

1993

## Educational aspirations and perceptions of health occupation graduates from community colleges

Lawrence A. Dahl  
*University of Northern Iowa*

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**Educational aspirations and perceptions of health occupation  
graduates from community colleges**

**Dahl, Lawrence Arthur, Ed.D.**

**University of Northern Iowa, 1993**

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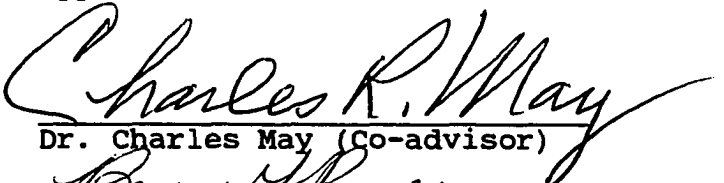
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EDUCATIONAL ASPIRATIONS AND PERCEPTIONS OF HEALTH  
OCCUPATION GRADUATES FROM COMMUNITY COLLEGES

A Dissertation  
Submitted  
In Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Education

Approved:



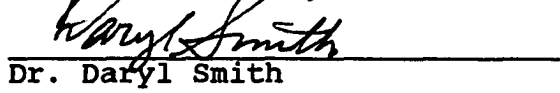
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May 1993

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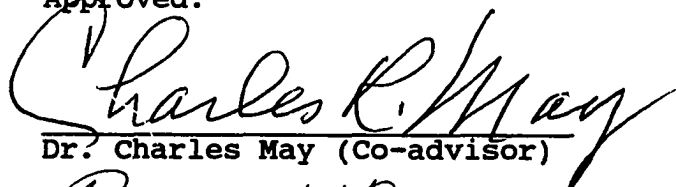
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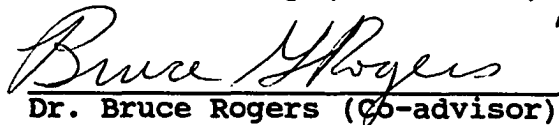
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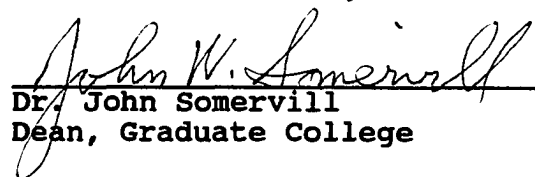
**EDUCATIONAL ASPIRATIONS AND PERCEPTIONS OF HEALTH  
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Doctor of Education**

Approved:

  
Dr. Charles May (Co-advisor)

  
Dr. Bruce Rogers (Co-advisor)

  
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Dean, Graduate College

**Lawrence A. Dahl  
University of Northern Iowa  
May 1993**

## ABSTRACT

### Educational Aspirations and Perceptions of Health Occupation Graduates from Community Colleges

The major purpose of this study was to investigate whether associate degree health occupation graduates perceived that the factors proposed in Dougherty's (1987) model on the continuance of education were valid. A second purpose was to profile selected characteristics of this population.

The sample consisted of licensed health care practitioners for whom an associate degree might be an entry level of preparation. The data were collected through the use of a questionnaire constructed to determine educational aspirations degree and to assess perceptions of the factors identified by Dougherty (1987). The data were analyzed using t tests and the chi-square test of independence.

Of the factors which were tested, the lack of financial aid was perceived to constitute a barrier to continuing education toward a baccalaureate degree. The vocational orientation of the associate degree, the appropriateness of the amount of credit awarded, difficulties in social integration, and adequateness of academic preparation were not perceived as barriers or as hindrances to continuation of education. Findings concerning the perceptions of a



negative attitude by four year college/university officials, difficulty moving to another school, and availability of sufficient financial aid to continue were not significant at the 0.05 level.

A majority of associate degree graduates either had completed or planned to complete a baccalaureate degree with men and those age 25 or over at the time they received their associate degree more likely to have earned a baccalaureate than women or those under 25. Satisfaction with occupation was not associated with educational aspirations.

## CHAPTER 1

## INTRODUCTION

Since the founding of the first of the two year colleges, then called junior colleges, at Joliet, Illinois, in 1901, a major function of this type of institution has been to provide the first two years of post-secondary course work leading toward a baccalaureate degree (Deegan & Tillery, 1985). The completion of these two years of course work generally has been recognized by the granting of an Associate of Arts (AA) degree. Although these new and uniquely American institutions had other functions, including the provision for non-transfer and vocational-technical courses, for the first 50 years of their existence, the latter functions were decidedly minor (Eells, 1941; Palmer, 1987). The junior college was seen to fit vertically into the American system of education; continuing after high school and providing either a termination of formal education or, as more commonly perceived, a bridge to the senior colleges and universities (Deegan & Tillery, 1985).

After World War II, and more dramatically in the 1960s, these institutions experienced tremendous growth. They changed from junior colleges, with a primary orientation toward vertical transfer programs, to comprehensive community colleges with a horizontal,

populist orientation toward the perceived needs of the community. A major function of these new community colleges was the provision of educational programs designed to prepare graduates to enter occupations which required knowledge and skills beyond those available in high school, but requiring less education than a baccalaureate degree (Deegan & Tillery, 1985).

A part of this evolution was brought about by changes in the American workplace which generated a large number of technical and human service occupations requiring this level of education. Among the technical areas which proliferated during this period were health occupations, engineering technology, and, business occupations (Deegan & Tillery, 1985). Programs in such areas were considered to be terminal, and completion of two years of study was generally recognized by granting an Associate of Applied Science (AAS) degree (Palmer, 1987).

This occupational-academic duality of function has come under attack from a number of sources (Brint & Karabel, 1989; Dougherty, 1987; Karabel, 1972, 1986; Pincus, 1980, 1986). The major premise of these critics is that community colleges contribute to academic inflation and that, contrary to the promise of providing upward social mobility through improved educational opportunity, students from lower class backgrounds are tracked into vocational programs that retain them in

positions roughly equal to their parents' socioeconomic status. Therefore, community colleges, by promoting the vocationally-oriented AAS degree, serve to discourage educational continuation toward a baccalaureate degree. The data that have been accumulated are not in dispute and indicate that those individuals who enter community colleges are less likely to achieve a baccalaureate degree than those who enter directly into four-year colleges and universities (Brint & Karabel, 1989; Cohen & Brawer, 1982; Deegan & Tillery, 1985; Dougherty, 1987; Karabel, 1972, 1986).

Dougherty (1987) has proposed a model to explain why entrance into a community college hinders the educational attainment of students who aspire to a baccalaureate degree. This funnel-like model identifies three processes which are in effect at three separate stages during the progress of individuals proceeding from community college entrance to baccalaureate completion. These processes are (a) attrition in the freshman and sophomore years, (b) problems in transferring to four-year colleges or universities, and (c) attrition after transfer.

The first process relates to the philosophical and statutory nature of the community college. Two institutional factors that Dougherty identifies as inherent in this process are low academic selectivity and

lack of dormitories. The other processes address institutional factors related to transfer to and attrition after transfer to four-year colleges and universities.

Dougherty (1987), in addressing these factors states:

Among students who survive the first two years of college, community college entrants encounter greater institutional obstacles to continuation into the upper division of four-year colleges than comparable four-year college entrants. The key factors here are community colleges' strong vocational orientation, the distaste of four-year colleges for community college transfers, the scarcity of financial aid for community college transfers, and the simple fact that movement to the upper division requires movement to a new and unfamiliar school.

Among students who do enter the upper division of four-year colleges, community college entrants encounter greater institutional hindrances to continuation in the upper division of four-year colleges than comparable four-year college entrants. These factors include frequent loss of credits, difficulty securing financial aid, difficulty becoming socially integrated into the four-year college, and poorer preparation for upper division work and consequent difficulty becoming academically integrated into the four-year college. (p. 94)

Recently, some observers have been investigating whether the factors identified in Dougherty's (1987) model are valid, particularly the factors concerning the strong vocational emphasis in the community college. These observers, including Lee and Frank (1990), Palmer (1987), and Prager (1988), have examined the factors included in the second part of Dougherty's model, and contend that the difference in aspirations of AAS and AA graduates is not as real as it has seemed to be in the past. There is some

indication that significant numbers of community college graduates are viewing the AAS as a transfer degree or at least as a first step toward a baccalaureate degree (Prager, 1988). This is particularly noticeable in the more academically-oriented, higher status areas identified by Palmer (1987) which include health occupations, business occupations, and engineering technology.

Kempner (1990) criticizes the work of Dougherty (1987) and Brint and Karabel (1989) by stating:

These studies, which attempt to equate students statistically, focus predominantly on students who move in a traditional, sequential fashion through the steps of education. Although this supporting research offers excellent descriptive information, it fails to consider fully how the changing composition and diversity of community college students affects college programs and the outcomes of these students. For example, research that uses traditional indicators of success...is inappropriate for community college students who are part-time, in their forties, on welfare, unemployed, or blue-collar workers being retrained. (p. 710)

These criticisms do not seem to invalidate Dougherty's model. They do, however, require a modification in the underlying assumption that participation in community college vocational-education programs weakens student desire to transfer to senior institutions particularly in a high status area such as health occupations (Deegan & Tillery, 1985; Dougherty, 1987).

### Statement of the Problem

This study was designed to test whether selected AAS graduates perceive that the factors proposed in two of the components of Dougherty's (1987) model on continuance of education affected the pursuit of a baccalaureate degree. The components tested involve institutional obstacles to transfer into the upper division of four-year colleges and institutional hindrances to continuation in the upper division of four-year colleges by students who entered community colleges. The study was also designed to profile selected personal characteristics of these individuals.

The effects of the components of the model were tested by determining the educational aspirations of community college graduates who had earned an AAS degree in a health occupation and their perceptions of the obstacles and hindrances of continuation toward a baccalaureate degree.

Specifically the following questions were addressed:

1. What proportion of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive that the factors identified in Dougherty's model constitute obstacles to transferring into the upper division at four-year colleges and universities?

2. What proportion of AAS graduates who aspire to continue their education perceive that the factors identified in Dougherty's model constitute hindrances to completing a baccalaureate degree?

3. What proportion of graduates who are currently licensed in the field in which they earned their AAS continued work toward a baccalaureate degree?

4. What differences exist in the age, sex, and previous postsecondary education of AAS graduates who perceive their formal education to be completed compared to AAS graduates who intend to pursue a baccalaureate degree?

5. What proportion of AAS graduates who continue their education aspire to advance in their occupational field rather than to leave it?

Three groups of hypotheses were derived from these questions:

Group 1: Obstacles to Transferring

Hypothesis 1a. A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive that the vocational orientation of their degree facilitates admission to a senior college or university.

Hypothesis 1b. A majority of AAS graduates who aspire to continue their education toward a baccalaureate



degree perceive a positive attitude on the part of four-year college/university officials toward transfer students.

Hypothesis 1c. A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive that sufficient financial aid will be available to allow them to transfer to four-year colleges/universities.

Hypothesis 1d. A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive little difficulty with moving to a new institution.

#### Group 2: Hindrances to Continuing

Hypothesis 2a. A majority of AAS graduates who entered the upper division of four-year colleges or universities perceive that the amount of credit granted for their associate degree was appropriate.

Hypothesis 2b. A majority of AAS graduates who entered the upper division of four-year colleges or universities perceive that adequate financial aid was available to allow them to continue their education.

Hypothesis 2c. Social integration was easily accomplished by a majority of AAS graduates who transferred to the upper division of four-year colleges and universities.

Hypothesis 2d. A majority of AAS graduates who entered the upper division of four-year colleges or universities perceive that they had adequate preparation for upper division work.

Group 3: Profile of Selected Characteristics

Hypothesis 3a: A majority of AAS graduates are pursuing or have received a baccalaureate degree.

Hypothesis 3b: AAS graduates who had completed some postsecondary education before entering a health occupation program are more likely to continue work toward a baccalaureate degree than AAS graduates without previous postsecondary education.

Hypothesis 3c: Male health occupation AAS graduates are more likely to continue their education toward a baccalaureate degree than female graduates.

Hypothesis 3d: Health occupation AAS graduates who receive their degree when they were age 24 or younger are more likely to continue their education toward a baccalaureate degree than those who received their degree at age 25 or older.

Hypothesis 3e: A majority of Health Occupation AAS graduates perceive that a baccalaureate degree is necessary to advance in their occupational field.

Hypothesis 3f: Health occupation AAS graduates who are satisfied with their occupations are more likely to continue their education than those who are not satisfied.

#### Significance of the Study

Since 1984 nearly one half of all American students who enter college for the first time enroll in community or junior colleges rather than four-year institutions (Snyder, 1990). Of those students who remain in college long enough to earn an associate degree, the most recent data indicate that approximately 63% earn it in an occupational area (Snyder, 1990). Some observers (Prager, 1988; Warren, cited in Deegan & Tillery, 1985) believe that there is evidence that an increasing number of occupational track students are continuing to work toward a baccalaureate degree. If Dougherty's (1987) model is accurate, this large cohort of students is being poorly served by both the community colleges from which they graduate and the four-year institutions in which they subsequently enroll.

There is some indication that there is a dichotomy between the expectations of the community colleges which provide the education and the employers who hire the graduates. When asked if employers were satisfied with the education provided to community college graduates,

two hospital personnel directors stated that although their institutions were satisfied with the education AAS graduates received, personnel policies encouraged employees to continue their education (E. Steiner, personal communication, March, 1991; J. Hawn, personal communication, March, 1991).

Community college health occupation program directors presented mixed views on the value of graduates continuing toward a baccalaureate degree. A program director of a Radiologic Technology program stated that graduates are not expected to continue their education toward a baccalaureate degree but rather to seek advancement through lateral expansion of their competencies (B. Vana, personal communication, March, 1991). A dental hygiene program director, however, stated that it was important to both individual graduates and to the occupational field itself that graduates seek vertical expansion of educational background (S. Turner, personal communication, October 10, 1991).

At the university level, two admissions officers stated that their institutions neither track occupational degree transfers nor actively recruit them (G. Kappell, personal communication, March, 1991; P. Wynn, personal communication, March, 1991). This strengthens Dougherty's

(1987) contention that institutional barriers and not student characteristics are responsible for the effects of community college enrollment.

If students are, in fact, using the curricula for purposes that may be at odds with institutional expectations, Dougherty's (1987) model would be weakened. Dougherty (1987) recognized, however, that although the conclusions reached were based on a wide variety of studies:

There is a considerable need for further research on the extent and nature of the effects of community colleges. Such research is urgently needed because of the central role community colleges play in our higher education system and therefore in our system of social stratification. (p. 100)

Specifically relevant to this study, Dougherty (1987) went on to state:

It would be illuminating to determine the number of community-college students, particularly vocational majors, [italics added] who initially plan to transfer to a four-year school but either fail to apply or apply and fail to go on. (p. 100)

Palmer (1987) agrees with this statement and expands on it by stating:

Without information on the diverse characteristics of those served by vocational curricula, it is too easy to ignore the exceptions, revert to stereotypical conclusions that low-income and low-ability students are counseled away or "cooled-out" from the baccalaureate track. (p. 308)

Graduates in some high status occupational areas have been studied. In a doctoral dissertation, Cox (1986) studied three groups of working journalists: journalism graduates from community colleges who transferred to baccalaureate programs, baccalaureate graduates who began in the four-year colleges, and baccalaureate graduates who majored in areas other than journalism. This study indicated post-baccalaureate equality among the groups but failed to address barriers which the transfer students faced. Cox (1986) did recommend, however, that additional study of the differences among educational pathways was needed.

Dickson (1985), in a doctoral study of associate degree nursing students transferring to baccalaureate programs, identified several institutional barriers which prevented and/or hindered pursuit of baccalaureate nursing degrees. This, in turn, aggravated the shortage of professional nurses. Dickson's (1985) study recommended further investigation of articulation problems.

O'Kunewick (1985) completed a doctoral study concentrating on the needs of non-traditional nursing students. O'Kunewick's investigation also found institutional obstacles to associate-to-baccalaureate articulation and recommended additional study of transfer students.

It was evident from the previous doctoral studies that additional study was needed. This study attempted to help meet that need by attempting to determine whether occupationally-oriented associate degree graduates consider their education suitable for transfer toward a baccalaureate degree. The results may help curriculum developers at both the community college and senior college levels identify and alleviate institutional barriers for students seeking to complete a baccalaureate degree.

#### Assumptions

The following assumptions regarding sample selection and conduct of the investigation were made:

1. The sample does not differ appreciably in its personal characteristics from graduates of community colleges in other parts of the country.
2. The instrument was clearly understood by all respondents.
3. The time of administration did not distort responses.

#### Delimitations of the Study

1. The population of the study was delimited to health occupation graduates who were licensed in Iowa.
2. The population of the study was delimited to community college graduates who live in a predominantly rural midwestern state.

3. Only graduates who earned an AAS degree or its equivalent were studied. Graduates of programs which are shorter than or longer than two years in length may exhibit different characteristics.

4. This study excluded occupational areas identified by Palmer (1987) as low status occupations.

5. This study excluded nursing occupations.

6. This study excluded those health occupations which are not licensed by the State of Iowa.

#### Definitions

The following definitions have been included to clarify terms used throughout the study:

##### Community College

A postsecondary educational institution offering curricula which may normally be completed in two years or less and offering an award which is recognized to be less than a baccalaureate degree but more than a high school diploma. Although, strictly speaking, the term "community college" applies only to publicly supported institutions, this study uses the term also to refer to privately supported junior colleges, along with technical and trade schools, including proprietary institutions.



Associate of Arts Degree (AA)

An academic award normally granted after completion of a liberal arts and science curriculum at a community college.

The AA degree may be awarded for successful completion of programs primarily intended to provide a broad liberal arts and science background. Associate of Arts programs shall include at least 90 quarter credit hours of completed course work which is defined as college level and which is designed to constitute the foundation for a baccalaureate degree. (Minnesota Higher Education Coordinating Board, 1986, p. 9)

Associate of Science Degree (AS)

An academic award normally granted after completion of a science-oriented curriculum at a community college.

The AS degree may be awarded for successful completion of programs which are intended to provide a liberal arts and sciences background and to provide the foundation for baccalaureate programs with highly structured lower division requirements. (Minnesota Higher Education Coordinating Board, 1986, p. 10)

Associate of Applied Science Degree (AAS)

An academic award normally granted after completion of two years of an occupationally-oriented curriculum at a community college.

The AAS degree may be awarded for successful completion of programs primarily intended to prepare people for employment. AAS programs shall include a minimum of 90 quarter credit hours. (Minnesota Higher Education Coordinating Board, 1986, p. 11)

### Health Occupations

This term is synonymous with the Higher Education General Information Survey (HEGIS) definition of Health Services and Paramedical Technologies:

Subject field designations which characterize students, faculty, facilities, degree and certificate programs etc. specifically associated with development of skills required for health service-related occupations at the semiprofessional level. Two years of preparation beyond high school are usually sufficient for entrance into these occupational fields. (Palmer, 1987, p. 332)

### High Status Programs

Those vocational program areas that lead to employment in occupations filled by workers with relatively high income and educational attainment levels. These programs are composed of courses dealing with business, computer science, applied sciences (i.e. engineering), and allied health (Palmer, 1987). These programs generally require higher mathematics and communication skills than low status programs and tend to be somewhat selective in their admission standards, even at the associate degree level. Frequently the occupational areas also will have baccalaureate level training programs.

### Low Status Programs

Those vocational program areas that lead to employment in occupations filled by workers with relatively low income and educational attainment levels.

These programs are composed of courses dealing with office and clerical skills, applied arts, skilled crafts, social services, and other services (Palmer, 1987). These programs generally require only basic mathematics and communication skills and tend to be non selective in their admission standards.

## CHAPTER II

## REVIEW OF LITERATURE

Since 1984 over one-half of all American students who enter college for the first time attend community colleges (Snyder, 1990). Although many of these students express an intent to transfer to baccalaureate granting institutions (Palmer, 1987), there is considerable evidence that community college attendance actually decreases the likelihood that they will finish a baccalaureate degree (Brint & Karabel, 1989; Dougherty, 1987; Karabel, 1972, 1986; Pincus, 1980).

Dougherty (1987) has proposed a model to explain why entrance into a community college hinders the educational attainment of students who aspire to a baccalaureate degree. This model identifies three processes which are in effect at three separate stages during the progress of individuals proceeding from community college entrance to baccalaureate completion. These processes are (a) attrition in the freshman and sophomore years, (b) problems in transferring to four-year colleges or universities, and (c) attrition after transfer.

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lack of dormitories. The other processes address institutional factors related to transfer to and attrition after transfer to four-year colleges and universities.

Dougherty (1987) addresses these factors:

Among students who survive the first two years of college, community college entrants encounter greater institutional obstacles to continuation into the upper division of four-year colleges than comparable four-year college entrants. The key factors here are community colleges' strong vocational orientation, the distaste of four-year colleges for community college transfers, the scarcity of financial aid for community college transfers, and the simple fact that movement to the upper division requires movement to a new and unfamiliar school.

Among students who do enter the upper division of four-year colleges, community college entrants encounter greater institutional hindrances to continuation in the upper division of four-year colleges than comparable four-year college entrants. These factors include frequent loss of credits, difficulty securing financial aid, difficulty becoming socially integrated into the four-year college, poorer preparation for upper division work, and consequent difficulty becoming academically integrated into the four-year college. (p. 94)

In some occupational areas where there are recognized curricula for both associate degree and baccalaureate degree levels, articulation agreements among individual institutions have enhanced transfer opportunities for students wishing to continue their education. This has been most noticeable in the areas of engineering (Thomas, 1988), business (Robertson-Smith, 1988), and health (King, 1988), areas which have been identified by Palmer (1987) as high status areas. These articulation agreements do

provide enhanced transfer opportunities for AAS graduates (Prager, 1988), but they do not address the issues facing those who have geographic limitations or those who wish to expand their education beyond their occupational area (Prager, 1988; Eaton, 1991).

The review of literature is divided into the following sections: (a) obstacles to transferring, (b) hindrances to continuation after transfer, (c) the extent of the AAS transfer population, (d) characteristics of AAS transfer students, (e) the educational and career aspirations of AAS graduates, (f) perceptions of AAS graduates after graduation, and (g) differences in aspirations of graduates among the various AAS health occupations.

#### Obstacles to Transfer

According to Cardenas and Warren (1991) the most common and persistent area of concern between community colleges and four-year colleges/universities involves articulation and transfer. Although there are often agreements that facilitate the transfer of credits from institution to institution, the process is at best cumbersome, poorly coordinated, and apathetic or hostile. This causes many students, particularly minority students, to opt out (Cardenas & Warren, 1991). Such a problem is of particular concern because of the high concentration of

minority and disadvantaged students who use community colleges as a gateway into higher education (Cardenas & Warren, 1991).

Some states, most notably Kentucky, have engaged in statewide projects to develop articulation systems which provide both lateral transfer among the various types of programs within a health occupation in the state (associate degree programs and certificate programs) and vertical transfer to baccalaureate granting programs (Radiological Sciences Discipline Advisory Group, 1982). Among the stated purposes of the Kentucky project was a concern to meet the needs of the students for career mobility and to eliminate artificially imposed barriers that inhibit the ability or motivation of the individual.

According to Tinto (1987), many of the studies concerning lack of continuation in higher education have concentrated on individual characteristics rather than institutional factors. Clark (1960, 1980) was among the earliest observers to identify institutional factors active in community colleges which discouraged transfer to a four-year college. Clark (1960) described a "cooling out" process whereby:

The latent terminal student is allowed into transfer curriculum but encounters counseling and testing that invite him to consider alternatives, subtle pressures to hedge his bet by taking courses that serve a terminal destiny, tough talk in orientation classes about realistic occupational choices, probationary status, perhaps, and finally grades that will not allow transferring. (p. 163)

Inherent in this process, however, is the idea that by "cooling out" students into an occupational track, the student will not continue into the upper division by transferring into a four-year college. This is the point which is disputed by Prager (1988). According to Prager (1988), while educators have ignored the transfer needs of career students, these students have resolved their predicament by merely enrolling in baccalaureate institutions without the assistance of the educational establishment.

Tinto (1975), in describing college dropout behavior, included socialization processes within the institution, a factor also included in Dougherty's (1987) model. Tinto (1987) expanded on earlier work and developed a model which concentrated on retention of students in higher education in general but treated community college transfers only in passing and did not discuss occupational degree transfers at all.

For the most part, doctoral level studies dealing with community college transfer students have either ignored the AAS graduate or combined AAS graduates with AA graduates. For one of these studies (Parmley, 1990) a "Profile on Articulation" was developed which included some of the same institutional factors noted in Dougherty's (1987) model (enrollment procedures, financial



aid information, housing, and social adjustment). This study provided additional support for Dougherty's model but failed to address occupational graduates.

Another doctoral study (Profozich, 1989) used the conceptual model of student attrition developed by Tinto (1987). Profozich (1989) identified student and institutional characteristics which correlated with persistence and degree completion. The findings of this study, however, concentrated more on individual characteristics than on institutional barriers and did not differentiate by type of program (academic or occupational).

#### Hindrances to Continuation after Transfer

Dougherty's (1987) model lists four factors as hindering students who transfer from a community college to a four-year institution. These include loss of credit, difficulty securing financial aid, lack of social integration, and poorer preparation.

#### Loss of Credit

Among the factors most discussed in the literature is loss of credit. Bowles (1988) sees difficulties in the transfer of courses largely because of discrepancies in content and scope, and level and/or prerequisites.

According to Bowles (1988) standard traditional courses do not encounter difficulty in being transferred.

Any problems that arise in these courses are usually the result of some deviation from the expected pattern, such as when a course is a part of a sequence or when the number of credit hours vary from one institution to another. This frequently results in the transferring student either accumulating excessive numbers of "free elective" credits or in repeating course content to achieve the appropriate number of credits.

Interdisciplinary courses also create transfer of credit problems. Such courses, that do not appear to match traditional curricular offerings, are often evaluated as not being direct equivalents or as not fulfilling degree requirements at the senior college (Bowles, 1988). This is considered to be particularly unfortunate in the general education areas since, in order to meet the particular needs of their students, community colleges are often far more innovative in creating courses which meet the spirit of general education goals than are the more specialized and structured four-year colleges and universities (Bowles, 1988).

Graduates of occupationally-oriented programs are confronted by an even more difficult issue concerning articulation (Smith, 1984). According to Smith (1984), community college counselors, faculty, and administrators experience frustration in their efforts to find

appropriate university majors for their occupationally-oriented graduates who desire further education. It is particularly frustrating if a graduate also has been working a number of years, has developed a career direction and does not wish to change just for the sake of a degree. The non-traditional student only crystallizes the issue: very few educational options exist for two-year occupationally-oriented students. Sometimes the occupational courses are not even accepted as credits toward graduation, no matter what grades were earned (Smith, 1984).

Brint and Karabel (1989), in their study of community college development in Massachusetts, noted that some of this difficulty, even in technical courses, was due to "turf conflicts" between community colleges and four-year state colleges. This led to great confusion among students as they often would not know whether their community college courses would be accepted until they transferred.

In a similar vein, King (1988) notes that professional elitism is perhaps the most formidable hindrance to credit acceptance in occupational transfer programs. When faculty believe in and are committed to providing students with career mobility, the negotiation of transfer agreements and acceptance of course work is

relatively easy. However, when faculty believe that their own level of preparation is superior, articulation will be difficult and at times impossible. King (1988) refers to this as "professional ethnocentrism" (p. 67).

#### Difficulty Receiving Financial Aid

A second factor in Dougherty's (1987) model which constitutes a hindrance to persistence after transferring to a four-year college or university is the lack of or difficulty in obtaining financial aid. Although addressed only in passing by Dougherty (1987), Cardenas and Warren (1991) note that since community college students tend to come from minority and disadvantaged backgrounds, they are more in need of financial support than native four-year students.

Without directly disputing this position, Tinto (1987) notes that:

Although finances are very commonly cited by both researchers and withdrawing students alike as important reasons for leaving, there is little direct evidence to support the claim that finances are, in and of themselves, significant determinants of student departure. (p. 80)

Tinto (1987) goes on to state that students who see college experiences as rewarding will bear great financial burdens while those who seen college as irrelevant and/or unrewarding are less willing to do so. "The citing of financial problems as reasons for departure very often

reflects the end product of decisions regarding departure more than it does their origins" (Tinto, 1987, p. 81).

Financial aid for community college minority students who transfer to four-year colleges is receiving more attention in the early 1990s than it has in the past. This is evidenced by the activities of the Ford Foundation, the Mott Foundation and other philanthropic foundations that are directing resources to support minority transfer/articulation projects (Bender, 1991). The importance that some observers place on this is demonstrated by Bender's (1991) recommendation that Congress determine whether regional or professional accrediting bodies violate the rights of federal financial aid recipients when they impose requirements that are essentially barriers to transfer and articulation between two-year and four-year programs.

One area of financial support not addressed by Dougherty (1987) but of particular importance to non-traditional, occupational graduates of community colleges is tuition reimbursement by employers. Hospital personnel directors such as E. Steiner (personal communication, March, 1991) and J. Hawn (personal communication, March, 1991) have stated that tuition reimbursement constitutes an important part of wage and benefits packages.

### Social Integration

A third factor in Dougherty's (1987) model concerns transfer students' social integration into four-year colleges. This lack of integration affects their grades, commitment to college, and, ultimately, persistence toward completion of a baccalaureate degree (Dougherty, 1987). Tinto (1975, 1987) discusses social integration as a primary determinant of college departure. As a student becomes integrated into the social structure of the college, faculty/staff interactions tend to bring about increased academic performance and peer-group interactions tend to decrease feelings of isolation which promote departure. McClelland (1990), in a study of cumulative disadvantage found support for this by noting that female students who married, particularly those who married early, were significantly less likely to finish a baccalaureate degree. In the discussion section of the article it was hypothesized that marriage hindered social integration and therefore persistence in college.

Tinto (1987) states that transfer students are hindered in their social integration by two factors. First, they have left the social groups formed during their time at the community colleges which promotes feelings of isolation and second, transfer students compete socially with native students who have already formed social groups and view them as outsiders.

### Poorer Preparation

Community colleges were established with the populist ideal of providing increased access to all who wished to acquire additional education beyond high school (Deegan & Tillery, 1985). In an effort to provide educational services to all who seek them, community colleges have been accused of lowering academic standards (Karabel, 1972, 1986). Community college supporters point out, however, that while admission standards to the institution may be minimal, developmental and remedial courses, as well as counseling and academic advising, is more accessible than in four-year colleges and provide assistance to those who require it (Cardenas & Warren, 1991; Deegan & Tillery, 1985).

In spite of what academic assistance is provided, community college students are not as well prepared in some areas such as writing and analytical mathematics as are their counterparts who entered four year colleges (Karabel, 1972; 1986; Tinto, 1987). As evidence of this, critics point to the well documented drop in grade point average among students in their first year after transferring to four-year colleges (Karabel, 1972).

These criticisms are countered, in part, by community college supporters who point out that community college students are frequently those who had had poorer

preparation on admission (Deegan & Tillery, 1985).

Supporters also point out that the drop in grade point averages generally disappears after one or two semesters at the four-year college (Bowles, 1988).

Another argument against the claim of poorer preparation in community colleges is that a majority of studies on transfer students has concentrated on AA graduates (Prager, 1988). The success or lack of success among AAS graduates, particularly those in high status occupational programs, has not received wide spread study (Prager, 1988).

#### The Extent of the AAS Transfer Population

According to Prager (1988), while educators have ignored the transfer needs of career students, these students have resolved their predicament by merely enrolling in baccalaureate institutions without the assistance of the educational establishment. There is, however, little known about the number of AAS students who transfer to baccalaureate granting institutions or what courses of study they pursue. The problem of collecting transfer data for any category of community college student is complicated by intra- and intersystem and state variations in focus and methodology (Cohen & Brawer, 1982). The data that are now collected are seldom solicited for or segregated by occupational-technical



degree holders. As an example of this problem, of the 34 studies indexed by the Educational Resource Information Center (ERIC) between 1984 and 1988 involving surveys of community college graduates, 10 fail to mention occupational or vocational-technical students at all.

There are indications, however, that the size of this population is large, as high as 50% or more of all community college transferees since the mid-1970s (Cohen & Brawer, 1982). A review of surveys of community college alumni between 1984 and 1988 indexed in ERIC presents a mixed picture. Of those listed, the lowest reported transfer rate for all alumni was 18% (Hollins & Smith, 1986) and the highest was 64% (McMaster, 1985). Of the studies which differentiated between occupational and transfer programs, the lowest reported rate of transfer for graduates of occupational programs was 11% (Lee, 1985) and the highest was 56% (McMaster, 1985). Others report that a larger portion of their graduating class was continuing their education than those graduating from transfer curricula. For example, Novak (1988) reported that 42% of the 1986 graduates from Howard Community College were attending college one year later, but only 33% had been enrolled in transfer programs.

In a statewide study of 1986 graduates of community colleges in Maryland, McConochie (1987) reported that 27%

of all career program graduates were enrolled in some college nine months later and that, in five of the 17 community colleges in Maryland, over 50% of the career graduates were continuing their education. McConochie (1987) recognized that vocational curricula may not be as much of an obstacle as Dougherty (1987) assumed by stating:

A large number of students transferring have been in career programs where community college curriculum has been designed for preparing a student for entry into a career and where the community college intent has not been to prepare a student for transfer.  
(p. 15)

#### Characteristics of AAS Transfer Students

Information is available regarding the student population of community colleges, but there is less information available on those who transfer after earning an AAS. Warren (cited in Deegan & Tillery, 1985) indicates, for example, that community college students are older, are more occupationally-oriented, demonstrate less academic success, and come from lower socioeconomic backgrounds than their senior college counterparts. The literature does not specifically address whether these characteristics are typical of students pursuing an AAS or whether AAS students make up an atypical subpopulation of community college students.

### Age

As with most information involving community college graduates, there are some discrepancies among studies involving the age of transfer students. One study by the Illinois Community College Board (1984) found that 69% of the AAS (occupational) graduates who had completed a baccalaureate degree four years after transfer were over 26 years old compared with 77% of the AA/AS (transfer) students. Novak (1988) reported, however, that occupational students who transferred were 3-5 years older than graduates of transfer programs.

Hinton (1989), in a doctoral study on the graduation rates of community college transfer students, found that younger students (24 years or below) were more likely to earn baccalaureate degrees than those who were 25 years or older. This study also found that older males required fewer semesters to finish their degrees than did younger males.

Some of these discrepancies, according to Cohen and Brawer (1982), may be due to the lack of a coordinated data collection system. There are some indications that students in high status occupational programs may represent a different population from those in lower status programs (Palmer, 1987). Evidence for this correlation, however, cannot be found in the literature.

### Gender

Nationally, the sex distribution of students attending community colleges is 44% male and 56% female (Snyder, 1990). Surveys of students who continue their education beyond the associate degree, however, indicate that this distribution is not maintained. The Illinois Community College Board (1984) found that sex distribution was approximately equal among all transfer students regardless of associate degree major or age. These same results were not found by others. Obetz (1987a; 1987b) reported that 52% of the male graduates transferred to baccalaureate granting institutions while only 41% of the female graduates transferred.

Hinton's (1989) study found that although gender differences did not affect graduation rates or the average length of time required to earn a baccalaureate, there were differences in the ages at which men and women completed their degree. Older men (age 25 or over) required fewer than average semesters to complete their degrees, while older women (over age 25) required greater than average semesters to complete their degrees.

### Previous Academic Experience

The concept of the typical community college freshman as an 18 year old recent high school graduate is no longer accurate. By 1981 fewer than 50% of all community college

students were within two or three years of high school graduation and over 25% were older than 25 (Palmer, 1987). Although recent high school graduates without any previous post-secondary experience still comprise the largest single group of entering community college students (Cohen & Brawer, 1982), the literature reveals that there are two recognized groups of students entering occupational programs who have previous post-secondary academic experience: students who have been "cooled out" of transfer programs and reverse transfer students.

In 1960 Clark coined the term "cooling out" to describe a process whereby:

The latent terminal student is allowed into transfer curriculum but encounters counseling and testing that invite him to consider alternatives, subtle pressures to hedge his bet by taking courses that serve a terminal destiny, tough talk in orientation classes about realistic occupational choices, probationary status, perhaps, and finally grades that will not allow transferring. (p. 163)

Whether this process constitutes a humane recognition of reality as claimed by community college supporters (Clark, 1980; Deegan & Tillery, 1985) or a class-based tracking system whereby "community colleges help to reproduce the race and economic inequalities that exist in the large society" (Pincus, 1986, p. 41) is largely a matter of interpretation. However the phenomenon is interpreted, the process provides a population of students

who have attended the community college for one or more terms before formally enrolling in an occupational program.

Reverse transfer students are those who, after attending a senior college, transfer to a community college (Deegan & Tillery, 1985). Estimates of the size of this population vary; but Hudak (1983), in a nationwide survey of 305 community colleges, reported that 16% of the enrollment were reverse transfer students with an institutional range of from less than 3% to 65%. Steenhoek (1984), in a study of a single California community college, reported a reverse transfer population of 24%.

Although the reasons for student reverse transfer vary, a sizable minority of these students have demonstrated previous success in college. A review of Palmer's data (1987) shows that approximately 7% of the population studied had previously earned a baccalaureate degree, and nearly 20% had previously earned an associate degree. Among vocational students in Palmer's (1987) study, approximately 4.5% had previously earned a baccalaureate degree and slightly over 20% had previously earned an associate degree. Steenhoek (1984) reported that 7.5% of the students at the community college studied

had graduated from four-year colleges/universities and 58% of these had enrolled to improve their occupational skills.

#### Educational and Career Aspirations of AAS Graduates

The purpose of Dougherty's (1987) model was to explain the effects of community college attendance on attainment of a baccalaureate degree. One of the effects is that proportionally fewer students who start in community colleges attain a baccalaureate degree than those who start in four-year colleges. Critics of community colleges such as Karabel (1972) and Pincus (1980) cite Clark's (1960) work to support the position that students who might otherwise transfer are "cooled out" into vocational or occupational tracks. More recent work, however, including that of Karabel (1986), Palmer, 1987, and Prager (1988) indicates that many students enrolling in occupational tracks have not surrendered the idea of obtaining a baccalaureate degree.

Palmer (1987) found that 60% of all responding students had aspirations to earn a baccalaureate degree. Distinct differences were found, however, between students enrolled in what Palmer defined as high status occupational programs (e.g., health, engineering, and business) and students enrolled in low status occupational

programs (e.g., office and clerical, applied arts, and skilled crafts).

A review of Palmer's (1987) data reveals that approximately 66% of students enrolled in high status programs aspired to a baccalaureate degree, while only 42% of students in low status programs indicated the same aspiration. In analyzing these data by age and gender, the only categories in which less than 50% of the respondents indicated that they hoped to earn a baccalaureate degree were women over age 25 who had low self-ratings of academic ability and men in the 21-24 year old and over 33 year old age groups who had low self-ratings of academic ability. However, in each of these categories, the portion of students aspiring to a baccalaureate degree was still over 40%.

#### Perceptions of AAS Graduates after Graduation

Many community colleges survey their graduates to determine satisfaction with programs and services offered. The results of these surveys generally indicate that graduates are satisfied with their preparation for transfer (McConochie, 1987; Novak, 1988; Obetz, 1987a). Deegan and Tillery (1985), using data collected by the Educational Testing Service, found that although there was a high degree of satisfaction with their preparation for transfer, ratings by AA graduates tended to be slightly



higher than those by AAS graduates due to the respective program foci.

Most of these surveys, however, were conducted within a year after graduation (McConochie, 1987; Novak, 1988; Obetz, 1987a) and therefore do not address whether these ratings would be as favorable several years later after the graduates have had more experience in senior institutions and in the workplace. The Illinois Community College Board (1984), conducted a longitudinal study which tracked students for five years, but the data collected did not include the graduates' level of satisfaction with their community college experience. Also not found in the literature were studies which included the extent of the population which returned to school after several years in the workplace.

#### Differences in Aspirations Among Occupations

Palmer (1987) stated that the occupational graduates most likely to transfer to senior colleges are those in the high status areas of health, engineering, and business. Although not contradicted by other studies as a whole, individual studies have obtained other results. For example, Obetz (1987a) reported that health students were the least likely to transfer, while students with nonbusiness, nonhealth majors were the most likely to continue their education. These findings, however, were

based on the total number of graduates who transferred and did not differentiate between occupational and transfer curricula.

The Illinois Community College Board study (1984) which did differentiate between the two groups reported that over two-thirds of the AAS graduates who transferred to four-year colleges/universities had associate degrees in business, education, engineering, health, and social/behavioral sciences. This finding is more in line with Palmer's (1987) findings than with those of Obetz (1987a).

An important factor in determining the rate of transfers among an occupational group is the views of the leadership among that group. Dental hygiene is one area in which both AAS degree and baccalaureate degree programs exist to prepare graduates for entry into the occupation. Since the early 1980s, there has been discussion in the American Dental Hygiene Association (ADHA) concerning whether the baccalaureate degree should be the minimum academic credential granted for these programs (Gluch-Scranton & Rigolizzo-Gurelian, 1985; Paarmann, Herzog, & Christie, 1990). These discussions have coincided with the development of a number of post-certificate or degree completion curricula which are usually associated with more traditional baccalaureate

programs (Cameron & Fales, 1988; Paarmann et al., 1990; Forest, 1991).

Although the purpose of these programs is to provide upward educational mobility for AAS graduates, only about 16% of dental hygiene students graduate from either the traditional baccalaureate or associate-to-baccalaureate transfer programs (Paarmann et al., 1990). With the national leadership promoting baccalaureate level preparation, a large portion of AAS graduates in this occupation apparently are seeking other routes to achieve this same educational level (Holt & Flaherty, 1988, 1989; Holt & Lucas, 1990).

#### Summary

Since the mid-1980s, a majority of the graduates from community colleges have received occupationally-oriented AAS degrees (Snyder, 1990). Although many of these graduates express an intent to continue their education toward a baccalaureate degree, institutional barriers seem to prevent a majority of them from accomplishing this (Dougherty, 1987). One of the assumptions underlying Dougherty's (1987) model explaining the effect of community college attendance on continuance of education is that the strong occupational orientation of community colleges is a barrier to continuance.

A review of the literature indicates that a sizable number of occupational graduates do continue work toward a baccalaureate degree (Palmer, 1987; Prager, 1988). Also found in the literature is some evidence that AAS graduates who transfer to senior institutions tend to come from higher status programs (health, business, and engineering), but the data are inconclusive concerning the age, sex distribution, and previous academic experience of these individuals (Palmer, 1987; Prager, 1988). Occupations in which national leadership promotes a higher level of preparation appear to have higher rates of transfer from AAS to baccalaureate granting institutions (Cameron & Fales, 1988).

Educators at both the junior and senior institutions have largely ignored these students, concentrating instead on the more established dichotomous tracking system whereby academic programs are designed for students who intend to transfer while occupational programs are designed for students who will not continue their education (Deegan & Tillery, 1985). Little was found in the literature concerning the educational aspirations of occupational program graduates either at the time they graduate or a few years later after they have had time to consider their options.

### CHAPTER III

#### METHODOLOGY

This study was designed to test whether selected AAS graduates perceive that the factors proposed in two of the components of Dougherty's (1987) model on continuance of education affected the pursuit of a baccalaureate degree. The components tested involve institutional obstacles to transfer into the upper division of four-year colleges and institutional hindrances to continuation in the upper division of four-year colleges by students who entered community colleges. The study was also designed to profile selected personal characteristics of these individuals.

The effects of the components of the model were tested by determining the educational aspirations of community college graduates who had earned an AAS degree in a health occupation and their perceptions of the obstacles and hindrances of continuation toward a baccalaureate degree.

#### Research Questions and Hypotheses

Specifically, the following questions were addressed:

1. What proportion of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive that the factors identified in Dougherty's model constitute obstacles to transferring into the upper division at four-year colleges and universities?

2. What proportion of AAS graduates who aspire to continue their education perceive that the factors identified in Dougherty's model constitute hindrances to completing a baccalaureate degree?

3. What proportion of graduates who are currently licensed in the field in which they earned their AAS continued work toward a baccalaureate degree?

4. What differences exist in the age, sex, and previous postsecondary education of AAS graduates who perceive their formal education to be completed as compared to AAS graduates who intend to pursue a baccalaureate degree?

5. What proportion of AAS graduates who continue their education aspire to advance in their occupational field rather than to leave it?

Three groups of hypotheses were derived from these questions:

Group 1: Obstacles to Transferring

Hypothesis 1a. A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive that the vocational orientation of their degree facilitates admission to a senior college or university.

Hypothesis 1b. A majority of AAS graduates who aspire to continue their education toward a baccalaureate

degree perceive a positive attitude on the part of four-year college/university officials toward transfer students.

Hypothesis 1c. A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive that sufficient financial aid will be available to allow them to transfer to four-year colleges/universities.

Hypothesis 1d. A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive little difficulty with moving to a new institution.

Group 2: Hindrances to Continuing

Hypothesis 2a. A majority of AAS graduates who entered the upper division of four-year colleges or universities perceive that the amount of credit granted for their associate degree was appropriate.

Hypothesis 2b. A majority of AAS graduates who entered the upper division of four-year colleges or universities perceive that adequate financial aid was available to allow them to continue their education.

Hypothesis 2c. Social integration was easily accomplished by a majority of AAS graduates who transferred to the upper division of four-year colleges and universities.

Hypothesis 2d. A majority of AAS graduates who entered the upper division of four-year colleges or universities perceive that they had adequate preparation for upper division work.

Group 3: Profile of Selected Characteristics

Hypothesis 3a: A majority of AAS graduates are pursuing or have received a baccalaureate degree.

Hypothesis 3b: AAS graduates who had completed some postsecondary education before entering a health occupation program are more likely to continue work toward a baccalaureate degree than AAS graduates without previous postsecondary education.

Hypothesis 3c: Male health occupation AAS graduates are more likely to continue their education toward a baccalaureate degree than female graduates.

Hypothesis 3d: Health occupation AAS graduates who receive their degree when they were age 24 or younger are more likely to continue their education toward a baccalaureate degree than those who received their degree at age 25 or older.

Hypothesis 3e: A majority of Health Occupation AAS graduates perceive that a baccalaureate degree is necessary to advance in their occupational field.

Hypothesis 3f: Health occupation AAS graduates who are satisfied with their occupations are more likely to



continue their education than those who are not satisfied with their occupations.

#### The Sample

The population for this study consisted of health occupations practitioners licensed in Iowa who have earned an Associate in Applied Science degree or its equivalent in one of the health occupations. The field of health occupations was selected because it is one of the high status areas identified by Palmer (1987) and, since some of these occupations are regulated by state licensure, it enabled the investigator to generate a sample whereby a reasonable response rate could be obtained.

The sample for this study consisted of a systematic random sample of health occupation practitioners who were licensed by the State of Iowa in 1992 and for whom an AAS degree could be an entry level of education. The occupations which meet these criteria consist of respiratory therapists (respiratory care practitioners), radiologic technologists (general), occupational therapy assistants, and dental hygienists. Other allied health occupations are either not licensed in Iowa or require less than an AAS or more than two years of preparation.

#### Instrumentation

The sample was surveyed by means of an investigator designed questionnaire (see Appendix B). The use of a

questionnaire as the study instrument had several advantages (Berdie, Anderson, & Niebuhr, 1986). It was a relatively efficient way to collect information, required minimal time to administer, provided for uniform question presentation, and allowed for data collection from a widely scattered sample. Additionally, respondents in this sample were familiar with this type of data collection.

There were also a number of disadvantages to the use of a questionnaire in the collection of data (Berdie et al., 1986). One disadvantage was the possibility of misinterpretation by respondents. In this study, an attempt was made to lessen this limitation by submitting the questionnaire to a panel of experts and soliciting recommendations for revision. In addition, a pilot study was conducted and, as a result, minor changes in the questionnaire were made.

A second disadvantage was that some respondents might be prejudiced against questionnaires (Berdie, et al., 1986). In this study, this limitation was lessened by keeping the questionnaire short and convenient to complete.

The first portion of the questionnaire (see Appendix B) was designed to elicit data concerning the respondents' educational background and aspirations. It was

constructed so that respondents who were not members of the designated population (i.e., individuals whose first academic degree was not an AAS) could be identified and eliminated from the study.

The second portion of the questionnaire (see Appendix B) consisted of 20 statements which asked the respondents to rate agreement or disagreement on a four point scale. These statements were designed to elicit data concerning the respondents' perception of the value of education beyond an associate degree, their satisfaction with the education received while earning an associate degree, their aspirations of earning a baccalaureate degree, obstacles and hindrances encountered in seeking a baccalaureate degree, and whether the respondents perceived additional education as a means of advancing in their chosen occupational field. The validity of this portion of the instrument was established by submitting it to a panel of three individuals who are knowledgeable in the field of associate degree level health occupation education.

The third section of the questionnaire (see Appendix B) consisted of a short demographic section. This section was necessary to determine whether there were any sex or age differences among the respondents.

### Procedures/Methodology

The instrument was distributed by first class mail. Each subject was sent a cover letter (see Appendix A), a questionnaire (see Appendix B), and an addressed, postage-paid return envelope. The cover letter identified the investigator, the purpose of the study, how the study participant was selected, and how the information was to be treated.

The questionnaire (see Appendix B) consisted of a single 11 by 17 inch sheet printed on both sides and folded double to form four 8 1/2 by 11 inch pages. Respondents were asked to check, circle, or write in brief responses.

Ethical considerations of this study primarily involved the protection of the participants' privacy and anonymity. There was no effort to identify individuals, and respondents were assured in the cover letter that every attempt would be made to maintain both privacy and anonymity.

The research was conducted according to the guidelines established by the Human Subjects Review System at the University of Northern Iowa. The questionnaire and procedures for the study were reviewed by appropriate university personnel prior to initiation of the study.

### Methods of Analysis

The hypotheses in Group 1 (Obstacles to transferring) and Group 2 (Hindrances to continuing) were tested using a series of statements derived from the factors which were proposed by Dougherty (1987) as obstacles or hindrances to continuance of education. For each statement, respondents were asked to indicate their degree of agreement on a four point scale (see Appendix B). The data were then analyzed using two methods.

In the first method of analysis, the "Agree" and "Strongly Agree" categories were combined and the "Disagree" and "Strongly Disagree" categories were combined. The results were then tested against the null hypothesis using a  $\chi^2$  test for dichotomous variables.

In the second method of analysis, a value was assigned to each response with "Strongly Agree" being equal to 4 and "Strongly Disagree" being equal to 1. A mean value was then calculated for each statement and this value was tested against the null hypothesis using a  $t$  test.

Hypothesis 3a (A majority of AAS graduates are pursuing or have received a baccalaureate degree) was tested by combining the responses of those who had earned a baccalaureate degree with those who were currently enrolled and those who planned to enroll in work leading

to a baccalaureate degree. These data were then tested against the null hypothesis using a  $t$  test. Hypotheses 3b (previous post-secondary work), 3c (gender), 3d (age AAS received), and 3f (satisfaction with occupational field) were tested using the Chi-square test of independence. Hypothesis 3e (baccalaureate necessary to advance) was tested using a  $t$  test.

## CHAPTER IV

### RESULTS

This study was designed to test whether selected AAS graduates perceive that the factors proposed in two of the components of Dougherty's (1987) model on continuance of education affected the pursuit of a baccalaureate degree. The components being tested involve institutional obstacles to transfer into the upper division of four-year colleges and institutional hindrances to continuation in the upper division of four-year colleges by students who entered community colleges. The study was also designed to profile selected personal characteristics of these individuals.

Licensed health care practitioners for whom an AAS degree might be an entry credential were surveyed. An investigator designed questionnaire was used to determine whether these individuals aspired to a baccalaureate degree, whether the factors identified by Dougherty (1987) were perceived as valid, and to profile selected personal characteristics.

#### Identification of Population

The population for this study consisted of licensed health care practitioners in Iowa for whom an AAS degree might be an entry level of preparation. This included occupational therapy assistants, respiratory care

practitioners, dental hygienists, and radiologic technologists. Health occupations which were either not licensed by the State of Iowa or required a level of preparation other than an Associate Degree were excluded as was the field of nursing. A list of those licensed in these occupations was obtained from the Iowa Department of Public Health.

The population was sampled using a systematic random sampling plan. A sample of 1315 was drawn consisting of 329 Dental Hygienists, 147 Occupational Therapy Assistants, 510 Radiologic Technologists, and 329 Respiratory Care Practitioners.

The questionnaires were mailed via first class mail on September 30, 1992, by the Center for Social and Behavioral Research of the University of Northern Iowa. Included with each questionnaire was a postage paid return envelope.

The questionnaire requested that the respondents complete and return the questionnaire if they had an Associate Degree but not to return the questionnaire if they did not possess an associate degree. Questionnaires received after October 22, 1992, were not included in the analysis. Of the total of 1315 questionnaires mailed, 45 (3.4%) were returned as undeliverable, 33 (2.5%) were returned but were unusable, 18 (1.4%) were returned too



late to be included in the analysis, and 343 (26.1%) usable questionnaires were returned. These results corresponded closely with the pilot study in which 2% were undeliverable, 12% were unusable, and 24% of the responses were usable.

#### Demographic Data

A demographic description of the respondents is presented in Table 1 and Table 2. This information includes the current age, age at which an AAS degree was granted, age at which a baccalaureate degree was granted, the sex and the health occupation of the respondents. The mean age of the respondents was 33.7 years with a standard deviation of 8.3 years. The mean age at which respondents earned an AAS was 23.8 years with a standard deviation of 5.9 years. The mean age at which a baccalaureate degree was granted was 27.45 years with a standard deviation of 6.6 years. The sample consisted of individuals with an Associate Degree in Dental Hygiene 30.3%, Occupational Therapy Assistant 17.1%, Radiologic Technology 26.5%, Respiratory Therapy 22.7%. An occupational field other than those listed was indicated by 1.7% of the respondents.

Table 1

Current Age and Age at Which Degrees were Awarded (N = 343)

Variable	Mean	Standard Deviation	Median
Current age	33.7	8.3	32.2
Age AAS awarded	23.8	5.9	21.0
Age baccalaureate	27.45	6.6	24.1

Table 2

Sex and Occupation of Respondents (N = 343)

Variable	Number (Percent)	
<u>Sex</u>		
Male	40	(11.7)
Female	303	(88.3)
<u>Occupation of Respondents</u>		
Dental Hygiene	104	(30.3)
Occupational Therapy Assistant	59	(17.2)
Radiologic Technologist	91	(26.5)
Respiratory Therapist	78	(22.7)
Other	6	( 1.7)
Missing/spoiled	5	( 1.5)

### Methods of Analysis

The first two groups of hypotheses (obstacles to transferring and hindrances to continuation) were tested using the responses to a series of statements derived from the factors identified by Dougherty (1987). The responses were then analyzed using two methods.

First, the "Agree" and "Strongly Agree" categories were combined and the "Disagree" and "Strongly Disagree" categories were combined. Results were tested against the null hypothesis using a  $t$  test for dichotomous variables.

Secondly, a value was assigned to each response with "Strongly Agree" being equal to 4 and "Strongly Disagree" being equal to 1. A mean value was calculated for each statement and tested against the null hypothesis.

Hypothesis 3a (proportion pursuing a baccalaureate degree) was tested by combining the responses of those who had earned a baccalaureate degree with those who were currently enrolled and those who planned to enroll in work leading to a baccalaureate degree. These data were then tested against the null hypothesis using a  $t$  test.

Hypotheses 3b (previous post-secondary work), 3c (gender), 3d (age AAS received), and 3f (satisfaction with occupational field) were tested using the Chi-square test of independence. Hypothesis 3e (baccalaureate necessary to advance) was tested using a  $t$  test.

### Hypothesis Testing

The hypotheses were divided into three groups of research hypotheses. The first two groups were based on the factors identified by Dougherty. The third group of hypotheses profiled selected personal characteristics of the sample.

#### Group 1: Obstacles to Transferring

The first group of hypotheses was concerned with factors which Dougherty proposed as obstacles to transferring into four-year colleges/universities. This was divided into four research hypotheses.

Hypothesis 1a: A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive that the vocational orientation of their degree facilitates admission to a senior college or university.

Data for this hypothesis were derived from the responses to the statement: "The occupational orientation of my associate degree aided my admission to a four year college/university." The responses to this statement are shown in Table 3.

Analyzed as a dichotomous variable, 61.2% of the respondents agreed with the statement. When tested against the null hypothesis, this was not found to be significant at the 0.05 level ( $t = 1.71$ ). When the

weighted responses were calculated, a mean score of 2.76 was obtained. When this value was tested against the null hypothesis ( $\mu = 2.5$ ), it was found to be significant at the 0.05 level ( $t = 2.16$ ,  $df = 66$ ). The research hypothesis was supported.

Table 3

Hypothesis 1a: Occupational Orientation Aided Admission  
(N = 67)

Response	Frequency	%	Cumulative %
Strongly Agree	18	26.9	26.9
Agree	23	34.3	61.2
Disagree	18	26.9	88.1
Strongly Disagree	8	11.9	100.0

Note. Mean value = 2.76.

Hypothesis 1b: A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive a positive attitude on the part of four-year college/university officials toward transfer students.

Data for this hypothesis were derived from the responses to the statement: "Four year college/university officials seem to have a positive attitude toward transfer students." The results of this statement are shown in Table 4.

Analyzed as a dichotomous variable, 59.3% of the respondents agreed with this statement. When tested against the null hypothesis, this was not found to be significant at the 0.05 level ( $t = 1.67$ ). When the weighted responses were calculated, a mean score of 2.52 was obtained. When this value was tested against the null hypothesis ( $\mu = 2.50$ ), it was not found to be significant at the 0.05 level ( $t = 0.23$ ,  $df = 90$ ).

Table 4

Hypothesis 1b: Four Year College/University Officials have Positive Attitude (N = 91)

Response	Frequency	%	Cumulative %
Strongly Agree	6	6.6	6.6
Agree	48	52.7	59.3
Disagree	24	26.4	85.7
Strongly Disagree	13	14.3	100.0

Note. Mean value = 2.52.

Hypothesis 1c: A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive that sufficient financial aid will be available to allow them to transfer to four-year colleges/universities.

Data for this hypothesis were derived from the responses to the statement: "Sufficient financial aid was/will be available to enable me to transfer into a four year college/university." The responses from this statement are shown in Table 5.

When the responses to this statement were analyzed as a dichotomous variable, it was found that 27.3% of the respondents were in agreement with this statement. These results were then tested against the null hypothesis and were found to be significant at the 0.05 level ( $t = -3.87$ ). The data contradicted the research hypothesis since a majority of the respondents were not in agreement with the statement.

Hypothesis 1d: A majority of AAS graduates who aspire to continue their education toward a baccalaureate degree perceive little difficulty with moving to a new institution.

Table 5

Hypothesis 1c: Sufficient Financial Aid to Transfer (N = 77)

Response	Frequency	%	Cumulative %
Strongly Agree	3	3.9	3.9
Agree	18	23.4	27.3
Disagree	40	51.9	79.2
Strongly Disagree	16	20.8	100.0

Note. Mean value = 2.10.

Data for this hypothesis were derived from the responses to the statement: "Having to attend a different school for upper division (junior/senior level) courses created few, if any problems for me." The results from this statement are shown in Table 6.

When these data were analyzed as a dichotomous variable, 50.0% of the respondents agreed with this statement. This indicated no significant difference between the groups.



Table 6

Hypothesis 1d: Attending Different School Created Few Problems (N = 68)

Response	Frequency	%	Cumulative %
Strongly Agree	9	13.2	13.2
Agree	25	36.8	50.0
Disagree	24	35.3	85.3
Strongly Disagree	10	14.7	100.0

Note. Mean value = 2.49.

Group 2: Hindrances to Continuation

The second group of hypotheses was concerned with factors which Dougherty proposed as hindrances to continuing after transfer into four-year colleges/universities. These factors were tested using four research hypotheses.

Hypothesis 2a: A majority of AAS graduates who entered the upper division of four-year colleges or universities perceive that the amount of credit granted for their associate degree was appropriate.

Data for this hypothesis were derived from the responses to the statement: "The four year

college/university granted me an appropriate amount of credit for for the work I did as part of my Associate degree." The responses to this statement are shown in Table 7.

Analyzed as a dichotomous variable, 70% of the respondents agreed with the statement. When tested against the null hypothesis this was found to be significant at the 0.05 level ( $t = 2.96$ ). These data support the research hypothesis.

Table 7

Hypothesis 2a: Appropriate Amount of Credit Granted (N = 60)

Response	Frequency	%	Cumulative %
Strongly Agree	18	30.0	30.0
Agree	24	40.0	70.0
Disagree	7	11.7	81.7
Strongly Disagree	11	18.3	100.0

Note. Mean value = 2.18.

Hypothesis 2b: A majority of AAS graduates who entered the upper division of four-year colleges or universities perceive that adequate financial aid was available to allow them to continue their education.

The data to test this hypothesis were derived from the responses to the statement: "There was sufficient financial aid available for me to continue my education at the four year college/university I attended." The responses to this statement are shown in Table 8.

When the responses to this statement were analyzed as a dichotomous variable it was found that 40.7% of the respondents agreed with this statement. When this was tested against the null hypothesis ( $\mu = 2.50$ ), the results were not found to be significant at the 0.05 level ( $t = -1.22$ ).

When the weighted responses were calculated, a mean score of 2.30 was obtained. When these results were tested against the null hypothesis ( $\mu = 2.50$ ), the results were not found to be significant at the 0.05 level ( $t = -1.49$ ).

Hypothesis 2c: Social integration was easily accomplished by a majority of AAS graduates who transferred to the upper division of four-year colleges and universities.

Table 8

Hypothesis 2b: Sufficient Financial Aid Available to  
Continue (N = 54)

Response	Frequency	%	Cumulative %
Strongly Agree	7	13.0	13.0
Agree	15	27.8	40.7
Disagree	19	35.2	75.9
Strongly Disagree	13	24.1	100.0

Note. Mean value = 2.70.

Data for this hypotheses were derived from the responses to the statement: "I found that I fit in easily with other students in upper division (junior/senior) classes when I attended a four year college/university." The responses to this statement are shown in Table 9.

Analyzed as a dichotomous variable, 90.7% of the respondents agreed with this statement. When tested against the null hypothesis, this was found to be significant at the 0.05 level ( $t = 6.04$ ). These data support the research hypothesis.

Table 9

Hypothesis 2c: Fit in Easily with Upper Division Students  
(N = 54)

Response	Frequency	%	Cumulative %
Strongly Agree	23	42.6	42.6
Agree	26	48.1	90.7
Disagree	4	7.4	98.1
Strongly Disagree	1	1.9	100.0

Note. Mean value = 3.28.

Hypothesis 2d: A majority of AAS graduates who entered the upper division of four-year colleges or universities perceive that they had adequate preparation for upper division work.

Data for this hypotheses were derived from the responses to the statement: "My associate degree adequately prepared me for the academic work I took at the Bachelor's Degree level." The responses to this statement are shown in Table 10.

Analyzed as a dichotomous variable, 81.4% of the respondents agreed with this statement. When tested

against the null hypothesis, this was found to be significant at the 0.05 level ( $t = 4.85$ ). The data support the Research Hypothesis.

Table 10

Hypothesis 2d: Prepared for Baccalaureate Level Work (N = 59)

Response	Frequency	%	Cumulative %
Strongly Agree	19	32.2	32.2
Agree	29	49.2	81.4
Disagree	8	13.6	94.9
Strongly Disagree	3	5.1	100.0

Note. Mean value = 3.06.

Group 3: Profile of Selected Personal Characteristics

The third group of hypotheses profiled selected personal characteristics of the sample. Six hypotheses were tested in this group.

Hypothesis 3a: A majority of AAS graduates are pursuing or have received a baccalaureate degree.

Data for this hypothesis were derived from the questions "Are you currently enrolled in classes leading

toward a Bachelor's Degree" and "Do you have a Bachelor's Degree." The responses to these statements, shown in Table 11, indicate that 58.5% of the respondents either were enrolled, planned to enroll, or had completed baccalaureate degree programs. Tested against the null hypothesis, the results were found to be significant at the 0.05 level ( $t = 2.97$ ). The data support the hypothesis.

Table 11

Hypothesis 3a: Pursuing or Received Baccalaureate Degree  
(N = 318)

	Number responding	%
Bachelor's Degree	46	14.5
Currently Enrolled	34	10.7
Plan to Enroll	<u>106</u>	<u>33.3</u>
Sub total	186	58.5
Not Enrolled/No Plans	132	41.5

Note. df = 317.  $t = 2.97$ .

## CHAPTER 4

## RESULTS

The first part of this chapter presents the statistical analysis of the data collected relating to the effect of the treatment method on interpretation/musicianship and the effect of the treatment method on the level of appreciation of the composition by the quintet members. The second section is a descriptive analysis of how subjects in the imagery-treatment perceived the rehearsal technique. This analysis provides evidence of treatment fidelity.

## Statistical Analysis

Treatment Effect on Interpretation/Musicianship

A one-way analysis of covariance (ANCOVA) was performed to examine the research question dealing with the effect of treatment on interpretation/musicianship. The average scores given by the adjudicators were used in the statistical analysis, and a significance level of .05 was selected.

Because interpretation/musicianship scores were considered to be, in part, a function of technical performance levels as well as a function of treatment effects, the analysis of covariance seemed most appropriate as a statistical control for differences in technical performance levels. The basic assumption of linearity was satisfied by determining the correlation of technical performance scores and interpretation/musicianship scores



( $r = .80$ ). Additionally, the assumption of homogeneity of regression was met ( $F(1,26) = .34, n.s.$ ).

An ANCOVA summary table is presented in Table 2. The results show no significant difference for type of treatment on the level of interpretation/musicianship performance after adjusting for the technical performance level ( $F(1/26) = 2.93, n.s.$ ). The first null hypothesis was therefore retained.

A  $t$  test for independent samples was conducted on the technical performance data. The results show that there was not a statistically significant difference in the level of technical performance between the treatment groups ( $t = 1.88, df 28, ns$ ).

#### Treatment Effect on Level of Appreciation

A  $t$  test for independent samples was performed to examine the research question dealing with the effect of treatment on the level of appreciation for the composition by the quintet members. The raw scores were used in the statistical analysis and a significance level of .05 was selected.

Table 2

ANCOVA Summary Table for Effect of Treatment Methods  
on Expressive Performance

Source	SS	df	MS	F	Pr > F
Covariate	182.632	1	182.632	53.61	.0001
Treatment	9.987	1	9.987	2.93	.0988
Covar*Trtmt	1.147	1	1.147	.34	.5667
Error	88.57	26	3.406		
Total	282.34	29			

Means and Standard Deviations

Condition	n	Technical		Interpretation/Musicianship		Adj. M
		M	SD	M	SD	
Experimental	15	24.17	3.38	20.83	3.01	20.55
Control	15	22.93	2.99	18.73	2.95	19.02

Means, standard deviations, and  $t$  value for the raw scores on the levels of appreciation for the composition obtained from the questionnaire are presented in Table 3.

The overall scores for both groups was high. Out of a maximum of 35 points, mean score for the experimental group was 30.51 and for the control group was 29.96. Results show that there was not a statistically significant difference between the level of appreciation for the composition by the transformational verbal imagery trained students and the level of appreciation for the composition by the verbal explanation trained students ( $t = 1.15$ ,  $df = 148$ , n.s.). The second null hypothesis was therefore retained.

Table 3

Mean and Standard Deviation for Level of Appreciation by Treatment Method

Group	n	M	SD	t
Verbal Imagery	75	30.51	2.36	1.15*
Verbal Explanation	75	29.96	3.38	

Note. \* n.s.

## Descriptive Analysis

### Perceived Effect of Verbal Imagery on Learning

Students involved in the transformational verbal imagery treatment completed an additional questionnaire regarding the effect of the method on their learning. The data were descriptively analyzed and used as part of the check for treatment fidelity. Using a 5 point Likert scale, subjects were asked to report (a) the ease of use of the verbal imagery, (b) their appreciation for the use of verbal imagery, (c) the helpfulness of verbal imagery in completing the learning task of performing the music with more expression/more feeling, and (d) their enjoyment of the rehearsal process involving verbal imagery. Additionally, short answers were required regarding the ease of use of the verbal imagery and the helpfulness of verbal imagery in completing the learning task.

In response to the question, "Did you find it difficult or easy to use imagery in rehearsing the music?", none of the subjects indicated that it was very difficult to use, 3 subjects (4%) indicated that it was difficult to use, 4 subjects (5.3%) were not sure of the difficulty or ease of use, 37 subjects (49.3%) indicated that it was easy to use, and 31 subjects (41.3%) indicated that it was very easy to

use. When asked to describe their experience in this regard, most subjects responded in one of three ways:

1. The use of imagery gave the subject something familiar with which to relate the music. Two sample comments point this out:

"I like the way music is linked to our everyday lives with vivid pictures. I always thought of an example that has happened in my life that was related to the music."

"The visual images gave me a very realistic sense of how to express a feeling through the written music. It was very helpful to concentrate on an image."

2. The use of imagery helped the subjects think about the feeling the picture evoked and that helped them perform with that feeling. Sample comments that point this out:

"I used the imagery he gave us and created a picture in my mind. With this picture I played according to the way I'd feel in that situation."

"When playing the music and thinking about an experience that goes along with the piece, it helped to play it like it was intended. Also I could get more involved and bring out my feelings while playing."

3. The use of imagery helped the subjects get beyond just the technical performance of the music. Sample comments that point this out:

"It was a good experience. It identified music with feelings which is what music is all about. It is not just mere notes, rhythm, tone, etc."

"It was a new way to look at music. Instead of just note, note, note, it was one image flowing into the next."

"It was quite easy to picture a moment or feeling and try to express it. It made the music come alive, instead of just playing a bunch of notes."

In response to the question, "To what extent did you like using imagery in rehearsing the music?," none of the students chose the response, "not at all." Only one of the subjects (1.3%) chose the response "not very much." Three subjects (4%) were neutral. Nineteen subjects, 25.3%, chose "some" appreciation for the use of verbal imagery, while 52 subjects (69.3%) chose "very much" in their response to this question. The subjects were not asked to elaborate on this question.

The third question asked the subjects, "Do you feel using imagery helped you perform the music with more expression/more feeling?" One subject (1.3%) chose the

response, "not helpful." Two subjects (2.6%) indicated that they were "not sure." Forty-one subjects (54.6%) indicated that they found the use of verbal imagery "helpful" in performing the music with more expression/more feeling. Thirty-one subjects (41.3%) indicated that the use of verbal imagery in performing the music with more expression/more feeling was "very helpful." When asked to describe their experience in this regard, most subjects responded in one of three ways:

1. The use of imagery helped the subjects get into the mood of the music. Sample comments included:

"When playing the music I could relate more and bring out some of my experience and anger or happiness by playing the music that way."

"There is no doubt in my mind that thinking what emotion I was trying to get across was a much more effective way of learning music."

"When a story is told, it is easier to relate to the feelings being brought out through the music. It's easier to express emotion when you have something to relate it to."

"Yes, it seemed to help me picture what was really going on in the music and what it should really sound

like. The imagery helped me get into a certain mood which was the mood we were playing."

2. The use of imagery helped subjects focus on feelings. Sample comments included:

"It made you feel more involved with the music-- like you could touch it or relate with it."

"Imagery helps me feel what I am playing, thus I play more musically."

"I used more feeling with an image in mind than if I had just followed the written dynamics and articulation."

"The first time we played it through, I just played the notes. Imagery helped me feel the music."

3. Several subjects' comments indicated that they learned better in a visual manner. The use of imagery helped in this regard. Sample comments included:

"The imagery was more precise than what explanation could have been."

"When I see something I can play it and remember it 100% more."

"Imagery helped me speak through my instrument and paint a picture with the sounds of what I saw (imagined) in my head."



"Imagery helps you 'see' the mood and then you can play the mood better."

The last question asked, "To what extent did the use of imagery make the rehearsals more enjoyable for you?" None of the subjects found the use of imagery "not very enjoyable." One subject (1.3%) found the use of imagery "not enjoyable." Two subjects (2.6%) indicated that they were "not sure" how enjoyable the use of imagery was in the rehearsal. Forty-three subjects (57.3%) indicated that the use of imagery in the rehearsal was "enjoyable" while 29 subjects (38.6%) indicated that the use of imagery in the rehearsals was "very enjoyable." The subjects were not asked to elaborate on this question.

#### Summary

The data analysis in this study included both statistical and descriptive procedures. An analysis of covariance (ANCOVA) was performed to examine the research question related to the effect of the two rehearsal techniques on the expressive, affective performance of the quintets. There was not a statistically significant difference between rehearsal groups, and the first null hypothesis of this study was retained.

A t test for independent samples was performed to examine the research question related to the effect of

transformational verbal imagery on the appreciation for the composition by the members of the quintets. There was not a statistically significant difference, and the second null hypothesis of this study was retained.

The data regarding the perceived effect of the transformational verbal imagery on the learning of the subjects were descriptively analyzed as part of the check for treatment fidelity. Sixty-eight of the 75 subjects involved with the experimental treatment found the verbal imagery "easy" or "very easy" to use. Seventy-one of the 75 subjects liked using verbal imagery either "some" or "very much." Of the 75 subjects, 72 of them found the use of verbal imagery "helpful" or "very helpful." Finally, 72 of the 75 subjects found the rehearsals which used verbal imagery either "enjoyable" or "very enjoyable."

## CHAPTER 5

## SUMMARY, DISCUSSION, AND RECOMMENDATIONS

## Summary

The purpose of this study was to determine whether the use of rehearsal methods based on transformational verbal imagery, when compared to the use of rehearsal methods based on verbal explanation, resulted in (a) a higher level of expressive, affective performance by brass and woodwind quintets and (b) a greater appreciation of the composition by members of the quintets. The findings of this study show that:

1. There was no significant difference between the adjusted means of the transformational verbal imagery-trained wind quintets in the category of interpretation/musicianship, and the adjusted means of the verbal explanation-trained wind quintets.

2. There was no significant difference in appreciation for the composition as expressed by wind quintet members involved in transformational verbal imagery-trained performances versus appreciation for the composition as expressed by wind quintet members involved in verbal explanation-trained performances.

## Discussion

As a conductor/teacher, the band director has a responsibility to interpret the composer's score and rehearse

the ensemble to a performance of the music true to that interpretation. The conductor's interpretation involves content factors of music, such as tempo, tone quality, and phrasing. The conductor, however, must go beyond those factors to address the spirit of the composition (Shrock, 1991). The task of the conductor is to "intuit, through study of the score, what the composer is saying on the imaginative or 'feelingful' level and to communicate this to the students in an ensemble . . ." (DeYoung, 1976, p. 36). Once the interpretation has been determined, the conductor must use effective rehearsal techniques to (a) communicate that interpretation to the students and (b) achieve an expressive, affective performance of the composition based on that interpretation.

This study researched the relative effectiveness of two rehearsal techniques to examine their effect on the expressive, affective aspects of a performance. It was hypothesized that wind quintets rehearsed using the transformational verbal imagery would show a higher level of expressive, affective performance than wind quintets rehearsed using verbal explanation. This hypothesis was not supported. It was also hypothesized that subjects who rehearsed using the transformational verbal imagery method would show greater appreciation for the composition compared

to subjects who rehearsed using the verbal explanation method. This hypothesis was not supported.

#### Related Studies

One must consider other studies dealing with rehearsal methods using verbal imagery in discussing the results of this study. Previous research has shown that verbal imagery rehearsal techniques are used by some band directors. The effectiveness, however, of verbal imagery techniques as compared to other rehearsal techniques has not been empirically established. Verbal imagery has been used in rehearsals for the purposes of teaching technical and expressive aspects of music performance (Baxter & Stauffer, 1988). Casey (1991), from interviews conducted with more than one hundred band directors throughout the United States, reported that many of them use imagery in teaching both technical and expressive aspects of music performance.

Davidson (1989), in a descriptive study, observed Chinese music education in a variety of settings among various age groups. After observing an individual music lesson, he noted two predominant features of that particular lesson: (a) The teacher's use of modeling and (b) the use of verbal imagery. He concluded that, because the student knew the music technically from memory, both modeling and verbal imagery were used in the observed lesson to get at the

expressive, affective qualities of the music. Funk (1982) descriptively researched the use of verbal imagery in the choral music rehearsal setting. He interviewed three university choral conductors and observed them in rehearsals "to determine the extent of use of verbal imagery and the circumstances under which verbal imagery was used . . ." (p. 1). He found that (a) verbal imagery was a prominent feature of the rehearsal language used by the three conductors, (b) verbal imagery was used early in the learning process to establish the basis for the technique, (c) the conductors resorted to verbal imagery when conducting gestures or modeling failed to get the desired result, (d) verbal imagery played a significant role in the pacing and vitality of the rehearsal, and (e) the use of verbal imagery provided a means of establishing a relationship between the music, life's experiences, and the human beings involved in making the music.

Only one study was found that did examine the effectiveness of verbal imagery as a pedagogical method. Grechesky (1985) conducted an exploratory field study to analyze verbal and nonverbal conducting behaviors as they related to expressive musical performance. Using a significance level of .1, he examined 24 independent variables, including verbal imagery and verbal explanation.

The final performance scores were used to create a rank order which served as the dependent variable. Through regression analysis, Grechesky found that the use of verbal imagery had a strong positive association on the rank assigned to each of the 11 concerts band included in the study. In discussing his findings, Grechesky stated "that it would take an increase of almost eleven occurrences of verbal explanation to improve a band one rank, while it takes just over two instances of verbal imagery to achieve the same result" (p. 114).

The difference in conclusions drawn between the Grechesky (1985) study and the present study can be attributed to a difference in significance levels ( $p = .1$  vs.  $p = .05$ ). Additionally, in the present study, the nonverbal communication of conducting in the final performance was not present. Funk (1982), in his descriptive study, implied that "the physical elements of conducting and verbal imagery are mutually supportive devices" (p. 124). The lack of interaction between the use of verbal imagery and the nonverbal communication of conducting may also contribute to the difference in conclusions drawn between the two studies. No other studies were found that would support a similar conclusion with regard to the interaction between the use of

verbal imagery and the nonverbal expression of conducting on the appreciation level for the composition by the performers.

Effect of Treatment on Interpretation/Musicianship and  
Level of Appreciation

The interpretation of the findings of this study, which do not support Grechesky's (1985) claim that verbal imagery rehearsal techniques are better than verbal explanation techniques, has focused on three factors: (a) The design of the study, (b) the nature of scoring musical performances, and (c) the selection of the composition.

Design of the Study

The design of the study has been examined as a possible cause for the nonsignificant differences. The factors considered were (a) the number of quintets, (b) the number of treatment sessions, (c) the level of technical performance set for the selection procedure, (d) the control of previous experience with verbal imagery by subjects in the control group, (e) the impact of the materials used to explain the study to subjects, and (f) the method of determining the imagery to be used in the treatment procedure.

Number of quintets. The study design used 30 quintets, 15 in each treatment group. This number was set for practical reasons in terms of the amount of time and finances available for the study. Borg and Gall (1989), in discussing



statistical power, stated that "statistical power increases automatically with sample size . . . the larger the sample, the smaller the difference needed to reject the null hypothesis" (p. 357). It is possible, therefore, that actual differences in the effect of these rehearsal techniques were not found due to the small sample size.

Number of treatment sessions. The band director, in the normal setting, considers at least 3 factors when planning a performance: (a) The technical performance levels of the students, (b) the number of rehearsals available before the performance, and (c) the music to be performed. The design for this study used 3 rehearsal sessions, two of which were devoted to the treatment procedures. The selection of the music, centering on the technical difficulty level as well as the expressive aspects of the composition, took into account the number of rehearsals and the relatively unknown factor of subjects' technical performance levels.

The decision to set three rehearsals was made after (a) discussions with colleagues regarding the number of rehearsals which could practically be provided by most band directors during the time of the school year in which the research would need to be conducted, (b) a pilot test of the procedure in which three rehearsals appeared adequate, and (c) a review of the study by Grechesky (1985) in which

treatment was done in one rehearsal session and showed the effectiveness of verbal imagery. It is possible that by increasing the number of treatment sessions, the effect of treatment would have been stronger and, if actual differences did exist, these differences would have been observed.

Level of technical performance for selection procedure.

Because the technical performance level of the subjects was relatively unknown, there was a concern that those subjects with lower technical performance levels would be less able to focus on the expressive, affective aspects of the final performance. The strong positive correlation between technical performance level and interpretation/musicianship performance level found in this study supported this concern.

To address the concern, a selection performance recording was made and a cut-off score for the technical performance level on the selection tapes was set at 12. This was determined by multiplying the six performance categories of the adjudication form by an average score of 2. It was felt that the selected level of technical performance would not hinder students from focusing on the expressive, affective aspects of the performance. To address the concern that the selection score should have been set higher, the writer did analyze the data using only those groups with a selection tape score of 18 and higher. There was no change

in the statistical outcome using only those scores. The performance score of 12 appeared, therefore, to be an appropriate cut-off score in the selection process.

Control for previous experience. Contamination in research results when "one aspect of a study tends to corrupt by contact . . . data recorded in another aspect of the study" (Borg & Gall, 1989, p. 494). Several journal articles (Ball, 1988; Davidson, 1989; DeYoung, 1976; Fisher, 1988; Wolverton, 1989) reviewed by this writer indicated use of verbal imagery in music pedagogy. Casey (1991) interviewed more than one hundred band directors throughout the United States and found that many of them used imagery in teaching both technical and expressive aspects of music performance. Evidence in the literature shows, therefore, that verbal imagery is used to some degree in music pedagogy.

The subjects in this study were not screened regarding previous experience with verbal imagery. The band directors involved in the study, however, were asked about the verbal techniques used in their rehearsals, and all of them reported that they commonly used verbal explanation. Because the study was explained to everyone, all subjects were aware of the two types of treatment. It is possible that some of the subjects in the control group had previously experienced verbal imagery in the rehearsal setting at honor bands,

summer music camps, etc., and transferred that experience to the treatment sessions by creating images of their own. If that was the case, the lack of observed differences between rehearsal techniques could be due to lack of differences in the technique actually used by subjects in the control group.

Impact of materials used to explain the study to the subjects. The materials provided to the band directors and the subjects thoroughly explained the study (see Appendix B). Subjects were informed that the purpose of the study was to determine the effectiveness of two rehearsal methods (verbal imagery and verbal explanation) when teaching the expressive aspects of instrumental music performance. Both verbal imagery and verbal explanation were defined for the subjects.

Borg and Gall (1989) explained several possible ways that such information could impact the study. The Hawthorne Effect, effecting the experimental group, "refers to any situation in which the experimental conditions are such that the mere fact that the subject is aware of participating in an experiment . . . or is receiving special attention tends to improve performance" (Borg & Gall, p. 190). The John Henry Effect "refers to a situation . . . in which a control group performs above its usual average when placed in competition with an experimental group that is using a new method or procedure" (Borg & Gall, p. 191). M. T. Orne

(cited in Borg & Gall) used the term "'demand characteristics' to describe all the cues available to the subjects regarding the nature of the research. These can include . . . instructions given to the research subject . . ." (Borg & Gall, p. 193). If the information provided prior to the study had any of these effects, the lack of observed differences between rehearsal techniques could be a result of those effects.

Method of determining imagery used in treatment. The imagery which was used in the experimental treatment procedure is outlined in Appendix G. The writer determined the imagery after studying the musical score and deciding "what the composer is saying on the imaginative or 'feelingful' level" (DeYoung, 1976, p. 36). Through his experience working with high school students, the writer determined that the story of a broken relationship could be used to communicate to the students what the composer was saying on the feelingful level. It is possible that other images might have communicated the spirit of the composition to the students more effectively. Methods of determining the imagery to be used which involve students' input might have created more effective images, resulting in a difference in the results of this study. As perceived by subjects and evidenced in their responses, however, the verbal imagery

used in this study was effective in accomplishing the learning task and easy to use. It appeared, therefore, that the subjects did relate to the verbal imagery used in the study.

#### Nature of Scoring Musical Performances

The nature of scoring music performances is always a concern. One of the assumptions of the study was that there is a relation between technical adequacy and the interpretation/musicianship score. The technical performance score of the final performance was used as the covariate to adjust the mean scores of interpretation/musicianship. There was a strong positive relation between the technical performance and the interpretation/musicianship performance. The evaluation of interpretation/musicianship was, therefore, strongly influenced by the technical performance level. This fact partially describes the illusive nature of scoring musical performances.

Overall, the nature of music adjudication is more subjective than objective. Some categories on adjudication forms, such as technique and rhythm, are more objective than subjective in nature. Other categories, however, such as style and emotional involvement, are more subjective than objective in nature. Evaluating a musical performance is not a totally objective measure dealing with quantities, but a

heavily subjective measure dealing with qualities which requires a quantitative judgement of performance level by the adjudicator. Abeles, Hoffer, and Klotman (1984) explained this illusive, subjective nature of scoring music performances:

Sometimes numerical values are assigned to qualities by evaluators, as when a pianist's interpretation of a Beethoven sonata is awarded so many points. The transformation from a quality to a quantity is not, however, straightforward . . . Are two pianists who each score 5 equal in ability? Clearly that isn't so, which indicates the presence of errors in the assigning of numerical values to qualitative phenomena. Transforming qualitative evaluations into quantities is often a necessary process in social science research. However, one should realize that the result of this transformation does involve a certain amount of error. (pp. 293-294)

The use of an adjudication form also contributes to the illusive nature of scoring musical performances. The adjudication forms that were used appeared to have face validity regarding content. The rubrics on the National Federation Music Adjudication Form for scoring specificity are not, however, well defined (see Appendix G). A clarification of those rubrics is a major part of the training sessions provided for adjudicators by the Iowa High School Music Association. Even with the training, however, there is a lack of specificity with regard to assignment of scores to the various categories of the adjudication form.

The illusive nature of scoring musical performances was considered by the writer when designing the study. In the small ensemble contest setting, one adjudicator makes his/her scoring decision based on one hearing of a live performance. This study used two trained adjudicators who met specific criteria. By recording the performances and requiring the adjudicators to listen to each performance twice for each scoring decision, the writer felt the adjudication process would be improved in this study. Additionally, order effect was dealt with by providing random orders of the tapes for each scoring procedure.

Interrater agreement between the 2 adjudicators at the time of selection averaged 86%, using a 1 point range on category scores, for the scoring procedures. On the final scoring procedures, the interrater agreement between the 2 adjudicators, using a 1 point range on category scores, averaged 91%. The scoring procedures used in this study resulted in improved scoring of musical performances. Even with these controls of the scoring procedures, it is possible that the illusive nature of scoring the musical performances in this study impacted the results of the study.

#### Selection of the Composition

Every music composition has indicators of expression which the performer uses in interpreting the composition



through his/her performance. The indicators can be obvious markings, such as the title of the composition or a musical term like "majestic." The indicators can also be subtle, such as the harmonic structure of the composition or a variation of the tempo. All of these indicators effect the performer's appreciation of the composition.

The aesthetic theory of absolute expressionism maintains that the formed qualities of an art work externalize a set of dynamic, mutual relationships which are similar in quality to the feelingful quality inherent in all human experiences (Reimer, 1989). When humans share the expressive qualities of an art work, they are also sharing in the qualities of which all human experience is created. In this study, both groups were rehearsed on the expressive, affective aspects of the composition; the experimental group was rehearsed using transformational verbal imagery and the control group was rehearsed using verbal explanation. The titles of the three movements of the composition--"Sadness," "Reflection," and "Elation"--were visible to all subjects and were referred to in the rehearsal process. Because the subjects shared the expressive, affective qualities of the composition, they also shared in the qualities of the indicated human experiences of sadness, reflection, and elation as expressed in the music. Additionally, if students in the control group had prior

experience with verbal imagery in the rehearsal setting, they might have created images of their own based on the obvious indicators in Three Moods and used those images to (a) aid their expressive performance and (b) impact their appreciation of the composition.

The composition, Three Moods, was selected for the study because (a) it was not technically difficult, (b) the expressive aspects of the composition appeared to set up an affective response, and (c) the composition had not been performed by any of the subjects prior to the study. It is possible that the obvious and subtle indicators of expression in this composition were so strong that neither the level of expressive, affective performance nor the subjects' level of appreciation for the composition were affected by the rehearsal method.

#### Perceived Effect of Transformational Verbal Imagery

The data regarding the perceived effect of the transformational verbal imagery on the learning of the subjects in the experimental group were descriptively analyzed. As reported by subjects, the use of transformational verbal imagery appeared to help motivate them, add enjoyment and ease to the rehearsal setting, and create interest in the composition being rehearsed. Three

subjects did, however, respond negatively to the verbal imagery.

Different students have different learning styles. Several subjects' comments indicated that they learned better in a visual manner. It is possible that transformational verbal imagery could be helpful to those students when learning to perform a composition but not helpful to other students with different learning styles. An aptitude-treatment interaction (ATI) research study would help determine "whether the effects of different instructional methods are influenced by the cognitive . . . characteristics of the learner" (Borg & Gall, p. 700).

Compared to the use of verbal explanation, the use of verbal imagery did not result in less musical performances in this study. There was strong evidence of acceptability for the use of verbal imagery by the subjects. The writer concluded, therefore, that there is merit in using verbal imagery to enrich the learning environment in the rehearsal setting.

#### Recommendations

This study dealt with a comparison of two verbal methods of teaching expression in music. The methodology did not involve the use of a conductor for the final performance. This was done intentionally to control for the effect of the

conductor on the expressive performance level of the quintets involved in the study. Considering the findings of this study and those of Grechesky (1985) and Funk (1982), the following recommendations for further research are made:

1. A study to determine the possible interaction between the use of transformational verbal imagery and the nonverbal expression in conducting and its effect on the expressive performance level of the music ensemble.
2. A study to determine the possible interaction between the use of transformational verbal imagery and the nonverbal expression in conducting and its effect on the level of appreciation for the composition by members of the music ensemble.
3. A replication of this study with more treatment sessions as a means of increasing the power of intervention.
4. A replication of this study with control for previous experience with the verbal imagery method.
5. A replication of this study with control for effects related to the research situation from the information provided as explanation of the study to the subjects.
6. A replication of this study, utilizing a method which includes subjects' input in determining the imagery to be used in the treatment procedure.

7. A replication of this study with a composition similar to Three Moods in technical level and level of expression, but with less obvious markings of expression.

8. A replication of this study with a composition similar to Three Moods in technical level, but with a minimal level of expression.

9. An aptitude treatment interaction (ATI) study to determine if the effect of transformational verbal imagery is influenced by the learning style of the subjects.

10. A study to establish scoring rubrics with more specificity than presently exists in the National Federation Music Adjudication Form for Small Ensembles.

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Appendix A

Selection Process Information Form

Name: \_\_\_\_\_ Home Phone #: \_\_\_\_\_

School Name: \_\_\_\_\_ Office Phone #: \_\_\_\_\_

School Address: \_\_\_\_\_

I.H.S.M.A. Classification: (Circle)      A            1A            2A            3A            4A

When does your concert band rehearse during the school day? List time of the day: \_\_\_\_\_

Do you have rehearsal everyday?     Yes     No.

If no, please circle the days you have rehearsal: Monday    Tuesday    Wednesday    Thursday    Friday  
 OR Explain your rehearsal schedule:

Do you participate in I.H.S.M.A. Large Group Contest?     Yes     No

When is the last date for your seniors to be in band? \_\_\_\_\_

If you go to large group contest, what do you do after large group contest with your band?

- Prepare for a concert scheduled on: \_\_\_\_\_
- Rehearse as a marching band.
- Other; please explain:

**INSTRUMENTATION INFORMATION:**

Instrument:	Grade Level				Performance level	
	# in 9th Gr.	# in 10th Gr.	# in 11th Gr.	# in 12 Gr.	# at Intermediate Level	# at Advanced Level
FLUTES						
OBOES						
BASSOONS						
CLARINETS						
BASS CLARINETS						
TRUMPETS						
FRENCH HORNS						
TROMBONES						
BARITONE HORNS						
TUBAS						

Appendix B

Selection Process: Study Information  
and Participation Forms

**LEONARD M. UPHAM**  
2603 Tremont Street  
Cedar Falls, Iowa 50613

(319) 266-7509

TO:  
FROM: Leonard M. Upham  
RE: Doctoral Dissertation Research Project  
DATE: April 2, 1993

Early in March, I requested your help with some information about your band program. I appreciated the excellent, prompt response from my first request. This letter is being sent to those directors whose reported instrumentation will support the formation of two or more brass and/or woodwind quintets. The purpose of this letter is to explain my research study and request your permission to conduct part of my study in your school setting. I am asking for your immediate assistance in helping me complete the research phase of the study. Without your help, I will be unable to complete the study. Your help is essential for the successful completion of my doctoral studies.

Enclosed with this letter are:

1. An "Explanation of the Study" for your information and for sharing with your administrator and your students who would be involved in the quintets. The intent of the study is improve rehearsal methods when addressing the expressive, affective aspects of music performance. The importance of that topic is outlined in the explanation sheet.
2. A "Director's Information" sheet outlining what is being asked of you, the director.
3. A "Director's Response" sheet outlining the questions that I will ask when I contact you by phone on Thursday, April 8, 1993.
4. A "School Administrator's Information" sheet outlining what is being asked of the school.
5. A "Permission to Conduct Research" form to be completed by you and your school administrator.
6. A "Student Participant's Information" sheet outlining what is being asked of the students.
7. A sample of the "Informed Consent" form which will be sent to you for each student who agrees to participate in the study.
8. A sample of the student questionnaire which will be used in the study. It is important that this questionnaire not be shared with the students. Prior exposure to the questionnaire would interfere with the research study.

Having been in our profession for 30 years, I realize that you have just completed your solo/ensemble contest and that the majority of you are preparing for large group contest and/or end of the year concerts. I have tried to organize things in this mailing so that it is easy to follow and understand AND take a minimum of your precious time. For your help with this project, I am most grateful.

As I indicated above, I will need to contact you during the day on Thursday, April 8, 1993. I realize that is a short amount of time to accomplish what is being asked. The reason for the short timeline is that I must complete the research by the end of the school year. That means that I must make the final selection of the 30 quintets. Then I must meet with all 30 quintets for 3 rehearsals each for a total of 90 rehearsals before the end of May. That does not count travel time, etc., so you can begin to understand why I am concerned about getting this all set up as soon as possible. I just received approval of the research proposal from my dissertation committee this week, so I have not been allowed to pursue this step until that was done.

I appreciate everything you will be able to do for me. If you have any questions before I call you, please call me collect at (319) 266-7509.

If you need to duplicate any of this information as you seek permission, please keep track of the cost and I will reimburse you. Thank you again for your consideration and assistance with this project. I look forward to visiting with you on Thursday, April 8, 1993.

## EXPLANATION OF THE STUDY

### VERBAL REHEARSAL METHODS AND THEIR EFFECTS ON EXPRESSIVE MUSIC PERFORMANCE: A COMPARISON OF VERBAL EXPLANATION AND TRANSFORMATIONAL VERBAL IMAGERY

The purpose of this comparison study is to determine if use of rehearsal methods based on transformational verbal imagery, when compared to use of methods based on verbal explanation, results in (1) a higher level of expressive, affective performance by brass and woodwind quintets and (2) a greater appreciation of the composition by members of the quintets.

An experimental research method will be used. Thirty brass and/or woodwind quintets, utilizing high school students of intermediate and advanced technical level, will be randomly assigned to 15 verbal imagery-rehearsed groups or 15 verbal explanation-rehearsed groups. A composition rich in expressive, affective aspects of music will be used. Each quintet will have three 45 minute rehearsals over 3 consecutive days: (a) the first rehearsal will be spent on the technical aspects of the performance; (b) treatment will be given during the second and third rehearsals, focusing on the expressive, affective aspects of the performance. An audio tape recording of the final performance will be made at the end of the third rehearsal. A questionnaire, designed to measure appreciation of the music, will be filled out by quintet members at the end of the third rehearsal.

To answer the research question regarding expressive, affective performance level, two independent adjudicators will score the final performance tapes twice; once using a ballot that measures technical performance only and once using a ballot that measures expressive, affective performance. A one-way analysis of covariance statistical test will be used. The questionnaires will be descriptively analyzed to test the null hypothesis regarding level of appreciation of the music.

#### Importance of the Study

The school band director must meet numerous educational objectives as he or she works with students in music groups. Many of these objectives relate to performance and can be grouped into two categories: technical and expressive performance objectives. Technical performance objectives include items such as tone quality, intonation, reading of notation, balance, blend, etc. Expressive performance objectives involved in interpretation/musicianship include everything that is not strictly technical; such as style, characteristic tempo, dynamic levels, phrasing, etc. Also included in the expressive category is the emotional involvement of the performer in communicating the spirit or feelingfulness of the composition to the audience--this is what is meant by the term "affective" performance in this study.

Most band directors teach effectively in helping students achieve appropriate outcomes in the technical and expressive aspects of music



performance. For various reasons, that is not always true in the affective aspects of music performance. Investigation into rehearsal methods which deal with the expressive, affective aspects of music performance is needed. This study seeks to research one possible rehearsal method in meeting that need.

Your assistance in the research phase of this study is an important part of this project. Your contribution to the improvement of rehearsal methods that address expressive, affective aspects of music performance is a contribution to the improvement of music education in the school setting.

## DIRECTOR'S INFORMATION SHEET

You are being asked to do the following:

1. Read through the information and determine if you are willing to participate in this study. Your participation is vital and I ask that you participate if at all possible.
2. Determine which of the following rehearsal schedules would work in your school:
  - a. A rotating schedule "out of classes", such as:
    - Day 1 rehearsal during first period.
    - Day 2 rehearsal during second period.
    - Day 3 rehearsal during third period.
  - b. All three rehearsals during band period.
  - c. Before or after school rehearsal times for three consecutive days.
  - d. Evening (after evening meal) rehearsal times for three consecutive days.
  - e. A combination of the above.

Options "c" and "d" would require some arrangements for me to get into your building during those times. If option "a" can work in your school, that would be my preference because it would assist greatly in getting all 30 quintets included before the end of the school year and reduce travel costs.

3. Share this information with your school administrator and ask for approval to participate in the study. Discuss the rehearsal schedule with the administrator, particularly if option "a" is chosen by you. Have the "Permission to Conduct Research" form signed by the school administrator and yourself. Duplicate and keep the copy for your school.
3. Share this information with the students you feel would be the best ones to be involved in this study. Attached is a sheet listing the number and types of quintets and technical proficiency requirements of the performers constituting each quintet. This information was put together from the information you provided me from the first mailing. Obtain their commitment to participate.
4. Determine a place where I can work when I'm in your school.
5. Be thinking about the best times during the months of April and May that I could come to your school.
6. Complete the "Director's Response" sheet in preparation for my phone call on Thursday, April 8, 1993.

## QUINTET INFORMATION

1. Number of woodwind quintets requested: \_\_\_\_\_  
 Number of brass quintets requested: \_\_\_\_\_
  
2. Make up of requested quintets. My study requires a heterogeneous mix of proficiency levels--either 3 advanced and 2 intermediate level performers OR 2 advanced and 3 intermediate level performers. The requested technical level of the performers was determined from the information you provided from my first mailing. You know your students. As you put the quintets together for me, please be aware of how well they will work together and include that criterion as you determine membership in the quintets.

I need to have at least two quintets in your school. If you can provide the total number requested, I would be most grateful.

The final selection of quintets will be by random draw and I will call you with the final number of quintets that were drawn from your school. Again, the minimum would be two.

### 3. Woodwind Quintets

Flute--	_____	technical level performer
Oboe--	_____	technical level performer
Clarinet--	_____	technical level performer
Bassoon--	_____	technical level performer
French horn--	_____	technical level performer

Flute--	_____	technical level performer
Oboe--	_____	technical level performer
Clarinet--	_____	technical level performer
Bassoon--	_____	technical level performer
French horn--	_____	technical level performer

### 4. Brass Quintets

1st Trumpet--	_____	technical level performer
2nd Trumpet--	_____	technical level performer
French horn--	_____	technical level performer
Trombone--	_____	technical level performer
Tuba--	_____	technical level performer

1st Trumpet--	_____	technical level performer
2nd Trumpet--	_____	technical level performer
French horn--	_____	technical level performer
Trombone--	_____	technical level performer
Tuba--	_____	technical level performer

### DIRECTOR'S RESPONSE

1. Are you willing to participate?     Yes     No
2. Is your school willing to participate?     Yes     No
3. Number of woodwind quintets that have agreed to participate and you can provide from what was requested: \_\_\_\_\_
4. Number of brass quintets that have agreed to participate and you can provide from what was requested: \_\_\_\_\_
5. Rehearsal schedule that would work in your school--check all that would be possible:
  - a.        Out of class on rotating schedule.
  - b.        During band rehearsal period.
  - c.        Before or after school for three consecutive days.
  - d.        In the evening for three consecutive days.
  - e.        A combination of "a", "b", "c", "d" above.  
(Circle those included in the combination)
6. Is there a place I can work in the school during the rehearsal time indicated in #5?     Yes     No
7. If the rehearsal time is outside of the school day, can arrangements be made for me to be in the school during that time?     Yes     No
8. The weeks to conduct this research are listed below, Prioritize those weeks, #1 being the best week for me to come, etc.:
  - \_\_\_\_\_ Week of April 12
  - \_\_\_\_\_ Week of April 19
  - \_\_\_\_\_ Week of April 26
  - \_\_\_\_\_ Week of May 3
  - \_\_\_\_\_ Week of May 10
  - \_\_\_\_\_ Week of May 17
  - \_\_\_\_\_ Week of May 24
  - \_\_\_\_\_ Week of May 31
8. Other questions or concerns you have:

**SCHOOL ADMINISTRATOR'S INFORMATION****LEONARD M. UPHAM**

(319) 266-7509

2603 Tremont Street  
Cedar Falls, Iowa 50613

TO: School Administrators of "Requested Research  
Schools"  
FROM: Leonard M. Upham  
RE: Permission to conduct research in your school  
DATE: April 2, 1993

Allow me to introduce myself first. I am a doctoral student in the College of Education at the University of Northern Iowa in Cedar Falls, Iowa. I teach at the University's Malcolm Price Laboratory School. I have been a band director in the state of Iowa for 30 years. I am currently on leave to complete the research phase of my dissertation.

One of the unique reasons that the band program exists in your school is to meet the expressive, affective educational needs of the students. These needs are met primarily and uniquely by the fine arts programs in the school setting. The problem that my study proposes to address is the development of a rehearsal method that is effective in teaching the expressive, affective aspects of a music performance.

Your band director will provide you with information about the study and discuss it with you. The study has received approval of the "Human Subjects Review Committee" of the Graduate College here at U.N.I.

If scheduling permits, I will conduct all of the rehearsal sessions. If scheduling does not permit me to do that, I will be hiring a retired, certified band director to conduct the first rehearsal session dealing with the preparation of the technical aspects of the performance.

If you have questions after you have read through the materials provided by your band director, please call me collect at (319) 266-7509.

Your assistance is vital--absolutely essential--for the successful completion of my doctoral studies. I ask that you grant permission to conduct research in your school.

Thank you for your time and consideration.

## PERMISSION TO CONDUCT RESEARCH

We understand that the proposed research involves the rehearsal of students in brass and/or woodwind quintets using either a verbal imagery method or a verbal explanation method.

We understand that Leonard M. Upham is a certified teacher in the State of Iowa. If a retired band director is needed to conduct the first rehearsal session dealing with the technical aspects of performance, we understand that that person will also be a certified teacher in the State of Iowa.

We understand that all data collected from our school will be confidential and that our students and school will not be identified by name during the research process and dissertation writing.

We understand that our participation is voluntary and that we may discontinue participation at any time.

Being fully aware of the nature and extent of our school's and our students' participation in this project, we grant permission for Leonard M. Upham to conduct research in our school. We acknowledge that we have received a copy of this permission statement.

\_\_\_\_\_  
(Signature of school administrator)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Printed name of school administrator)

\_\_\_\_\_  
(Signature of band director)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Printed name of band director)

\_\_\_\_\_  
(Signature of researcher)

**STUDENT PARTICIPANT'S INFORMATION****LEONARD M. UPHAM**

(319) 266-7509

2603 Tremont Street  
Cedar Falls, Iowa 50613

TO: Student Participants of "Requested Research Schools"  
FROM: Leonard M. Upham  
RE: Request your participation in the research project  
DATE: April 2, 1993

Allow me to introduce myself first. I am a doctoral student in the College of Education at the University of Northern Iowa in Cedar Falls, Iowa. I teach at the University's Malcolm Price Laboratory School. I have been a band director in the state of Iowa for 30 years. I am currently on leave to complete the research phase of my dissertation.

One of the unique reasons that the band program exists in your school is to meet the expressive, affective educational needs of you, the students. These needs are met primarily and uniquely by the fine arts programs in the school setting. The problem that my study proposes to address is the development of a rehearsal method that is effective in teaching expressive, affective aspects of music performance.

Your band director will provide you with information about the study and discuss it with you. The study has received approval of the "Human Subjects Review Committee" of the Graduate College here at U.N.I.

If scheduling permits, I will conduct all of the rehearsal sessions. If scheduling does not permit me to do that, I will be hiring a retired, certified band director to conduct the first rehearsal session dealing with the preparation of the technical aspects of the performance.

If you have questions after you have read through the materials provided by your band director, please have your band director call me collect at (319) 266-7509.

Your assistance is vital--absolutely essential--for the successful completion of my doctoral studies. I ask that you agree to participate in a quintet as your part in this research project. Before the project actually begins, you will be given two copies of the "Informed Consent" form. Please share the information with your parents, sign both copies, and return one to your band director. Thank you for your time and consideration.

PLEASE NOTE: FOR BAND DIRECTOR AND SCHOOL ADMINISTRATOR ONLY. PLEASE DO NOT SHARE WITH THE STUDENTS OR IT WILL INTERFERE WITH THE RESEARCH PROCESS. THANK YOU.

### REHEARSAL RESEARCH QUESTIONNAIRE

Please complete the following questions based on your experience during the rehearsals of *Three Moods*.

1. To what extent did you like *Sadness* (the first movement of *Three Moods*)?

\_\_\_\_\_ 1. Not at all.  
\_\_\_\_\_ 2. Not very much.  
\_\_\_\_\_ 3. Neutral.  
\_\_\_\_\_ 4. Some.  
\_\_\_\_\_ 5. Very much.

2. To what extent did you like *Reflection* (the second movement of *Three Moods*)?

\_\_\_\_\_ 1. Not at all.  
\_\_\_\_\_ 2. Not very much.  
\_\_\_\_\_ 3. Neutral.  
\_\_\_\_\_ 4. Some.  
\_\_\_\_\_ 5. Very much.

3. To what extent did you like *Elation* (the third movement of *Three Moods*)?

\_\_\_\_\_ 1. Not at all.  
\_\_\_\_\_ 2. Not very much.  
\_\_\_\_\_ 3. Neutral.  
\_\_\_\_\_ 4. Some.  
\_\_\_\_\_ 5. Very much.

4. Considering all three movements, to what extent did you like *Three Moods*?

\_\_\_\_\_ 1. Not at all.  
\_\_\_\_\_ 2. Not very much.  
\_\_\_\_\_ 3. Neutral.  
\_\_\_\_\_ 4. Some.  
\_\_\_\_\_ 5. Very much.

(Continued on back)



Do you agree or disagree with the following statements?

5. The composer effectively captured the appropriate spirit of "sadness" in the first movement of *Three Moods*?

- 1. Strongly disagree.
- 2. Disagree.
- 3. Undecided.
- 4. Agree.
- 5. Strongly agree.

6. The composer effectively captured the appropriate spirit of "reflection" in the second movement of *Three Moods*?

- 1. Strongly disagree.
- 2. Disagree.
- 3. Undecided.
- 4. Agree.
- 5. Strongly agree.

7. The composer effectively captured the appropriate spirit of "elation" in the third movement of *Three Moods*?

- 1. Strongly disagree.
- 2. Disagree.
- 3. Undecided.
- 4. Agree.
- 5. Strongly agree.

(Please continue on next page)

The rehearsals you experienced involved the use of imagery.  
Please complete the following questions:

8a. Did you find it difficult or easy to use imagery in  
rehearsing the music?

- Very difficult.
- Difficult.
- Not sure.
- Easy.
- Very easy.

8b. Describe your experience in this regard:

9. To what extent did you enjoy using imagery in rehearsing the  
music?

- Not at all.
- Not very much.
- Neutral.
- Some.
- Very much.

(Continued on back)

10a. Do you feel using imagery helped you perform the music with more expression/more feeling?

- Not very helpful.
- Not helpful.
- Not sure.
- Helpful.
- Very helpful.

10b. Describe your experience in this regard:

11. To what extent did the use of imagery make the rehearsals more enjoyable for you?

- Not very enjoyable.
- Not enjoyable.
- Not sure.
- Enjoyable.
- Very enjoyable.

**Thank you for your participation in this research project.**

## INFORMED CONSENT

The purpose of the research project is to determine the effectiveness of two rehearsal methods when teaching the expressive aspects of instrumental music performance. You are asked to participate in three rehearsals of a quintet during which one of the two methods will be used. You are also asked to complete a questionnaire regarding your appreciation of the music which will be rehearsed and your reaction to the rehearsal method used with your quintet.

The two rehearsal methods are (1) verbal explanation and (2) verbal imagery. Verbal explanation involves the use of direct instructions to improve the quintet's expressive performance. Verbal imagery involves asking students to imagine various common experiences, think about the feelings/emotions those experiences may arouse, and attempt to project those same feelings/emotions into the expressive performance of the music. The verbal imagery method does NOT involve the use of hypnosis. There is, therefore, no physical or emotional risk involved in either method.

The performance of the quintet will be audio recorded twice--once at the beginning of the 2nd rehearsal and again at the end of the third rehearsal. The questionnaire will be filled out at the end of the third rehearsal. Any of the data collected will be kept in strict confidence. At no time in the research process of the dissertation will you be personally identified, nor will your school be identified. Your participation is voluntary, and you may discontinue participation at any time.

The benefits derived from your participation in this research study are two-fold: (1) your participation in this area of concern will provide the necessary information to help determine the effectiveness of the two rehearsal methods, and (2) the information gathered will help improve rehearsal methods for instrumental music groups.

My name is Leonard Upham. I am a doctoral student in the Department of Curriculum and Instruction in the College of Education at the University of Northern Iowa. I am also a teacher at the Malcolm Price Laboratory School at the University of Northern Iowa. If for any reason you need to contact me, my home phone number is (319) 266-7509. You may also contact the office of the Human Subjects Coordinator at U.N.I. (319) 273-2748, for answers to questions about the rights of research participants.

---

I am fully aware of the nature and extent of my participation in this project. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement.

---

(Signature of participant)

---

(Date)

---

(Printed name of participant)

---

(Signature of researcher)

(Please sign both copies, keep one, and return the other to your school band director. Thank you for your participation.)

Appendix C

Adjudication Form for Interpretation/Musicianship Scores

**INTERPRETATION/MUSICIANSHIP ADJUDICATION FORM  
SMALL ENSEMBLE**

**Second  
Evaluation  
Form**

(Order of Appearance)

Event \_\_\_\_\_ Class \_\_\_\_\_  
(clarinet quartet, girl's trio, etc.)

School \_\_\_\_\_ Location-Contest/Festival \_\_\_\_\_

Number in Ensemble \_\_\_\_\_

	<u>Selections</u>	<u>Composer</u>	<u>Publisher</u>
1.	_____	_____	_____
2.	_____	_____	_____

Place one of these numbers in each circle below, then total carefully.

<small>5 — A superior performance — outstanding in nearly every detail.</small>	<small>2 — A fair performance — basic weaknesses.</small>
<small>4 — An excellent performance — minor defects.</small>	<small>1 — A poor performance — unsatisfactory.</small>
<small>3 — A good performance — lacking finesse and/or interpretation.</small>	

<u>AREAS OF CONCERN</u>	<u>COMMENTS</u>
<input type="radio"/> Style	
<input type="radio"/> Phrasing	
<input type="radio"/> Tempo	
<input type="radio"/> Dynamics	
<input type="radio"/> Emotional Involvement	
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	

TOTAL POINTS \_\_\_\_\_ (signature of adjudicator)

Appendix D

Appreciation and Treatment Fidelity Questionnaire

## REHEARSAL RESEARCH QUESTIONNAIRE

Please complete the following questions based on your experience during the rehearsals of *Three Moods*.

1. To what extent did you like *Sadness* (the first movement of *Three Moods*)?  
 1. Not at all.  
 2. Not very much.  
 3. Neutral.  
 4. Some.  
 5. Very much.
  
2. To what extent did you like *Reflection* (the second movement of *Three Moods*)?  
 1. Not at all.  
 2. Not very much.  
 3. Neutral.  
 4. Some.  
 5. Very much.
  
3. To what extent did you like *Elation* (the third movement of *Three Moods*)?  
 1. Not at all.  
 2. Not very much.  
 3. Neutral.  
 4. Some.  
 5. Very much.
  
4. Considering all three movements, to what extent did you like *Three Moods*?  
 1. Not at all.  
 2. Not very much.  
 3. Neutral.  
 4. Some.  
 5. Very much.

(Continued on back)



Do you agree or disagree with the following statements?

5. The composer effectively captured the appropriate spirit of "sadness" in the first movement of *Three Moods*?

\_\_\_ 1. Strongly disagree.  
\_\_\_ 2. Disagree.  
\_\_\_ 3. Undecided.  
\_\_\_ 4. Agree.  
\_\_\_ 5. Strongly agree.

6. The composer effectively captured the appropriate spirit of "reflection" in the second movement of *Three Moods*?

\_\_\_ 1. Strongly disagree.  
\_\_\_ 2. Disagree.  
\_\_\_ 3. Undecided.  
\_\_\_ 4. Agree.  
\_\_\_ 5. Strongly agree.

7. The composer effectively captured the appropriate spirit of "elation" in the third movement of *Three Moods*?

\_\_\_ 1. Strongly disagree.  
\_\_\_ 2. Disagree.  
\_\_\_ 3. Undecided.  
\_\_\_ 4. Agree.  
\_\_\_ 5. Strongly agree.

(Please continue on next page)

The rehearsals you experienced involved the use of imagery.  
Please complete the following questions:

8a. Did you find it difficult or easy to use imagery in  
rehearsing the music?

- Very difficult.
- Difficult.
- Not sure.
- Easy.
- Very easy.

8b. Describe your experience in this regard:

9. To what extent did you enjoy using imagery in rehearsing the  
music?

- Not at all.
- Not very much.
- Neutral.
- Some.
- Very much.

(Continued on back)

10a. Do you feel using imagery helped you perform the music with more expression/more feeling?

- Not very helpful.
- Not helpful.
- Not sure.
- Helpful.
- Very helpful.

10b. Describe your experience in this regard:

11. To what extent did the use of imagery make the rehearsals more enjoyable for you?

- Not very enjoyable.
- Not enjoyable.
- Not sure.
- Enjoyable.
- Very enjoyable.

**Thank you for your participation in this research project.**

Appendix E

National Federation Music Adjudication  
Form for Small Ensembles

**NATIONAL FEDERATION MUSIC ADJUDICATION FORM  
SMALL ENSEMBLE**

**First  
Evaluation  
Form**

(Order of Appearance)  
 Event \_\_\_\_\_ Class \_\_\_\_\_  
 (clarinet quartet, girl's trio, etc.)  
 School \_\_\_\_\_ Location-Contest/Festival \_\_\_\_\_

Number in Ensemble	Selections	Composer	Publisher
1.	_____	_____	_____
2.	_____	_____	_____

Place one of these numbers in each circle below, then total carefully.  
 5 - A superior performance - outstanding in nearly every detail.      2 - A fair performance - basic weaknesses.  
 4 - An excellent performance - minor defects.                              1 - A poor performance - unsatisfactory.  
 3 - A good performance - lacking finesse and/or interpretation.

AREAS OF CONCERN	COMMENTS
<input type="radio"/> <b>Tone Quality</b> Consider: resonance, control, clarity, focus, consistency, warmth	
<input type="radio"/> <b>Intonation</b> Consider: within ensemble, accuracy to printed pitches	
<input type="radio"/> <b>Rhythm</b> Consider: accuracy of note and rest values, duration, pulse, steadiness, correctness of meters	
<input type="radio"/> <b>Balance, Blend</b> Consider: likeness of qualities, awareness of ensemble, accompaniment	
<input type="radio"/> <b>Technique (facility/accuracy)</b> Consider: artistry, attacks, releases, control of ranges, musical and/or mechanical skill.	
<input type="radio"/> <b>Interpretation, Musicianship</b> Consider: style, phrasing, tempo, dynamics, emotional involvement	
<input type="radio"/> <b>Articulation</b>	
<input type="radio"/>	

**TOTAL POINTS** \_\_\_\_\_ (signature of adjudicator)

Appendix F

Publisher's Permission to Arrange  
"Three Moods"

**STANDARD FORM RECOMMENDED BY:**

Music Educators National Conference, Music Teachers National Association, National Association of Jazz Educators, National Association of Schools of Music, Music Publishers' Association of the USA and National Music Publishers' Association.

**REQUEST FOR PERMISSION TO ARRANGE****PART I****INSTRUCTIONS**

This form is to be prepared in duplicate. After completing Part I and signing both copies where indicated, forward both to the publisher who will complete Part II of the form and return it to you. If the publisher indicates a payment for the right you request, and if the conditions are agreeable to you, remit the amount to the publisher together with the original copy, which he will have signed, whereupon the agreement will be completed.

To: Southern Music Company Date: March 3, 1993  
(Name of Publisher)  
1100 Broadway - P.O. Box 329  
San Antonio, Texas 78292  
(Address of Publisher)

Gentlemen:

We hereby request your permission and non-exclusive license to arrange the following musical composition:

Three Moods (Brass Quintet: ST-179)

By: \_\_\_\_\_ (words)

Edward S. Solomon (music)

(hereinafter referred to as "The Arrangement")

1. The Arrangement will be for standard Woodwind Quintet in \_\_\_\_\_  
(type of arrangement)

5 parts: Flute, Oboe, Clarinet, Bassoon, Horn We will produce  
(number of instrumental and/or vocal parts)

six copies of The Arrangement for use and performance only by our  
research project for which no admission fees shall be charged,  
(teachers, students, members, congregation, etc.)

or for performance otherwise exempt under the provision of the U.S. Copyright Law.

2. No right to record or to reproduce additional copies is granted to us. We understand that if we wish to record The Arrangement a separate license will be required. We agree not to distribute (except for use of copies as provided in Paragraph 1), sell, loan or lease copies of The Arrangement to anyone.

**PART II**

3. All copies of The Arrangement shall bear the following copyright notice and the words "Arranged by Permission":

at the bottom of the first page of music of each part of The Arrangement. We will furnish you with a copy of The Arrangement upon completion.

(over)

4. We will have The Arrangement made by a person connected with us as our employee for hire, without any payment obligation on your part, and our signature below, together with yours underneath the words "Permission Granted" below shall assign to you all of our right in The Arrangement and the copyright in The Arrangement together with the sole right of registering the copyright as a work made for hire in your name or the name of your designee.

5. Additional provisions (if applicable):

6. In consideration of your permission to arrange, we will pay you \$ 0 (no fee) upon the granting by you of the permission requested.

7. This license agreement sets forth our entire understanding and may not be modified or amended except by written agreement signed by both of us.

Very truly yours,

Leonard M. Upham, U.N.I. Graduate  
Name of Institution Student  
2603 Tremont St.; Cedar Falls, IA  
Address 50613  
By: Leonard M. Upham

Permission Granted:

By: [Signature]  
Publisher

Permission denied because:

- 1. Arrangement available for sale.
- 2. Arrangement in process of publication for sale.
- 3. May not be arranged because of contractual commitments.
- 4. Other: \_\_\_\_\_



Appendix G

Treatment Instructional Frameworks

FIRST REHEARSAL - TECHNICAL  
INSTRUCTIONAL FRAMEWORK

Rehearsal Outcome: The quintet performs, with technical accuracy only, all three movements of Three Moods. (Do NOT deal with dynamics or anything else related to the expressive, affective performance aspects.)

Identification of performers:

Trumpet I (Br. Quintet) or Flute (WW. Quintet) = Player 1  
 Trumpet II (Br. Quintet) or Oboe (WW. Quintet) = Player 2  
 French Horn (Br. Quintet) or Clarinet (WW. Quintet) =  
 Player 3  
 Trombone (Br. Quintet) or French Horn (WW. Quintet) =  
 Player 4  
 Tuba (Br. Quintet) or Bassoon (WW. Quintet) = Player 5

Pre-rehearsal:

1. Introduce yourself.
2. Explain the intended outcome of this rehearsal.
3. Tune the instruments after warm-up.

First Movement:

1. Call attention to the breath marks.
2. Have students look through the movement and ask questions regarding fingerings, etc.
3. Set the tempo with a metronome and have the students rehearse the movement.
4. Before leaving the movement, have Player 3 begin the first movement using breath method; Player 1 provides cut-off at the end of the movement.

Second Movement:

1. Call attention to the breath marks, ritards, and a tempi.
2. Call attention to time signature changes in measures 9, 26, and 28. The beat stays the same throughout.
3. Call Player I's attention to "2nd time only" in measure 9 and "play both times" in measure 14.
4. Have students look through the movement and ask questions regarding fingerings, etc.
5. Set the tempo with a metronome and have the students rehearse the movement.
6. Before leaving the movement, have Player 1 begin the movement using breath method and provide the cut-off at the end of the movement.

Third Movement:

1. Have students look through the movement and ask questions regarding fingerings, etc.
2. Set the tempo with a metronome and have the students

- rehearse the movement.
3. Before leaving the movement, have Player 5 begin the movement using breath method and have Player 1 give the cut-off at the end of the movement.

If any student is having problems with his/her part, ask them to practice it before the next day's rehearsal.

SECOND AND THIRD REHEARSALS - EXPRESSIVE, AFFECTIVE  
INSTRUCTIONAL FRAMEWORK FOR VERBAL EXPLANATION

Rehearsal Outcome: The quintet performs, expressively, affectively, and technically, all three movements of Three Moods.

Identification of performers:

Trumpet I (Br. Quintet) or Flute (WW. Quintet) = Player 1  
 Trumpet II (Br. Quintet) or Oboe (WW. Quintet) = Player 2  
 French Horn (Br. Quintet) or Clarinet (WW. Quintet) =  
 Player 3  
 Trombone (Br. Quintet) or French Horn (WW. Quintet) =  
 Player 4  
 Tuba (Br. Quintet) or Bassoon (WW. Quintet) = Player 5

Method: Verbal explanation is an explicit, prescriptive approach. Direct instructions, lecture, and questioning should be used.

- Pre-rehearsal:
1. Introduce yourself.
  2. Explain the intended outcome of the two rehearsals.
    - a. Second rehearsal--make audio tape recording before starting treatment.
    - b. Third rehearsal--make audio tape recording at end of rehearsal. Have students fill out questionnaire after making recording.
  3. Tune the instruments after warm-up.
  4. Second Rehearsal only: Make audio recording before starting treatment. Reset tempos for the quintet before recording.

First Movement:

1. Set the tempo with a metronome.
2. Instruct the students to perform in a legato style.
3. Instruct the students about the dynamic markings as noted in the score.
4. Instruct the students to perform the ritardando at the end.
5. Call attention to the title. Ask the students to perform the movement, making it sound sad.

Second Movement:

1. Set the tempo with a metronome.
2. Call attention to the style--begins in a legato style and become more marcato at measure 9 and then returns to the legato style in measure 26.
3. Instruct the students about the dynamic markings as

- noted in the score.
4. Instruct the students to perform the ritardandi and a tempi in measures 6 through 9.
  5. Call attention to the title. Ask the students to perform the movement, making it sound reflective.

Third Movement:

1. Set the tempo with a metronome.
2. Call attention to the staccato style and the accents.
3. Instruct the students about the dynamic markings as noted in the score.
4. Call attention to the title. Ask the students to perform the movement, making it sound elated.

About 10 minutes before the end of the third rehearsal, make the audio recording of the final performance. Then have the students fill out the questionnaire.

SECOND AND THIRD REHEARSALS - EXPRESSIVE, AFFECTIVE  
INSTRUCTION FRAMEWORK FOR TRANSFORMATIONAL VERBAL IMAGERY

Rehearsal Outcome: The quintet performs, expressively, affectively, and technically, all three movements of Three Moods.

Identification of performers:

Trumpet I (Br. Quintet) or Flute (WW. Quintet) = Player 1  
 Trumpet II (Br. Quintet) or Oboe (WW. Quintet) = Player 2  
 French Horn (Br. Quintet) or Clarinet (WW. Quintet) =  
 Player 3  
 Trombone (Br. Quintet) or French Horn (WW. Quintet) =  
 Player 4  
 Tuba (Br. Quintet) or Bassoon (WW. Quintet) = Player 5

Method: Transformation verbal imagery is an implicit method. The use of figurative language to create images, having students focus on the feelings/emotions aroused by the images, and asking the students to project those same feelings/emotions into their performance is the essence of the transformational verbal imagery method and is used when teaching the expressive, affective aspects of the performance. Questioning and explicit teaching can be used to correct technical aspects of the performance.

- Pre-rehearsal:
1. Introduce yourself.
  2. Explain the intended outcome of the two rehearsals.
    - a. Second rehearsal--make audio tape recording before starting treatment.
    - b. Third rehearsal--make audio tape recording at end of rehearsal. Have students fill out questionnaire after making recording.
  3. Explain the transformational verbal imagery method. Check for understanding through discussion with the members of the quintet.
  3. Tune the instruments after warm-up.
  4. Second Rehearsal only: Make audio recording before starting treatment. Reset tempos for the quintet before recording.

First Movement:

1. Set the tempo with a metronome.
2. To teach the legato style, ask the students to imagine having a rubber cement ball stuck to their fingers--no matter how hard they try, it keeps

- sticking to one finger after another. "The notes must stick to each other."
3. Call attention to the title. Ask the students to imagine the following scene: "a young person their age believes he/she is in love with a school mate. Everything seems to be going well--they have fun together and enjoy each other's company. Suddenly one day, that young person you are imagining is dropped--jilted--by the school mate. Focus your attention to the hurt and sadness that person feels. During this movement, try to project those feelings into your playing."
  4. In dealing with the dynamics, relate it to this story. The emotion of sadness builds, reaching its climax at measure 9, and then subsides. There is an ebb and flow to the dynamics.
  5. In dealing with the tempo and tenuto markings, relate it to the story in that "there is no hurry" in times of sadness.
  6. To teach the ritardando at the end, have Player 4 imagine "loving" each note--too precious to let go.
  7. In dealing with phrase endings, ask the students to imagine the following scene: Someone enters the room where you are and visits with you, being very complimentary and positive, making you feel good by what is being said. Think about those feelings. Now imagine, that person leaves the room, slamming the door loudly. How do you feel now? "Don't slam the door on the end of the phrase."

Second Movement:

1. Set the tempo with the metronome.
2. Call attention to the title. Discuss the meaning of reflection. Ask the students to imagine the following scene: "the young person who was dropped is trying to deal with those feelings of loss and sadness. He/she goes off by himself/herself to a quiet place--a little brook bubbles along; the sun is shining. The feelings of sadness are still there--sometimes intense, sometimes not. As the young person reflects on his/her situation, thoughts of other friends and family begin to creep into his/her mind. He/she remembers happy times with them--he/she seems to pick up and become more happy. Thoughts are swirling around. Then thoughts of sadness return, but this time the young person feels more at peace with his/her situation--more accepting--life can go on. Focus your attention to the different feelings present in this image--sadness, contemplation, carefree happiness as friends and family are recalled, and

finally sadness with hope and peace. During this movement, try to project those feelings into your playing." Relate the different feelings to the places in the song--sadness at the beginning similar to the first movement; contemplation and carefree happiness as friends are recalled beginning at letter A; sadness returns with acceptance at measure 26.

3. In dealing with style, tempo, dynamics, building climaxes, ritardandi, a tempi, etc., relate it back to the image.

Third Movement:

1. Set the tempo with a metronome.
2. Call attention to the title. Discuss the meaning of elation. Ask the students to imagine the following scene: "the young person has dealt with the feelings of sadness and is ready to go on with life, having fun with friends and family. He/she goes to a party, getting involved in conversations with others, laughing, having a great time. Focus your attention to the feelings of happiness and fun present in this image. During this movement, try to project those feelings into your playing. Make the notes laugh; pretend you are conversing with friends at letter A--dialog between players 1 and 2 with interjections from players 3, 4, and 5. Have fun playing this movement."
3. In dealing with style, tempo, dynamics, building climaxes, accents, etc., relate it back to the image.

About 10 minutes before the end of the rehearsal, make the audio recording of the final performance. Then have the students fill out the questionnaire.



Appendix H

Evaluation of Tapes for  
Treatment Fidelity



# CEDAR FALLS HIGH SCHOOL

Tenth and Division Streets, Cedar Falls, Iowa 50613

Phone (319) 277-3100 Fax (319) 277-4604

DEAN H. DREYER, Principal • DANA C. DEINES, Assoc. Principal • GARY L. KOENEN, Assoc. Principal, Act. Coord.-A.D.

October 28, 1993

To: Whom It May Concern  
From: James E. Gosnell

Re: Examination of Control Group Tapes for Bias with Regard to Research  
Conducted by Leonard Upham

In examining control group audio tapes of rehearsals conducted by researcher Leonard Upham, this auditor has determined that treatment similarity and purity exist. Control groups were trained in their expressive, affective performance of the composition using verbal explanation. At no time did the researcher inject the use of verbal imagery when working with the control groups.

Therefore, it is the opinion of this auditor that no bias existed in preparing the control groups for evaluation. If further inquiry into this matter is necessary, questions may be addressed to this auditor.

Respectfully submitted,

James E. Gosnell  
Band Director and Music Department Chair  
Cedar Falls Community Schools  
Cedar Falls High School  
1015 Division Street  
Cedar Falls, IA 50613

Appendix I

Human Subjects Review Information



March 29, 1993

Mr. Leonard M. Upham  
2603 Tremont St.  
Cedar Falls, IA 50613

Dear Mr. Upham:

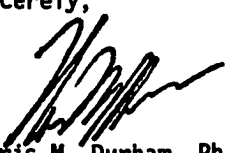
Your project, "Doctoral Dissertation Research: Verbal Rehearsal Methods and Their Effects on Expressive Performance", which you submitted for human subjects review on March 25, 1993 has been determined to be exempt from further review under the guidelines stated in the UNI Human Subjects Handbook. You may commence participation of human research subjects in your project.

Your project need not be submitted for continuing review unless you alter it in a way that increases the risk to the participants. If you make any such changes in your project, you should notify the Graduate College Office.

If you decide to seek federal funds for this project, it would be wise not to claim exemption from human subjects review on your application. Should the agency to which you submit the application decide that your project is not exempt from review, you might not be able to submit the project for review by the UNI Institutional Review Board within the federal agency's time limit (30 days after application). As a precaution against applicants' being caught in such a time bind, the Board will review any projects for which federal funds are sought. If you do seek federal funds for this project, please submit the project for human subjects review no later than the time you submit your funding application.

If you have any further questions about the Human Subjects Review System, please contact me. Best wishes for your project.

Sincerely,



Norris M. Durham, Ph.D.  
Chair, Institutional Review Board

cc: Dr. David A. Walker, Associate Dean  
Dr. Charles Dedrick

UNI Human Subjects Review Form

GC 1002

NAME Leonard M. Upham Date March 24, 1993DEPARTMENT/ADDRESS 2603 Tremont St. Cedar Falls PHONE 266-7509Circle one: FACULTY STAFF  GRADUATE STUDENT UNDERGRADUATE STUDENTIf you are a student, who is your project advisor? Dr. Charles DedrickPROJECT TITLE Doctoral Dissertation Research: Verbal Rehearsal Methods and Their Effects on Expressive Performance.EXPECTED DATE WHEN HUMAN SUBJECTS WILL BEGIN PARTICIPATION IN THIS PROJECT 4/5/93

YOU MAY NOT BEGIN ANY ASPECT OF YOUR PROJECT WHICH INVOLVES THE PARTICIPATION OF HUMAN SUBJECTS UNTIL YOU RECEIVE NOTICE THAT YOUR PROJECT HAS BEEN APPROVED (or requires no further review).

**Directions**

1. Complete the Research Procedure Checklist (p. 2).
2. Answer the Abstract questions (pp. 3 & 4).
3. Complete the Informed Consent Worksheet (pp. 5 & 6), attaching your Informed Consent statement.
4. Send these completed pages and the consent form to the Office of the Human Subjects Coordinator in the Graduate College Office.

**Review Procedures**

After completion of these steps, you will receive a notice from the Office of the Human Subjects Coordinator (usually within 5-7 days) that states one of the following:

1. Your project requires no further review and you may begin involvement of human subjects. (It is expected that most research projects will fall in this category). --OR--
2. Your project requires further review.

If your project requires further review, you will also be told at this time that your project has been assigned for one of two types of review, Expedited Review or Full Review.

Under Expedited Review procedure, the Human Subjects Coordinator will request that the Chair of the Institutional Review Board (IRB) assign the project to one or more IRB members for review. This review can usually be accomplished within two weeks of the time you receive initial notice from the Graduate College Office. The IRB member(s) reviewing your project may contact you for further information.

Under Full Review procedure, the project will be reviewed by the entire IRB at its monthly meeting. You will be told the date of the meeting at which the project will be considered. Researchers are encouraged to attend the IRB meetings at which their projects are being considered. (It is expected that Full Review will rarely be required.)

IF YOU HAVE ANY QUESTIONS ABOUT THESE FORMS OR PROCEDURES, contact the Office of the Human Subjects Coordinator in the Graduate College, 273-2748.

Research Procedure Checklist

Check each of the following that are included in your research.

- 1. Research on regular and special-education instructional strategies, curricula, or classroom management methods.
- 2. Test, survey, or observational research in which the subjects cannot be identified, either directly or indirectly, with their responses or information recorded about them.
- 3. Test, survey, or observational research in which the subjects can be identified with their responses or information recorded about them.
- 4. Survey or observational research in which the subject's responses or behaviors, if they became known outside the research, could reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability.\*
- 5. Survey or observational research that deals with sensitive aspects of the subject's own behavior, such as illegal conduct, drug use, sexual behavior, or use of alcohol.
- 6. Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens which are not publicly available or from which the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or indirectly.
- 7. Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens which are not publicly available or from which information is recorded by the investigator in such a manner that subjects can be identified.\*
- 8. Research involving the collection of human physical materials.\*
- 9. Research involving exercise by the subjects.\*
- 10. Research involving noninvasive procedures routinely used in clinical practice.
- 11. Research involving voice recordings.\*
- 12. Research that will involve manipulating the subjects' behavior in a way that is stressful to them.\*
- 13. Research on new drugs or medical devices.\*
- 14. Research involving children.\* (Grades 9 through 12 only)
- 15. Research involving fetuses, pregnant women, or human in vitro or in vivo fertilization.\*
- 16. Research involving subjects institutionalized as mentally disabled.\*
- 17. Research involving prisoners.\*
- 18. Research involving interviews.\*

x   19. Research involving questionnaires.\*

       20. Research involving tests not normally used in educational or clinical settings.\* (specify) \_\_\_\_\_

\*These procedures generally require informed consent.

An investigator whose project involves alcohol or drug use research or mental health research may wish to obtain a Certificate of Confidentiality, but only if the project is federally funded. The researcher who holds a Certificate for a specific project may not be compelled in any Federal, State, or local civil, criminal, administrative, legislative, or other proceedings to identify the individual subjects of the project. For more information about obtaining a Certificate, contact the Graduate College Office (2748).

Project Abstract questions

Answer each of the following questions in a few sentences in the space provided. If any questions do not apply to your project, make them "N.A." Do not leave any items blank.

1. What is the purpose of the project? What knowledge do you hope to gain from it? Describe the anticipated benefits for the subjects or others. Be specific.  
To study the effects of two rehearsal procedures—verbal explanation and verbal imagery. Determine if verbal imagery is more effective in teaching expression in music performance.  
Benefits: improvement of rehearsal methods for school band directors.
2. Who will be the subjects involved in the project? How will you select them? (If the subjects will be UNI or Price Lab School students participating in the project during class time, simply state this and then answer all parts of #8.)  
High School band students from schools in a 70 mile radius of Cedar Falls. After determining availability of adequate instrumentation to form brass and woodwind quintets, the 30 quintets involved in the study will be selected by random.
3. Describe the procedures to which the subjects will be exposed. Will a licensed health care professional be required to administer the procedures? This includes psychological as well as medical staff (e.g. clinical psychologists, social workers). Three rehearsals with each quintet on a musical composition using verbal explanation as the control with 15 quintets and verbal imagery as experimental treatment with 15 quintets. Certified teacher will conduct the rehearsals. Performances will be audio taped for evaluation by independent auditors. Questionnaire will be completed by students (see attached).
4. Describe any discomfort or anxiety which the procedures may cause. Remember that this includes present and future emotional stress.  
  
N.A.
5. Describe any deception involved in the research methods and explain why deception is to be used. How will you disabuse the subjects of this deception? If you do not plan to disabuse them of the deception, explain why.  
  
N.A.
6. Circle each of the following which describes your subjects: a. Minors  
b. Prisoners c. Females who might be pregnant d. Persons committed to institutional care e. Mentally or emotionally disabled persons f. Persons with special physical conditions g. None of the above

Describe what special measures you will take to protect their well-being.

N.A.

7. What measures will you take to safeguard the privacy of the subjects and the confidentiality of the data obtained from them? Will the data be retained or destroyed? If retained, how will confidentiality be maintained? Will other researchers have access to these data? Names of students and schools will not be used in the reporting of research results. Data will be retained, but will not be identified by name. Access by other researchers possible if so desired.
8. If the project involves UNI or Price Lab School students during class time, answer the following: N.A.
- a. Are the students to be involved in a class that you teach? \_\_\_\_\_
- If so: 1) Will you know which students participate? \_\_\_\_\_
- 2) Will you be able to identify with a particular student the data collected from that student? \_\_\_\_\_
- 3) Will the students be able to identify you as the investigator? \_\_\_\_\_
- b. Will the project enhance the course for the students? How?
- c. When will the research be conducted? When will the proposed project date be announced to the class?
- d. Will the student participants gain academic credit for participating? \_\_\_\_\_
9. Signature of researcher *Leonard M. Ugham* Date 3/24/93

ATTACH A COPY OF ANY QUESTIONNAIRE, INTERVIEW PROTOCOL, OR TEST DEvised FOR THIS STUDY. If you do not have copies at this time, give the date by which you will submit them to the Human Subjects Coordinator. Attached.

You must submit a copy of any questionnaire, interview protocol, or specially devised test to be used in this study before you begin the project.



Informed Consent Worksheet

The basic elements of Informed Consent (A through O) are given below. You may delete some of these elements from your Informed Consent form or, at your own personal risk, you may waive the entire informed consent statement, but only if--

1. Your project involves only minimal risk\* to the subjects; and
2. The alteration or omission of informed consent will not endanger the rights or welfare of the subjects; and
3. The research could not practicably be carried out without the alteration or waiver; and
4. Whenever appropriate, the subjects will be provided with additional pertinent information after participation.
5. However, if the data may later be used by another researcher or for a different project, you must use an Informed Consent.

If you do not plan to use an Informed Consent form, state reasons for your decision on a separate sheet of paper, responding to the conditions listed above. Include a summary of any additional information to be given to the subjects after participation.

To compose an informed consent statement, you should respond to each of the items listed below. If you choose not to include an item in the statement, put a check mark on the line to the left of the item, and, in the space beneath the item, explain why you have chosen to omit it.

Example:     C. Identify any procedures which are new, experimental or which are not normally used in this type of research.

The information that is given to the subject or the representative should be in language that that person can understand. No informed consent may include any exculpatory language through which the subject or the representative is made to waive or appear to waive any of the subject's legal rights or which releases or appears to release the investigator, the sponsor, the institution or its agents from liability for negligence.

Attach a copy of your Informed Consent statement to the Human Subjects Review Form.

- x   A. Explain the purposes of the research in terms the subject or representative can understand.
- x   B. Describe all procedures to which the subjects will be exposed.
- C. Identify all procedures which are new, experimental, modified, or which are not normally used in this type of research.
- x   D. Describe any reasonably foreseeable risks or discomforts which the subject may experience.
- x   E. Describe any potential benefits either to the subject or to others which may result from the research.
- F. If the subject might benefit from undergoing a type of clinical treatment other than that involved in the project, describe this treatment. State why the subject should be part of this project.

\* "Minimal risk" means that the risks of harm anticipated in the proposed research are not greater, considering probability and magnitude, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests including emotional stresses.

- G. Tell the subject to what extent and how the records identifying the subject will remain confidential.
- H. State that participation is voluntary.
- I. If you intend to pay the subject for participation, tell how much he or she will be paid.
- J. If the research involves more than minimal risk, tell the subject whether medical or psychological treatments are available in the case of injury or stress and whom to contact about research-related injuries.
- K. State that the subject may discontinue participation at any time without penalty or loss of benefits to which the subject is entitled.
- L. State that the refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled (e.g., loss of course credit).
- M. Give your name, department at UNI, faculty office phone number, department office phone number, and adviser information if appropriate.
- N. State that the subject may contact the office of the Human Subjects Coordinator, University of Northern Iowa, (319) 273-2748, for answers to questions about the research and about the rights of research subjects.
- O. Include the following at the bottom of the informed consent form:

I am fully aware of the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement.

\_\_\_\_\_  
(Signature of subject or responsible agent)

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Printed name of subject)

\_\_\_\_\_  
(Signature of investigator)

**"Short form" informed consent.** You may wish to use a "short form" consent document which states that the elements of informed consent (as listed above) have been read to the subject or the subject's legally authorized representative. This method requires the following:

1. There must be a witness to the reading.
2. You must submit, with these Human Subject Review Forms, a copy of what you will read to the subject or the representative and a copy of the "short form".
3. A copy of the oral statement shall be given to the subject or the representative. This copy must be signed by the witness and the person obtaining the consent (usually the investigator or an assistant).
4. A copy of the "short form" will also be given to the subject or representative of subject or representative shall sign this form.

(The short form itself might be identical to item "O" above, with the following change in the first sentence: "I am fully aware of the nature and extent of my participation in this project as presented orally to me and the possible risks arising from it.")