2007

The effects of student input into school organization, operation and governance on dropout rate in Iowa alternative schools and programs

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by

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A dissertation submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Education (Educational Leadership)

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2007

Dedicated to:

Rebecca DeHart

David DeHart

Ryan Rosenquist

Paul DeHart

Reese Rosenquist

Each of you has blessed my life with love, laughter and happiness.

No man has received greater gifts from God.

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ABSTRACT

This study examined differences in dropout rate among 41 alternative high schools/programs in Iowa according to the use of seven specific types of student input into school organization, operation, and governance. The types of student input included in this study were: (a) instructional techniques, (b) determining student discipline, (c) planning co-curricular activities, (d) planning curriculum, (e) teacher evaluation, (f) student self-evaluation of progress, and (g) student contracts for performance. Situated Learning Theory provided the primary theoretical framework for this study by comparing similarities between the traditional apprentice-master model and the impact of student input on academic success. Types of student input were examined for all students, students by sex, and students by racial and ethnic minority status, and the combination of minority status and sex.

One of the four research questions presented in this study yielded a significant final ANOVA allowing one null hypothesis to be rejected. Student input into the organization, operation, and governance of alternative schools/programs significantly affected the dropout rate for racial and ethnic minority students. Use of student contracts for performance, and the combination of allowing students to self-evaluate their progress with being able to plan co-curricular activities reduced dropout rates for racial and ethnic minority students. Allowing students input into determining discipline, however, increased dropout rates for racial and ethnic minority students.

CHAPTER 1. INTRODUCTION

Introduction

The purpose of high school is to provide students with the experiences and attitudes necessary to graduate and successfully begin their adult lives. For most students, high school experiences are reinforced by family and peers, resulting in success. For some students, however, this alignment of school, family, and peers does not occur to the level necessary for success. Often families are not equipped to support their children regarding homework, behavior, and attendance expectations. A student's peer group may promote truancy, substance abuse, or general negative attitudes towards education. Schools often provide unintentional negative experiences that some students feel the need to rebel against or withdraw from. For these reasons and many more, some students do not succeed and often drop out of school.

As a society, we have come to realize that we cannot afford the economic and social burden these students are likely to become. In response to this realization, many school districts have created alternative educational environments designed to meet the specific needs of dropouts and students at-risk of dropping out. This study is, in part, motivated by this researcher's 7 years of experience as both an alternative high school teacher and administrator. The effect that the alternative school had for some students was profound. Though many students also dropped out of the alternative school, it was not uncommon for students who had dropped out of their traditional high school and become 100% truant, to have 100% attendance upon entering the alternative school, even showing up on snow days and teacher in-service days. Although I have not been directly involved with alternative education for 19 years, this experience endeared alternative education students to me and

motivated me to learn more about alternative education. What is it about alternative education that causes its students to come to school when they do not have to? Also, what lessons can be learned so that all schools can instill this sense of commitment and belonging in their students?

Alternative education refers to educational programming addressing at least one of three areas: dropout prevention, special education, or at-risk youth. These three areas share common characteristics including, but not limited to, small class size (Bryk & Thum, 1989; Morley, 1991; Moser, 2002; Natriello et al., 1990; Tobin & Sprague, 1999; Young, 1990), emphasizing one-to-one relationships between teachers and students (Baker 1994; Christensen, 1997; Holmgren-Hoeller, 1993; Rosenquist, 2000), creating a supportive environment (Kerka, 2003; Schweikert-Cattin, 1996), establishing and maintaining a student-centered curriculum (Frymeier, 1987; Neuenfeldt, 2003), and allowing flexibility in structure with student input (Gold & Mann, 1984).

Alternative education strives to implement the belief that schools must be structured with the flexibility to match multiple student learning styles and cultural perspectives and not adhere to one rigid path to success (Deschenes, Cuban, & Tyack, 2001). It is not a process or procedure that is applied uniformly to each student or even across each district. Alternative education is a genuine perspective on the role of education founded on the belief that different people learn in different ways. Alternative education is about demonstrating respect for all students and parents by giving them a voice in developing an educational plan that will meet their needs and provide them an avenue to achieve their goals. Alternative schools have been successful because they add value to the traditional educational environment and address previously unmet student and family needs. Each school district molds alternative

education to meet the needs of its students and community with the result often looking very different from district to district. Some alternative schools are separate schools with self-contained staff, facilities, and curriculum. Expo High School in Waterloo, Iowa is an example of this type of alternative high school. Their building was once an elementary school but was renovated to meet their needs and includes all facilities and services common to most traditional high schools. Other alternative settings resemble one-room school houses or special education resource rooms. These alternative settings are often referred to as a school-within-a-school. The School-based Youth Services program in Marshalltown, Iowa offers alternative programming for students and is located within the traditional high school. Alternative schools can also be formed as a consortium of several school districts or other educational institutions to maximize resources and broaden curricular opportunities for students (Morley, 1991). Community colleges often serve as the service provider and location for these programs. Greenbelt High School in Iowa Falls, Iowa is an example of a program operated by the local community college that serves students from several public school districts.

As of May 2006, there were 114 alternative schools or programs in Iowa created to meet the needs of dropouts and at-risk students. Eighty-two of Iowa's 99 counties have at least one alternative high school within their borders and 292 of Iowa's 365 school districts have formed consortiums with other school districts, or with community colleges to provide alternative programming (Iowa Association of Alternative Education, 2006). The proliferation of alternative education in Iowa means that educational systems have been willing to embrace alternative education to meet the needs of at-risk students. This growth also implies that whatever is occurring in traditional public education that causes students to

fail or become at-risk of failing has not been addressed. Alternative education is either a meaningful engine for school reform ensuring the inclusion and success of all students, or a convenient way to exclude students for whom traditional educational environments are unwilling or unable to meet their needs. Although successful and valuable, a goal of alternative education should be to put itself out of business by serving as a temporary solution that allows flexibility in determining how to best meet the needs of students unable to be successful in the traditional system. It is when these practices can be identified and implemented back into traditional education that alternative education has truly succeeded and is no longer necessary. For this to occur, research is needed to identify what practices, if any, in alternative education make a difference with at-risk students, and how these could potentially be implemented into traditional educational settings.

Statement of the Problem

As will be discussed in Chapter 2, alternative education does not attract much attention from researchers. The research that does exist focuses on student performance (Bell, 1990; Carruthers & Baenen, 1997; Dugger & Dugger, 1998; Johnson, 2003; Martin, 2001; Starks, 2002; Tennenbaum, 2000) or outcomes compared to traditional school environments (Dynarski & Gleason, 1998; Gold & Mann, 1984). These studies often attempt to justify the existence of alternative education by comparing different performance measures of alternative and traditional education. This study compares practices between alternative schools/programs to assess whether certain practices are effective in meeting the needs of alternative education students. Specifically, this study examines alternative education in Iowa according to Situated Learning Theory (Lave & Wenger, 1991), to determine to what

degree allowing student participation in the organization, operation, and governance of the school has on student success as evidenced by reduced student dropout rate.

Purpose of the Study

The primary purpose of this study is to contribute original, meaningful knowledge in the area of alternative education and identify what practices, if any, better serve the needs of dropouts and students at risk of dropping out. This is done by evaluating student participation in the organization, operation, and governance of alternative schools to determine whether this participation assists students in their progression towards graduation and/or success in alternative educational environments in accordance with Situated Learning Theory. Should any useful practices be identified, a secondary purpose of this study is to identify these practices for use by all educators interested in serving at-risk students and dropouts.

Research Questions

To summarize Lave and Wenger (1991), Situated Learning Theory describes the transition that newcomers in an educational environment make from under involved observer or beginner in the educational process to vested, achieving, fully participating learner. Lave and Wenger label this progression as legitimate peripheral participation. Much of the basis for this theory was formed by observation of the traditional master-apprentice relationships found in such areas as midwifes, meat cutters, and naval quartermasters. An apprentice's relationship to the master progresses from one of observer, to helper, to colleague, to fellow master.

In the beginning of this relationship there is little commitment on the part of the apprentice, but as time passes and the apprentice begins to learn the skill or craft he or she

become vested both in the skill and their relationship to the master. This vestment encourages additional learning and ultimately performance at the master level. Analogies may be drawn between the master-apprentice relationship and the process learners follow as they progress from tentative newcomer in a learning environment to committed learner and full participant. The learning environment itself assumes the role of master. Just as apprentices eventually take their place in the community as masters of their skill or trade, eventually all of the experiences, processes, relationships, and opportunities draw students into the learning environment and foster their participation in and knowledge of all levels of the school. This study looks at whether student participation in the organization, operation, and governance of a school contributes to the creation of fully-engaged learners as indicated by a reduced student dropout rate.

This research attempts to answer two fundamental questions: (a) What effect does allowing student participation in the organization, operation, and governance of an alternative school have on a school's ability to transition newcomers into fully-participating members of the school or program as evidenced by a reduced student dropout rate? (b) Can these lessons be applied to better meet the needs of dropouts and students at risk of dropping out in all educational settings?

All research questions of this study relate to 7 practices of alternative high schools/programs that promote student participation in their school. Each year the Iowa Association for Alternative Education (IAAE) conducts a survey of all alternative schools and programs in the state. As part of this survey, respondents are given a list of practices regarding the organization, operation and governance of the school. The 7 practices are as follows:

1. Students are given input into deciding instructional techniques.
2. Students are given input into determining student discipline.
3. Students are given input into planning co-curricular activities.
4. Students are given input into planning curriculum.
5. Students are given input into teacher evaluation.
6. Student self-evaluation is used in evaluating student progress/learning.
7. Student contracts for performance are used in evaluating student progress/ learning.

A representative of each school must respond to each practice by indicating whether this practice occurs or does not occur within their school or program. Definitions for these practices are not included with the survey and this omission is discussed later in this chapter as an assumption. Also on this survey, alternative high schools and programs indicate the total number of students that the school or program served and whether these students dropped out of the school or were still enrolled. From these data an annual dropout rate can be calculated that is the dependent variable for the study.

Research question 1. Which of the 7 types or combination of types of student participation in school organization, operation and governance have a significant effect on reducing the overall dropout rate?

Research question 2. Which of the 7 types or combination of types of student participation in school organization, operation and governance have a significant effect on reducing the dropout rate by sex?

Research question 3. Which of the 7 types or combination of types of student participation in school organization, operation and governance have a significant effect on reducing the dropout rate by racial and ethnic minority status?

Research question 4. Which of the 7 types or combination of types of student participation in school organization, operation and governance have a significant effect on reducing the dropout rate by the combination of racial and ethnic minority status and sex?

Significance of the Study

As Thomas Friedman indicates in his book *The World is Flat* (2005), the emerging economic superpowers of the world are not creating and retooling their educational systems simply to compete with American students: they are creating systems to dominate American students. The American system of education must accelerate school reform efforts so that our students can compete effectively in a global job market. As part of this reform, we must find ways to serve all students and provide them viable opportunities in tomorrow's economy. In a competitive global economy, each person unable to become an asset will become a liability with the potential to limit economic progress. This study looks at alternative education in Iowa as a potential source for identifying what schools can do differently to keep students in school and performing at acceptable levels.

This study is unique in that it does not compare alternative education to traditional education. A significant amount of the literature (Dynarski & Gleason, 1998; Gold & Mann, 1984; Lehr & Lange, 2000) about alternative education seems to use traditional education as the benchmark and then determine how students in alternative settings compare. This study looks within alternative education to determine what practices best meet the needs of students. It is unique in the literature to have information and data on a significant number of alternative settings for the same period of time. This was made possible by the progressive efforts of the IAAE in realizing that this type of information was needed to support alternative education in Iowa.

Assumptions

Several assumptions are being made in this study. Although Lave and Wenger give several discrete examples of Situated Learning Theory in practice, it is assumed that the 7 identified types of student participation in school organization, operation, and governance are appropriate dimensions of legitimate peripheral participation and encourage students to participate actively in their educational environment. These 7 dimensions were chosen by the researcher based on his understanding of each dimension's potential relationship to Situated Learning Theory and the likelihood that these factors are readily understood and accurately reported by alternative schools and programs.

Because the dependent variable of dropout rate is calculated by dividing the number of students leaving the alternative school or program during the school year by the total number of students served, it is assumed that leavers equal dropouts. By definition leavers can include those students who leave the alternative school or program to return to the traditional school and thus are not dropouts. However, during the development of this survey the alternative educators reviewing the survey decided to count these students as leavers because their experience had shown that often students indicate they are returning to the traditional school, but seldom actually register. In effect these students most often result as dropouts and thus would be correctly categorized for purposes of this study.

Limitations/Delimitations of the Study

Limitations. The survey used for this study was developed and is owned by the IAAE and is part of an annual data collection cycle. The survey is voluntary, with no consequences for non-participation. During the first year of the survey (2003-04), only 73, or 65.18%, of the 112 alternative schools or programs responded to the survey. The response rate declined

during the second year (2004-05) to 43 schools, or 38.39%. Consequently, the researcher was unable to use a random sample of alternative schools and programs in the state and was also unable to survey the entire alternative education population in Iowa. Because of this limitation, post-stratification weighting was conducted on participating schools/programs to increase their ability to represent the entire alternative education population in Iowa. Post-stratification is a proven technique for applying known auxiliary population variables to a poorly distributed sample to reduce variance in the sample and increase population coverage (Bedier, 1989; Holt & Smith, 1979; Valliant, 1993). For this study, the auxiliary variable used was size of the host school district for each alternative school/program. Ideally respondents would be weighted according to alternative school size. However because we do not know the relative size of each alternative school/program in the population, size of the school district in which each alternative school/program is located is a reasonable substitute. Size categories used to classify host districts were developed by the Iowa Department of Education.

Delimitations. Due to the low response rate to the survey, this study uses two data collection cycles to establish the final data set to be used in this study. The 2003-04 data collection cycle established the primary set of schools and programs included in the study, and was supplemented with schools that completed the survey during the 2004-05 data collection cycle but had not completed the survey previously. The resulting data set is unduplicated according to school: a majority of information was collected during the 2003-04 school year, with a few schools' information collected in the 2004-05 school year.

The survey consisted of 83 items covering many topics including enrollment, curriculum, staff, school operations, governance, and student performance and outcomes.

Only enrollment and the 7 previously identified types of student participation in school organization, operation, and governance were chosen. Although additional data items were available, those chosen best match this study according to its scope, theoretical framework, and ability to be least problematic for alternative schools to understand and report accurately.

Definition of Terms

During the course of this research several terms related to alternative education of Situated Learning Theory will be used in the following manner:

1. Alternative education refers to educational programming addressing at least one of three areas: dropout prevention, special education, or at-risk youth. These three areas share common characteristics, including, but not limited to, small class size (Bryk & Thum, 1989; Morley, 1991; Moser, 2002; Natriello et al., 1990; Tobin & Sprague, 1999; Young, 1990), emphasizing one-to-one relationships between teachers and students (Baker 1994; Christensen, 1997; Holmgren-Hoeller, 1993; Rosenquist, 2000), creating a supportive environment (Kerka, 2003; Schweikert-Cattin, 1996), establishing and maintaining a student centered curriculum (Frymeier, 1987; Neuenfeldt, 2003), and allowing flexibility in structure with student input (Gold & Mann, 1984).
2. Alternative school or program (high school) refers to a non-predominant educational environment that generally can be classified into one of three school structures: schools of choice such as magnet schools, schools of last resort focusing on improving student behavior, or schools focused on remediation of skills (Raywid, 1994). Alternative schools participating in this study do not include magnet schools.

3. Traditional education refers to the mainstream educational environment not designated as alternative.
4. Legitimate Peripheral Participation is a construct derived from Situated Learning Theory to describe educational actions or events that propel the learner from being a more passive observer in an educational environment, to being a full participant in the educational environment (Lave & Wenger, 1991).
5. Situated Learning Theory was created by Lave and Wenger (1991) as a means for explaining educational environments based on an apprentice-master relationship wherein the learner begins as an outsider and eventually becomes fully immersed in the educational environment and ultimately performs at a mastery level.

Summary

The subject of alternative education was chosen by this researcher because of past positive experiences in alternative education and the resulting desire to research and learn more about alternative education and its service to students. This study specifically looks at whether allowing student participation in the organization, operation, and governance of a school affects student success as indicated by a reduced annual dropout rate. If practices are identified that correlate with a reduced dropout rate in alternative schools, these practices may be beneficial to all educators interested in serving dropouts and youth at-risk of dropping out.

Situated Learning Theory serves as the primary theoretical framework for this study. Situated Learning Theory describes how the traditional master-apprentice relationship provides for the social and cultural understanding and skill development necessary to be transformed from apprentice to master. This study uses this model, but places the alternative

learning environment in the role of master to see if the learning environment can provide that same function in the lives of students as masters do with apprentices. This study addresses the specific question: Does student participation in the organization, operation, and governance of a school serve as examples of legitimate peripheral participation and improve the buy-in of students to their learning environment, resulting in improved success as indicated by a reduced dropout rate?

This study uses data gathered from multiple Iowa alternative schools over a two-year period and examines 7 types of student participation in the organization, operation, and governance of schools and their effect on student dropout rate. The data were collected by the IAAE and used with permission (Appendix B). The effect these 7 types of student participation have on dropout rate was studied for all students and for students by sex and by racial and ethnic minority status. They were examined separately and in combination with each other.

CHAPTER 2. REVIEW OF THE LITERATURE

Introduction

This study utilizes Situated Learning Theory to evaluate specific practices of alternative education in Iowa to determine the effect these practices have on student success as evidenced by a reduced student dropout rate. In general, the research on alternative education focuses primarily on comparing student performance and outcomes between alternative and traditional education to determine whether alternative education is less effective than, equal to, or more effective than traditional education. This study is unique in the literature because it examines multiple alternative educational settings attempting to identify best practices for alternative education. If identified, these practices may be transferable to all educational settings serving dropouts and at-risk youth.

The overall goal of this chapter is to provide an educational and societal context for alternative education and to summarize research relevant to the scope and purpose of this study. Specifically, the purposes of this chapter are to: (a) describe alternative education as it is practiced in Iowa, (b) provide a basic understanding of student success in alternative education and how it has been defined, (c) give a historical perspective for alternative education in the United States and Iowa, (d) show what the current condition of alternative education is and the challenges it faces, and (e) describe applicable theory including Democratic Schools Theory and Situated Learning Theory and how they have been applied in educational settings.

What does alternative education look like?

An accurate picture of alternative education today is aided by an understanding of its origins and the historical and societal context from which it emerged. The roots of modern

alternative education go back several hundred years. Until the late 1700s, the Classical-Realist perspective of the world as finite and measurable where reality exists independently of the mind was unchallenged (Ozmon & Craver, 1999). Classicists believed that education was the process of filling an empty vessel with necessary information. Individual differences between learners were inconsequential and learning could occur most efficiently if done systematically and uniformly for all students. Students unable to meet expectations were considered unintelligent and excluded from further education. Educational failure was always the responsibility of the learner.

The late 1700s, however, saw the rise of Romanticism. Romanticists believed that reality only existed in the individual mind and could not be acquired through objective means. They believed that emotion, experience, societal context, and intuition were such integral parts of observation and measurement that these individual characteristics could not be separated from the world being observed (Urmson & Ree, 1989). Romanticists asserted the primacy of the learner and valued individual differences as not only significant in the learning process, but necessary for true understanding to occur. Educational failure was not possible for the Romanticists, and the perception of educational failure was an antiquated and unnecessary concept.

Kohlberg and Meyer (1972) revised the Classicist-Romanticist dichotomy and brought it up to date to include more recent educational movements. The resulting educational ideologies were created according to an analysis of student-teacher interaction, curriculum content, organizational structure, and other common aspects of school life. Their four ideologies are:

1. Classicist – This ideology sees children as vessels into which schools should impart the wisdom of the ages. Students generally are grouped according to age and progress through a structured set of activities.
2. Romanticist – This ideology emphasizes student freedom to develop and learn unhindered by external influence. A.S. Neill's Summerhill School (Neill, 1960) is a common example of this type of program. Schools are protected places where students learn on their own. Teachers serve as facilitators but do not structure or direct learning.
3. Revolutionist – Revolutionist education emphasizes the acquisition of doctrine, tools, and techniques necessary for accomplishing social change. Students are expected to learn what is needed to become change agents. Individual freedom is deemphasized for the greater benefit of the group.
4. Progressive – Progressives believe that education must have real-life meaning. Students and teachers are problem solvers and together they determine what students need to learn to be successful in the real-world. The work of John Dewey and the Progressive movement define this ideology.

For reasons discussed throughout this chapter, alternative education is often considered a progressive learning environment with either classicist or romanticist leanings depending on the community and type of alternative school/program. Often proponents who implement alternative education primarily as a means of helping students succeed with little emphasis on the needs of the traditional system have Romanticist tendencies and focus on the needs of the individual. Others may implement alternative education primarily to assist schools in either removing disruptive students and/or improving its dropout rate and often deemphasize the individual according to a more Classicist framework.

Alternative education is currently addressed in the literature in three distinct areas: dropout prevention, special education, and at-risk youth. Throughout the literature different authors offer various definitions of alternative education. These descriptions vary significantly according to the intended audience. In general, however, alternative educators aspire to improve student success through maintaining small class size (Bryk & Thum, 1989; Morley, 1991; Moser, 2002; Natriello et al., 1990; Tobin & Sprague, 1999; Young, 1990), emphasizing one-to-one relationships between teachers and students (Baker, 1994; Christensen, 1997; Holmgren-Hoeller, 1993; Rosenquist, 2000), creating a supportive environment (Kerka, 2003; Schweikert-Cattin, 1996), establishing and maintaining a student-centered curriculum (Frymeier, 1987; Neuenfeldt, 2003), and allowing flexibility in structure with student input (Gold & Mann, 1984). It is not the intent of this study to discuss alternative education as it has been implemented to meet the specific needs of special education students. Although there are certainly special education students in Iowa's alternative schools and programs, this study examines only alternative education as it is most commonly implemented in Iowa to meet the needs of dropouts and at-risk students.

Although each alternative school or program is unique and is shaped by the needs and expectations of the communities it serves, alternative schools/programs can be grouped into one of three types or a combination of types (Raywid, 1994). Type I alternative schools are schools of choice. Magnet schools such as schools for the performing arts or schools for the natural sciences are examples of alternative schools of choice. They emphasize an innovative strategy or program to attract students. Type II alternative schools are "last chance" schools designed around behavior modification strategies. Type III alternative schools are designed to remediate basic skills or focus on other academic issues such as study

skills and time management. Although these three types cannot describe all alternative programs, these categories include aspects of most. Alternative education as it is most commonly structured in Iowa is a combination of Types I and II, blending efforts to improve behavior while improving basic skills mastery.

Student Success in Alternative Education

Defining and measuring student success in alternative education has been more problematic than in other educational environments. Early research often lacked the academic rigor necessary to make it valid (Natriello et al., 1991; Young, 1990). Also, research in this area is often conducted by researchers who are linked too closely to the school being studied to give objective interpretations (Carruthers et al., 1999). Despite these limitations, Lange and Sletten (2002) conclude that research on student outcomes in alternative education can be summarized best into three categories: (1) student response to school choice and flexibility, (2) students' sense of belonging, satisfaction, and changes in self-esteem, and (3) academic achievement.

In a study of Minnesota educational alternatives, Lehr and Lange (2000) found that students identified choice and flexibility as crucial aspects of their decision to attend an alternative educational setting. Within alternative settings, students are more successful when flexibility exists in determining how best to meet the academic needs of individual students (Cook, 2002; Gold & Mann, 1984; Pollard & Thorne, 2003; Thomson, 2002). The literature varies, however, on the meaning of student success. Gold and Mann (1984) defined success as an increase in student confidence levels in school and their relative change in comfort level with school. These feelings of confidence and comfort increase for all students, but only those students entering the alternative school with higher levels of self-

confidence and with fewer signs of depression and anxiety continued these elevated levels upon returning to the traditional program. Much of the research defines student success as their willingness to continue attending and completing work, earning credits, and making progress towards a high school diploma (Pollard & Thorne, 2003; Thomson, 2002). The most lenient definition of student success found in the literature is measured only by students attending school whether or not progress toward a diploma was occurring (Cook, 2002).

Once attending an alternative school, students are more likely to continue their studies if the alternative school can provide an environment in which students feel they belong and have value (Hadden, 1997; Moser, 2002; Nichols & Steffy, 1997; Thomson, 2002). Gold and Mann (1984) found that the self-esteem and intrinsic value of students improved for all students in the alternative setting, and for the most mentally healthy students these gains were maintained upon return to the traditional setting. Studies of alternative education students from similar cultural backgrounds such as poverty or immigrant status indicate that teachers responsive to these contexts are a must if the school is to create an environment of inclusion and improvement students' self-esteem (Grant, 2001; Jeffries & Singer, 2003).

Research regarding academic achievement of students attending alternative educational settings is inconclusive. Some studies show little if any evidence of academic gains for alternative school students as measured by grade point average or standardized test scores (Carruthers & Baernen, 1997; Dugger & Dugger, 1998; Tennenbaum, 2000). Other studies show significant academic improvement of alternative school students as measured by grade point average and standardized test scores (Bell, 1990; Johnson, 2003; Martin, 2001; Starks, 2002). Some of these performance improvements in alternative education

involve specific strategies or programs such as teaming in the middle school (Martin, 2001), or mentoring of alternative school students (Starks, 2002). A large-scale evaluation study conducted by Grammatica and sponsored by the U.S. Department of Education (Dynarski & Gleason, 1998) examining 20 alternative schools or programs including GED programs concluded that although alternative programming students improved according to attendance and dropout rates, there was no evidence to suggest that grade point average or performance on standardized tests were affected. Unfortunately, research in this area is often limited because obtaining student academic achievement data for alternative settings is hindered due to a lack of procedures and policies necessary to gather usable data (Karantinos, 1989).

History of Alternative Education

Alternative education in the United States. Since its inception, the United States has provided educational alternatives to its citizens. In fact, for much of its history education was predominantly decentralized and made up entirely of options and alternatives designed to meet the needs of states, groups, or organizations (Young, 1990). It wasn't until the late 1800s and early 1900s that consensus for the need for a comprehensive system of education was established. Consensus was achieved in an attempt to deal with the large number of immigrants coming to the United States to flee political and social unrest or famine, or simply to seek their fortune. An educational system was necessary to indoctrinate and assimilate waves of immigrants into American society. Great concern was given to teaching new Americans the language and skills necessary to participate in a democracy.

Since the centralization of education in the United States began in the early 1900s, alternatives in education still existed outside the developing mainstream educational system. Students and families not satisfied with public education and with sufficient resources had

many private and parochial educational options to choose from. These educational alternatives still exist for students and families wanting an education to meet a specific need outside of public education (Deal & Nolan, 1978). Alternative education as it is defined in the literature and practiced in thousands of school districts across the country does not include private and parochial schools. A primary difference between alternative education today and alternative education one hundred years ago is accessibility. Alternative education in this country is defined generally as an alternative to the methods and processes of traditional public education, but is still considered part of public education. Since alternative education is part of the educational system, it is generally accessible to all students and families regardless or income, social status, or location.

The largest push for developing alternative schools and programs in public education as they currently exist arose during the 1950s, 1960s, and 1970s, in part as a result of three significant social trends. During the civil rights movement of the 1950s and 1960s, communities and educators collaborated according to the revolutionist ideal to continue the education of black students denied an education due to bigotry and racism. These educational opportunities became known as "freedom schools" and can best be described from the following excerpt provided by Fantini (1978) from a memo distributed to freedom school workers in Mississippi:

> The purpose of the freedom school is to provide an educational experience for students which will make it possible for them to challenge the myths of our society, to perceive more clearly its realities, and to find alternatives, and ultimately, new directions for action. (p. 4)

As freedom schools were established they began to attract white students and families who felt compelled by the mission of these schools and eventually discovered students learned more and were more successful in these schools (Fantini, 1978).

The contemporaneous counterculture movement portrayed traditional public education as repressive and authoritarian (Fantini, 1978; Young, 1990). Alternative educational environments were established as a means of "freeing" the children. An example of the counterculture's influence in education was the renewed interest in the career of A. S. Neill and his Summerhill School (Neill, 1960). Created in 1921, Neill created a school in Summerhill, England designed to conform to the needs of the child instead of forcing the child to conform to the needs of the school. Neill states, "My view is that a child is innately wise and realistic. If left to himself without adult suggestions of any kind, he will develop as far as he is capable of developing" (Deal & Nolan, 1978, p. 31). Neill provided students with opportunities for learning but offered no rewards or consequences for either participating or not participating. Given the right opportunities students' innate curiosity and energy eventually would lead them to learning. Teachers were available to students to answer questions and facilitate their curiosity.

Although Neill's Summerhill School taught students for over four decades, it did so with great controversy and minimal financial support. Much of society regarded Neill's students as, "a bunch of wild primitives who know no law and have no manners" (Deal & Nolan, 1978, p. 31). Though influencing alternative education in the United States, schools were careful not to follow Neill's example too closely for fear of alienating themselves from sources of public support.

The last major trend shaping alternative education was another resurgence of past educational movements. Like Neill, Dewey and the progressives felt that traditional schools were ineffective and that students needed a voice in the educational process. Unlike Neill, however, Dewey understood that students needed guidance and direction to be successful. He believed that instruction needed to be collaborative between teachers and students designed around real-world events, experiences, and expectations (Dewey, 1938). Progressivism achieved middle ground between the Classicist model in which students were simply vessels to be filled, and the Romanticist views of Neill where students were best served unhindered in any way by adults. Alternative education began to adopt progressive educational practices because they offered a different perspective that some students needed to be successful, and had a broader public appeal resulting in adequate support and funding (Deal & Nolan, 1978).

By the 1970s the above influences made American culture ripe for alternative education. Alternative schools proliferated to the point that in 1974 the North Central Association of Colleges and Schools adopted a formal document establishing standards for alternative schools. This document, "Policies and Standards for Accreditation of Optional School and Special Function Schools" (North Central Association, 1974), legitimized alternative education and made it part of mainstream education deserving of public funding and support.

Alternative education received an unintentional boost in the 1980s from the report, "A Nation at Risk: An Imperative for Educational Reform," published by the National Commission on Excellence in Education (1983). This report made five recommendations necessary for American education to be competitive globally. These recommendations

increased the need for alternative education because they called for: (a) increased graduation requirements centering on a college-prep curriculum, (b) increased performance and behavior standards for students, and (c) both longer school days and longer school years.

Although a strong argument can be made that these recommendations were necessary for the U.S. to compete in a global economy, they also made it probable that a large number of marginal students would not be able to meet these standards (Deschenes et al., 2001). As both the funding for and status of career-vocational training decreased, students found themselves having less input into what courses they could take. Often students found this new college-prep curriculum uninteresting and irrelevant, which made it even harder to perform at the new, higher expectations. Add to this both a longer school day and school year, and some students found it unbearable. They either dropped out of school or sought alternatives. In response to the resulting increase in dropout rates and concerns for the effects these changes were having on students, schools turned to alternative education as a means to implement the recommended changes and meet the needs of students unable or unwilling to succeed as a result of these changes.

Since the early 1990s, alternative education has experienced both a period of growth and a period of increased legitimacy. By 1998, 22 states had passed legislation to address alternative education and 30 states provided technical assistance to local school districts in developing and establishing alternative education programs (Katsiyannis & Williams, 1998). By the 2000-2001 school year, 39% of all public school districts in the United States administered at least one alternative school or program, with a total of 10,900 alternative schools and programs (Kleiner, Porch, & Farris, 2001). As of October 1, 2000, 1.3% of all US public school students, or 612,900 students, were enrolled in an alternative school or

program, with about one-third of these schools or programs at capacity and not enrolling new students (Kleiner et al., 2001).

Alternative education in Iowa. The history of alternative education in Iowa mirrors the creation and development of alternative education nationally. Alternative education as a discernable movement began with a single community center located in Des Moines, Iowa, in 1969. The Greater Des Moines Education Center was created by Chuck Greenwood, who was serving as an administrative intern at North High School in Des Moines at the time. Greenwood was seeking an alternative setting for dropouts and expelled students who left school as a result of racial tension and unrest surrounding the anti-war movement (McNabb & Kaufman, 1995).

This single center led to the creation of other alternative programs around the state, and soon these schools developed into the Iowa Association of Alternative Schools (IAAS). The first official organizational meeting, in 1978, resulted in a name for this new organization, a set of priorities to direct its efforts, and a core group of educators dedicated to the cause. At the first conference of the IAAS, 200 people were in attendance. Later that year, a constitution and by-laws were adopted to direct both the growth and functioning of the organization. By 1980, 4 of the largest alternative schools in Iowa had received accreditation from the North Central Association. In its first 10 years in existence, the number of students served by alternative schools in Iowa rose from 150 served by the founding alternative school in 1969, to 5,394 students served by over 40 alternative schools and programs by 1980 (McNabb & Kaufmann, 1995).

The 1980s was the decade of largest growth for alternative education. In 1980, the IAAS had 97 members, but by May, 1988, it had 256 members, representing around 90

alternative schools and programs. Not only had the IAAS membership doubled, but the number of alternative schools and programs in the state steadily increased. This rate of growth continued into the early 1990s.

The 1990s continued to see moderate growth in both IAAS membership and enrollment in alternative schools and programs, but at a slower pace. The goal of the IAAS was to provide service to its membership and improve opportunities for students. To accomplish this goal the IAAS needed to focus on the legitimacy of the association so that its lobbying and political influence could be improved. The IAAS changed its name to the Iowa Association of Alternative Education (IAAE) in 1991. By 1997, the IAAE membership had peaked, with 340 members from over 130 schools/programs concerned with serving at-risk students and dropouts (McNabb & Kaufmann, 1995). As alternative education in Iowa entered the new millennium, there were 105 alternative schools and programs. Since 2000, alternative education has seen another period of moderate growth, with the creation of 9 additional schools and programs by 2006 (IAAE, 2006).

Current conditions and challenges. Born of necessity and grown as a means for improving the inclusionary capacity of education to serve all students, alternative education includes a significant percentage of the K-12 student population. What began as a short-term "band-aid" in the U.S. educational system has become an institution of its own, dedicated to providing alternatives and second chances to students otherwise unsuccessful in or dissatisfied with the traditional educational system. Researchers recently have returned to the same key question raised in the 1960s and 1970s when public alternatives in education began to become popular and mainstream (Oakes, 1985; Sagor, 1999).

Slater (1974) expressed concern that, although it was promoted as meaningful reform, alternative education has been and remains an impediment to true reform, especially at the high school level. Sagor (1999) cites *Brown v. Board of Education* (1954), stating that separate schools are inherently unequal in the opportunities and outcomes provided for students. This view was supported by Oakes (1985), whose research concluded that segregating students by academic status put all but the most able students at a disadvantage. Even some of alternative education's strongest advocates suggest that its role is at a crossroads and will either force the issue of equality in our public schools or continue to segregate those students who cannot or chose not to thrive in the traditional system (Conrath, 2001). Alternative education needs to decide whether it provides alternatives for students to be successful, or whether alternative education provides alternatives for schools unable or unwilling to meet the needs of at-risk students.

The proliferation of the college-prep curriculum and the mindset that all students need to be prepared to earn a four-year degree are undeniable. Vocational-technical programs that traditionally provided value-rich education and training to those students unable to obtain or not desiring a liberal arts education are on the decline. A disturbing educational trend for some students has been the devaluing of vocational/technical training. Even when these courses are offered in a comprehensive high school curriculum, they are often perceived as second-rate, second-class options for students. This perception is especially harmful when held by the parents of those students who would benefit most from these opportunities. In an effort to end the harmful practice of tracking low-achieving students into vocational/technical areas, schools either removed these choices altogether or do not allow students and families

to feel good about these programs. Alternative education increasingly has filled the void left by the downsizing and devaluing of these programs.

Students who do not want and/or cannot be successful with a liberal arts, college-prep curriculum have few options. They can step down a rung on the perceived school "social ladder" and explore what vocational/technical options are left in today's high schools, continue with the college-prep curriculum knowing that they will not be very successful, or enter the alternative high school. Opting for the alternative school, while also perceived as a step down on the "social ladder," is often preferable because alternative schools frequently are located away from the traditional high school, reducing the risk of social marginalizing.

Despite the fact that some students opt into alternative schools, many placements result from behavior or performance issues, making the case that alternative education is a "dumping ground" for unruly students. It can be argued that high schools should be able to deal with these behavior problems without segregating the students into an alternative school. However, this argument is often framed within the context of a traditional education setting focusing on student discipline with little concern for the environment or other factors precipitating inappropriate behavior. A common axiom in education is that more and stricter discipline is the solution to improving student behavior. However, this has not been supported by research on alternative education (Bobo, 1987; Gee, 1999; Wong, Wiest & Cusick, 2002).

Students have more opportunities in a traditional high school if they can be successful and become part of the traditional school culture. However, if the student's choice is either dropping out of school or attending an alternative school, alternative schools offer much better opportunities for success. Alternative education may be an impediment to equity and

inclusion of all students, and may turn out students less prepared to find success, but until traditional education begins to look at different methods for motivating non-traditional students and retreats from a "college-at-all-costs" approach, alternative education is the only option many students have.

Even with the concerns regarding the appropriate use and function of alternative education, these programs have remained popular with students, their families, and schools. However, the momentum favoring the creation of programs for dropout and at-risk youth has faded. As this nation aspires to the requirements of the *No Child Left Behind Act* (2001), competition for funding in education has become fierce. The combination of fewer resources with emphases on test scores and academic accountability puts those schools and programs designed to serve dropouts and at-risk students in jeopardy. By definition, these students have lower academic and testing abilities and therefore have less value to an educational system based on test scores. Schools continue to struggle with balancing being accountable for their academic performance with their ability to serve all students adequately, including those less able to compete academically.

Theoretical Framework

Democratic Schools Theory. Democratic education has several meanings based on different perspectives of how democratic principles are being applied to education. Kira (1997) summarizes existing research on democratic education theory into three educational perspectives. First, democratic schools can mean the universalization of educational opportunities to all people regardless of socio-economic status, race, gender, and other differences. This perspective defines democratic education as a means for social equity and justice. The second perspective covers the issue of school governance at the local, state, and

federal levels. Often this perspective renews debate about the role of federal, state, and local government in education and whether centralized (state and federal authority) or decentralized (local/community authority) yields the best results for students. The third perspective, which applies most directly to this study, is how democratic principles can be used to include students in the everyday operation of schools.

John Dewey continues to be one of the most prominent proponents of this third perspective on democratic education. Dewey believed that the traditional passive methods of education that treated students as empty vessels to be filled with information needed to be replaced. To be effective and efficient, Dewey believed that: (a) schools needed to exist in a social context, (b) schools needed to structure learning so that it had meaning and application in the everyday world of students, (c) students needed to be active partners with teachers in the educational environment, and (d) schools needed to demonstrate and give practice in the skills necessary for students to participate actively in a democracy (Dewey, 1944). Since Dewey, other scholars and researchers also have advocated the necessity of a participatory model for training students how to be an effective part of a democratic society (Gutmann, 1987; Power, Higgins, & Kohlberg, 1989). Mosher (1994) describes the net result of passive, traditional civics training as, "Students have been taught about democracy, but have not been permitted to practice democracy. Most American schools remain benevolent dictatorships." (p. 1).

Democratic theory as applied in school settings shares three characteristics and/or practices (Kira, 1997). Democratic schools demonstrate that each student is equally important and his or her views, questions, and input are to be respected. Second, all stakeholders in the educational process have a voice in the organization, operation, and

governance of the school, with opportunities to participate in the decision-making process. Finally, democratic schools strive to develop relationships between administration, teachers, and students based on mutual respect and trust. These characteristics and practices of democratic education parallel the common characteristics of alternative schools discussed earlier in this chapter.

Although democratic schools theory is not the primary component of the theoretical framework created for this study, it has application for two reasons. Democratic theory often is either intentionally or unintentionally part of alternative education. Democratic and alternative schools share features, including the belief in the importance of establishing a sense of community (Kerka, 2003; Schweiker-Catkin, 1996), and the need to include students more fully in the organization, operation, and governance of the school (Gold & Mann, 1984). In addition to similarities to alternative education, this study utilizes student opportunities for democratic participation in the organization, operation, and governance of the school as indicators of legitimate peripheral participation, according to Situated Learning Theory. Although the theoretical framework for this study is organized around Situated Learning Theory, the relationship between Situated Learning Theory and Democratic Schools Theory is necessary and will be discussed later in this chapter.

Situated Learning Theory. Situated Learning Theory is rooted in constructivist learning theory (Bruner, 1966), and describes how, in some situations, learners assimilate new learning by connecting it to what they already know and believe. Situated Learning Theory was introduced by Jean Lave and Etienne Wenger in 1991 with their book, "*Situated learning: Legitimate peripheral participation."* This theory expands Len Vygotsky's Social Development Theory (1962) that social interaction plays a fundamental role in the

development of cognition. Specifically, Vygotsky's concept of "zone of proximal development" established a cornerstone of Lave and Wenger's work. The zone of proximal development is characterized as the difference between the problem-solving abilities of the learner alone and these abilities when assisted by or collaborating with more experienced people (Lave & Wenger, 1991).

Lave and Wenger looked at master-apprentice relationships and how new apprentices move from their initial "beginner" status by learning the necessary skills and abilities from the master and then rightfully take their place in the master ranks. Lave and Wenger examined many examples of these master-apprentice relationships, including Yucatec midwives, tailors, naval quartermasters, non-drinking alcoholics, and others to establish this theory. From these observations, Lave and Wenger developed the idea of legitimate peripheral participation to describe the journey from newcomer, to apprentice, to master. Masters of any skill, trade, or body of knowledge represent a community of practice that shares similar training and skills, shares a definition of mastery of their particular skill or trade (Wenger, 1998), and establishes expectations for entrance into this community. These expectations include attaining the skills and abilities necessary to be considered an expert, but also include what experiences apprentices must endure prior to full inclusion into the community of practice (Lave & Wenger, 1991; Wenger, 1999).

The key concept regarding Situated Learning Theory as applied in this study is that the community of practice is constructed to provide for the success of apprentices, not their failure. However, these communities are not established to give new apprentices a free ride. Communities of practice establish appropriate outcomes, with the expectation that not all apprentices will be successful in that skill or trade. High schools are similar to the

communities of practice described by Lave and Wenger in establishing expectations in the form of graduation requirements before new apprentices (also known as freshmen) can enter the community of practice as graduates. Unfortunately, high schools also are established with the realization that not all ninth grade students will earn a high school diploma. Lave and Wenger (1991) relate Situated Learning Theory to education:

> In this view, problems of schooling are not, at their most fundamental level, pedagogical. Above all, they have to do with the ways in which the community of adults reproduces itself, with the places that newcomers can or cannot find in such communities, and with the relations that can or cannot be established between these newcomers and the cultural and political life of the community. (p. 100)

Schools perpetuate communities of adults and may not always provide all of the practices and relationships necessary to transform all newcomers into masters or graduates. Situated Learning Theory was chosen as the theoretical framework for this study because it emphasizes the similarities and differences between education — especially high school education — and the traditional master-apprentice relationship. Although the master-apprentice relationship has proven to be an effective educational model, modern education must have one key difference. Education cannot afford to have some students not achieve the mastery level and graduate. In today's economy, there are few options for success that do not include a high school diploma. This diploma is a key that opens many doors of opportunities and gives access to becoming a master in any skill, trade, or subject. Situated Learning Theory as applied in this study may provide insight into how alternative schools structure their opportunities for legitimate peripheral participation and afford students the ability to obtain master status in the form of a high school diploma. Situated Learning

Theory also may assist traditional high schools in implementing change to facilitate success for all students without the need for alternative educational opportunities.

Relationship between Democratic Schools Theory and Situated Learning Theory. Democratic Schools Theory and Situated Learning Theory share a common goal for students. Both theories encourage productive membership in a community through legitimate peripheral participation either through participation in the democratic process or engaging in a master-apprentice relationship. Democratic Schools Theory, as defined by Mosher (1994) and applied in this study, is a special case or subset of Situated Learning Theory that limits legitimate peripheral participation to opportunities for democratic participation.

The educational philosophy of John Dewey and the Progressives provides a crosswalk for these two theories and alternative education. As we have discussed in this chapter, both theories and alternative education share the progressive beliefs that to be most efficient and meaningful for students, education must be constructed and operate in a social context. Learning also must involve active participation either as direct participation in the school's political process or learning the necessary skills and abilities in the role of apprentice. These theories and alternative education share the belief that the role of the teacher is one of collaborator and includes student needs and wants into lesson planning. Whether students are expected to demonstrate the skills necessary to participate in a democracy, or demonstrate the skills necessary to obtain master standing, education must provide opportunities for students not only to learn but also to practice new skills. John Dewey and progressivism have a definite impact on the organization and purpose of this study and provide a unifying framework that ties together the theory necessary to provide meaning to this study.

Summary of the Literature

Alternative education can be described as a predominately progressive learning environment that stresses teacher-student collaboration necessary to solve real-world problems. Most alternative schools also have either Romanticist or Classicist tendencies depending on whether the school stresses the needs of the student or the needs of the school. In general, alternative education provides programming in the areas of dropout prevention, or at-risk youth, and special education. This programming shares similar characteristics regarding school organization, teacher-student relationships, and the basis for curricular content. A significant number of alternative schools in Iowa are designed both to improve student behavior and remediate basic skills. Although magnet type schools exist in the state, they are few and mostly reside in Iowa's larger communities.

Student success in alternative education has been classified as student response to choice and flexibility, changes in self esteem and students' sense of belonging, or academic achievement. Academic achievement of alternative school students has been defined in various ways from performance on standardized tests to the student's choice to continue attending school regardless of performance. Although this study examines dropout rates as an indicator for school success, this is not presented as a measure of academic success but rather as a measure of a school's ability to meet the needs of its students and keep them in school.

Until the early 1900s the entire American educational system was nothing more than a conglomeration of private alternatives. It wasn't until a more centralized system of education was established that alternative education, as it exists in its current form, came into being. Alternative education became part of the mainstream educational system as a result of

the cultural and political unrest of the 1950s, 1960s, and 1970s. By the year 2000, over 1% of all public school students in the United States were attending an alternative school or program. The growth of alternative education in Iowa has mirrored that of the nation, with its peak in 1997 with 130 schools and programs in the state.

Alternative education continually struggles with its role in public education. Some educators see alternative education as an engine for school reform by providing a place where its flexibility allows for new methods and ideas to be tested and evaluated. Others see alternative education as an inhibitor for meaningful school reform by providing a release value that funnels students from the system so that the system does not have to address the needs of these students. This identity crisis continues and contributes to whether each alternative school has Romanticist tendencies revolving around the needs of the student, or Classicist tendencies revolving around the needs of the educational system.

The effect that current educational initiatives including No Child Left Behind have had on alternative education is yet be determined. However, the rise of high stakes testing has made the educational environment more competitive of resources. Past and current levels of support for alternative education are not guaranteed. Alternative education continues to work to tell its story and prove its value to the students and families it serves.

This study utilizes Democratic Schools Theory as a special case of Situated Learning Theory. Instead of determining the existence of legitimate peripheral participation by examining traditional master-apprentice relationships, this study examines the democratic involvement of students in the school. This combination of theories is supported by Progressive educational ideals in that both theories stress student involvement in the educational process and define the role of teacher as collaborator.

CHAPTER 3. METHODOLOGY

Introduction

Public alternatives to traditional educational environments have proliferated both in Iowa and throughout the United States. They assist students and school districts by keeping students in school, and thus suppress the district's dropout rate. This study looks at 7 specific types of student participation in the organization, operation, and governance of alternative schools and programs in Iowa to see if this participation has any effect on student dropout rate. If differences appear, it is the goal of this study to provide direction for both alternative and traditional educators in practices that better meet the needs of students.

This chapter will describe the specific hypotheses being examined in this study, the methodology for how these hypotheses were tested, and the data analysis techniques used for interpreting results. This chapter will also provide a step-by-step process that is easily understood and replicable.

Research Hypotheses

The following are the research questions investigated in this study.

Research question 1. Which of the 7 types or combination of types of student participation in school organization, operation, and governance significantly reduce the overall dropout rate?

Research question 2. Which of the seven types or combination of types of student participation in school organization, operation, and governance significantly reduce the dropout rate by sex?

Research question 3. Which of the 7 types or combination of types of student participation in school organization, operation, and governance significantly reduce the dropout rate by racial and ethnic minority status?

Research question 4. Which of the 7 types or combination of types of student participation in school organization, operation, and governance significantly reduce the dropout rate by the combination of racial and ethnic minority status and sex?

Null Hypotheses

The following null hypotheses were tested to address the research questions above. The second research question is expanded into separate null hypotheses for each sex. Due to the low survey response rate and the resulting low numbers of racial and ethnic minority students in this study, expanding the third and fourth research questions into multiple null hypotheses, with one for each racial and ethnic minority group, was not viable. Therefore, all students classified in any racial or ethnic groups other than white were collapsed into one group representing all racial and ethnic minority students. The level of significance, or probability of falsely rejecting each null hypothesis when it is true, is set at .05 for all hypotheses.

Null hypothesis 1. The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on overall student dropout rate.

Null hypothesis 2. The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on the dropout rate for male students.

Null hypothesis 3. The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on the dropout rate for female students.

Null hypothesis 4. The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on the dropout rate for all racial and ethnic minority students.

Null hypothesis 5. The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on the dropout rate for all male racial and ethnic minority students.

Null hypothesis 6. The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on the dropout rate for all female racial and ethnic minority students.

Research Methodology and Design

This is a quasi-experimental quantitative study that tests the above hypotheses for alternative schools and programs in Iowa. It is based on an annual survey of alternative schools and programs conducted by the IAAE and uses existing data made available to the researcher. Therefore, this study is correlational in nature and not experimental. It strives only to identify relationships between independent variables (types of student participation, sex, and racial and ethnic minority status) and the dependent variable (dropout rate). No conclusions regarding causation will be offered nor should any be inferred from this study.

Seven data elements were chosen from the IAAE survey to determine whether or not schools allow student participation in the organization, operation, and governance of their schools. These 7 variables serve as the independent variables for this study. Enrollment and

dropout information collected by sex and race/ethnicity are used to calculate dropout rate. All variables originated from the same survey and represent data from the same time period.

Two of the 7 independent variables were chosen from the student evaluation section of the survey. Although the survey lists 12 different techniques used to evaluate students, only two represented significant student input to be used in the evaluation process. The two student evaluation techniques selected for this study were student self-evaluation and contracts for performance. The student evaluation techniques not chosen for this study include testing techniques such as use of criterion referenced or standardized tests and teacher observation techniques. Some options, such as applied projects and portfolios, could have been chosen for this study, but were eliminated due to the researcher's judgment that these techniques were less indicative of individual student participation in his or her own evaluation. Student self-evaluation and contracts for performance are also better examples of legitimate peripheral participation as defined by Situated Learning Theory due to the direct, active role of the student. The survey asks each respondent to check all techniques used to evaluate student progress/learning. Each technique is then listed with a corresponding box for the user to check if the technique is used at his or her school/program.

The remaining five independent variables identified as types of student participation were selected from the governance section of the survey. Identical in process to the student evaluation section, respondents were asked to check all types of governance in which students participate with the five variables listed to the right with a check box for each variable: (a) deciding instructional techniques, (b) determining discipline, (c) planning co-curricular activities, (d) planning curriculum, and (e) teacher evaluation. These include all governance variables pertaining to student involvement. They were all included because

they closely approximate legitimate peripheral participation as described in Situated Learning Theory.

The dependent variables used in this study are calculated dropout rates for all students and for students by sex and racial/ethnic minority status. This rate is calculated for each school as the number of students not currently being served in the program, divided by the total number of students served that year, including graduates. The IAAE survey asks for a breakdown of students by sex, race/ethnicity, and status at the end of the school year. Student status at the end of the year is evaluated according to three categories. Current students are those enrolled and being served on the last day of school. Leavers are defined as those who were served but left the alternative school/program to drop out, earn a GED, or return to the traditional high school. Finally, graduates are those students who earned a high school diploma during the school year.

During the development of this survey there was debate about whether students leaving the alternative setting to return to the traditional high school should be counted as leavers and thus inflate the dropout rate. It was finally decided by the IAAE that these students should be included as leavers because they often indicate that they are returning but in reality do not register back at the traditional high school. It is an assumption of this study that students leave the alternative school to pursue options other than a traditional high school diploma, with very few returning to the traditional high school. Variables used in this study are summarized in Table 1.

Table 1

Variables From the Iowa Association of Alternative Education Annual Survey of Schools and Programs Used in This Study

Variable	Variable description	Variable Type	Survey location
Student self evaluation	This yes/no variable indicates whether students are allowed to evaluate themselves as part of the overall evaluation of students progress and learning.	Independent	III:38
Contracts for performance	This yes/no variable indicates whether students are allowed to create contracts for performance as part of the overall evaluation of student progress and learning.	Independent	III:38
Deciding instructional techniques	This yes/no variable indicates whether students are allowed to give input as to what instructional techniques should be used in their classes.	Independent	IX:81

Table 1 (continued)

Variables From the Iowa Association of Alternative Education Annual Survey of Schools and Programs Used in This Study

Variable	Variable description	Variable Type	Survey location
Determining discipline	This yes/no variable indicates whether students are allowed to participate in the determination of discipline rules and procedures, and consequences for inappropriate behavior.	Independent	IX:81
Planning co-curricular activities	This yes/no variable indicates whether students are allowed to participate in the planning of co-curricular activities.	Independent	IX:81
Planning curriculum	This yes/no variable indicates whether students are allowed to participate in the selection of curriculum content.	Independent	IX:81
Teacher evaluation	This yes/no variable indicates whether students are allowed to participate in the evaluation of teacher(s).	Independent	IX:81
Dropout rate	This variable is the percentage of students served in a program during an academic year who left the program.	Dependent	IIB:30-33

Population and Sample

The population for this study contains the alternative schools and programs in Iowa as of June 2004 that serve high school-age students. Of the 112 total alternative schools and programs in existence during the 2003-04 and 2004-05 school years, about 90 are believed to serve high school-age students and thus qualify for this study. Since dropout rate is the dependent variable in this study, all schools and programs included must serve students who, by law, are able to drop out. Only schools serving students in grade 9 and above were included in this study.

Throughout this paper I have referred to alternative educational settings as schools and programs. This is necessary because many of the alternative environments are structured as separate schools and meet the State of Iowa's definition for a school. Other alternative settings, however, are defined as programs and do not meet Iowa's definition for a school. These alternative programs may look and operate exactly as alternative schools, but are considered a program of a parent high school or other institution. Of those reporting data in 2004, about 25% were identified as programs and the majority (75%) as separate schools (IAAE, 2006).

The annual IAAE survey is voluntary, with no consequences for schools opting out of the survey. Therefore, it was not possible to obtain a random sample of alternative schools and programs for study. Also, because participation was well below 100% it was also impossible to study the entire population. Because of this limitation, post-stratification weighting was conducted on participating schools/programs to increase their ability to represent the entire alternative education population in Iowa. Post-stratification is a proven technique for applying known auxiliary population variables to a poorly distributed sample to

reduce variance in the sample and increase population coverage (Bedier, 1989; Holt & Smith, 1979; Valliant, 1993). For this study, the auxiliary variable used is size of the host school district for each alternative school/program. Ideally responses would be weighted according to alternative school size. However because we do not know the relative size of each alternative school/program in the population, size of the schools district in which each alternative school/program is located is a reasonable substitute. The size categories used to classify host district size were developed by the Iowa Department of Education.

In addition to using post-stratification to improve generalizability, data from two consecutive data collection periods was used to increase the number of schools/programs in this study. The majority of data used were collected from the 2003-2004 school year. Data was also included for those schools/programs that participated in the 2004-2005 school year but not in the prior year to maximize the number of schools and programs included in the study.

Instrumentation

The IAAE has conducted many surveys over the years to gather annual information for trend analyses to describe their schools, students, and student outcomes to legislators and other state leaders. The survey process as envisioned by the IAAE was finally realized in 2004, when a computerized version was created on the IAAE Website. This survey was developed during the 2003-2004 school year. This researcher assisted the IAAE in constructing the survey instrument as part of his coursework at Iowa State University, using a four-step process to create a meaningful instrument that met the needs of the IAAE.

First, past surveys were reviewed and a list of questions was compiled. These questions then were cross-referenced with a list of current needs and wants created by IAAE

leaders and the Iowa Department of Education (DE). Questions were added and deleted as necessary to align the final list of questions with the needs and wants addressed. This list of final questions then was presented to alternative education administrators and teachers at various meetings and conferences to gain feedback as to whether the survey data requirements were appropriate and reasonable from a school's or program's perspective. Questions were changed and sometimes deleted to accommodate this feedback. Finally, a prototype was created and piloted with several schools/programs with changes in the survey made according to the feedback gained from the pilot schools. The survey then was ready and was put into production the summer following the 2003-2004 school year.

This survey contains 83 questions grouped according to 9 major areas. The areas, with a brief description of the type of data collected in each, are given in Table 2. An entire copy of the IAAE survey can be found in Appendix A of this document.

Table 2

IAAE Survey Areas and Content Description

Survey Section	Content Description
General information	The school's/program's contact information, program type, structure and grades served.
Enrollment	School/program enrollment on the third Friday in September by race, gender, and special education status is reported. Also, the total number of students served during the school year was reported aggregated by race, gender, special education status, free and reduced price meal eligibility, dependent status, and age.
Techniques used to evaluate student learning/progress	Specific techniques identified included portfolios, grades, report cards, standardized tests, etc.
Student outcomes	These outcomes included academic progress, improved career potential, improved social/emotional/behavioral development, and credentials (awards) achieved.
Curriculum offered	The type of curriculum offered and selected strategies/techniques employed were included.

Table 2 (continued)

IAAE Survey Areas and Content Description

Survey Section	Content Description
Child care	Schools/programs indicated whether or not day care services were provided and, if provided, how these services were structured.
Staff	The number and type of positions were included along with how staff were evaluated and what staff development activities occur.
Counseling activities	The presence and type of counseling activities occurring were recorded.
School governance	This section captured the type of governance activities in which students and staff participate.

Section two of the survey collects enrollment information for two different time periods within the school year. The first part of this section asks for enrollment information as of the third Friday in September. This is the same day that school districts in Iowa record their certified enrollment, which drives state aid to school districts. Students enrolled as of this date are used to determine funding for the following school year. This information determines how much state aid school districts generate from students in alternative schools and programs. This section also collects enrollment data for the total number of students

served for the 2003-2004 school year for each school/program. These data are necessary to demonstrate the transience of students into and out of alternative education. This type of enrollment data also can be used to give a more accurate account of the number of students served in alternative education and will be used in this study to calculate dropout rate.

Validity and Reliability of Instrument

Survey instruments are judged to be valid based on their face, content, and criterion validity. Face validity is the least important indicator of validity because it assesses only whether the survey instrument appears to provide appropriate measures. Content validity assesses the match between the survey content and the skills/knowledge that it attempts to assess. This is usually achieved by having knowledgeable experts review, critique, and revise the instrument until the match between survey and intended outcome is acceptable. Criterion validity involves matching the survey outcomes with outcomes from an already-established instrument for a similar or analogous population. For this instrument, criterion validity was not possible due to time constraints and the unique population for which it was designed.

Face and content validity of the IAAE survey was established through a three-step process over six months. It was determined early on that validity needed to be evaluated according to the needs of the survey originators and the survey respondents. It was critical that the survey provide the DE and the IAAE with the data they needed to meet their objectives. It was equally important that the administrators and teachers in alternative education be able to understand the survey questions so they could reflect their activities and students accurately. The first step in establishing validity for the survey was to go over potential and future survey questions with representatives of the DE and the IAAE, to

evaluate each question's necessity and usefulness of the data collected. This step resulted in fewer, more substantial questions organized around the 9 sections listed above. After this step, it was agreed that the revised survey would meet the needs of the DE and the IAAE.

The second step in the validation process involved sharing the survey structure and questions generated in step 1 with alternative administrators and teachers to determine if the questions were: (a) meaningful to alternative educators and the information desired was readily understood, and (b) practical given the time, money, and staff constraints placed on alternative schools and programs. This step was accomplished by presenting the survey to the Des Moines metro alternative school administrators' group, and to several sessions of alternative educators at their annual conference. All input was evaluated and the survey was adjusted accordingly. Revisions from this step included additional instructions, format and layout changes, additional color coding, question rewording, and the addition of several questions. No questions were deleted because of this step.

The final step in validating the survey was to implement all of the changes from steps 1 and 2 and then pilot the survey with a few alternative schools and programs. The pilot was conducted with 5 alternative schools/programs in both small and medium-sized communities in Iowa. Minor revisions in wording and instructions were made, with the end result being the final survey instrument.

Reliability is a measure of the survey's ability to measure similar outcomes in similar populations over time. Because the IAAE survey was conducted for two consecutive years by the same set of alternative schools and programs, it is possible to assess the survey's test-retest reliability. This measure of reliability is expressed in terms of Cohen's kappa statistic. Kappa is similar in interpretation to the Spearman correlation coefficient, with values

between 0 and 1 and a larger number representing a higher degree of consistency and thus reliability (Cohen, 1960).

According to Landis and Koch (1977), a kappa value of .60 to .80 is described as substantial agreement. A kappa value of .80 or higher is described as almost perfect agreement. Landis and Koch indicate that a kappa value of .70 or higher is a reasonable threshold for determining instrument reliability. Reliability statistics for the 7 independent variables used in this study for all alternative schools and programs serving grades 9 through 12 that completed the survey for either the 2003-04 or 2004-05 school years are summarized in Table 3. Reliability analysis occurred only after receiving permission to use the data from the IAAE Board of Directors and permission to conduct this study from the Institutional Review Board (IRB) at Iowa State University.

Table 3

Test- Retest Reliability Statistics for IAAE Survey Items for Academic Years 2004 and 2005

Survey Item	*f*	*p*	*κ*	Lower 95% Confidence Limit for *κ*	Upper 95% Confidence Limit for *κ*
1. Student self evaluation	19	89.47	.73	.40	1.00
2. Contracts for performance	19	89.47	.79	.51	1.00
3. Deciding instructional techniques	20	89.47	.78	.49	1.00
4. Determining discipline	20	100.00	1.00	1.00	1.00
5. Planning co-curricular activities	20	100.00	1.00	1.00	1.00
6. Planning curriculum	20	94.73	.89	.68	1.00
7. Teacher evaluation	20	100.00	1.00	1.00	1.00

All 7 independent variables used for the IAAE survey as indicators of student participation in the organization, operation, and governance of their school or program met the reliability criteria established for this study, with a range for kappa of .73 to 1.00. The IAAE survey

used in this study thus is both a valid and reliable instrument capable of providing accurate and meaningful information about alternative education in Iowa.

Procedures

Because the data needed for this study already exist, the discussion of procedures focuses on processing and analyzing the data. The first step in conducting this study was to obtain permission from the IAAE to use their data for this study. This permission was granted in the form of a letter from Greg McCullough, IAAE President, dated May 3, 2006. Iowa State's IRB approved this study in June, 2006. The letter of approval from the IAAE and appropriate IRB documentation from Iowa State University are included in Appendix B of this document.

The data are stored in a Microsoft Access Database residing on the IAAE Website. This data was downloaded, processed, and recoded into final Statistical Analysis Software (SAS) datasets used in this study. To create the final data sets, both the 2004 and 2005 data collections were merged into a single unduplicated list of schools and associated variables. This was possible due to the survey's use of a unique identifier for each school/program that was consistent for the years included in this study. Data from the 2004-05 school year was used only for those schools or programs that did not participate in 2003-04. Once the final data set was established, the 7 independent variables were recoded into ones (affirmative) and zeros (negative), with percent of students dropping out calculated by school/program for all students and students by sex, by racial/ethnic minority status, and by sex and racial/ethnic status. In addition, demographic and geographic variables were obtained and used as covariates to assist in the description of the schools and programs participating in the study.

To conduct the post-stratification of the data according to host school district size, a comprehensive list of all alternative schools and programs as of fall 2003 was obtained from the IAAE data. This list contained the host district in which each alternative school/program resides. This was cross-referenced with data from the Iowa Department of Education that includes a size category for each school district. Once all alternative schools/programs had a host school district and resulting size category, a percent of the total can be calculated for the total number of alternative schools/programs by each size category. This same procedure was conducted for all alternative schools/programs included in this study. Once a percent of the total for all alternative schools/programs and a percent of the total for the alternative schools/programs included in this study was calculated, a weight for each participating school/program was also calculated by dividing the percent in each size category for all schools/programs by the percent in each size category for participating schools/programs. This new calculated weight was applied to each school/program in the final dataset used for data analysis.

With the final weighted datasets, the analysis necessary to answer the research questions was conducted. In addition to the statistical procedures described later in this chapter, basic descriptive statistics and geographic mapping using Arc View software were conducted to define and describe the schools/programs included in this study. Because IRB approval and permission granted by the IAAE was for purposes of this dissertation only, further use of the data for further research and/or journal publication is contingent upon additional IRB review and IAAE approval.

Data Analysis

Because this study has a single dependent variable (dropout rate) expressed on an interval scale and multiple categorical independent variables (student inputs) with no covariates, a factorial Analysis of Variance (ANOVA) was used to evaluate the null hypotheses given earlier in this chapter (Mertler & Vannatta, 2002). Because this study is quasiexperimental, provisions were not implemented to ensure a balanced design with the same number of schools and programs included in each of the independent variable groups. Because of this unbalanced design a General Linear Model was used to accommodate this design and estimate the ANOVA model. Also because post-stratification was employed, the General Linear Model was conducted to allow the weightings calculated for each school/program to be factored in the final model. This procedure allows for the overall ANOVA to be evaluated and to show main effects and the interaction of main effects on the dependent variable.

Two ANOVA procedures were conducted for each null hypothesis. The first exploratory ANOVA examined the effect on dropout rate by all possible combinations of the 7 independent variables. The resulting 5,040 combinations, paired with the relatively small sample size, produced an overly complex model resulting in statistical noise. Exploratory models were not useful in evaluating null hypotheses, but were useful in identifying interactions of main effects most likely to produce a more powerful final ANOVA model. All interaction effects identified in the exploratory ANOVA significant at the .20 level were used along with all main effects in the final ANOVA model. One exploratory model (all racial and ethnic minority students) was significant at the .05 level. For this model only, interactions of main effects significant at the .05 level were used in the final model.

Factorial ANOVA was chosen for this study for several reasons. Primarily it was chosen because the questions to be answered in combination with the variables available to the researcher are best suited for the ANOVA procedure. There are also several advantages to ANOVA ,including: (a) efficiency, (b) ability to include multiple variables into the statistical design, and (c) ability to investigate main effects and the interaction of main effects between independent variables (Hinkle, Wiersma, & Jurs, 1994).

ANOVA is also a good choice for this study because of its ability to yield accurate results even when minor violations occur in the three assumptions associated with ANOVA. The observations need to come from random and independent samples, the dependent variable must follow a normal distribution, and the variances of the dependent variables are equal across groupings of the main effects. Although it can be assumed that these assumptions would be met by alternative schools and programs in Iowa due to the relatively homogenous population and the similarity of alternative schools/programs in the state, the validity of these assumptions cannot be determined directly. Although the alternative schools/programs participating in this study represent an independent sample, they do not represent a random sample. Because of these restrictions the robustness of the ANOVA will provide a solid analysis of this study's hypotheses in combination with post-stratification.

Summary

This is a quasiexperimental study aimed at examining the effect of 7 types of student input into the organization, operation, and governance of alternative schools and programs in Iowa have on student dropout rate. The goal of this study is to identify relationships between variables and not to establish causation for the effect these variables may or may not have. All independent variables were chosen for their ability to serve as examples of legitimate

peripheral participation as identified in Situated Learning Theory. The 7 independent variables chosen for this study are: (a) student self-evaluation and (b) contracts for performance from the evaluation of student performance section of the survey, (c) deciding instructional techniques, (d) determining discipline, (e) planning co-curricular activities, (f) planning curriculum, and (g) teacher evaluation used from the school governance section of the survey. The dependent variable used in this study is dropout rate, which was calculated for all students and by racial and ethnic minority status and by sex. These variables were used to answer several research questions regarding the effect they have on student dropout rate.

Data for this study originated from an annual survey of all Iowa alternative schools and programs conducted by the IAAE. This online survey was conducted for the 2003-04 and 2004-05 school years. It consists of 9 sections with data used from the enrollment, student evaluation, and school governance sections. Use of the data has been approved both by the IAAE and the IRB at Iowa State University. Procedures were put in place during the development of the survey instrument to insure face and content validity. A high degree of instrument reliability was established using the test-retest method for schools and programs completing the survey in both the 2003-04 and 2004-05 school years.

Prior to analysis the data was compiled so that the final data set contained data from all participating schools in the 2003-04 school year and those schools participating in the 2004-05 school year but did not in the previous year. The final data set contained an unduplicated set of alternative schools and programs that participated in the survey in either 2003-04 or 2004-05. Two weighted factorial ANOVA procedures were conducted for each null hypothesis. The first or exploratory ANOVA identified interactions of main effects most

likely to produce a powerful final ANOVA able to evaluate each null hypothesis. The final ANOVA model was estimated to determine both main effects and the interaction of main effects on dropout rate. Since this is an unbalanced design, a General Linear Model using least squares means was used to estimate the ANOVA model. This procedure evaluates the independent variables collectively, and shows which variable or combinations of variables are associated with significant differences in dropout rate.

CHAPTER 4. RESULTS

Introduction

The purpose of this chapter is to present the findings of the study described in Chapter 3. These findings provide a description of both the alternative schools/programs included in this study and the students they serve, and addresses this study's research questions and null hypotheses. The data used for this study are from a survey of alternative schools/programs conducted by the Iowa Association of Alternative Education (IAAE) during the 2003-04 and 2004-05 school years. This survey was created to provide the IAAE with data and information necessary to describe alternative education in Iowa, and the processes and outcomes associated with serving dropouts and at-risk youth. Because this survey was voluntary, response rates were relatively low for any one year. As a result, data for schools/programs participating in 2003-04 are supplemented with data from schools/programs that did not participate in 2003-04 but participated the following year. Because these data do not represent the total alternative school/program population and appropriate sampling techniques could not be employed, post-stratification techniques will be used to weight the data to make it representative of the state as a whole according to host school district size. All descriptive and inferential statistics were conducted using Statistical Analysis Software (SAS), version 9.1.3.

Simple descriptive statistics are used to describe the schools and students participating in the study. Arc View mapping software is also used to create maps that show the relative locations of participants in this study compared to all alternative schools/programs in the state. Weightings were calculated for each participant as a ratio of alternative school/program population to participating schools/programs according to host

school district size. Testing of the research questions and resulting null hypotheses was conducted using an Analysis of Variance (ANOVA) model. A General Linear Model (GLM) procedure using least-square means was used due to the unbalanced design of this study resulting in uneven numbers of participants in each of the groups examined.

Data Analysis

Description of participating schools/programs. During both the 2003-04 and 2004-05 school years there were 112 alternative schools and programs in Iowa. Of the 112 only 73, or 65.18%, responded to the survey during the first of these school years. This return rate dropped to 38.39% the following school year, with 43 schools/programs responding to the survey. A combined total of 41 alternative schools/programs, 31 from 2003-04 and 10 from 2004-05 serving grades 9 through 12, were included in this study. This represented approximately 37% of all alternative education settings in the state. Though the participating schools/programs appear to be reasonably well dispersed across the state including both metro and rural areas as shown in Figure 1, post-stratification techniques were used to resemble the entire population in the state more closely and improve the generalizability of this study. Table 4 shows the number and percent of all alternative schools/programs by size of their host school district in fall 2004, the percent of those alternative schools/programs participating, and the resulting weightings to be applied to each school/program during the GLM procedure.

Figure 1. Location of all alternative schools/programs in Iowa and those participating in this study during the 2003-04 and 2004-05 school years

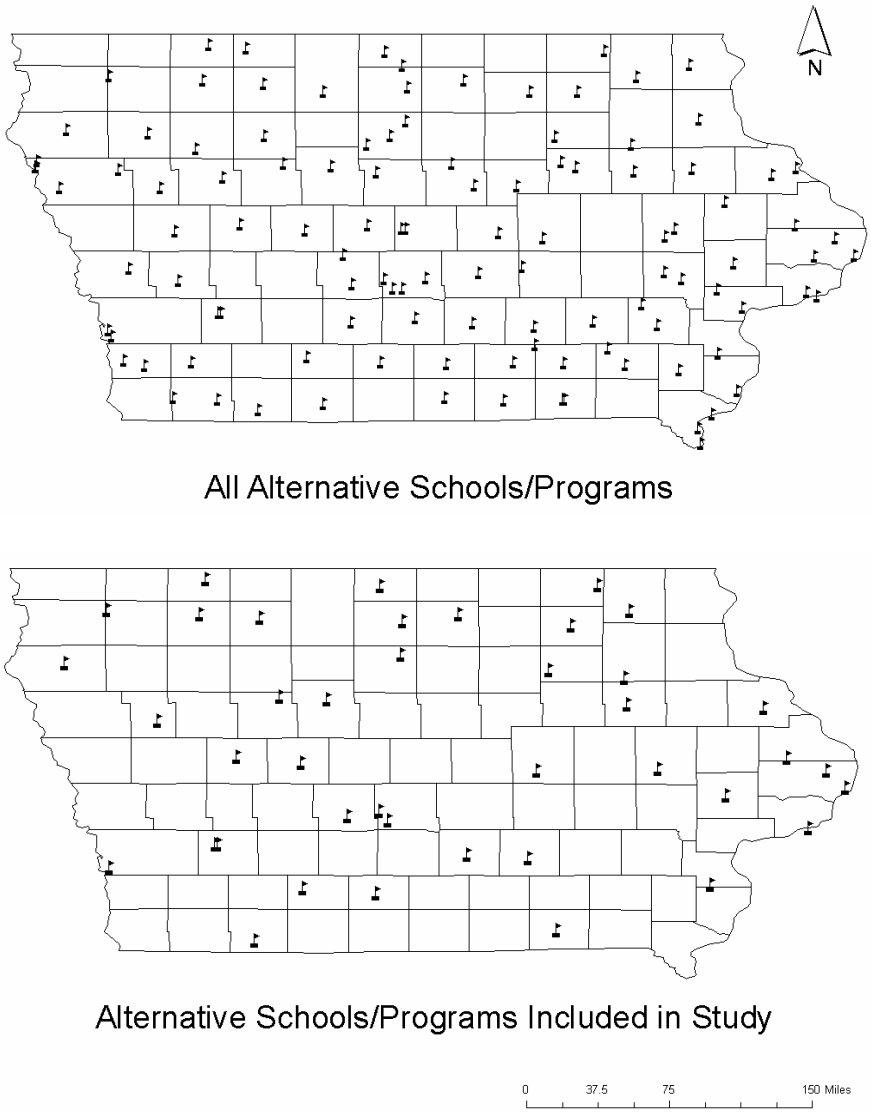

Table 4

Iowa Alternative Schools/Programs Population and Sample Frequencies, Percentages and Resulting Weightings by Host School District Size Category

Enrollment	All schools/programs		Study schools/programs		
category	*f*	*P*	*f*	*P*	Weight
<250	1	0.89	1	2.44	0.37
250-399	1	0.89	0	0.00	—
400-599	5	4.46	1	2.44	1.83
600-999	19	16.96	9	21.95	0.77
1,000-2499	60	53.57	21	51.22	1.05
2500-7499	14	12.50	6	16.63	0.85
7500+	12	10.71	3	7.32	1.46
Total	112	—	41	—	—

A total of 2,967 students were served by the 41 alternative schools/programs included in this study. Of all students served, 1,535, or 51.74%, were male and 380, or 12.81%, were racial and ethnic minority students. Of all schools/programs included in the study, 24, or 58.54%, served racial and ethnic minority students. Table 5 below shows a breakdown of all students included in the study by race and gender.

Table 5

Number of Participating Alternative Schools/Programs and Students Served, by Ethnicity/Race and Sex

		Students		
Category	Schools	Male	Female	Total
All students	41	1,535	1,432	2,967
Racial/ethnic minority	24	174	206	380
American Indian	8	16	32	48
Asian	4	6	9	15
Black	12	102	118	220
Hispanic	19	50	47	97
White	40	1,360	1,224	2,584
Unknown	2	1	2	3

Dropout rates, descriptive statistics, and *t*-test comparisons against the overall dropout rate for all students and students by racial/ethnic category and sex are given in Table 6. Dropout rates were calculated for each group by dividing the total number of students served in each category by the number of students identified as leaving the school/program. The overall dropout rate for all students was 31.42%, with standard deviation of 17.41. American Indian males and black females had the highest dropout rates of 51.33% and 49.98%, respectively. The dropout rate for racial and ethnic minority females was 7.23 percentage points higher that minority males. This disparity between males and females also existed for

Black and Hispanic students. However, no means were significantly different from the 31.42% overall dropout rate when compared using a *t*-test due to sample variability and relatively small sample size.

Table 6

School Dropout Rates and T-test Comparison to the Overall Mean by Racial/Ethnic Minority and Sex

Student category	*M*	*f*	*SD*	*df*	*t*	*p*
All	31.42	41	17.41	—	—	—
Male	30.39	41	20.95	40	-0.31	.76
Female	32.39	41	20.02	40	0.32	.75
Racial/ Ethnic Minority	36.63	24	38.70	23	0.66	.52
Male	37.43	19	40.12	18	0.66	.52
Female	44.66	21	42.96	20	1.41	.17
American Indian	24.15	8	38.06	7	-0.54	.61
Male	51.33	5	36.64	4	1.22	.29
Female	46.07	5	47.12	4	0.70	.52
Asian	47.92	4	34.95	3	0.95	.41
Male	33.33	3	28.86	2	0.12	.92
Female	33.33	4	47.14	3	0.08	.94
Black	40.87	12	38.43	11	0.85	.41
Male	35.82	8	42.04	7	0.30	.78
Female	49.98	9	38.66	8	1.44	.19

Table 6 (continued)

School Dropout Rates and T-test Comparison to the Overall Mean by Racial/Ethnic Minority and Sex

Student category	*M*	*f*	*SD*	*df*	*t*	*p*
Hispanic	33.94	19	41.13	18	0.27	.79
Male	35.80	15	42.95	14	0.40	.70
Female	42.66	16	45.27	15	0.99	.34
White	31.12	40	17.17	39	-0.11	.91
Male	31.05	40	20.59	39	-0.11	.91
Female	30.89	40	17.50	39	-0.19	.85
Unknown	50.00	2	70.71	1	0.37	.77
Male	100.00	1	—	—	—	—
Female	50.00	2	70.71	1	0.37	.77

The distribution of schools/programs utilizing each type of student input into the organization, operation, and governance of the school/program is given in Table 7. Allowing students to evaluate themselves as part of the overall performance evaluation process and allowing students to plan co-curricular activities were the most common allowed types of student input, with 26 of the 41 schools. Allowing students to participate in the determination of rules, procedures and consequences for inappropriate behavior was the least common, with only 12 schools allowing this type of student input.

Table 7

Number of Schools by Student Input Type Used

Student input type	*f*
Student self evaluation	26
Contracts for performance	23
Deciding instructional techniques	19
Determining discipline	12
Planning co-curricular activities	26
Planning curriculum	15
Teacher evaluation	16

In addition to the number of schools/programs allowing each individual type of student input, it is important to look at how many schools/programs used combinations of student inputs. Table 8 shows the distribution of schools/programs participating in this study by the total number of the seven types of student input allowed. The most common number of student inputs allowed was 5, with 10 schools/programs. Three of the schools/programs did not allow any types of student input and two of the schools/programs allowed all 7 types of student input. Tables 7 and 8 are important to this study because these interactions will be used in the inferential section of this chapter.

Table 8

Number and Percent of Schools/Programs by Total Number of Student Input Types Used

Number of input types used	*f*	*P*	*Cumulative f*	*Cumulative P*
0	3	7.32	3	7.32
1	4	9.76	7	17.07
2	8	19.51	15	36.59
3	7	17.07	22	53.66
4	5	12.20	27	65.85
5	10	24.39	37	90.24
6	2	4.88	39	95.12
7	2	4.88	41	100.00

Inferential statistics. The research questions and resulting null hypotheses were evaluated using an ANOVA procedure that produced a model to evaluate the effect of each type of student input and the interaction of these inputs into the organization, operation, and governance of alternative schools/programs had on dropout rate. Best models were created for student dropout rate for all students and students by racial/ethnic minority status and sex. Because this study is an unbalanced designed with different numbers of schools/programs in each independent variable category, a General Linear Model (GLM) using least squares means was estimated to produce the ANOVA results used in this section.

For each of the null hypotheses, two GLM procedures were conducted. The first GLM was estimated as an exploratory model. This intent of the exploratory model was to identify interactions of main effects to be used with all main effects in the final GLM that would best evaluate each null hypothesis. This two-step process was necessary because each exploratory GLM evaluated all possible combinations of the seven types of student inputs. This created overly complex and weak models resulting in statistical noise with 5,040 possible two-way combinations of student input types and a relatively small sample size. The resulting exploratory model created for this step was not useful in evaluating each null hypothesis, but was useful in identifying interactions of main effects most likely to produce a more powerful final model.

Interactions of main effects were chosen for the final models according to their F values and resulting *p* values from the exploratory GLM. For exploratory models where the overall ANOVA was not significant, all main effects were brought into the final model along with all interactions that yielded a Type I or Type III SS significant at the .20 level. For purposes of the exploratory model, interactions did not need to be significant at the .05 level, but rather only have greater significance relative to the other interactions and thus show potential to be brought into the final model. One exploratory model (all racial/ethnic minority students) resulted in a model significant at the .05 level. For this model, interactions of main effects significant at the .05 level were included in the final model.

Research and Null Hypotheses

The results for this study will be separated by research question and resulting null hypotheses. For each null hypothesis the results of the exploratory GLM will be given including the Type I or Type III SS data for all interaction effects significant at the .20 level.

Although Type I or Type II SS is used in the exploratory model, only Type III SS will be used in the final model. It is important to keep in mind that though each chart is examining student dropout rates, the unit of analysis for this study is the school. Student characteristics are always within the context of the alternative schools/program in which they are enrolled.

Research question 1 and null hypothesis 1. The first research question addressed by this study was: Which of the 7 types or combination of types of student participation in school organization, operation and governance have a significant effect on reducing the overall dropout rate? This research question resulted in one null hypothesis: The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on overall student dropout rate. Tables 9 and 10 show that the final ANOVA model was not significant at the .05 level and thus this null hypothesis could not be rejected.

Table 9

Exploratory GLM for All Students in All Schools/Programs

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	30	8,597.57	286.59	.75	.74	.69
Error	10	3,801.15	380.12			
Corrected total	40	12,398.73				

Interaction effects for final model

		Type I	*Type III*			
Source	*df*	*SS*	*SS*	*MS*	*F*	*p*
Self evaluation						
& Discipline	1	1,207.36	—	1,207.36	3.18	.11
Self evaluation						
& Curriculum	1	1,054.14	—	1,054.14	2.77	.13
Instruction						
& Teacher eval.	1	858.24	—	858.24	2.26	.16

Table 10

Final GLM for All Students in All Schools/Programs

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	10	4,701.95	470.20	1.93	.10	.38
Error	30	7,696.78	256.56	1.83		
Corrected total	40	12,398.73				

Significant Main and Interaction Effects

		Type III			
Source	*df*	*SS*	*MS*	*F*	*p*
Instruction	1	1,425.98	1,425.98	5.56	.03
Discipline	1	1,196.66	1,196.66	4.66	.04
Self evaluation & Discipline	1	1,731.87	1,731.87	6.75	.01
Self evaluation & Curriculum	1	1,131.23	1,131.23	4.41	.04

Research question 2 and null hypothesis 2. The second research question examined in this study was: Which of the 7 types or combination of types of student participation in school organization, operation and governance have a significant effect on reducing the dropout rate by sex? The first null hypothesis resulting from this research question was: The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on the dropout

rate for male students. Tables 11 and 12 show that the final ANOVA model was not significant at the .05 level and thus this null hypothesis could not be rejected.

Table 11

Exploratory GLM for Schools/Programs Serving Male Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	30	12,388.14	412.94	0.78	.71	.70
Error	10	5,279.31	527.93			
Corrected total	40	17,667.45				

Interaction effects for final model

		Type I	*Type III*			
Source	*df*	*SS*	*SS*	*MS*	*F*	*p*
Self evaluation & Discipline	1	1,489.27	—	1,489.27	2.82	.12
Self evaluation & Curriculum	1	1,282.90	—	1,282.90	2.43	.15
Self evaluation & Teacher eval.	1	1,504.99	—	1,504.99	2.85	.12

Table 12

Final GLM for Schools/Programs Serving Male Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	10	5,651.09	565.11	1.41	.22	.32
Error	30	12,016.36	400.55			
Corrected total	40	17,667.45				

Significant Main and Interaction Effects

Source	*df*	*Type III SS*	*MS*	*F*	*p*
Self evaluation & Discipline	1	2,543.13	2.543.13	6.35	.02
Self evaluation & Curriculum	1	1,825.52	1,825.52	4.56	.04

Research question 2 and null hypothesis 3. The second null hypothesis resulting from research question 2 was: The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on the dropout rate for female students. Tables 13 and 14 show that the final ANOVA model was not significant at the .05 level and thus this null hypothesis could not be rejected.

Table 13

Exploratory GLM for Schools/Programs Serving Female Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	30	9,366.26	312.21	0.49	.94	.59
Error	10	6,376.87	637.69			
Corrected total	40	15,743.13				

No interaction effects met established criteria of p <.20

Table 14

Final GLM for Schools/Programs Serving Female Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	7	2,894.46	413.49	1.06	.41	.18
Error	33	12,848.67	389.35			
Corrected total	40	15,743.13				

No significant main or interaction effects observed

Research question 3 and null hypothesis 4. The third research question examined in this study was: Which of the 7 types or combination of types of student participation in school organization, operation and governance have a significant effect on reducing the dropout rate by racial and ethnic minority status? This research question resulted in one null hypothesis: The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect

on the dropout rate for all racial and ethnic minority students. Tables 15 and 16 show that a significant final model was produced that accounted for 69% (r^2 =.69) of the variability in dropout rate for minority students. This final model produced an *F* value of 3.54 with a *p* value of .02. Significant student input types and interactions of input types yielding a p value of less than .05 for Type III SS were: (a) student contracts for performance, (b) student input into discipline, and (c) the interaction of using student self-evaluation in the performance process and allowing students input into planning co-curricular activities.

Table 15

Exploratory GLM for Schools/Programs Serving Racial and Ethnic Minority Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	19	30,656.72	1,613.51	7.54	.03	.97
Error	4	856.13	214.03			
Corrected total	23	31,512.85				

Interaction effects for final model

Source	*df*	*Type I SS*	*Type III SS*	*MS*	*F*	*p*
Contracts & Discipline	1	3,552.08	—	3,552.08	16.60	.01
Self evaluation & Activities	1	14,659.60	—	14,659.60	68.49	<.01
Instruction & Curriculum	1	738.85	—	738.85	3.45	.14

Table 16

Final GLM for Schools/Programs Serving Racial and Ethnic Minority Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	9	21,894.89	2,432.77	3.54	.02	.69
Error	14	9,617.95	687.00			
Corrected total	23	31,512.85				

Significant Main and Interaction Effects

Source	*df*	*Type III SS*	*MS*	*F*	*p*
Contracts	1	7,138.83	7,138.83	10.39	.01
Discipline	1	4,886.79	4886.79	7.11	.02
Self evaluation & Activities	1	11,031.09	11,031.09	16.06	<.01

Although the final GLM rejected the null hypothesis and identified those student inputs and combinations of inputs that significantly affect dropout rates for racial and ethnic minority students, it cannot be assumed that these factors and their combinations always reduced dropout rates as stated in the research question. Though the least squares means given in Table 17 are not tested for significance, they give an indication whether the dropout rate increased or decreased for each of the main and interaction effects.

Table 17

Least Squares Means for Significant Main and Interaction Effects

Effect	*M*
Contracts for performance	
used	33.22
not used	79.24
Student discipline	
used	77.79
not used	34.67
Student self evaluation & co-curricular activities	
both used	28.85
self evaluation used, co-curricular activities not used	82.15
co-curricular activities used, self evaluation not used	87.50
neither used	26.42

Schools/programs that allow students to use contracts for performance appear to have a lower dropout rate for racial and ethnic minority students than those schools that do not (33.22% and 79.24%, respectively). However, schools/programs that allow students input into determining student discipline appear to have a higher dropout rate (77.79%) than those schools/programs not allowing this type of student input (34.67%). The one interaction effect, use of student self-evaluation and student planning of co-curricular activities, appears to decrease dropout rate only when they are either both present or both absent. Dropout rate appears to increase dramatically when only either of the two is utilized without the other.

Research question 4 and null hypothesis 5. The final research hypothesis examined in this study was: Which of the 7 types or combination of types of student participation in school organization, operation, and governance have a significant effect on reducing the dropout rate by the combination of racial and ethnic minority status and sex? The first null hypothesis resulting from this research question was: The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on the dropout rate for all male racial and ethnic minority students. Tables 18 and 19 show that the final ANOVA model was not significant at the .05 level, thus this null hypothesis could not be rejected.

Table 18

Exploratory GLM for Schools/Programs Serving Male Racial and Ethnic Minority Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	15	25,010.48	1,667.37	5.59	.09	.97
Error	3	894.51	298.17			
Corrected total	18	25,904.99				

Interaction effects for final model

Source	*df*	*Type I SS*	*Type III SS*	*MS*	*F*	*p*
Contracts &						
Discipline	1	1,770.85	—	1,770.85	5.94	.09
Instruction						
& Discipline	1	2,505.12	—	2,505.12	8.40	.06
Self evaluation						
& Curriculum	1	10,328.57	—	10,328.57	34.64	.01.

Table 19

Final GLM for Schools/Programs Serving Male Racial and Ethnic Minority Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	10	17,344.49	1,734.45	1.62	.25	.67
Error	8	8,560.50	1,070.06			
Corrected total	18	25,904.99				

Significant Main and Interaction Effects
Type III

Source	*df*	*SS*	*MS*	*F*	*p*
Self evaluation & Activities	1	8,8869.41	8,869.41	8.29	.02

Research question 4 and null hypothesis 6. The second null hypothesis resulting from research question 4 was: The 7 identified types of student participation in the organization, operation, and governance of alternative schools, either alone or in combination, have no significant effect on the dropout rate for all female racial and ethnic minority students. Tables 20 and 21 show that the final ANOVA model was not significant at the .05 level and thus this null hypothesis could not be rejected.

Table 20

Exploratory GLM for Schools/Programs Serving Female Racial and Ethnic Minority Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	17	31,636.48	1,860.97	3.44	.17	.95
Error	3	1,623.03	541.01			
Corrected total	20	33,259.51				

Interaction effects for final model

Source	*df*	*Type I SS*	*Type III SS*	*MS*	*F*	*p*
Contracts & Discipline	1	7,342.27	—	7,342.27	13.57	.03
Instruction & Discipline	1	1,652.66	—	1,652.66	3.05	.18

Table 21

Final GLM for Schools/Programs Serving Female Racial and Ethnic Minority Students

Source	*df*	*SS*	*MS*	*F*	*p*	r^2
Model	9	20,351.67	2,261.30	1.93	.15	.61
Error	11	12,907.84	1,173.44			
Corrected total	20	33,259.51				

Significant Main and Interaction Effects

		Type III			
Source	*df*	*SS*	*MS*	*F*	*p*
Contracts	1	7,568.39	7,568.39	6.45	.03
Contracts & Discipline	1	6,185.10	6,185.10	5.27	.04

Interpretation

Of the 4 research questions given in this study, only one yielded a significant ANOVA model allowing for a null hypothesis to be rejected. Student input into the organization, operation, and governance of alternative schools/programs significantly affects the dropout rate for racial and ethnic minority students. The research question specifically asked what types of student input would reduce the dropout rate for racial and ethnic minority students. Although types of student input were identified that appear to decrease dropout rate (contracts for student performance, and the interaction of student self-evaluation and student planning of activities), one type of student input was discovered that appears to

increase dropout rate (student input into discipline). Though the results for all racial and ethnic minority students were not repeated for male or female minority students, the degrees of freedom available to these models dropped from 23 for all minority students to 18 for males and 20 for females. Sample size and variability may have accounted for this inability to replicate these findings by sex.

The findings of this study are similar to what other studies have found in the literature and presented in Chapter 2. Schools that allow the use of contracts for student performance and allow the use of either both or neither of the inputs student self-evaluation and planning of co-curricular activities are better able to meet the needs of racial and ethnic minority students as evidenced by a reduced dropout rate. This relationship between school flexibility and its effect on dropout rate has been established in the literature (Cook, 2002; Gold & Mann, 1984; Pollard & Thorne, 2003; Thomson, 2002). Another prominent trend in the literature is that alternative programming that provides an environment where students feel they belong and have value results in students continuing their education and not dropping out of school (Hadden, 1997; Moser, 2002; Nichols & Steffy, 1997; Thomson, 2002). This study supports this research for racial and ethnic minority students by showing a reduced dropout rate when specific student inputs into the organization, operation, and governance of the school are allowed. This study is unique, however, because it examines a subset of specific school behaviors that influence dropout rate in alternative schools and programs. Much of the research examining the relationship between school environment and dropout rate identifies supportive school environments through the use of instruments aimed at assessing student perceptions of the learning environment. This study tries to identify specific behaviors schools can put into practice to reduce their dropout rate.

Two shortcomings of research on alternative education were discussed in Chapter 2 and have been addressed by this study. Past research has lacked the academic rigor necessary to make it valid (Natriello et al., 1991; Young, 1990). This study provides a sufficient level of academic rigor in pursuit of its research questions, resulting in valid research of alternative education and its effects on students. Also, research in this area is often suspect because researchers are often too closely linked to the schools/programs being studied (Carruthers et al., 1999). Though the researcher and this study has links to alternative education in Iowa, this linkage is minimal and the case for objectivity is strong.

Situated Learning Theory, as it is applied to this study, describes how educational environments might provide students with legitimate practical participation to draw them into this environment and improve their ability to thrive. This study used the 7 types of student input as examples of legitimate practical participation to see if significant evidence exists to conclude that Situated Learning Theory is an appropriate framework for explaining how student input affects dropout rate. The results of this study are mixed. This study provides evidence that suggests Situated Learning Theory may be appropriate for describing how racial and ethnic minority students progress from newcomer, or beginner, to high school graduate. However, for all other groups examined in this study, the data do not support Situated Learning Theory as an appropriate framework. Even for racial and ethnic minority students several main and interaction effects appear to reduce dropout rate, but student input into discipline appears to increase dropout rate. Democratic Schools Theory as applied in this study as a subset of Situated Learning Theory is supported by the results of this study only to the extent that Situated Learning Theory can be supported.

Results Summary

This study looked at 41 alternative schools/programs that serve students in grades 9 through 12 and participated in the IAAE survey in either the 2003-04 or 2004-05 school years. This represented 37% of the total 112 alternative schools/programs in Iowa at the time of this study. Because neither the entire population of alternative schools/programs was surveyed nor a random sample was obtained, post-stratification techniques were used according to host school district size to make the sample more representative of the entire Iowa alternative education population.

A total of 2,967 students were served by the 41 alternative schools and program included in this study. Of these, 1,535 (51.74%) were male and 830 (12.81%) were racial and ethnic minority students. The average dropout rate for all schools/program in the study was 31.42. Though the dropout rate for males appears to be lower especially for racial and ethnic minority students, none of the subgroups examined had a mean dropout rate significantly different from the overall dropout rate of 31.42%.

Schools/programs included in this study tend to allow a combination of student inputs into the organization, operation, and governance of their school. Allowing students to self-evaluate their progress and organize co-curricular activities were the most common allowed student input types with 26 schools/programs. Allowing students to determine discipline was the least common input type with 12 schools/programs. Three of the schools/programs allowed none of the student inputs and two allowed all seven. Ten of the schools allowed 5 of the student input types.

Each research and resulting null hypothesis was evaluated using an ANOVA procedure. Because the study was unbalanced with varying numbers of schools using each

input, a GLM using least-squares means was used to create the ANOVA model. Both an exploratory GLM and final GLM were conducted for each null hypothesis. The exploratory GLM evaluated all possible combination of the seven student input types. The purpose of the exploratory model was to identify those interaction effects to be used in the final GLM. All variables significant at the .20 level for either Type I or Type III SS were brought forward into the final model. The final model was evaluated at the .05 level. Main and interaction effects in each final model were evaluated according to the Type III Sum of Squares also at the .05 level.

Only one of the four research questions could be addressed by rejecting a null hypothesis. Schools that allow the use of contracts for student performance, and allow the use of either both, or neither of the inputs student self-evaluation and planning of co-curricular activities, are better able to meet the needs of racial and ethnic minority students as evidenced by a reduced dropout rate. However, schools/programs allowing student input into determining discipline tend to have a higher dropout rate for racial and ethnic minority students.

Though this study supports much of the literature regarding alternative education, this study is unique in that it is structured to identify specific school/program behaviors that reduce dropout rate. Interpretation of the use of Situated Learning Theory as a framework for describing the effect of various student inputs in dropout rate was inconclusive. Though this framework appears to be appropriate for racial and ethnic minority students, this framework is not supported by the results for all students and other subgroups. Democratic Schools Theory is supported only to the extent that Situated Learning Theory was supported by this study.

CHAPTER 5. SUMMARY, CONCLUSIONS, IMPLICATIONS

Analysis of Data Summary

This study examined differences in dropout rate among alternative high schools in Iowa according to the use of seven specific types of student input into school organization, operation, and governance. The types of student input included in this study were: (a) instructional techniques, (b) determining student discipline, (c) planning co-curricular activities, (d) planning curriculum, (e) teacher evaluation, (f) student self-evaluation of progress, and (g) student contracts for performance. Situated Learning Theory provided the primary theoretical framework for this study by comparing similarities between the traditional apprentice-master model and the impact of student input on academic success. Just as apprentices begin their trade lacking necessary skills and experience, students enter school also lacking the skills, tools and attitudes necessary to learn, progress, and graduate. This study examined types of student input to see if they significantly contributed to students' transition from newcomers to graduates as evidenced by reduced dropout rates. Data for this study was provided by an annual survey of all Iowa alternative schools and programs conducted by the Iowa Association of Alternative Education (IAAE). Types of student input were examined for all students, students by sex, students by racial and ethnic minority status, and the combination of minority status and sex.

Due to a low response rate and the inability to survey either the entire population or a random sample, data from two survey years were combined to increase sample size. Post-stratification techniques based on host school district size were also used to make the final sample more representative of the entire population. A total of 41 schools/programs serving 2,967 students in grades 9 through 12 were included in this study. Of these students, 51.74%

were male and 12.81% were racial and ethnic minorities. Average dropout rate for all schools was 31.42%, with standard deviation of 17.41. Although differences in dropout rates according to sex and racial and ethnic minority status existed, these differences were not statistically different than the overall mean dropout rate of 31.42%.

All of the student inputs examined in this study were used to varying degrees by Iowa's alternative schools/programs. Determining discipline was the least utilized student input type, used by only 12 schools/programs. Allowing student self-evaluation and student planning of co-curricular activities were the most commonly used types of student inputs with 26 schools/programs each. More than half of the schools/programs used a combination of three of more types of student input.

This study examined four research questions and six resulting null hypotheses using an ANOVA model. The research questions asked which types or interactions of types of student input reduce student dropout rates for all students, students by sex, students by racial and ethnic minority status, and students by racial and ethnic minority status and sex. For each null hypothesis, two ANOVA models were created. The first exploratory model examined all possible interactions of the 7 student input types. Due to a small sample size and sample variability, exploratory models were not used to directly evaluate each null hypothesis, but were useful in identifying interactions of main effects most likely to contribute to a significant final ANOVA model for each null hypothesis. The final ANOVA for each null hypothesis used all 7 main effects and those interactions identified in the exploratory ANOVA model. Only the final ANOVA was used to evaluate each null hypothesis with significance set at the .05 level.

Of the four research questions given in this study, only one yielded a significant final ANOVA allowing one null hypothesis to be rejected. Student input into the organization, operation, and governance of alternative schools/programs significantly affected the dropout rate for racial and ethnic minority students. The final ANOVA model created was significant at the .05 level and accounted for 69% (r^2= .69) of the variability in dropout rate for racial and ethnic minority students. Student input types were identified that appear to both increase and decrease dropout rates for racial and ethnic minority students. One main effect and one interaction of main effects were identified that appeared to reduce dropout rates: one main effect was also identified that appeared to increase dropout rate. Significant main effects and interactions of main effects are summarized in Table 22.

Table 22

Summary of Types of Student Input and Their Effect on Dropout Rate for Racial and Ethnic Minority Students

Input Type	Effect on Dropout Rate
Contracts for Performance	Decrease
Self-evaluation of progress & planning co-curricular activities	Decrease
Student Discipline	Increase

The use of contracts for student performance appeared to reduce dropout rate for racial and ethnic minority students as evidenced by the difference in dropout rates for those schools/program using contracts for performance versus those schools/programs not allowing this type of student input. Dropout rates calculated as least squares means for these two

groups were 33.22% and 79.24%, respectively, compared to the overall dropout rate for racial and ethnic minority students of 36.63%. The interaction of student self-evaluation and student planning of co-curricular activities also appeared to reduce dropout rates for racial and ethnic minority students but only if both input types were used or both were not used. Dropout rates calculated as least squares means for schools/programs allowing both or neither input types were 28.85% and 29.42%, respectively, compared to the overall racial/ ethnic minority dropout rate of 36.63%. Dropout rates jumped to above 80% when either input type was allowed without the other.

Allowing student input into determining student discipline appeared to increase the dropout rate for racial and ethnic minority students. The least squares mean dropout rate for schools allowing student input into discipline was 77.79%, compared to 34.67% for those schools not allowing this type of student input. This effect on dropout rate was not repeated for racial and ethnic minority students by sex. For these models, the degrees of freedom available dropped from 23 for all racial and ethnic minority students to 18 for males and 20 for females. Sample size and variability may have accounted for this inability to replicate these findings by sex.

Conclusions

This section explores the results of this study to offer possible explanations and conclusions supported by the research. The intent of this section is to spur discussion, improve understanding, and give meaning to the results. The discussion presented in this section is not intended to be definitive and is open to further or different interpretation.

The most pragmatic conclusion from this study is that although no benefits for white students, as measured by decreased dropout rate, were identified, this study also showed no

adverse consequences for white students. The worst possible conclusion from this study would be to show types of student input that decreases the dropout rate for some students while increasing the dropout rate for others. Practitioners would have been left with no good options for how to implement the findings of this study without causing harm to at least one subset of students. This study, however, allows the identified theoretical framework and beneficial types of student input to be implemented to decrease the dropout rate for racial and ethnic minority students with no evidence of harm to other students.

This study offers no direct evidence to suggest why student input into the organization, operation, and governance of alternative schools affected dropout rates for racial and ethnic minority students and not white students. It seems reasonable that these differences may result from the effect of public education on different groups of students. Because of Iowa's comparatively small racial and ethnic minority population, Iowa's educational system may reflect this lack of diversity. The fact that racial and ethnic minority students responded differently to various type of student input indicate that their needs are different than white students and perhaps these needs are not being met by an educational system created in such a homogenous state. The results of this study may provide insight into what these needs might be.

Two of the types of student input that reduced dropout rates for racial and ethnic minority students were about evaluation of performance (use of contracts for performance and the use of students self-evaluation of performance in tandem with planning of co-curricular activities). This suggests that performance evaluation is perceived differently by minority and white students. Racial and ethnic minority students respond better, as measured by a decrease in dropout rate, when given input into assessing their own academic progress.

The status quo in education is that only teachers evaluate student performance. This practice may not adequately meet the needs of racial and ethnic minority students.

The interaction of student self-evaluation and student planning of co-curricular activities may give further insight into what differences and resulting unmet needs may exist for racial and ethnic minority students. If participation in the evaluation of their performance is allowed, this participation needs to co-exist with input into planning co-curricular learning activities to be effective in decreasing dropout rates. The interaction of these two types of student input suggests that racial and ethnic minority students need to not only have input into the process of learning (planning of co-curricular activities), but also have input into the learning outcomes (self-evaluation of performance). Allowing one of these types of student input without the other may mean students are either being asked to plan activities that are not reflected in the evaluation of their performance, or being allowed to evaluate their performance on learning activities that have less meaning for them. Either way, this study suggests that racial and ethnic minority students need evaluation of learning and activities to support learning to be connected.

The results of this study indicate that allowing racial and ethnic minority students input into determining student discipline increases dropout rates. This may indicate a need for consistency in the educational setting. Allowing student input into the development of rules and expectations for behavior could result in inconsistent expectations of students. As newcomers to an educational setting, students would help determine rules and behavior expectations for the school. Many students would learn to abide by these rules and develop ownership of them. However, as new students enter the school or program in subsequent years, their input would need to be considered and may result in significantly different

behavior expectations that the previous year. Returning students may not have as much ownership in these rules and consider it unfair that what was previously acceptable behavior is not allowed, or rules in place last year are not being enforced. Although all students would have input each year and may continue to have ownership over behavior expectations, the changing nature of these expectations may create an environment more likely to disenfranchise students. This study suggests that racial and ethnic minority students will be more successful if the rules and expectations for behavior are consistent.

A common theme shared by all aspects of the theoretical framework proposed by this study is participation. Situated Learning Theory approximates the master-apprentice relationship which is traditionally a learn-by-doing approach. Democratic Schools Theory stresses the important of participation in a democracy. Progressivism believes that students need to be an active participant in the learning process and that learning should reflect real-world applications. The results of this study support the importance of participation for racial and ethnic minority students. Although not all types of participation were shown to be beneficial as measured by decreased dropout rates, participation in the evaluation process and participation in planning co-curricular activities support the theoretical framework presented in this study as it applied to racial and ethnic minority students.

Contribution to the Literature

One of the goals of this study was to contribute new knowledge and/or understanding regarding alternative education. This study meets this goal by contributing to the literature in three specific areas: (a) the effect of student input on dropout rate for racial and ethnic minority students, (b) the identification of specific practices that may reduce dropout rates

instead of just indicating that differences exist, and (c) the evaluation of Situated Learning Theory as a framework for addressing how schools progress students toward graduation.

As described earlier in this chapter, allowing racial and ethnic minority student input into the organization, operation, and governance of alternative schools affects dropout rate. The majority of studies on alternative education reviewed as part of this study did not examine differences by racial and ethnic minority status and sex. Although some studies were identified, they represent a small percentage of the research (Bell, 1990; Grant, 2001; Jeffries & Singer, 2003). This study is unique in that it examined the effects of student input on dropout rate by racial and ethnic minority status and sex independently and in combination.

The majority of studies on alternative education either compare alternative education students to their peers in traditional educational settings to see if differences in various factors and attitudes exist (Cook, 2003; Dynarski & Gleason, 2002; Lehr & Lange, 2000), or examine how student perceptions of their educational environment affect specific behaviors and attitudes toward school (Hadden, 1997; Moser, 2002; Nichols & Steffy, 1997; Thomson, 2002). This study is unique because to attempts to identify specific practices that schools/programs can use to reduce dropout rates. Although this study only found practices that affects dropout rates for racial and ethnic minority students, it provides a basis for further work in this area.

Situated Learning Theory in combination with Democratic Schools Theory and Progressivism appeared to be an adequate framework for describing how alternative education approximates the master-apprentice relationship in involving racial and ethnic minority students in their education and fostering their progression toward graduation. This

study contributes this framework to the literature on alternative education as being deserving of more study and further refinement.

Implications

Implications for practice. Although this study examined alternative education exclusively, the findings are applicable to both alternative and traditional education. Results from this study conclude that allowing students input into the organization, operation, and governance of schools may affect and ultimately reduce student dropout rates for racial and ethnic minority students without causing harm to other groups of students. For those schools/programs dissatisfied with how they currently meet the needs of racial and ethnic minority students, this study has three implications for practice. One implication is most applicable for classroom teachers, one is appropriate for consideration by both classroom teachers and schools, and the final implication is directed towards the school and/or system level.

The goal of all classroom teachers is to help their students learn and achieve at high levels. This study shows that both alternative and traditional classroom teachers may be able to better help racial and ethnic minority students by using contracts for student performance. These contracts provide a conversation regarding expectations for students, and an agreed upon list of deliverables for students. Classroom teachers should not be expected to use contracts for performance exclusively for all classroom activities. Teachers should begin by identifying those projects, units, and lessons they feel are most appropriate for their use. This allows use of contracts for performance to mature in accordance with both the benefits being demonstrated for students, and the capacity for teachers to implement them into an already

burgeoning curriculum, and is more likely to ensure a successful and manageable implementation.

This study shows that allowing students to self-evaluate their progress and allowing students input into planning co-curricular activities are connected. Schools and teachers should only either allow both of these practices, or allow neither to reduce dropout rates for racial and ethnic minority students. This conclusion needs to be considered at both the school and classroom levels. Evaluation of student progress is often, in part, done according to school policy or common agreement among teachers. If students do not currently have a voice in this process, this change must be discussed at the school level so that all teachers and administrators understand the process and, if possible, support its use. Planning of co-curricular activities that must accompany student input into the evaluation of their progress must also be discussed at the school level. This ensures that as students help plan co-curricular activities, all teachers and administrators can see why these activities are important and how they supplement the curriculum. Though this communication may occur more easily in smaller alternative educational settings, this implication is also applicable for traditional educational settings.

The final implication for practice concerns the need for expectations for student behavior and discipline to be pre-established and consistent. This study shows that giving students input into determining discipline policies adversely affects dropout rates for racial and ethnic minority students. This study gives no indication whether discipline is best determined at the school or classroom levels. As is common in all educational settings, expectations for student behavior and discipline have both a school and classroom element. This study supports that, regardless of at what level these expectations are defined, they must

be fair, consistently applied, and readily known to all students. This implication has equal impact for both traditional and alternative education.

All recommendations suggested by this study must be evaluated by practitioners with caution. The results of this study indicate that the above recommendations may be useful in reducing the dropout rate for racial and ethnic minority students. They are not, however, conclusive that these practices would be effective in all situations. If implemented, care must be taken to ensure they are having the desired effect and not having unforeseen negative consequences for students.

Implications for further research. Although this study provides insight into effective educational practices, there are many questions raised by this study and many opportunities for further research. The following implications for further research could provide greater meaning and understanding to the results of this study.

Replicating this study with a larger sample of alternative schools/programs would help resolve several issues resulting from a relatively small sample size. A larger sample size might allow the findings to be replicated for racial and ethnic minority students by sex. Also, replicating the findings of this study would reinforce the importance of the implications for practice given earlier in this chapter.

Allowing students input into the organization, operation, and governance of alternative schools only yielded a significant reduction in dropout rate for racial and ethnic minority students. The relationship between student input and dropout rate for racial and ethnic minority students needs to be examined exclusively. Because of a small sample size, all racial and ethnic minority categories were collapsed into a single category. It would be valuable to see if differences for all racial and ethnic minority students could be replicated

for each specific race and ethnic category. An increased sample size may also allow a closer examination of student input by sex and racial and ethnic minority status.

Additional factors need to be identified that may affect dropout rate. Schools are a culmination of hundreds of factors that may affect student dropout rate. This study only examined a very small subset of these factors and many more are worthy of further study. Potential areas of interest to this researcher include: (a) Does when and how students are admitted (set times during the school year, admitted continually, etc) affect dropout rate? (b) Does whether schools/programs are located in a school, outside a traditional setting, or hosted by a community college affect dropout rate? (c) Does whether the time it takes to earn a credit is based on seat time or competency mastery affect dropout rate? and (d) Do differences in how the school day is structured affect dropout rate?

Further research is also needed regarding the specific types of student input found to affect dropout rates for racial and ethnic minority students. Though potential explanations were discussed for each of these findings earlier in this chapter, they were not definitive and may be most useful in assisting other researchers interested in alternative education to define their research topics. Specifically, further research specific to racial and ethnic minority students is needed to: (a) determine how the combination of the use of student self-evaluation and student planning of co-curricular activities affects dropout rate, (b) examine why student input into discipline appeared to increase dropout rate, and (c) examine contracts for student performance and their specific affect on student attitudes towards school, retention and progress towards graduation.

Summary

Although this study is important to alternative education for its results and recommendations for practice, this study is also important to alternative education as part of a much larger issue. A constant criticism of alternative education is that, because it acts as a shunt for students unable to be successful in traditional educational settings, it impedes meaningful school reform (Slater, 1974). Specifically, this criticism blames alternative education for diminishing the urgency across the K-12 educational system for meeting the needs of at-risk youth. Even in early grades, there is often the perception that unsuccessful students may eventually need to attend an educational alternative. However, even though these students may find success in alternative education, the best opportunities and resources exist within the mainstream, traditional educational environment. Sagor (1999) asserts that separate educational settings are inherently unequal and should be viewed with the same contempt as racial segregation. Very few alternative schools/programs offer the same depth of curriculum, extra-curricular opportunities, or formative experiences as their traditional counterparts. Research has shown that segregation by academic abilities only benefits the most capable students (Oakes, 1985). If Slater and Sagor are correct, this study is part of an important body of knowledge regarding the effectiveness of alternative education and may play a role in moving alternative education from an impediment to school reform, to an engine for school reform.

To improve alternative education's ability to promote school reform for at-risk students, research needs to identify what specific practices meet student needs so these practices can become part of traditional education. If this were to be accomplished all involved would benefit. Students obviously benefit because they are able to be successful in

schools without leaving the traditional educational environment. Traditional schools and school districts benefit because valuable resources do not have to be spent replicating, at least in part, the educational program. Alternative education benefits by being an agent for change and a model for educational reform incorporated in mainstream education. Even if the ultimate effect on alternative education is to put itself out of business, it would have played a crucial role in serving dropouts and at-risk youth.

I have seen students make the progression from failure to success as part of an alternative school. This study has given me the opportunity to put my skills and knowledge to use by partially explaining the progression I saw in the lives of these students. It has been ten years since my direct involvement with alternative education. I no longer work in alternative education but rather do research and planning at a community college. This study allowed me to reconnect with an important part of my career that still influences my attitudes about learning and teaching.

APPENDIX A. SURVEY INSTRUMENT

Iowa Association of Alternative Education

Survey of Alternative Schools and Programs
Individual School or Program Information

I. GENERAL INFORMATION			
1	Position of Person Completing Survey		
2	User ID	tester	Last Updated: 6/21/2004 7:34:14 AM
3	Name of Alternative School or Program		
4	Name of Public School District or Community College Administering the Program (if applicable)		
5	District Number of Sponsoring District (if applicable)		
6	Public School Number Assigned by State (if applicable)		
7	School or Program Address		
8	City/State/Zip		
9	Contact Person		
10	Contact Person Phone		
11	Contact Person Fax		
12	Contact Person Email		
13	AEA Number		
14	County		
15	Program Type		
16	Year School or Program Began		
17	Education Levels Served		☐ Kindergarten

	(Check all That Apply)	☐ Grade 1 ☐ Grade 2 ☐ Grade 3 ☐ Grade 4 ☐ Grade 5 ☐ Grade 6 ☐ Grade 7 ☐ Grade 8 ☐ Grade 9 ☐ Grade 10 ☐ Grade 11 ☐ Grade 12
18	Students Served (Check all That Apply)	☐ Dropouts ☐ Potential Dropouts ☐ Students Accelerating Graduation by Dual Enrolling in both the alternative and traditional programs ☐ Students catching up on credits by taking some classes at the alternative school while enrolled in the traditional program
19	Total Operating Budget for Year (include all expenses i.e.- transportation, materials, salaries, etc	
20	Check all Enrollment Procedures that Apply:	☐ Waiting Period Required Before Student is Allowed to Enroll ☐ Student Referred Directly Into Program- No waiting period necessary ☐ Only Students from within Home District Served ☐ Students from Home District and Other Districts Served Please indicate Districts Served:
21	Check all School or Program Options that Apply:	☐ Day Classes (before 5 PM) ☐ Evening Classes (after 5 PM)

		☐ School Week (M-F) ☐ Weekends ☐ School Year (Sept-May) ☐ Summer School ☐ Students Attend Full Day ☐ Students Attend Part Day Other School/Program Schedule Option (please describe):
22	Check all School or Program Purposes that Apply:	☐ Dropout Prevention ☐ Transition Back into Traditional Programming ☐ High School Diploma ☐ Elementary School Completion ☐ Transition to Postsecondary Training ☐ Transition to Workforce Other School/Program Purposes (please describe)
23	Check all Awards Offered that Apply:	☐ Separate School Diploma (regular) ☐ Diploma from Traditional High School (regular) ☐ Regular Diploma with Distinction ☐ Certificate of Attendance ☐ No Awards Offered Other Awards Offered (please describe)
24	Check the Most Appropriate Facility Descriptor	☐ Located in School Building with Traditional Program ☐ Located in Separate School Facility ☐ Located on Community College Campus ☐ Located in store front or other off-campus facility
25	Check all National/International Programs in Which Your School or Program Officially Participates:	☐ Expeditionary Learning ☐ Open Schools ☐ Coalition of Essential Schools ☐ Self-directed Learning Schools ☐ STARS Youth Organization (Success, Teamwork, Achievement & Self-esteem Other National/International Programs (please describe)

IIa. ENROLLMENT INFORMATION-COUNT DAY							
	The breakdown for section IIa should contain the students that were attending on the third Friday of September of this school year. This would be the total number of students that were submitted either by your school or program or your partnering school district for certified enrollment.						
	Students Counted by Sex	American Indian or Alaskan Native	Asian	Black or African American	Hispanic	White	Race Unknown
26	Male						
27	Female						
28	Special Education Students- Male		All students with a current Individualized Education Plan or IEP should be included.				
29	Special Education Students- Female						

IIb. ENROLLMENT INFORMATION-STUDENTS SERVED													
	The breakdown for section IIb should contain all students served by your school or program. The following definitions apply to this section: • Served is defined as any student who enrolled and received any classroom instruction. • Graduate is defined as any student served by your program this year who has or will earn a regular high school diploma by the end of this year. Include those students on track to earn a regular high school diploma by the end of this school year. Adult Basic High School Diploma Earners and GED Earners are NOT considered graduates • Leaver is defined as any students served at some point in your school or program who did not graduate and is no longer a current student in your school or program. Students leaving your school or program to earn an GED or Adult Basic High School Diploma are considered leavers. Students leaving your program to return to the traditional high school are considered leavers. • Current Students are those students currently enrolled and being served by your school or program.												
	Students Served:	American Indian		Asian		Black		Hispanic		White		Unknown	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
30	Graduates												
31	Leaver												
32	Current Students												
33	Total Number of Male Special Education Students					All students with a current Individualized Education Plan or IEP should be included.							

	Served:		
34	Total Number of Female Special Education Students Served		
35	Of All Students Served, How many are either eligible for free or reduced price meals or receiving public assistance?		
36	Of All Students Served, How Many are responsible for the care or their biological children?		
37	Of All Students Served, How many students were served of the following ages? Please use their age as of the end of the school year	12 years old or younger 13 years old 14 years old 15 years old 16 years old 17 years old 18 years old 19 years old 20 years old 21 years old 22 years old or older	
III. STUDENT EVALUATION			
38	Check all techniques used to evaluate student progress/ learning:	☐ Follow Up Surveys of Students ☐ Standardized Tests Which standardized tests are being used ☐ Criterion References Tests ☐ Student Progress Reports ☐ Informal Testing ☐ Local Formal Tests ☐ Student Self Evaluation ☐ Applied Projects ☐ Contracts for Performance ☐ Portfolios ☐ Report Cards	

		☐ Checklists ☐ Letters to Parents ☐ Conferences with Parents ☐ Personalized Planning ☐ Needs Assessment ☐ Parent Questionnaire ☐ Employer Surveys ☐ Staff Surveys ☐ Community Surveys Other Student Evaluation Techniques Used (please describe)

IV. STUDENT OUTCOMES

The data for the outcomes portion of this survey should be gathered from those individuals who have first-hand knowledge of students and can assess student academic, career and personal/social development over the course of the school year. The following definitions apply to this section:

- Served- Any student who enrolled and received any classroom instruction.
- Graduate- Any student served by your program this year who has or will earn a regular high school diploma by the end of this year. Include those students on track to earn a regular high school diploma by the end of this school year. Adult Basic High School Diploma Earners and GED Earners are NOT considered graduates
- Leaver - Any students served at some point in your school or program who did not graduate and is no longer a current student in your school or program. Students leaving your school or program to earn an GED or Adult Basic High School Diploma are considered leavers. Students leaving your program to return to the traditional high school are considered leavers.
- Current Students- Those students currently enrolled and being served by your school or program.
- Course- An amount of work resulting in the awarding of credit.
- Credit- The equivalent of 50 minutes of work per school day for 18 weeks.

	Academic Progress- Please indicate the number of courses completed and credits earned according to the definitions from the login screen	Graduates	Leavers	Current Students
39	Courses Completed			
40	Credits Earned			

	Improved Career Potential- Please indicate the number of students satisfying each category according to the definitions from the login screen	Graduates	Leavers	Current Students
41	Developed a Transition Plan This Year			

42	Partially Implemented Student's Transition Plan						
43	Completed Student's Transition Plan						
44	Visited a Postsecondary School or Talked with a Recruiter						
45	Took College Courses While Enrolled in Alternative School/Program						
46	Has enrolled at a postsecondary to begin later						
47	Met with an Armed Forces Recruiter						
48	Enlisted in the Armed Services						
49	Took a Career Aptitude Survey/Test						
50	Took a Job and Entered the Workforce						
51	Took a Job in a Sheltered or Assisted Employment Program						
	Improved Personal/ Social/ Emotional/ Behavioral Development- Please indicate the number of students satisfying each category according to the definitions from the login screen	Number of Students Identified as Deficient Upon Entering your School Or Program			Number of Those Identified Showing Significant and Noticeable Improvement		
		Graduates	Leavers	Current Students	Graduates	Leavers	Current Students
52	**Expression-** Students Ability to appropriately communicate facts, feelings and ideas through speaking and listening						
53	**Listening-** Students can listen appropriately to others and understand factual information and ideas						

54	**Interaction with Authority-** Student does not respond negatively to constructive criticism, will ask for help, accepts rules and limits						
55	**Interaction with Peers-** Student has predominately appropriate interactions with other students. Includes being patient waiting for others						
56	**Self Determination-** Student sets goals and works toward them. Strives for quality in their lives.						
	Credentials- Please indicate the number of students satisfying each category according to the definitions from the login screen				Graduates	Leavers	Current Students
57	Enrolled in a GED program						
58	Earned a GED						
59	Enrolled courses aimed at earning an Adult High School Diploma						
60	Earned an Adult High School Diploma						
61	Enrolled in courses aimed at earning a Basic Literacy Certificate						
62	Earned a Basic Literacy Certificate						
63	Enrolled in courses aimed at a Specialized Credential (i.e..- Certified Nursing Assistant)						
64	Earned a Specialized Credential (i.e..- Certified Nursing Assistant)						
65	Transferred Back to Traditional Program						

66	No Known Result				
V. CURRICULUM					
67	Check all Curriculum Types Offered:	☐ Academic Development ☐ Personal/ Social Development ☐ Career and Technical Education Other Awards Offered (please describe):			
68	Check all Curriculum Techniques/ Activities that Apply:	☐ Competency-based Learning ☐ Individually Guided Education ☐ Block Scheduling ☐ Individual Scheduling ☐ Independent Study/ Contracting ☐ Interdisciplinary Instruction ☐ Community Studies ☐ Child Care Training ☐ Health- Substance Abuse ☐ Health- Sexuality ☐ Health- Fitness Other Heath Education Areas Offered (please describe):			
VI. CHILD CARE					
69	Does Your School or Program Provide Child Care?	☐ YES ☐ NO			
70	If Child Care is Provided, is it on-site?	☐ YES ☐ NO			
71	If Child Care is Provided, does the school or program subsidize the service?	☐ YES ☐ NO			
VII. STAFF					
	For each of the positions below, we are asking for the total number of full-time and part-time employees of the school or program. In addition, we are asking for Full Time Equivalent or FTE. FTE should be based on what your local definition of full-time status is. If unknown, use the following: 1 FTE = 40 hours of work per week for employees under 9-12 month contracts or the equivalent. FTE can be calculated to the nearest tenth (i.e.- 4.1 FTE)				
72	Number of Counselors	Full-time Part-time			

		FTE
73	Number of Teachers	Full-time Part-time FTE
74	Number of Administrators	Full-time Part-time FTE
75	Number of Other Positions 1 Please describe:	Full-time Part-time FTE
76	Number of Other Positions 2 Please describe:	Full-time Part-time FTE
77	Number of Other Positions 3 Please describe:	Full-time Part-time FTE
78	Check all methods used to evaluate staff:	☐ Staff Performance Appraisals Using Iowa Model ☐ Staff Performance Appraisals Using Other Model
79	Check all methods used to improve and develop staff:	☐ National Board Certification ☐ Self Review ☐ Peer Review ☐ Peer Mentoring
VIII. COUNSELING		
80	Check all counseling activities that occur in your school or program:	☐ Program Planning ☐ Individual/ Group Problem Solving ☐ Self Assessment/ Testing ☐ Parent Relations- Conferences ☐ School-Community Issues ☐ Career Planning ☐ Substance Abuse Counseling

		☐ Orientation to School & Courses ☐ Decision Making Skills
IX. GOVERNANCE		
81	Check all types of governance in which students participate:	☐ Deciding Instructional Techniques ☐ Determining Discipline ☐ Planning co-curricular Activities ☐ Planning Curriculum ☐ Teacher Evaluation Other Governance Types in Which Students Participate (please describe):
82	Check all types of governance in which staff participate:	☐ Instruction ☐ Teacher Evaluation ☐ Curriculum ☐ Co-curricular Activities ☐ Discipline ☐ Staff Development ☐ Individualized Education Plans Other Governance Types in Which Staff Participate (please describe):
83	Check all community groups encouraged to participate in your school or program:	☐ Parents ☐ Public Services (human services, mental health, etc) ☐ Civic and Community Groups ☐ Business and Industry ☐ Housing (shelters, transitional living, etc) ☐ Local/ County Government Other Community Groups Encouraged to Participate (please describe):

APPENDIX B. HUMAN SUBJECTS MATERIALS

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office of Research Assurances
Vice Provost for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

DATE: June 30, 2006

TO: Joseph DeHart
CC: Dr. Frank Hernandez

FROM: Institutional Review Board
Office of Research Assurances

SUBJECT: IRB ID# 06-313 **Study Review Date:** June 30, 2006

The Institutional Review Board (IRB) Chair has reviewed the project, "The Effects of Student Input into Student Evaluation and School Governance on Dropout Rate in Iowa Alternative Schools and Programs" and declared the study exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b) (1) and (4). The applicable exemption category is provided below for your information. Please note that you must submit all research involving human participants for review by the IRB. Only the IRB may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

The IRB determination of exemption means that this project does not need to meet the requirements from the Department of Health and Human Service (DHHS) regulations for the protection of human subjects, unless required by the IRB. We do, however, urge you to protect the rights of your participants in the same ways that you would if the project was required to follow the regulations. This includes providing relevant information about the research to the participants.

Because your project is exempt, you do not need to submit an application for continuing review. However, you must carry out the research as proposed in the IRB application, including obtaining and documenting (signed) informed consent if you have stated in your application that you will do so or if required by the IRB.

Any modification of this research should be submitted to the IRB on a Continuation and/or Modification form, prior to making any changes, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.

Exempt Categories

(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

For IRB Use Only		
	Review Date: 6/30/06	IRB ID: 06-313
	Approval Date:	Length of Approval:
	Approval Expiration Date:	FULL Committee Review:
	EXEMPT per 45 CFR 46.101(b): 1, 4 Date: 6/30/06	Minimal Risk: ✓
	EXPEDITED per 45 CFR 46.110(b)	More than Minimal Risk:
	Category , Letter	Project Closed Date:

IRB

JUN 0 8 2006

ISU NEW HUMAN SUBJECTS REVIEW FORM

SECTION I: GENERAL INFORMATION

Principal Investigator (PI): Joseph C. DeHart	Phone: (515) 964-6279	Fax: (515) 965-7022
Degrees: BS, MS	Correspondence Address: 9406 Imperial Avenue, Kellogg, IA 50135	
Department: Elducational Leadership & Policy Studies	Email Address: jcdehart@dmacc.edu	
Center/Institute:	College: Human Sciences	
PI Level: ☐ Faculty ☐ Staff ☐ Postdoctoral ☒ Graduate Student ☐ Undergraduate Student		

Title of Project:
The Effects of Student Input into Student Evaluation and School Governance on Dropout Rate in Iowa Alternative Schools and Programs
Project Period (Include Start and End Date): [*mm/dd/yy*][*5/1/06*] to [*mm/yy/dd*][*12/31/06*]

FOR STUDENT PROJECTS	
Name of Major Professor/Supervising Faculty: Dr. Frank Hernandez	Signature of Major Professor/Supervising Faculty: [redacted]
Phone: 294-4871	Campus Address: N229B Lagomarcino Hall
Department: ELPS	Email Address: fhernand@iastate.edu
Type of Project: (check all that apply) ☐ Research ☐ Thesis ☒ Dissertation ☐ Class project ☐ Independent Study (490, 590, Honors project) ☐ Other. Please specify:	

KEY PERSONNEL

List all members and relevant experience of the project personnel. This information is intended to inform the committee of the training and background related to the specific procedures that the each person will perform on the project.

NAME & DEGREE(S)	SPECIFIC DUTIES ON PROJECT	TRAINING & EXPERIENCE RELATED TO PROCEDURES PERFORMED, DATE OF TRAINING
Joseph C. DeHart, MS	Sole Researcher	Human Participants Protection Education for Research Teams- National Institutes for Health 1/21/2004 ✓
[redacted]		IRB 2/3/06 AS

Add New Row

FUNDING INFORMATION

Internally funded, please provide account number: NA
Externally funded, please provide funding source and account number: NA
Funding is pending please provide OSPA Record ID on GoldSheet: NA
Title on GoldSheet if Different Than Above: NA
Other: *e.g., funding will be applied for later.* NA

SCIENTIFIC REVIEW

Although the assurance committees are not intended to conduct peer review of research proposals, the federal regulations include language such as "consistent with sound research design," "rationale for involving animals or humans" and "scientifically valuable research," which requires that the committees consider in their review the general scientific relevance of a research study. Proposals that do not meet these basic tests are not justifiable and cannot be approved. If an assurance review committee(s) has concerns about the scientific merit of a project and the project was not competitively funded by peer review or was funded by corporate sponsors, the project may be referred to a scientific review committee. The scientific review committee will be ad hoc and will consist of your ISU peers and outside experts as needed. If this situation arises, the PI will be contacted and given the option of agreeing that a consultant may be contacted or withdrawing the proposal from consideration.

☒ Yes ☐ No Has or will this project receive peer review?

If the answer is "yes," please indicate who did or will conduct the review: PhD committee members

If a review was conducted, please indicate the outcome of the review: NA

NOTE: RESPONSE CELLS WILL EXPAND AS YOU TYPE AND PROVIDE SUFFICIENT SPACE FOR YOUR RESPONSE.

COLLECTION OR RECEIPT OF SAMPLES

Will you be: (Please check all the apply.)

☐ Yes ☒ No Receiving samples from outside of ISU? See examples below.
☐ Yes ☒ No Sending samples outside of ISU? See examples below.

Examples include: genetically modified organisms, body fluids, tissue samples, blood samples, pathogens.

If you will be receiving samples from or sending samples outside of ISU, please identify the name of the outside organization(s) and the identity of the samples you will be sending or receiving outside of ISU:

NA

Please note that some samples may require a USDA Animal Plant Health Inspection Service (APHIS) permit, a USPHS Centers for Disease Control and Prevention (CDC) Import Permit for Etiologic Agents, a Registration for Select Agents, High Consequence Livestock Pathogens and Toxins or Listed Plant Pathogens, or a Material Transfer Agreement (MTA) (http://www.ehs.iastate.edu/bs/shipping.htm).

SECTION II: APPLICATION FOR INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

☐ Yes ☒ No Does this project involve human research participants? If the answer "no" is checked, you will automatically moves to a question regarding the involvement of radiation producing devices in your project.

SECTION III: ENVIRONMENTAL HEALTH AND SAFETY INFORMATION (EH&S)

☐ Yes ☒ No Does this project involve laboratory chemicals, human cell lines or tissue culture (primary OR immortalized), or human blood components, body fluid or tissues? If the answer is "no" is checked you will automatically move to a question regarding the involvement of human research participants in your project.

ASSURANCE

- I certify that the information provided in this application is complete and accurate and consistent with any proposal(s) submitted to external funding agencies.
- I agree to provide proper surveillance of this project to ensure that the rights and welfare of the human subject or welfare of animal subjects are protected. I will report any problems to the appropriate assurance review committee(s).
- I agree that I will not begin this project until receipt of official approval from all appropriate committee(s).
- I agree that modifications to the originally approved project will not take place without prior review and approval by the appropriate committee(s), and that all activities will be performed in accordance with all applicable federal, state, local and Iowa State University policies.

CONFLICT OF INTEREST

A conflict of interest can be defined as a set of conditions in which an investigator's or key personnel's judgment regarding a project (including human or animal subject welfare, integrity of the research) may be influenced by a secondary interest (e.g., the proposed project and/or a relationship with the sponsor). ISU's Conflict of Interest Policy requires that investigators and key personnel disclose any significant financial interests or relationships that may present an actual or potential conflict of interest. By signing this form below, you are certifying that all members of the research team, including yourself, have read and understand ISU's Conflict of Interest policy as addressed by the ISU Faculty Handbook (http://www.provost.iastate.edu/faculty .) and have made all required disclosures.

☐ Yes ☒ No Do you or any member of your research team have an actual or potential conflict of interest?
☐ Yes ☐ No If yes, have the appropriate disclosure form(s) been completed?

SIGNATURES

[redacted] 6/2/06
Signature of Principal Investigator Date

[redacted] 6.2.06
Signature of Department Chair Date

PLEASE NOTE: Any changes to an approved protocol must be submitted to the appropriate committee(s) before the changes may be implemented.

Please proceed to SECTION II.

SECTION II: IRB SECTION - STUDY SPECIFIC INFORMATION

STUDY OBJECTIVES

Briefly explain in **language understandable to a layperson** the specific aim(s) of the study.

This dissertation study uses existing data collected during the reasearcher's Capstone experience (ISU IRB ID# 04-097) to examine the relationship between the existence of school wide opportunities for students participation in the organization, operation and governence and dropout rate in alternative high schools/programs in Iowa.

BENEFIT

Explain in **language understandable to a layperson** how the information gained in this study will benefit participants or the advancement of knowledge, and/or serve the good of society.

This study will identify "best practices" of alternative education in the state having the most positive affect on student dropout rate so they can be shared with all alternative schools and programs in the state. This study also identifies practices in alternative education that migh assist traditional high schools in better meeting the needs of at-risk students.

PART A: PROJECT INVOLVEMENT

1) ☐ Yes ☒ No Is this project part of a Training, Center, Program Project Grant?
Director Name: Overall IRB ID:

2) ☐ Yes ☒ No Is the purpose of this project to develop survey instruments?

3) ☐ Yes ☒ No Does this project involve an investigational new drug (IND)? Number:

4) ☐ Yes ☒ No Does this project involve an investigational device exemption (IDE)? Number:

5) ☒ Yes ☐ No Does this project involve existing data or records?

6) ☐ Yes ☒ No Does this project involve secondary analysis?

7) ☐ Yes ☒ No Does this project involve pathology or diagnostic specimens?

8) ☒ Yes ☐ No Does this project require approval from another institution? Please attach letters of approval.

9) ☐ Yes ☒ No Does this project involve DEXA/CT scans or X-rays?

PART B: MEDICAL HEALTH INFORMATION OR RECORDS

1) ☐ Yes ☒ No Does your project require the use of a health care provider's records concerning past, present, or future physical, dental, or mental health information about a subject? The Health Insurance Portability and Accountability Act established the conditions under which protected health information may be used or disclosed for research purposes. If your project will involve the use of any past or present clinical information about someone, or if you will add clinical information to someone's treatment record (electronic or paper) during the study you must complete and submit the Application for Use of Protected Health Information.

PART C: ANTICIPATED ENROLLMENT

Estimated number of subjects *contacted* to reach required enrollment: NA	
Number of subjects to be enrolled in the study Total: Males: Females:	
Check if any enrolled subjects are: ☐ Minors (Under 18) Age Range of Minors: ☐ Pregnant Women/Fetuses ☐ Cognitively Impaired ☐ Prisoners	Check below if this project involves either: ☐ Adults, non-students ☐ Minor ISU students ☐ ISU students 18 and older ☐ Other (explain)
List estimated percent of the anticipated enrollment that will be minorities *if known*:	
American Indian:	Alaskan Native:
Asian or Pacific Islander:	Black or African American:
Latino or Hispanic:	

PART D: SUBJECT SELECTION

Please use additional space as necessary to adequately answer each question.

11. Explain the procedures for selecting subjects including any inclusion/exclusion criteria (*i.e., Where will the names come from? Will a sample be purchased, will ads, fliers, word of mouth, email list, etc. be used?).*

    NA

12. Attach a copy of any recruitment telephone scripts or materials such as ad, fliers, e-mail messages, etc. Recruitment material must include a statement of the voluntary and confidential nature of the research. Do not include the amount of compensation, (e.g., compensation available).

Note: Please answer each question. If the question does not pertain to this study, please type not applicable (N/A).

PART E: RESEARCH PLAN

Include sufficient detail for IRB review of this project independent of the grant, protocol, or other documents.

13. Describe the flow of events used in this research protocol. Include information from the first contact with the volunteers to the end of the study. Use a diagram or flow chart if appropriate. Also, include a description of the study procedures or tasks that participants will be exposed to or asked to complete. This information is intended to inform the committee of the procedures used in the study and their potential risk. Please do not respond with "see attached" or "not applicable."

    This project uses data existing data that was collected in accordance with ISU IRB requirements ID# 04-097

14. For studies involving pathology/diagnostic specimens, indicate whether specimens will be collected prospectively and/or already exist "on the shelf" at the time of submission of this review form. If prospective, describe specimen procurement procedures; indicate whether any additional medical information about the subject is being gathered, and whether specimens are linked at any time by code number to the subject's identity. If this question is not applicable, please type N/A in the response cell.

    NA

15. For studies involving deception, please justify the deception and indicate the debriefing procedure, including the timing and information to be presented to subjects. If this question is not applicable, please type N/A in the response cell.

NA

PART F: CONSENT PROCESS

16. Describe the consent process for participants who are age 18 and older. *If the consent process does not include documented consent, a waiver of documentation of consent must be requested.*

This project uses data existing data that was collected in accordance with ISU IRB requirements ID# 04-097

17. If your study involves minors, please explain how parental consent will be obtained prior to enrollment of the minor(s).

This project uses data existing data that was collected in accordance with ISU IRB requirements ID# 04-097

18. Please explain how assent will be obtained from minors (younger than 18 years of age), prior to their enrollment. Also, please explain if the assent process will be documented (*e.g., a simplified version of the consent form, combined with the parental informed consent document).* According to the federal regulations assent "…means a child's affirmative agreement to participate in research. Mere failure to object should not, absent affirmative agreement, be construed as assent."

This project uses data existing data that was collected in accordance with ISU IRB requirements ID# 04-097

PART G: DATA ANALYSIS

19. Describe how the data will be analyzed (*e.g. statistical methodology, statistical evaluation, statistical measures used to evaluate results*)

This study will utilized a factorial ANOVA to discern difference between the independent variables (students opportunities for participation) and the dependent variable (dropout rate).

20. If applicable, please indicate the anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:

NA Month/Day/Year

PART H: BENEFITS

21. Describe the benefit to the volunteer from participating in this study, *if any,* and the benefit to society that will be gained from the study. Please note that monetary compensation is not considered a benefit.

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PART I: RISKS

The concept of risk goes beyond physical risk and includes risks to subjects' dignity and self-respect as well as psychological, emotional, legal, social or financial risk.

22. ☐ Yes ☒ No Is the ***probability*** of the harm or discomfort anticipated in the proposed research greater than that encountered ordinarily in daily life or during the performance of routine physical or psychological examinations or tests?

23. ☐ Yes ☒ No Is the ***magnitude*** of the harm or discomfort greater than that encountered ordinarily in daily life, or during the performance of routine physical or psychological examinations or tests?

24. Describe any risks or discomforts to the subjects and how they will be minimized and precautions taken. Do ***not*** respond with N/A. If you believe that there will not be risk or discomfort to subjects you must explain why.

There are no risks since existing data will be used and has previously been reviewed (IRD ID# 06-097)

25. If this study involves vulnerable populations, including minors, pregnant women, prisoners, educationally or economically disadvantaged, what additional protections will be provided to minimize risks?

This project uses data existing data that was collected in accordance with ISU IRB requirements ID# 04-097

PART J: COMPENSATION

26. ☐ Yes ☒ No Will subjects receive compensation for their participation? If yes, please explain.

Do not make the payment an inducement, only a compensation for expenses and inconvenience. If a person is to receive money or another token of appreciation for their participation, explain when it will be given and any conditions of full or partial payment. (E.g., volunteers will receive $5.00 for each of the five visits in the study or a total of $25.00 if he/she completes the study. If a participant withdraws from participation, they will receive $5.00 for each of the visits completed.) It is considered undue influence to make completion of the study the basis for compensation.

NA

PART K: CONFIDENTIALITY

27. Describe below the methods that will be used to ensure the confidentiality of data obtained. For example,, who has access to the data, where the data will be stored, security measures for web-based surveys and computer storage, how long data (specimens) will be retained, etc.)

Data is stored and is managed by the Iowa Association for Alternative Education

PART L: REGISTRY PROJECTS

To be considered a registry: (1) the individuals must have a common condition or demonstrate common responses to questions; (2) the individuals in the registry might be contacted in the future; and (3) the names/data of the individuals in the registry might be used by investigators other than the one maintaining the registry.

☐ Yes ☒ No Does this project establish a registry?

If "yes," please provide the registry name below.

NA

Checklist for Attachments

The following are attached (please check ones that are applicable):

☐ A copy of the informed consent document **OR** ☐ Letter of introduction to subjects containing the elements of consent
☐ A copy of the assent form if minors will be enrolled
☒ Letter of approval from cooperating organizations or institutions allowing you to conduct research at their facility
☐ Data-gathering instruments (including surveys)
☐ Recruitment fliers, phone scripts, or any other documents or materials the subjects will see

Two sets of materials should be submitted for each project – the original signed copy of the application form and one copy and two sets of accompanying materials. **Federal regulations require that one copy of the grant application or proposal be submitted for comparison with the application for approval.**

FOR IRB USE ONLY:

Initial action by the Institutional Review Board (IRB):

☒ Project approved. Date: _____
☐ Pending further review. Date: _____
☐ Project not approved. Date: _____

Follow-up action by the IRB:

[redacted] _____ 6/30/06 _____

IRB Approval Signature Date

SECTION III: ENVIRONMENTAL HEALTH AND SAFETY INFORMATION

☐ Yes ☒ No Does this project involve human cell or tissue cultures (primary OR immortalized), or human blood components, body fluids or tissues? If the answer is "no", please proceed to SECTION III: APPLICATION FOR IRB APPROVAL. If the answer is "yes," please proceed to Part A: Human Cell Lines.

PART A: HUMAN CELL LINES

☐ Yes ☒ No Does this project involve human cell or tissue cultures (primary OR immortalized cell lines/strains) that have been documented to be free of bloodborne pathogens? If the answer is "yes," please attach copies of the documentation. If the answer is "no," please answer question 1 below.

1) Please list the specific cell lines/strains to be used, their source and description of use.

CELL LINE	SOURCE	DESCRIPTION OF USE

Iowa Association of Alternative Education
Board of Directors
Greg McCullough, President

May 3, 2006

Mr. Joseph C. DeHart
Executive Director of Planning and Research
Des Moines Area Community College
Borgen Administration Center
2006 S. Ankeny Blvd.
Ankeny, IA 50021

Dear Mr. DeHart,

As President of the Iowa Association of Alternative Education (IAAE) for the 2006-2007 school year, I am writing this letter in full support of your use of existing IAAE data to examine the effect that allowing student input into the organization, operation and governance of alternative schools and programs has on school dropout rates.

I believe this study will be very interesting and expect you to write a summary article for the IAAE journal. I appreciate your assurances that no school or program will be identified individually.

If you or anyone from Iowa State have any questions regarding the IAAE's endorsement of this project, please contact me at (515) 965-7003.

Sincerely,

[redacted]

Greg McCullough
President
Iowa Association of Alternative Education

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