ☐ | No ☐ |
| 27. Do you tell your parents/spouse about your successes? | Yes ☐ | No ☐ |
| 28. Do you tell your parents/spouse about your failures? | Yes ☐ | No ☐ |
| 29. When someone else is being praised, do you wish you were? | Yes ☐ | No ☐ |
| 30. When someone else is being praised, does it cause you to give less effort? | Yes ☐ | No ☐ |
| 31. Is there someone you enjoy beating in a contest or in academics? | Yes ☐ | No ☐ |

Student # _____

## TEACHER BEHAVIORS INVENTORY

Instructions to students

On this questionnaire, you are asked to rate specific classroom behaviors of your instructor. This information can be used by your instructor for purposes of instructional improvement. A statistical summary of results for all students combined will be provided to your school. No one else will have access to this information without your schools consent. Please try to be both thoughtful and honest in your responses in order to maximize the value of feedback provided to your instructor.

Your task is to estimate the frequency of occurrence of each of these behaviors for your instructor, using the rating scale shown below.

| A | B | C | D | E |
|---|---|---|---|---|
| Almost Never | Rarely | Sometimes | Often | Almost Always |

*Only rate your current classroom instructor*. Mark your ratings on the answer sheet provided. DO NOT mark YOUR NAME just your Student Number on the upper right hand margin on the answer sheet. Your judgments should reflect the type of teaching you think is best for this particular course and your particular learning style. Try to rate each behavior independently rather than letting your overall impression of the instructor determine each individual rating. Please read each question carefully before selecting your response.

The final section on the back is a series of yes or no questions or statements. Your answers should reflect your feelings about yourself and the classroom.

USAF SCN 04-114 valid through 31 May 2005

**Subject:** FW: Fwd: The TBI instrument

-----Original Message-----
**From:** Frank C. Worrell [mailto:frankc@uclink.berkeley.edu]
**Sent:** Thursday, February 05, 2004 10:58 AM
**To:** Antoline
**Subject:** Re: Fwd: The TBI instrument

Dear Captain Antoline.

If you are talking about the article in the Journal of Secondary Gifted Education, I am the first author.My work is based on the work of Harry G. Murray, who supervised my Honors and Masters theses. You may wish to check out his work in this area.

I have included as attachments the complete TBI and the more limited version I used in the article.

The complete TBI has the questions in sequential order by section.
In the version used for the study, note that item 21 is a global item and not one of the low-inference subscale items.

Both instruments are in the public domain and you can use them without a problem. Also note that I responded from my faculty email address, which I check much more frequently. That address and my other contact information is in the signature at the end.

What measure of teacher efficacy are you using? This construct is also one of interest to me. If possible, I would love to see your results. Good luck with your study and let me know if I can be of further assistance.

Frank

**********

Frank C. Worrell, Ph.D.
Associate Professor School Psychology Program
Faculty Consultant Academic Talent Development Program
**Contact Information** **Mailing Address**
Off: 4427 Tolman Hall Cognition and Development
Ph: (510) 643-4891 4511 Tolman Hall
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Em: frankc@uclink.berkeley.edu Berkeley, CA 94720-1670

http://atdp.berkeley.edu/Frank.html http://www-gse.berkeley.edu/program/sp

1. Should students set their goals as high as they can easily reach? N
2. Does it bother you if another student makes a better grade than you? Y
3. Would you rather be a leader in a small school than just another student in a large school? Y
4. Does failure discourage you from trying hard the next time? N
5. You should select your friends from among those whose goals are generally as high as your own. Y
6. Would you like to take a school subject in which no tests are given? N
7. Do you often compare your work with work of others? Y
8. Are you usually on time with written assignments? Y
9. Do you believe, "Win or lose, who cares?" N
10. Do you try to make better grades than other students in your class? Y
11. Rewards should be given regardless of effort or achievement. N
12. Would you, or do you enjoy being one of the class leaders? Y
13. The person who makes the highest grade on the test should receive a reward. Y
14. Would you stay home from a social event or athletic contest to study? Y
15. Do you stick to an assignment until it is completed even though it is dull and boring to you? Y
16. If you lost several times consecutively, would you quit trying? N
17. Would you prefer to enroll in a course in which no grade is given? N
18. Would you enter a contest with other students knowing you had a very slight chance of winning? Y
19. In high school, do you think school letters should be given out for high grades as well as athletics? Y
20. If you had to choose between taking part in a contest or being one of the judges, would you choose to be a judge? N
21. Do you think that you enjoy trying to do well in a school subject more than other students in your class? Y
22. Would you prefer to sit in the back of a classroom? N
23. Rewards earned are worth more than those that come without effort. Y
23. The more people who seek the same goal the harder you try for it. Y
24. What parents expect for their children is more important than a child's wants. N
26. Your friend stopped running when it became evident that he was losing the race. Would you have stopped running under this situation? N
27. Do you tell your parents/spouse about your successes? Y
28. Do you tell your parents/spouse about your failures? Y
29. When someone else is being praised, do you wish you were? Y
30. When someone else is being praised, does it cause you to give less effort? N
31. Is there someone you enjoy beating in a contest or in academics? Y

# APPENDIX D

## SURVEY COVER LETTER

Dear Student:

I am a graduate student working from Air Force Institute of Technology (AFIT) at Southern Illinois University Carbondale. I am conducting a study entitled " Student Perceptions of the Motivational Behaviors Exhibited by Effective Instructors in a Military Setting " The results of the study may be used to create a curriculum to enhance the faculty development efforts of the Air Force.

You were selected for this study because you enrolled in Squadron Officers College. Although your participation is *completely voluntary*, your insights regarding your experiences in this environment of learning will be used to help others who come after you. Your participation will involve approximately 15-25 minutes. During this time, you will be asked to complete two short forms:

1. Teacher Behavior Inventory
2. Academic Achievement Motivation scale

Please read the attached survey and respond to each of the questions. The respondent list and numbers will be destroyed at the end of the study. Only the researcher will have access to this list and it will be stored in a locked file cabinet within the researcher's office. We will take all reasonable steps to protect your identity. All individual responses will be confidential. If you would like a copy of the final report sent to you, please email me. Antolin1@siu.edu

This study has been reviewed and approved by the Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Research Development and Administration, Southern Illinois University, Carbondale, IL 62901-4709. Phone (618) 453-5669.

It has also bee approved by the U.S. Air Force's Chief, Program Evaluation AU/CFAE and has been issued survey # USAF SCN 04-114 expires 31 May 2005. If you have other questions, please call me at (618) 687-3009 (after 5:00) or by email at Antolin1@siu.edu. You may also contact Dr. John Washburn, Department of Workforce, Education, and Development at (618) 453-3321. Thank you for your time and input.

Sincerely,
Anthony Antoline, Captain, USAF
AFIT/CI

# VITA

Graduate School
Southern Illinois University

Anthony F. Antoline

Southern Illinois University at Carbondale
Bachelor of Science, Biology, May 1992

Southern Illinois University at Carbondale
Master of Science in Education, Workforce Education and Development, May 1997

Dissertation Title:
STUDENT PERCEPTIONS OF MOTIVATIONAL BEHAVIORS OF INSTRUCTORS IN A MILITARY SETTING

Major Professor: Dr. John Washburn