ROLES AND PERCEPTIONS OF FIVE STAKEHOLDER GROUPS IN A HIGH SCHOOL PROGRAM THAT EXEMPLIFIED SECOND-ORDER CHANGE

by

OliveAnn Davis Slotta

B.A., Hiram College, 1963

M.A., University of Colorado, 1992

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Slotta, OliveAnn (Ph.D., Educational Leadership and Innovation)

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Dissertation directed by Associate Professor Lyn Taylor

ABSTRACT

This dissertation provides a historical, descriptive case study of a successful high school reform program. The intent of this study is to illustrate by example what has been described by Michael Fullan (1991) and others (Cuban, 1988; Elmore, 1988; Sarason, 1990) as second-order, transformational change and to carefully assess the roles played in one such program. The actions, attitudes, relationships and ideas of these five stakeholder groups were examined: students, participating parents, teachers, building administrators, and advisors. Emphasis is given to the different perceptions that characterize the different groups, and to the elements of the curriculum perceived by each group as being the most significant or useful. Also examined are the planning process of the program and the philosophies and assumptions articulated in its documents of initiation. Coded comments from participant interviews are presented in table format—one table for each of the stakeholder groups and two master tables. Findings include agreements and differences among stakeholders on the role of the other groups as well as key aspects of the curriculum process used.
Such an extensive characterization of the reform process will inform future curriculum and program design efforts. Ultimately, the purpose of this dissertation study is to understand why some efforts at school reform fail while others do not.

This abstract accurately represents the content of the candidate's thesis. I recommend its publication.

Signed Lyn Taylor

Lyn Taylor
DEDICATION

To Emily Anne Gilmore Slotta, my first grandchild, who was born during the writing of this document, in the hope that her generation of American children will have the opportunity to learn within the context of a peaceful planet.
ACKNOWLEDGMENTS

This work represents the cumulative learning of 30 years of professional experiences: experience as a high school mathematics teacher in a traditional urban high school in the 60s, experience working as a full-time volunteer with a social agency and its practical processes of educational transformation, and experience working with a teaching team to design and implement one comprehensive program of urban high school reform. Additionally and fortunately, these professional experiences happened in tandem with the reality grounding of parenting.

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CHAPTER 1
INTRODUCTION

This dissertation provides a historical, descriptive case study of a successful high school reform program. The intent of this study is to illustrate by example what has been described by Michael Fullan (1991) and others (Cuban, 1988; Elmore, 1988; Sarason, 1990) as second-order, transformational change and to carefully assess the roles played in one such program. I examine the actions, attitudes, relationships and ideas of five stakeholder groups: students, participating parents, teachers, building administrators, and advisors. Emphasis is given to the different perceptions that characterize the different groups, and to the elements of the curriculum perceived by each group as being the most significant or useful. I also examine the planning process of the program and the philosophies and assumptions articulated in its documents of initiation. Such an extensive characterization of the reform process will inform future curriculum and program design efforts as well as implementation. Ultimately, the purpose of this dissertation is to understand why some efforts at school reform fail while others do not.

The program under study was designed in 1986 to rescue at-risk high school juniors and seniors who were failing in traditional school settings, but succeeding in the more intense, hands-on approach of this career magnet school. The site was the
Fred N. Thomas Career Education Center1 (CEC) in the Denver Public Schools (DPS).

As one of the four original teachers who worked with advisors to design the program, I maintained the documentation of the participants’ demographics as well as the instructional processes and their effects. When the teacher in that position retired in 1988, I became the team leader, remaining with the program throughout its nine-year duration (1986 to 1995). Nearly seven hundred students were enrolled during that period of time. The curriculum was problem-oriented, community-situated and project-based. The program became known district-wide as CEC’s Academic Program and received national recognition in 1991 through the Disney Company’s American Teacher Awards.

The following, more specific questions framed my work: a) How do the five stakeholder groups, or “doers of educational change” (Fullan, 1991) describe their own and the others' roles in second-order change? b) Are any identified agreements or differences in perspective significant to future reform applications? c) How do the stakeholder groups recall and describe the problem-posing project that was the curriculum centerpiece? and d) How were the intentional processes used in planning both the initial program and its ongoing curriculum design related to its success?

First and Second Order Change

In his 1991 book, The New Meaning of Educational Change, Michael Fullan states that "sustained action over a number of years will be required if teachers are to

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1 The Fred N. Thomas Career Education Center was dedicated in Denver in 1976 as a magnet school where students from all ten high schools would explore career interests and learn technical and vocational skills.
work together in joint planning and adapting of teaching strategies to effect transformational change" (p. xiii). He cites Sarason (1990) in delineating change efforts into two types: first-order and second-order. By this definition, first order changes are those that set out to improve efficiency and effectiveness in present approaches. First-order changes "can be legislated and spell out objectives and competencies" (p. 287). Historical examples of such first-order reforms are the junior high school, intended to prevent underachieving pupils from dropping out, and the mainstreaming of disabled children, intended to encourage children with physical, mental and emotional disabilities to feel more a part of their school society. In each of these examples, a solution was adopted in response to a particular need; in each case, visible changes occurred in schools and districts as these programs were implemented, though new problems soon emerged as the systems reacted to the remedy.

Second-order changes are defined as those that set out to alter the fundamental ways of doing things. Fullan defines such transformational change as "changes which seek to alter the fundamental ways in which organizations are put together, including new goals, structures, and roles." Second-order changes require the altering of "the patterns and practices of individuals" (p. 287). In a later work, Fullan (1993) explains the difficulties of implementing second-order change and cautions that such efforts usually fail.

Examples of Second Order Change

This concept of transformational change is hardly new. Reformers of the Progressive Era in the early part of this century sought to remodel schooling to deal with the growth of industrialization, crime, and massive immigration (Tyack &
Cuban, 1995). John Dewey advocated for change in the fundamental ways of doing things (second-order change) when he suggested that schools must set up conditions that arouse and guide students' curiosity rather than hushing them up when they asked questions (Dewey, 1933).

Another example of such second-order "change agentry" is found in the work of The Institute of Cultural Affairs\(^2\) (ICA). The ICA began its work with image identification and analysis in the early 1960s in order to occasion radical change in how people viewed themselves and their neighborhoods. ICA researchers applied Kenneth Boulding's image-change concepts to meet community development needs in line with the organization's stated mission (Griffith 1992). Eventually this focus on changing images in order to effect change in a broad context became institutionalized within the ICA as "Imaginal Education." For example, in a West side Chicago neighborhood project known as Fifth City, image analysis led staff from the ICA's precursor organization, the Ecumenical Institute, to conclude that the most debilitating image operative at that time was that of the black male self-image. Influenced by welfare practices and ghetto-like environments, male family members experienced uselessness and hopelessness. The staff of about fifteen people spent three years studying the issues before creating new community programs. When the new programs were started, one of the tactics used by the research team was the crafting of a small iron statue termed "The Iron Man" based on Old Testament poetry from the prophet Jeremiah. This small, black iron symbol was carried by volunteers walking

\(^2\) The Institute of Cultural Affairs (ICA) is a private, not-for-profit organization whose mission is research, training, and demonstration of participatory methods. The ICA's curriculum work articulates both measurable and existential objectives and intends for each student, empowered mental models. The agency's Imaginal Education work was substantially influenced by Boulding, Bruner, Montessori, and Piaget.
the blocks within the boundaries of *Fifth City* and the narrative of the resilient Iron Man was retold many times. Results were observed and documented; new community economic and political leadership emerged over the next few years, which was widely thought to be a result of this and related efforts. This story serves to illustrate both the complexity of second-order change and the role that image strategy played in this particular implementation.

The educational component of this comprehensive effort eventually was replicated in a global network of preschools in primarily Third World environments (Cooperrider & Srivastva, 1987; Institute of Cultural Affairs, 1976).

**Systemic Approach to Studying Second-Order Change**

The progressive reformers who were affiliated with the Fifth City Project, and their strategies toward fundamental, second-order change provide a historical link to current change debates and to this study of one such episode. Fullan (1991) suggests that discussions about implementing successful transformational change should focus on the "work" of the "doers": what is required to achieve such change by the teachers, the principals, the students, the district administrators, the consultants, the parents, and the community. Fullan devotes a chapter to each of these groups. It is this query that drives the present study of CEC's *Academic Program*—What did each stakeholder group in the school community do, and how were their actions perceived by the others?

Fullan's is a systemic approach that is consistent with that of Gregory Bateson. Bateson (1972), purports that it is futile to work only on parts of a system when change is intended, since the system always functions to conserve itself.
Further, when something new is introduced into a complex system, the system is
disturbed and seeks to self-correct.

The results of the present study are discussed both in terms of Fullan's
definition of second-order change and such assumptions of a systemic understanding.
This research discusses the impact of embedding a community-oriented project within
the curriculum and social fabric of the school itself. To date there has been no such
comprehensive study of the "system" as it was involved in a successful education
reform episode.

Historical and Social Context of This Study

Change where it counts most--in the daily interactions of teachers and
students--is the hardest to achieve, and the most important.

(Tyack & Cuban, 1995, p. 10)

Schools, as social institutions, do change in response to changes in the larger
society. For example, during this century the number of persons in the 5-19 age range
who are enrolled in school has shifted from 50% in 1900 to 90% in 1995 (Tyack &
Cuban, 1995). Schools change in response to new technologies, to new employment
demands, and to new understandings of human cognitive development. In the past
three decades, great efforts have been made to change our schools and their programs
in response to actual and anticipated social and economic mandates. We have gained
some clarity about the nature of successful reform, but are still striving for definitive
knowledge. Meanwhile, the needs of the students have escalated, partly as a result of
this very climate of change. The following two arenas of concern--school reform and
the state of our youth-- catalyzed the inception of the *Academic Program* and provide a historical context to the present study.

**The State of School Reform--Concerns About Standards**

While the political and social climate in the United States is ripe for educational reform, we cannot yet generalize about the ideal school community that we should be moving toward nor to what one model should prevail. The decade of the 1980s witnessed an explosion in public awareness regarding the need for education reform. In 1984, two books--John Goodlad's *A Place Called School* and Theodore Sizer's *Horace's Compromise*--reached best-seller lists and provided Americans of all social strata the opportunity to view the classrooms of their childhood memories from an adult/leadership perspective. In the 1990s, the nation's attention to education has increased even more. The annual Bracey reports (Bracey, 1997) published by Phi Delta Kappan, (1990-1998) critique the crisis-orientation of the media and provide a more objective review of student achievement data. Education issues have become the focus of political elections as well as the frequent subject of conversations in coffee shops and on talk shows.

Reformers today do not share the same goals about our schools and students. The standards movement, which began in specific discipline areas in the 1980s, is the driving force behind most reform efforts today. Standards advocates would have us believe that if the learning objectives are rigorous enough, the schools will be renewed and students will succeed at their next level of instruction. Others are troubled by the "impersonality" of this approach and advocate for a person-centered approach, or a "humane framework for the kinds of education required in a technological society"
(Greene 1988). Sadly, it seems easier for particular constituencies to reach agreement about the standards in a specific discipline area, than for the community of education reformers to agree about how we might arrive at excellence and who we want our students to become.

The State of the Nation's Youth--Malaise of Meaning

Urban youth. Chaos from the greater society always affects the well-being of our young. For example, teachers today cannot assume that students' general health and welfare needs are met before they enter the classroom. This is especially true in urban school districts. Thirty percent of our nation's urban children lived in poverty in 1990; 23% had neighborhood clinics as their only source of health care; 46% had changed schools more than once since first grade; and only 68% resided in a two-parent family (National Center for Educational Statistics, 1996). Many related physical and psychological spin-offs of these conditions--such as short attention spans, poor nutrition, and lack of motivation--affect the classrooms daily, influencing the learning of all the students there (Maeroff, 1998). In Colorado, the percentage of children living in poverty rose from 11.5% in 1979 to 15% in 1989, an increase of 30.4%. Rates among minority and urban groups were much higher, triple those cited above (The Denver Post, 1992, p. 3A).

General Malaise Among Youth

Due to substantive changes in the larger society, "typical" youth activities like proms, football games, marching bands, and pep rallies have lost their adolescent following, resulting in a void of meaning and fun, and fostering within our youth a
general sense of confusion and malaise. During the industrial era, a spirit of competition had been the assumed mode of operation in all social strata. Today, gang activities and fear of violence may prevent or minimize large student gatherings beyond the regular school day. Once, military enlistment held out to our young people both a noble cause and a viable career option. Now, an anti-military, post-"M.A.S.H." (Movie and TV series) consciousness and a balanced-federal-budget mindset have converged to minimize this vocational pathway. Today's high school students exist in a present that lacks enthusiasm, eventfulness, and a positive vision of the future.

Programs Intended As Solutions Oblivious to Comprehensive Student Needs

Reform efforts responding to the needs recognized as growing out of these circumstances include some impressive and ambitious efforts:

• Professional associations such as the National Council of Teachers of Mathematics (NCTM) took aggressive measures to study and reform their own disciplines, and by the end of the 1980s NCTM's Curriculum and Evaluation Standards for School Mathematics was published (NCTM, 1989).

• In 1987, The National Board for Professional Teaching Standards (NBPTS) was established. It has formulated a volunteerism-based strategy for credentialing master teachers nationwide (NBPTS, 1994).

• In 1989, President Bush announced a set of eight new national education goals to be met by the year 2000. They included the goals to be first in the world in math and science; to have all children start school ready to learn; to increase high school graduation rates to at least 90%; and to have students leave designated grades
with demonstrated competencies in challenging subject matter (Goals 2000: Educate America Act).

- In 1992, President Clinton reaffirmed "Education 2000." They were adopted into law in 1994 as "Goals 2000: Educate America Act."

- In 1993, the Colorado legislature passed HB 93-1313 which mandated specific subject-by-subject content standards with uniform, correlated assessments to follow. The Colorado Model Content Standards (1995) were written by committees from across the state, in implementation of the bill.

- In 1997, supported by the nations' governors and accompanied by substantial funding, President Clinton again renewed commitment to the Education 2000 goals.

- New, more rigorous educational standards have been adopted in thirty-seven states.

Reform efforts in education have focused primarily on two areas:
1) curriculum, along with its complement, alternative assessment; and 2) teacher quality, as measured by pre-determined norms. Yet as various reform efforts and public debates intensify, it is important to assess the overall understanding of curriculum reform, whether these efforts are truly making helpful progress, and whether we are even asking the right questions.

Some initial critiques have suggested the need for a more deliberate study of the reform process based on points such as the following:

- Implementing the NBPTS plan for teacher certification will be expensive. President Clinton recently asked Congress for $105 million dollars for 1998-2002 operations, designed to put 100,000 teachers into the applicant process
and yield at least 35,000 teachers with National Board Certification over a five
tyear period. The application fee for each teacher or for their district is $1000.

- There are additional costs indirectly, to the students. The substantial time
required by both the volunteer teachers, and by the ambitious teachers who
apply for certification translates directly to time away from lesson planning
and student nurture.

- While standards advocate "high-level substance", the related planning process
begins with content; the "positivist-realist" nature of this approach regarding
what constitutes knowledge ignores the student as inquirer in the process.

- I have observed that virtually all major school reform efforts to date (1998)
seek to commit all educators to one best way of educating all youth. They
suggest uniform, predetermined, objectified, measurable, and discrete content
and outcomes.

- Finally, we must be cautious not to think of school "reform" as a matter of
tuning up the existing system. Improving student scores on national
standardized tests is often viewed as the end to which all means should be
directed. True reform will move beyond test scores and benchmarks to a
totally new understanding of what it means to educate our nation's children--
reform defined as "second-order change" (Fullan 1991).

These two stated areas of concern--the state of standards-driven school
reform, the state of youth in the midst of turmoil--affirm the need for
transformational, second-order change. The situation suggests that high schools
should include, in addition to the usual mastery of technical and academic skills and
knowledge, novel structures that can meet the needs of all students for meaning and
well-being, supported by an inclusive and interrelated approach to the curriculum. Schools are complex systems made up of people, curriculum, and all of the realities present in the larger society. Accordingly, educational change is complex. It "cycles and evolves" as professionals "tinker with and alter the hypotheses into hybrids" (Tyack & Cuban, 1995, p. 60). Tyack, Cuban, Fullan, and others concerned with lasting change focus on the educational constituencies. They discuss and analyze the stakeholder groups, the curriculum, and the various milieus, separately. In contrast, the present case study seeks to carefully explore the interrelations among all of the various constituencies and curriculum components found in one episode of school reform.

A Case Study of the Academic Program in the Denver Public Schools

The Academic Program at CEC was planned in response to the needs of urban high school students of the 80s and 90s, according to such an interactive and interrelated approach. It was implemented by four master academic teachers as a pilot program in the fall of 1986. During the spring 1986 semester, prior to the adoption of the image-based planning approach, all of the CEC teachers and administrators worked to identify the academic knowledge required for success in each of the career classes. The task of "covering" such a skill-based curriculum was eventually deemed impossible and the more student-centered, community-oriented, project-approach was then born. When this was recognized, CEC students were included in the curriculum planning through a workshop entitled "The Essential Elements of the Academic Program" (see Appendix A). This process-approach to the curriculum design became its hallmark; custom-made planning materials were developed and consistently used.
The program continued as a pilot, being evaluated and modified each semester for the next three years. In 1989, the *Academic Program* model became a formal DPS program and functioned as such for the following six years. Due to school and district reorganization, the program was closed down in January of 1995; at that time, however, it entered a replication phase with major components being adapted for use in other locations, district-wide. The following factors may have contributed to the *Academic Program*’s closure at CEC: 1) The high student energy level that was generated by the project’s learning activities was viewed as disruptive by some school personnel; 2) All three of the school’s principals, including the two who helped conceptualize the program in 1986, left for a different reason in June of 1994. The new principal was less than supportive of the program, and with no advanced notice to parents, teachers, or students— including graduating seniors— announced its immediate termination in January of 1995; 3) There was no official commitment to the *Academic Program* beyond the school site.

An academic program with a more traditional instructional approach was reinstated at the school in the fall of 1995 and, at the time of this writing, school administrators are working to again re-define important curriculum components, making them more interactive. However, there is no evidence of efforts to understand the original *Academic Program* curriculum— its comprehensive learning intents or unique planning processes.
Non-Traditional Features of the Academic Program

An examination of Academic Program artifacts indicates that this program differed from that of a traditional high school in these significant ways (see "Three Systems of Learning Chart" in Appendix A):

• Curriculum presentation format. Traditional high schools generally present curriculum in "Carnegie Units" delivered in forty-five minute periods and using a district scope-and-sequence format. Such a stringent plan is often a disincentive to individual student learning motivation (Carroll, 1994). In contrast, the Academic Program used time creatively and flexibly in periods never less than one hour long.

• Student involvement. Traditional high schools offer "extracurricular" activities designed to provide social skills and student leadership opportunities. Some choose to join clubs or do volunteer work within the high school setting. Certain students--generally those already possessing good social skills--are selected by teachers and peers for a finite number of leadership positions. Sadly, the majority of young people are not included in many of these interesting and formative activities. Students with family-support responsibilities, with part- or full-time jobs, with low motivation, or with debilitating self-images, generally "fall though the cracks." In contrast, the Academic Program was designed to include all students at all levels. It was designed with "academically disinclined" 11th and 12th grade students in mind and required them all to investigate project issues and share responsibilities.

• Focus on student uniquenesses. In most high schools, individual potential is seldom challenged and students' overall learning is rarely a category for
analysis or evaluation (Tyack & Cuban, 1995). Many students' talents and potential are consequently lost to the school community as well as to society. In contrast, the Academic Program implemented an academically rigorous and non-traditional approach to high school instruction, focusing on each individual's unique profile of learning strengths and relative weaknesses.

- **A team approach to planning and assessment.** The four teachers planned all curricula and provided all academic instruction. A teacher team leader provided coordination with the larger magnet school. Although each individual teacher had established grading policies, the interactive curriculum components—orientation and the selected project—were assessed by rubrics and portfolios. Students evaluated their project teammates (see Appendix B) on project work. Teachers were provided two additional hours of common planning time each week, making possible the ongoing, interdisciplinary curriculum design. Assessment of individual student progress and any needed adaptation of the curriculum plans to assure maximum interest and effectiveness occurred during that time.

- **Multiple forms of assessment.** Students participated in a team-based and self-assessment format for all project work (one class period per day), and an end-of-semester portfolio featured sections for learning achievements from all aspects of the CEC program. Academic teachers selected their own method for their other two classes. Course syllabi with clear expectations for grades and levels of achievement was sent home prior to each new semester.
Foundations and Assumptions of the Program

The mental image as fundamental to learning behavior. The model for the Academic Program was initially inspired by Kenneth Boulding, educator and economist. His theoretical treatise, The Image, (1956) states that a) much of human beings’ thinking and behavior is based on their mental images; b) verbal, visual, or experiential messages form the images; and c) images affect behavior, which offers clues to the images. Finally, the images can be changed by strategic messages. Teachers and planners in the CEC program also later at various times studied the work of Peter Senge (1990) who presents a similar cognitive account, but uses the terminology of “mental models” and “actions” where Boulding uses "images" and "behavior". Senge's work reinforced and enhanced this understanding of the relationship between the students' images and their learning behavior.

Curriculum design based on image theory. The strategy of connecting curriculum to students' mental models or images was foundational in the design of the Academic Program. The curriculum was created by the Academic Program teachers and administrators with the assistance of two consultants from the Institute of Cultural Affairs (ICA) during the summer of 1986. The model was further significantly influenced by two conference events which took place at about this same time: a) the July 1986 Teachers’ Institute at Spelman College in Atlanta, Georgia, an event that was sponsored by the Imaginal Education Program of the ICA and involved an international group of master teachers; and b) the June 1987 Education Summit at George Mason University in Fairfax, Virginia, an event that was co-sponsored by the ICA, New Horizons for Learning, a Seattle-based education think-tank, and others. Among the featured speakers at this gathering of prestigious political and education
leaders were Robert Aldrich, Barbara Clark, Reuven Feuerstein, Howard Gardner, Malcolm Knowles, David Perkins, and Edward Zigler. Information presented by these edge thinkers in their areas of research was shared with all of the teachers and consultants who were working with the *Academic Program* during its pilot phase.

**Curriculum Design Included Intended Student Experiences**

In addition to naming an image change or image to be shaped by each major curriculum component, *Academic Program* teachers also identified what they wanted these high school students to *experience* in these components (see Appendix C). This facet of the planning process served a "how-to" function in the learning plans, and encouraged comprehensiveness and creativity in teacher planning. It was always an intent of the program that students experienced success in academic achievement, positive personal interactions, and significant involvement in group decision-making.

**Specific Agreements and Assumptions.** The following agreements and assumptions guided the early planning of the *Academic Program*. Together the nine items represent a foundational belief that the experience of each separate part of a learning community is significant and that each affects the experience of each of the other parts as well as that of the whole (see Appendix A).

1. The students--their interests and needs--are the center or focus of the educational process.

2. Time is set at the present, i.e., while teachers planned somewhat with the nature of their students' future workplace in mind, learning activities were always delivered within the context of the present.

3. Work is presented as the pathway to life fulfillment.
4. All students are valued equally (in contrast to the common school practice of prioritizing the students from bad to good).

5. Teachers' time and students' time are considered to be of equal value.

6. Grades are used as symbols representing student achievement, to maintain continuity across the district. However, real-world project victories are the primary motivators and therefore better signs of actual achievement.

7. The interests and skills represented in each particular student body are always included in planning.

8. Teachers model effective teamwork, believing that more and better work can be done by an effective team than by individual efforts.

9. The larger Denver community is used to situate learning, providing an integral source of general information and learning project topics.

Procedural Underpinnings

Image-based curriculum. Curriculum planning for the program began by analyzing probable student images of themselves, their school, and the community, and then describing desirable images in each category. Each of the three semester schedule segments was defined by these desired images/image changes (see Appendix C), and these definitions guided further planning. During the first two weeks of school, student activities delivered messages designed to effect specific changes in student images. Image of self was encouraged to change from an "unsuccessful learner" to a "curious or successful learner," and from "high school kid" to "young adult." Image of school was encouraged to change from "a place to play" to "a place to work," from "a place where passive endurance is rewarded" to "a place where
passive endurance results in failure," and from an "inaccessible, pre-determined program" to "a learning community that requires everyone's participation." *Image of community* was encouraged to change from "a sometimes hostile and closed group of elected officials" to "particular, dedicated people working on special causes."

The mid-semester project targeted different image changes: *Image of self* from "disengaged high school student" to "effective, practical problem-solver"; *Image of school* from "a place where facts are dispensed in classrooms" to "a community resource center where problems are solved"; and *Image of community* from "inaccessible, scattered groups of people in unknown buildings" to "coherent groups of people whose causes need everyone's care". During the portfolio compilation and sharing sessions, these image changes were intended: *Image of self* from "student of facts" to "creator of products"; *Image of school* from "dispenser of rewards in segmented grades" to "acknowledger of learning accomplishments"; and *Image of Community* from "a place where luck is needed to succeed" to "a world in which the future is accessible" and "a source of resume recognition." Planning curriculum using this approach takes into account all of the ways messages are given and received including verbal, visual, and experiential (p. 14). Comprehensive planning processes were followed at each level, defining desired student images, measurable learning objectives, and experiential aims (see Appendix C).

**The project approach.** The project approach adopted by the *Academic Program* is of special interest due to its motivational nature and capacity to involve all stakeholders. It was the primary strategy to address the students' negative images of the community and school. While many educators would agree that a project-based curriculum provides a good way for students to learn (Valdes, 1998), research on the
topic has been situated mainly in the domains of science and social studies. The Academic Program employed curriculum projects that connected the four disciplines of English, math, science, and social studies, specifically to the 32 career classes offered at CEC at that time. These projects involved both students and teachers in problem-posing and problem-solving.

Key in framing the project was the semester schedule of learning-related events, designed with this rhythm: project topic, academic concepts, student research on the project, and synthesis activities. Before the beginning of each term, the teachers (with administrator consultation) selected a high-media-profile, issue-oriented topic that provided a real-world connection for academic studies and problem-solving, project-based applications. Teachers and administrators building-wide were encouraged to suggest possible project themes with interesting learning extensions, making for a highly creative and lively process. The topic was eventually consensed upon by the academic teaching team during an all day planning meeting that was held at least one month prior to the beginning of the next term.

The first two weeks of each semester were devoted to assessing the profile of learning uniqueness and the personal strengths or gifts of each student. At this time, a career exploration pathway was identified for each student.

Next, guest speakers from the community who had in-depth knowledge about the project topic frequently provided first-hand information and field trips were scheduled as appropriate. All learning activities were designed to send intentional and positive messages about school (as a place of resources), about the community (as a locus of care and creativity) and about the individual student (as possessing unique gifts and learning preferences).
Mid-semester, students worked in teams for two weeks, first to research the issues and then to make recommendations for a solution to the project challenge (Figure 1.1).

Community agency representatives with whom the student teams had worked, as well as administrators and parents, were invited to attend a final reporting session in which results were shared and a consensus was reached regarding the challenge topic (Figure 1.2) (Snodgrass & Slotta 1992). At the end of the semester, student portfolios included at least one final product from the project team's work. Students wrote evaluative comments summarizing both their own learning and the contributions of their teammates.
Figure 1.1 A team of students researches a project sub-topic.
The Project Approach motivated students to create solutions to problem situations that affected their community and world. In so doing, they applied already-mastered academic and practical skills, eliminating the all-too-familiar question, "When will I ever need to know this?" The process was formally termed "The Project Approach" by ICA consultant David Burns (pseudonym) at its inception.

The project topic frequently became the focus for monthly enrichment activities. Projects usually had a global dimension; they always had a local aspect that could be effectively problem-solved. Samples of project themes were: "Water Conservation on a Desert Plateau"; "Remembering the Rainforests"; "Exploring Another Continent" (Africa); "Drop-out Prevention"; "The Gulf War--Blood for Oil"; "Our Global Neighborhood"; "Destination White House"; "Immigration--Crowded
Shores, Closed Doors”; and “Health Care 2000.” (The curriculum and results of the Fall 1994 project on immigration entitled, “Crowded Shores, Closed Doors,” is found in Appendix B.)

Many of the project topics naturally incorporated a fund-raising component for one of the teams. During the rainforest project, students on one of the teams worked with a local agency, Denver Digs Trees, to obtain and then plant trees along an eroding water canal; students on a different team raised money to adopt an acre of rainforest land in Central America. During the “Summer of Violence” (1993--in Denver) project students learned about the AFSC and other local agencies that teach conflict resolution skills; during the project on Africa, student teams learned about and raised money for the Wildlife Foundation (endangered animal species), the Sierra Club, and UNICEF. These activities all took place during one, one-hour class period for three weeks.

The Project Approach was designed to model and encourage these educational reform practices: teamwork and cooperation, as students experienced the mandate to design common solutions; lifelong learning, as students watched teachers learn about new and current topics; individual motivation, as students struggled to meet real deadlines; connected learning and academic affirmation, as students applied academic skills to real situations; and the rewards of volunteering, as students worked on behalf of the larger community’s needs (Slotta, 1993).

Students. The Academic Program accommodated up to 100 students for up to four semesters. Six hundred eighty-five students participated in the program during its nine year duration. In general, the student body consisted of active learners who had not succeeded at their home high schools. Student mix was representative of the
population of the city of Denver in ethnicity and gender and often contained children of notable Denver area educators. Over 60% of these students worked full- or part-time (Spampanato, Becker & Johnson, 1991). Second-year students were required to provide leadership for small groups and for project teams. They were also encouraged to enroll in community college courses or to schedule career-related internships in tandem with their academic schedules.

**Staff and advisors.** Eight different teachers provided instruction in teams of four per contract year, each representing one of the disciplines of English, math, science, and social studies. One of three building administrators coordinated the staff and oversaw the learning activities. The original teachers were four master teachers, having come to the CEC from positions of leadership in their former school assignments. They were all parents of grown children.

In the fall of 1994, a board of advisors for the *Academic Program* was formed with representation from former students, and from parents, teachers, and administrators, as well as from both university and ICA advisors. One member, the parent of a former student, had also been a member of the DPS school board. This advisory board brought a comprehensive and informed perspective to the program, supported the students' project work, and sought to expand the program's influence within educational networks across the state (see Appendix D).
Success Indicators

The Academic Program at CEC is worth analyzing because it was widely deemed "successful" and it is an example of second-order change. But how can we provide some tangible measure of this success?

The following three criteria are suggested by Tyack and Cuban (1995) as a valid measure of success in educational reform settings: a) Fidelity to original design; b) Effectiveness in meeting pre-set outcomes and c) Longevity (pp. 61-63). Each of these factors was reflected in the success of the Academic Program and will be considered here. In addition, informal reports from students, teachers, and administrators provide testimony to success. Finally, a prior quantitative study of student achievement will be briefly revisited.

Fidelity to original design. While the Academic Program was modified each semester in small yet significant ways (p. 12), the original schedule, intentions, and curriculum designs were never modified (see Appendix A).

Effectiveness in meeting pre-set outcomes. The image-shaping strategies which directed learning activities toward the students' images of self, school, and community, were documented by a quantitative study (Slotta, 1991). This study indicated that students who had participated in the Academic Program exceeded normal expectations of young people in that age group in community involvement, had completed their high school education, and had not received public assistance of any kind. (See Appendix E).

Longevity. The Academic Program enjoyed a nine-year duration, six years past the pilot phase. The fact that this is long for an education innovation is not necessarily an indicator of success, as innovations can change over time and create
new problems within systems. The fact that replication was intended when the program was closed at the Career Education Center is of more significance. District administrators had intended the basic structure and schedule of the program was to be a model for at-risk and alternative programs at other secondary school sites.

Student, teacher, and administrator reports:

• The CEC programs were evaluated each semester for the administrators by the students. Results of these evaluations were always extraordinarily complimentary of this particular program.

• Throughout the program, CEC professionals reported unusually high motivation and achievement from the Academic Program students. Teachers and administrators regularly noted significant, observable changes in the student participants' attitudes.

• The Academic Program was sufficiently recognized and respected to be presented at several conferences, including the Colorado Council of Teachers of Mathematics' (CCTM) annual conference in 1989, and ICA West’s annual meeting in 1992.

• The Project component has been a featured topic of ICA Chicago's Learning Lab3, a two-week summer training program for teacher teams. "The Project" is

3 The Learning Lab is an intensive, two week laboratory developed by The Institute of Cultural Affairs (ICA) Chicago in 1991. It features instruction, demonstration, and practice in image-based curriculum design and delivery. Labs have been sponsored in Chicago by the Golden Apple Program and attended by Golden Apple Scholars and Chicago Public School teachers. In 1996 a Learning Lab was held in San Jose, California; it was co-sponsored by the ICA, a River Alliance of five science magnet schools of San Jose Unified School District, San Jose State University, and Joint Venture (business-education) Silicon Valley. One of the five participating schools--John Muir Middle School--was honored later in 1996 by President Clinton as the site for his education address.
frequently mentioned on teachers' final evaluations as their Learning Lab program highlight.

• Requests for presentations and instruction regarding the Academic Program have come to the CEC from school districts across the country.

• The program received four Public Education Coalition grants and several federal title grants for particular project components (Slotta, 1991).

• Although the program was consensus-based and non-competitive in nature, students regularly received recognition in outside competitions during high school.

• Graduates of the program have succeeded in university work, earning baccalaureate and graduate degrees; others have excelled in post-high school careers. One former student in the Academic Program is now teaching the CEC career class he attended during high school.

While some of the above items are based primarily on casual teacher and school reports and on local contest documents, interview comments from the present qualitative study do support these claims.

Quantitative study of student achievement. In fulfillment of part of a master's degree requirement at the University of Colorado at Denver, I designed and conducted a quantitative study of Academic Program student achievements (Slotta, 1991)(see Appendix E). The inquiry was conducted at the end of the first four years of the CEC Academic Program. In order to determine whether image change had actually occurred, former students were surveyed after leaving high school. The following three facets of intended image formation or change were examined: image of school (measured by school completion), image of community (measured by degree of
political or community involvement), and image of self (measured by degree of economic self-sufficiency).

Results from this earlier study clearly indicated the success of the program. Approximately 87% of the at-risk students who had ever entered the program graduated from high school; an additional 9% had earned their GED. This compares with 78% for the district overall. (No graduation rate for At-Risk Students Only category was available.) Thirty-eight percent were registered voters, as compared with 3% of this same age group in the same county during the same time frame. Over half had attended college or technical school, and 95% were economically self-supporting. (No data for economic self-sufficiency were available for this selected age group.)(Slotta, 1991)

**Summary**

This is not a study about whether change is needed in schools today; rather, it assumes that schools need constant renewal in both content and process so that our students may "learn from the future." Neither does this study seek to recommend one major reform strategy over another; it assumes that teachers and administrators at an educational site will utilize the courses, schedules, and learning events that best meet student learning needs at a local site.

Rather, this is a study about second-order change. It is a study that scrutinizes one local team of *doers*--teachers, administrators, and advisors, together with representative students and their parents--who represent all the stakeholders in a reform process whose aim was to respond to their school community's perceived needs. It is a study that analyzes the comments of those who created this successful reform program and maintained ongoing documentation, buoyed up by its many
victories along the pathway. This study examines artifacts, documents, and personal experiences, and captures the significant attitudes, actions, and thoughts of the stakeholders in this particular reform episode. In short, metaphorically, it is a case study that examines both the actors and their script, plus the producers, the audience, the critics, and the reviewers.

If the journey from reform to transform requires radically altered organization then it must also require intentional model-building and experimentation. Such action research can only happen by including classroom laboratories that try, showcase, and carefully document reform efforts. This study is an analysis of one such program--the Academic Program at Denver's Career Education Center. It expands on the substantial quantitative documentation done after the first three years of the program's implementation (Slotta, 1991).

This study aligns the Academic Program's various features and accomplishments with recent definitions of second-order change. An important premise of both the case and this study is that students, parents, teachers, administrators, and advisors all have unique and important perspectives to contribute. This premise is supported by a second: There are appropriate and important philosophical assumptions and planning approaches that, when incorporated into the curriculum design process, produce meaningful and maximized learning experiences that prepare students for lifelong learning in this, the Information Age.
CHAPTER 2
LITERATURE REVIEW

The stated intent of this historical descriptive case study is to illustrate by example how the stakeholder roles and program elements in one successful high school reform episode were exemplified. Substantive changes such as those in the case, i.e., changes in the patterns and practices of teaching and learning, have been described as second-order change (Cuban, 1988, Fullan, 1991). As the present study examines the roles and expectations of the various stakeholders, it will be helpful to review what the existing research literature has to say about each constituency. Because the present study will focus on relationships between groups, including images of each group held by the others, special interest will be given to any research that explores interactions between two or more constituencies. Because an image-based curriculum design was integral to the study (see Appendix B), it will also be important to review existing literature on the relationship between images and learning. This chapter therefore examines previous research, with specific claims or findings relating to (a) the roles and perceptions of the stakeholders and (b) image-based instruction.
The Stakeholder Roles

Students

The primary theme in the literature regarding the role of the student is engagement. Fullan (1991) has argued that students need to see themselves as having some meaningful role in the classroom, yet more work has focused on student activities than on student images. Much of this research on student activities and learning outcomes has been in the domain of science education. For example, Minstrell (1996) has developed an innovative approach to guiding student learning of physical science through reference to conceptual benchmarks (e.g., Minstrell and Stimpton, 1996). Further, Kuhn (1989, 1993) has suggested that students benefit from instruction that includes scientific reasoning and argumentation. Songer (1993) has offered activities that lead to such scientific inquiry in her "Kids as Global Scientists" project.

Substantially less work has explored students' attitudes, beliefs and goals in the classroom, relating to the present issue of image analysis. The effects of classroom activities on student perspectives and performance has been studied (Stevenson, 1990, Phelan, Davidson, & Cao, 1992, Hojacki & Grover, 1992, Keller-Cogan, 1995, Joyner, 1996). For example, students representing three different achievement levels were interviewed about the nature of classrooms and activities that engaged their interests (Stevenson, 1990). Results of this study suggest that students are not engaged by trivial tasks, but by cognitively-challenging tasks such as interpreting, analyzing, and manipulating information. Phelan, Davidson and Cao (1992) investigated student perspectives on learning and found them to be remarkably similar to those of teachers. By asking questions like, "What is important
to students about schools and classrooms?", these researchers determined that students from all achievement levels and backgrounds want to succeed and understand that it is important to be in an environment that will support their success. Keller-Cogan (1995) investigated student perceptions of instructional and assessment strategies in traditional and alternative settings, but found only that the alternative settings seemed more effective from the student perspective.

Some research has focused on the interactions between students and their peers, as well as the development of technologies to support peer collaboration (e.g., Scardamalia and Bereiter, 1991; Brown and Campione, 1994). This work as a whole suggests that classrooms are best considered as a community of learners. Other researchers have explored the interactions between students and teachers or other constituencies. Lucas (1996) examined the effects of teacher and assistant principal roles on student motivation. This work, together with that of Matthews and Brown (1976, 1988) establishes connections between the influences of these constituencies and student achievement. Boyle (1993) compared the perceptions of student and teacher groups in two schools regarding their classroom climates and use of cognitive strategies. This quantitative study involved over a thousand students and nearly a hundred teachers, and employed diverse measures. Results of the study found that learning is improved in contexts where teachers and their students have similar perspectives on learning. Researchers at the Learning Research and Development Center (LRDC) at the University of Pittsburgh worked in cooperation with the American Federation of Teachers (AFT) to organize the "Thinking Mathematics Project" (Hojacki & Grover, 1992). The study involved sixty-five classes at five schools and monitored student and peer groups against affective and cognitive
changes. Teacher self-reported data showed that teachers who were involved in the program perceived empowering changes in their students in problem-solving abilities and attitudes toward math.

All of these studies point to the primary role of student engagement in the learning process and to the interactive nature of learning activities as key to improvement.

Parents

The parent role is "where the most powerful instrument for improvement resides" (Fullan, 1991, p. 227). Fullan cites studies by Epstein (1988) and Mortimore (1988) that document the importance of parental involvement in general as it affects student achievement. Findings indicate that parents require the school’s assistance to become knowledgeable partners in their children's education. An examination of the literature indicates that the role of the parent in the education literature is generally presented in relationship to other factors or stakeholders. The fact that no known correlation has been found between parental involvement in governance and student achievement (Gibson, 1991) implies that the focus of parental involvement should always be on educational activities if increased student learning is the intended outcome.

Gibson (1991) also looked at how parental involvement affects teacher and administrator attitudes. His findings most relevant to this present study were: a) all parents want to be involved in the education of their children; b) teachers held the primary influence over whether or not parents were productive partners in the school;
and c) parental involvement improves the school's image within the larger community.

**Teachers**

The question of what makes great teachers great is embedded in the culture of many current teacher recognition programs, such as the American Teacher Awards and the Presidential Award for Excellence. The qualities of great teachers are also the subject of many teacher education courses and textbooks. An example of a recent and innovative text that involved teachers in the field in the articulation of successful approaches and philosophical positions is *Becoming a Teacher* (Parkay & Stanford, 1992). In addition to widely publicized programs, professional advocate organizations regularly analyze the state of the teachers and administrators. *Phi Delta Kappan* annually polls teachers on the status of the public schools.

It is widely recognized that teachers perform many functions beyond those of instruction. Research findings agree that teaching is "a never-ending mixture of satisfying and stressful experiences" (Fullan, 1991, p. 123). It is within such a milieu that the art of teaching must necessarily take place. The study of the teacher role and qualities is therefore frequently qualitative. Simmers-Wolpow (1995) explored the life histories of three great teachers who had also been trauma victims, to identify possible ways in which their recovery may inform their pedagogical approaches. More specifically, this study looked for the subtle ways in which these professionals' own despair-to-hope stories may have positively affected their primary instructional message.
The subject of teacher involvement in science and mathematics curriculum reform was the focus of a 1997 longitudinal study (Esterle). As attention in the reform community continues to focus on math and science literacy for all students, this study included observations of staff activities and events in one such program--the California Academy of Math and Science. It became necessary when teacher collaborations were not occurring, to refocus the study onto what was actually blocking the modification of instructional practices.

It is also recognized that the teacher, together with the principal, plays a major role in student motivation and achievement (Lucas, 1996; Hojacki & Grover, 1992; Matthews & Brown, 1976, 1988). Holt & Juraschek (1998) observed a teacher delivering an inquiry lesson to an eighth grade mathematics class, noting the engagement of the students, the culture of the classroom, and the practical activity of the teacher. Their conclusions were: a) good teaching cannot be reduced to prescriptions; b) a systems perspective is desirable; and c) significant teacher experience is essential. These findings substantiate the artfulness of the teacher's task, and the systemic nature of the outcomes. We have substantial information and still want to learn more about how the teacher becomes "an artisan who transforms students" (Fullan, 1991, p. 142).

Administrators

The difficult nature of the principal's role is also well established; it is a role that has been widely studied. The majority of a principal's time is spent on personal encounters--phone calls, meetings, negotiations (Fullan, 1991). Fullan cites Martin (1981) who found that only 17% of a principal's day is spent on instructional matters.
The importance of the principal's role to student learning is implicit. Lucas (1996) established connections between the roles of teacher and principal and student achievement. Hunderfund (1992) interviewed students and caregivers in a Long Island, New York, community of 13,000 residents, to identify common factors that influence the relation between care-giving and care-receiving among supervisors, teachers, and students. Results indicated that school leaders played a critical role in the shaping of dominant cultural values within the school settings studied. Particularly, there was evidence to support the powerful influence of the principal on the nature of the school's caring ethos.

The perceptions and strategies of principals for dealing with academically deficient students was explored by Wheaton (1994). She examined a body of students that is often overlooked--those who are not "special education," and students who have no attendance or behavior problems. In her expansive study, Wheaton found that while the principals recognized the needs of these students, they had difficulty in providing effective strategies that would help work through their complicated problems.

Beerman (1996) investigated the effects of programmatic change on principals' roles and responsibilities. Her quantitative evaluation of nine "High Schools That Work" pilot sites in Indiana sought to identify both the programmatic changes and the administrative responsibilities at each school. She identified the tasks of site coordinator, initiator, facilitator, supporter, and problem-solver, and concluded that when structural change accompanied programmatic change, the role of the principal assumed a different supporting status.
Summary of Stakeholder Research

In summary, researchers seem to have learned that making one change in a high school situation is accompanied by other, sometimes unanticipated, changes elsewhere in the system. Changing a curriculum component changes the principal's role (Beerman, 1996); increasing the involvement of the parent alters the teacher role and increases student achievement (Gibson, 1991). This persuasive reality is articulated by Pullan (1991): "We are not only dealing with a moving and changing target; we are also playing this (change) out in social settings. Solutions must come through the development of shared meaning. The interface between individual and collective meaning and action in everyday situations is where change stands or falls" (p. 5). Fullan devotes chapters in the book to each of these roles: student, teacher, principal, building administrator, district administrator, parent and community, and school boards, as they interrelate; several studies are cited, each of which discusses one or two of the eight roles. Thus, while Fullan considers systemic change as it is reflected in each of the various sociological roles, the studies he cites, as well as his own approach, only examine one or two roles at a time. The approach adopted by both the current case study as well as this review of the literature is to focus on the interactions with multiple roles whenever possible (Lucas, 1996; Hojacki, 1992; Hunderfund, 1992; Boyle, 1993).

The following common themes with direct relevance to this study are identifiable:

- The role of the principal was named as instrumental in establishing school culture (Hunderfund, 1992).
• The students' self-perceptions (self images) were a powerful influence on their abilities to adapt to instructional improvement strategies (Lucas, 1996).

• Parent involvement had a smoothing and facilitating effect on school-community relations (Gibson, 1991).

• Student-teacher perceptions, when aligned, produced optimal learning results (Boyle, 1993, Phelan, Davidson & Cao, 1992).

• Challenging curriculum was seen as the most engaging kind of classroom activity (Stevenson, 1990, Hojacki & Grover, 1992).

While several of the studies examined more than one of the roles or perceptions of the stakeholder groups, no study has investigated the interactions of all five selected roles, either in general, or in a particular reform event. A case study of how these five roles are related is therefore extremely worthwhile, as it will provide important information for future research and reform practitioners.

Foundational Works

Two Action Researchers

Howard Gardner (1991) defines the desired school of the future in terms of stakeholder roles, but ignores their interactions. His descriptions provide an image of qualities of each of the stakeholder groups, but do not say how they might interrelate. The school he describes is one in which teachers are well-trained and absorbed in their work, parents support and defend the philosophy of the school, the community is hospitable to students who want to learn, and the students themselves are sufficiently motivated and responsible and make the most of opportunities as they are presented. In such a school, new roles would serve all participants—roles like "student-
curriculum broker," "school-community broker," and "master teacher" (pp. 10-11). The present study moves to the next step of detailing how a high school program successfully and routinely "brokered" the school and community.

The Central Park East Secondary School (CPESS) Project in New York City (Meier 1995) involved the district administrators, parents, and teachers in working closely with students' learning and personal issues. Meier attributes the program's success to the following factors:

What has allowed this to happen is a combination of imaginative public policy initiated by a few brave, well-situated individuals who made the experiment even possible; reproducible ways of organizing schools and of getting teachers, students, and families to work together; a small crew of teachers who were ready to take the risks and seize the opportunities; and a group of families either desperate enough or eager enough to give it a chance. Our singular success depended on complementary efforts...(p. 17).

The several striking similarities between CEC's Academic Program and CPESS will be discussed in greater detail in Chapter 4.

Image-Based Learning

The notion that humans learn by creating, adjusting, and changing mental models to correspond to information received through their senses is neither new nor radical. The concept of image has appeared in academic writing for centuries. Polak (1973 translation) describes its background and progression as follows: the general theory of images may be thought of as "eidetics," derived from the Greek eidelon, meaning "image." Plato, Epicurus, and Democritus used the term to refer to knowledge and the learning process. Francis Bacon also later made reference to it. The term eidetisch appears in the writings of German psychologists, especially E.R.
Jaensch, who specialized in research on children between the ages of thirteen and fifteen. Jaensch related certain types of eidetic endowments to physical constitution (Körperbau) and to personality type. On the basis of this, he outlined a theory of the development of culture (p.12).

John Dewey describes thought as having three forms--an automatic, unrelated flow; imagination; and the third which is synonymous with beliefs. Dewey (1933) describes a belief as "a mental picture of something not actually present; thinking is the succession of such pictures" (p. 5).

During the latter part of this century, the influence of mental images on thinking and learning began to appear more frequently in academic literature (Boulding, 1956; Polak, 1973; Piaget, 1952, 1969). Details of Boulding's account are as follows: human beings operate through mental images; messages--verbal, visual or experiential--form the images; images affect behavior, which offers clues to the images; and images can be changed by strategic messages. Messages may be designed which address both the desired and undesired mental models of students.

A related body of literature is composed of the cognitive theorists (Vygotsky, 1934/1978; Brooks, J.G. & Brooks, M. G., 1993; Dewey, 1902/1915/1938) who purport that the learner constructs her/his own concepts and specific elements of student thinking affect learning success. Vygotsky cites German psychologists Narciss Ach & Franz Rimat as he defines stages of concept development. Concepts arise or are "constructed through a goal-directed process composed of several operations that function as means for solution of a basic task" (p. 124). Boulding (1956) and Vygotsky (1978, translation) both purport that images have individual and social aspects and affect both the individual and his/her culture.
Jean Piaget (1969) viewed the human mind as a dynamic set of cognitive structures that help us make sense of what we perceive. His premise is that "all knowledge has to do with structures" which may be either "figurative" (perceptions or mental images) or "operative" (action or operation) (p. 356). He further cautions that it is not always wise to distinguish between the two types of knowledge. He uses Klein's work with transformative geometry as an example in which both aspects are mutually indispensable at some level. According to Piaget, the subject of operational intelligence considers experience to be a progressive restructuring, rather than a simple recording of information, and deduction to be a coordination of operations, rather than simply an exercise in logic (p. 358).

As learners make connections among experiences, messages of theory, personal study, and creative dialogue, such restructuring occurs. When several aspects of a situation are consciously identified in the learning process, there is potential for meaningful learning. The National Council of Teachers of Mathematics' (NCTM) Curriculum and Evaluation Standards for School Mathematics (1989) (hereafter referred to as the Curriculum Standards) views students and teachers as partners in a new classroom dynamic of developing ideas and problem-solving.

The formation of stable concepts or images is enhanced by meaningful learning activities. Belenky, Clinchy, Goldberger, and Tarule (1986) document preferable approaches to affect connected and inclusive learning. Throughout their book, Women's Ways of Knowing, are examples of the importance of the learner understanding herself as a retainer of information and as a sharer of truth. The young women participating in their study who consciously tried to make connections were
identified at the fifth level, or perspective of knowing, that of "constructed knowledge" (p. 225).

Taylor, Stevens, Peregoy, & Bath (1991) discuss Indian learning in a meaningful mode and as connected to cultural and family roots. The culturally relevant mathematical experiences of middle school American Indian students in a summer math program appeared to facilitate their developing positive attitudes toward math (Taylor, 1997, p. 169).

John Dewey’s progressive education movement in the early part of the century examined the nature of the school, and introduced the idea that schools could be student-centered and expansive beyond the building itself with formal connections to the community (Dewey, 1902, 1933, 1938). In his critique of traditional education Dewey (1938) describes its greatest failure as its inability to "secure the active cooperation of the pupil in construction of the purposes involved in his studying" (p. 67). Jacqueline Grennon Brooks and Martin Brooks (1993) state that we should concern ourselves with getting thinking and rethinking installed into our high school culture by moving from "imitative behavior" to that which results in students "deep thinking" (p. 16).

While most of these authors agree on the intent and general direction of learning activities, we are still searching for a comprehensive planning process that delivers such results. The present historical case study provides definitive information on one new approach.

Research in the cognitive literature has explored mental models (Johnson-Laird, 1995; Slotta, J., 1997). Senge (1990) defines an image as a "mental model" which is a "deeply ingrained assumption, generalization, or even picture or image that
influences how we understand the world or how we take action" (p. 8). He further defines this phenomenon:

Mental models can be simple generalizations such as "people are untrustworthy," or they can be complex theories, such as my assumptions about why members of my family act as they do. Mental models are deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world or how we take action. Very often, we are not consciously aware of how we understand the world or how we take action (p. 175).

Recently, the role of image in curriculum development has been discussed (Brooks, J. G. & Brooks, M. G. 1993; Posner, Strike, Hewson, & Gertzog, 1982; Slotta, J., 1997). Slotta's premise is that

The general goal of learning or cognitive research has been to develop a cognitive theory of instruction which provides a detailed description of learning in terms of a student's initial knowledge and how that knowledge interacts with an instructional message. Teachers and curriculum designers must first discern whether a concept is likely to have been ontologically misplaced by a student, then proceed with a two-phased approach: first, train the student in target ontology, which amounts to providing some knowledge of the relevant attributes of concepts of this type; second, provide instruction which relates the concept to these attributes while completely avoiding any connection with faulty ontology (p. 1).

Johnson-Laird (1994, 1995) writes of the connection between mental models or images and thinking or probabilistic reasoning. "They construct mental models, which each correspond to an infinite set of possibilities."

The important cognitive issue of math-reluctant students is directly linked to the subject of image theory. Taylor (1996) comments that "you can never have an experience that is 100% affective or entirely cognitive, for the two are always intertwined. While one experience may be primarily cognitive, it still has an affective component and, inversely, while another experience is primarily affective, it still has a
cognitive component. Furthermore, one's actions relate to these cognitions and feelings" (p. 62).

A related learning theory is that of situated cognition (Lave, & Wenger, 1991). These theorists purport that "activities, tasks, functions, and understandings do not exist in isolation; they are part of broader systems of relations in which they have meaning. . . To ignore this aspect of learning is to overlook the fact that learning involves the construction of identities" (p. 53).

In conclusion, all school experiences involve image work on the part of the stakeholders. The task is to clarify and intentionalize the use of images in learning. Cognitive theorists agree that the learner forms mental models through his or her active experience. These cited authors mention multiple variables in this practice, including the student's interest in the topic, cooperative approaches, initial knowledge, the degree of entrenchment, and the student's emotions or receptivity. Such multiple variables imply that a strategy of image-based learning is not a simple one. However, with much academic attention focused on the cognitive process, and much political and media attention focused on the processes of education and instruction, the role of images in learning will continue to be a focus for research attention. The present study contributes to that new knowledge.
CHAPTER 3
METHODOLOGY

This chapter describes the research methods used in this case study of the *Academic Program* at the Fred N. Thomas Career Education Center (CEC). It describes the study design and procedures, the selection criteria used for each stakeholder group, the study participants (both in general and individually), the interview approach, and the coding method. It describes as well the process of image analysis used to summarize categories of coded comments for each stakeholder group.

Case Study Analysis

A case study approach was chosen to focus on this second-order change program, because it allows the various elements of the context and its situated nature to be included in the documentation. By definition, case studies are "bounded by a particular program, institution, time period, or set of events. Within the defined boundaries, whatever is the focus of attention is described in perspective of the context surrounding it" (Krathwohl, 1993, p. 347). In this case, elements of the context included each of the five stakeholder groups of students, participating parents, teachers, building administrators, and advisors; CEC--the school in which the *Academic Program* took place; the structural design of the program--the daily, weekly, and semester schedule; the curriculum design, including the problem-solving project; and the planning processes used by the teachers and advisors. One stated intent of this study (p. 5) is to identify any references made to the project-based
component of the curriculum during the participant interviews. The case study lends itself to such specific linkages. LeCompte & Preissle (1993) state that "case study analysis is appropriate for intensive, in-depth examination of one or a few aspects of a given phenomenon" (p. 33). This study examines the case of one specific reform episode as it connects to key roles in the general educational reform context.

As an historical, descriptive study, data in the form of coded interview comments were collected after-the-fact. Gathered artifacts represent a nine year time span and were not intended as documentation for causality. All decisions regarding participant selection and study design recognized the historical concerns of complete and multiple sources of evidence (Krathwohl, 1993).

This chapter specifically addresses the details of the qualitative research design used in this case study of the high school program. (A related study done earlier by this researcher--a quantitative longitudinal study that documented the post-high school engagement patterns of a random sample of the program's student participants--can be found in Appendix E.)

**Study Design and Procedures**

The central research question focused on the extent to which the perceptions of the five stakeholder groups--students, their parents, teachers, school administrators, and advisors--agree or differ on key aspects of a high school learning experience that embodies second-order change. Such an analysis may reveal important patterns to inform our understanding of systemic reform.

The initial phase of this qualitative research took place during the fall of 1995 with the interviews of the student and parent groups. The interviews of the teachers,
school administrators and advisors were held during the summer of 1997. The same interview procedures and interview questions were used with all five groups; comments were coded, using the same procedures across all five groups, and then compared. Interview questions were open-ended, to encourage the participants to speak freely about their recollections and insights regarding the program. The three interview questions were: 1) "As you think back to your (son's or daughter's) experience with CEC's Academic Program, what stands out for you?"; 2) "What matters most to you?"; and 3) "What would you change?".

Three former students, three participating parents (one parent of each of the students interviewed), three former teachers, two former administrators, and two advisors were interviewed. The number of students and parents interviewed was limited to three per group, so that the pool of stakeholder groups' comments would be similar in size, and to keep the amount of generated data manageable.

<table>
<thead>
<tr>
<th>Table 3.1 Number of Stakeholders Interviewed by Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

Each person was interviewed individually. Each of the interviews lasted from one to two hours, permitting sufficient time for a wide discussion of the three questions. All interviews were audio-taped and transcribed verbatim. Transcriptions were coded for language that indicated the significant aspects about the program targeted by the study. Pseudonyms were used for all participants.
Student and Parent Interviews

Selection Criteria and Procedures

It was important to the study to interview parents who had been sufficiently involved in the Academic Program to speak knowledgeably about its educational components. It was also important that the students who were to be interviewed possessed some awareness of the program's structure and intents. The need to combine these two requirements into a student-parent pair necessitated that selection be done by criteria and not by random sample. It was also important to the study that participants represent the program in its entire duration. That is, it was important that study participants not simply represent one especially successful school year or the experience of the most exciting project. Therefore, the criterion-based student/parent teams would represent three different program eras—the pilot phase, the implementation phase, and the last three years.

Two former Academic Program teachers identified possible student-parent teams to be interviewed using these selection criteria. Three students judged to be aware of the curriculum/program design and whose parents were active in school functions were invited to be interviewed.

Selection Process

The teachers examined the nine years of student registration lists and identified potential parent-student teams. Selection criteria, defined below for parents and students, were carefully articulated to elicit valid and informative data. Teachers were asked to suggest student and parent teams who, at the time of their participation in the program, were aware of the program intents and components. They represented the
entire nine year program time span, and included all levels of success. The teachers were cautioned not to simply select "the most involved and enthusiastic parents" or "the most ambitious students."

Selection Criteria for Students

The following specific values were assigned to the teachers choosing a list of the students eligible to be interviewed in order to assure that the basic criteria were met:

- Experienced project team leadership--indicating an understanding of the thematic and teamwork components
- Demonstrated substantial academic improvement--indicating an alignment with the motivation, incentives, and personalization components of the program
- Participated for more than one semester--assuring that they would have the option to generalize among more than one set of experiences
- Provided peer leadership--implying that responsibility was taken
- In addition, the selection team was asked to make sure their list was balanced regarding gender and minority representation--providing equity and options for future examination of data along those lines.
Selection Criteria for Parents

The following specific criteria were used by the team in the selection of the parents eligible to be interviewed in student-parent teams:

- Involved in the program on-site, through the Collaborative Decision Making Committee\(^4\) (CDM), School Improvement Accountability Councils (SIAC)\(^5\) or through other significant volunteer participation--indicating an understanding of the overall program organization and its intents
- Attended project reporting sessions--indicating an understanding of the interdisciplinary curriculum and its interactive nature
- Conferenced with teachers on offspring's learning development--suggesting an understanding of the teaching team's operating style and effectiveness
- Attended parent orientation sessions--indicating an understanding of both the overall organization and of the teaching team's approach
- Seemed to care about the future of the student--documenting that attention was paid to overall program operations
- And, as with the student list, the parent list was balanced in gender and minority representation

Ten pairs of student-parent names were identified and prioritized against these criteria. They included a team from the first year of the program and one from the last.

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\(^4\) Collaborative Decision-making Committees (CDMs) were established in the Denver Public Schools by the governor of Colorado during a labor negotiation in 1991. Composition of the committees is specified and includes parent, teacher, administrator, and business representation. The CDMs have broad policy-making power and may form subcommittees for tasks such as personnel, planning, or student discipline.

\(^5\) The School Improvement and Accountability Councils (SIACs) were established in Colorado in 1971 by legislative action. Each SIAC reports to the Colorado Department of Education annually regarding goals and accomplishments. In Denver Public Schools, SIACs could optionally be replaced by CDMs in 1991.
full year of its operation. The families included students who had self-selected out of
the program, returning to their home high schools before graduation. I telephoned and
invited first the parent, then the student participation in the study; all of the first three
parent-student teams contacted accepted the invitation to participate. The criteria for
balanced gender and minority representation held. A follow-up letter was sent to
confirm the time and location of each interview.

Selection of Teacher, Administrator, and Advisor Interviewees

The selection of participants from the teacher and administrator constituencies
was indicative—that is, all available representatives of these stakeholders were
interviewed, bar none. Four of the seven other contract teachers who worked with the
program for more than one year were still alive and residing in the state of Colorado.
Three of them agreed to participate; the fourth had moved and could not be reached in
a timely manner. The three represented all four of the academic disciplines interacting
in the curriculum—math, science, English, and social studies (One teacher taught two
subjects.) Each of the two administrators who worked with the program during the
nine years was interviewed.

A board of advisors had become active during the last year of the program;
two persons from that board—who had worked closest with the program and who
were not interviewed as either a former teacher, administrator, or parent—were
interviewed.
The Study Participants

Student-Parent Teams

Two of the former students were female and one was male. The parents consisted of two mothers and one father; they paired as mother-daughter, mother-son and father-daughter. Two of the former students were of African-American heritage; the third student plus all of the interviewed parents were white. Of the black students, one had been adopted by white parents; the second had a black father, who was not interviewed. Pseudonyms were used on all written materials.

Teachers

All of the three teachers interviewed were at the apex of their teaching careers when they were with the program. All three were white; one was male, and two were female. Of the total of eight teachers assigned to the program in its nine-year existence (1986-1994), one was a beginning teacher, and the rest were master teachers. There were three men and five women. Of the eight, one had a doctorate, six had master's degrees, and one had a bachelor's degree. The project's allocated paraprofessional staff position was used to help balance ethnicity and gender whenever possible; only one of the eight teachers was from a member of a minority group.

Administrators

The same two school administrators--the school principal and the assistant principal in charge of instruction--supervised the initial design of the Academic Program and guided its evolution until they left their building positions, each for
different reasons, in June of 1994. The principal was female, the assistant principal male; both were white.

Advisors

Two Institute of Cultural Affairs (See p. 8) consultants led the image-based instruction-planning process for the Academic Program during the summer of 1986. That initial and substantial design effort was the only formal consultant work with the program until the formation of a board of advisors in 1994. (The two consultants and other interested academic acquaintances frequently dropped by the school for visits and in response to invitations to major project events.) The decision to interview two advisors—one of the initial consultants and a university-based member of the advisory board—provided two different perspectives and maintained numerical consistency with the number of participants from the other four stakeholder groups.

Interview Approach

I personally conducted all the interviews. Interviews of the student-parent teams were all held in the same room, not on the school site, and under similar conditions. These interviews began as mini-reunions, since I had not seen most of the students or parents since their graduation celebration, which in one case had been nine years earlier! The first few minutes of time, before the official interview process began, was typically spent catching up on news and sharing any exciting future plans. This also allowed the actual interview to remain focused on the three research questions. In the case of the parents it was a time to become better acquainted.
For the formal interview process, each participant was alone in the room with me, without interruption, except for one of the students, Cloud Parson. Because Cloud attended a university in another town, transportation logistics mandated that she and her mother be interviewed in consecutive time slots and Vi Parson joined daughter, Cloud, for the latter portion of her interview. The different but informative dialogue which ensued was identified and preserved in the transcription and included in the results.

Interviews of the teachers, administrators, and advisors took place in their personal office or home, with the interviewer traveling to that site. As with the students and parents, the three open-ended questions were asked and unlimited time given to each participant to respond.

Comment Coding Method

Interviews were transcribed for coding and analysis of comments. An open coding process was used with phrase-by-phrase analysis, generating a large volume of data and unanticipated categories (Strauss & Corbin, 1990). Comparing the interview comments across all five constituencies produced clear reference categories with identifiable agreements and differences. The students’ comments fell into the following major groups: a) student in relationship to others; b) program and curriculum design; and c) student’s personal freedom and empowerment. The parents’ comments fell into these categories: a) pro-active communication practices, b) rigorous, interactive curriculum experiences, and c) student ownership of learning experiences. Major groups of comments were also identified for teachers, administrators, and advisors that correlated with these three basic dimensions: a)
communication between stakeholder groups; b) program and curriculum design; and c) student empowerment. Generalizing these category names across all five stakeholders, determined the framework of: 1) Social, 2) Pedagogical, and 3) Personal comments. These three basic arenas provide a consistent framework and order for all findings and discussions in this study.

I was the primary coder in the analysis of the thirteen participants' comments. A secondary coder was later engaged to determine coding reliability. The second coder read and coded one of the three interview questions from a student, administrator, and advisor interview. A comparison by the primary and secondary coders indicated a 91% correlation.

Krathwohl (1993) states that "where multiple responses are allowed, the most common patterns can often usefully be assigned single codes" (p. 388). Within this context, the following two-phase process was used to code the interview comments:

**Phase I of coding.** 1) Read and underline descriptive phrases of each transcription; 2) Re-read the underlined phrases to assure accuracy and relevance, numbering each phrase; 3) Assign either a color or a symbol to each numbered item; 4) Group the comments by like colors or symbols. For example, the symbol <0> may have been assigned to each numbered item that referred to teacher planning time, and the symbol <+> to each numbered item mentioning academic rigor, etc. 5) Establish a set of major categories to subsume all categories from all interviews, and name them. A total of 789 comments were finally identified from the thirteen interviews using this process; there were 82 comments from the transcriptions of student interviews, 74 from those of the parents, 285 from teachers, 160 from building administrators, and 188 from the advisors interviews.
As soon as possible into this first phase of analysis, I established a set of comprehensive categories for each interview transcription. These categories consisted of comments that referenced similar program elements, phenomena, or stakeholder roles. Any single interview contained from fifteen to twenty-five different comment categories.

**Phase II of coding.** During the second phase in the coding process, I sorted all categories from interviews within any given stakeholder group, and determined a resultant set of "core categories" that contained the pooled comments from this group. These categories were then named in order to capture their theme or reference. For example, two core categories which emerged from pooled student comments were "Experiencing Personal Choice" and "Being Known." The names at the top of each category or column in the tables are my own; the names of the groups comprising each category generally used vocabulary from participants' comments (Strauss & Corbin, pp. 67-69).

An example of the second coding phase is as follows: in the coded transcripts of the three teacher interviews, there were twenty, twenty-three, and twenty-eight different comment categories identified, respectively. During the second phase of the coding process, I sorted this total of seventy-one categories into a final set of thirteen core categories—categories which contained the 285 separate, numbered comments made by the three teachers during their interviews. By examining these thirteen categories and those of the student interviews, I determined the major program

<table>
<thead>
<tr>
<th></th>
<th>Students</th>
<th>Parents</th>
<th>Teachers</th>
<th>Administrators</th>
<th>Advisors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>82</td>
<td>74</td>
<td>285</td>
<td>160</td>
<td>188</td>
</tr>
</tbody>
</table>

Table 3.2 Number of Coded Comments by Stakeholder Groups
framework described earlier. The core categories of teachers, as well as students, were clearly related to one of the three major framework dimensions: Social (interactions between stakeholder groups), Pedagogical (relating to curriculum and program design), and Personal (relating to student empowerment).

Tables

A table format organizes the data from the coded comments. Tables 4.1-4.5 hold all 789 interview comments identified and coded from the transcripts of the thirteen interviews, with one table devoted to a stakeholder group. In each table, the numerals to the left of each phrase are the number of comments of a similar nature. The columns of comments are arranged in order by size from top to bottom. Each of the five tables features a "holding image" (or images) for each column. These images represent my interpretation of the foundational images of each stakeholder group, based on their comments, and provide an interesting way to summarize the data.

Table 4.6 is a "master table" of comments, regrouping the 789 total comments and designating them as made "by" a participant from one of the stakeholder groups, and "about" another of the stakeholder groups; comments may also have been made "about" curriculum, the program, or school in general. These data also clustered into the Social, Pedagogical, and Personal categories that guided the naming of the columns in Tables 4.1-4.5.

Image Analysis Method

A method of analyzing images was used in planning the Academic Program. I also used it in two different parts of this study to summarize findings--in the
identification of a common image thought to be behind stakeholder comments (or messages) in particular columns of Tables 4.1-4.5, and to identify the possible image or images a stakeholder group held about itself and the others in Table 4.7. The images so identified in this study are found both at the base of each of the five stakeholder comment tables (4.1-4.5) and in Table 4.7. The "messages" or data are found in the top portion of each column and the identified image or images are directly beneath in that same column or category.

The process of identifying a possible image, or mental model, is to first identify common, key assumptions (Senge, 1990, p. 186); in this study I used the coded comments from interviews as my information source for such assumptions. I used the following three steps to identify common images: 1) Examine the coded comments, and hypothesize a possible image; 2) Re-read the comments, testing the hypothetical image; 3) Make adjustments in language, restating the possible image more succinctly. For example, in Table 4.1, examining the phrases used to describe groups of coded student interview comments in the category of "Program and Curriculum Design" the words "interactive," "participative," "field trips," and "spontaneity" suggest that the students interviewed held an image of the curriculum as active. Re-reading the comments in that category includes examining the other four groups (those above named represent only 20 of the 29 original coded comments in the category) to assure that there are no contradictory comments. Since the other groups in this example mainly detail other aspects of the program curriculum, like mastery outcomes and teacher and administrator style, the image of curriculum as active still holds.
Analyzing comments for possible common assumptions or images is similar to the processes of dialoguing with the data that occur in the discussion of findings in an academic study. When examining tables 4.1-4.5 to identify the images, I posed the mental question, "What image or images does this category of comments suggest?". Similarly, Table 4.7 holds images in response to the mental question, "What images do (the teachers) comments suggest they hold about (the students)?".

There are three reasons why the process of image analysis offers advantages in the summative phase of research: a) Mental models or images are a powerful tool in human communication (Senge, 1990, p. 175; b) By examining a shared and crucial mental model, next steps are clarified; and c) An identified image can promote dialogue, either because an agreed-upon image provides a single foundational position, or because two people may not "see" the same thing in the same way. In the latter instance the image is discarded or a consensed-upon modification follows.

The image-analysis process is clearly subjective and collaborative in nature and the reader should so interpret that portion of the data tables.

Summary

Data from tables 4.1-4.6 were compared and agreements and differences between stakeholder groups noted. Themes in the coded responses were identified. It may be argued that the number of former students and parents interviewed represented too small a sample for valid conclusions. A follow-up, quantitative survey of a larger group from this constituency would provide comparison and validation data of the coded comments.
The image analysis in Table 4.7 presents an additional summary of findings using the process described above and with the acknowledged weakness.

All background data for both this and the earlier quantitative study have been archived and are available for examination by anyone interested in pursuing further work. Related documents are available in appendixes A - E.
CHAPTER 4
FINDINGS AND DISCUSSION

What makes curriculum reform succeed in some cases and fail in others? This case study was conducted to gain insight into that broad question. The intent of this study was to provide a thorough characterization of the Academic Program, including the stakeholders' perceptions of both their own role and the roles of others, of the curriculum (including the project component) and of the image-based processes that were involved in the reform episode. It examined the actions, attitudes, relationships, and ideas of the students, participating parents, teachers, building administrators, and advisors—with an emphasis on the agreements and differences found among the perceptions of the various stakeholder groups that characterized them (p. 5).

This chapter synthesizes the findings from coded interview data. The roles and curriculum findings will be discussed separately, as will the agreements and differences. The chapter features a description of each participant, the coded interview comments in table format, devoting one table to each of the five stakeholder groups (Tables 4.1 - 4.5). An analysis of each table of data and comparison of results among the five tables (Table 4.6) is provided for each of the aspects of roles and curriculum.
Participants and Their Comments

The Student-Parent Teams

1. Teresa Spring-Andrews (daughter) and Rob Spring (father)

Teresa Spring-Andrews - Teresa's memories of the program were already a decade old at the time of her interview. She attended the academic program for two semesters during its first pilot year in 1986-87. Teresa stands out in my memory as a very talented young woman, but with a high level of resistance to mathematics. Her resistance to school provided early on an appropriate challenge for both the image-based instruction and motivational techniques featured in the Academic Program. Teresa recently completed her student teaching at the Denver Public Schools' Montessori School.

Rob Spring, Teresa's father - Both of Teresa's parents were very interested in her progress, visiting the school regularly. Teresa's resistance to instruction at her regular high school had caused concern, and they had actively searched for a different environment for her high school work, finally choosing the Academic Program at CEC. Rob is a self-employed educational consultant with a background in English language and ESL. His work includes international consultancies.

2. Cloud Parson (student) and Vi Parson (mother)

Cloud Parson - My personal memories of Cloud include her first application interview. She arrived wearing her career class auto mechanic overalls, which were covered with grease. Her demeanor was slightly hostile. At that time she had just returned to high school, having dropped out and run away from home her freshman year. Cloud had been educated primarily in private schools; a brief conversation
revealed her high intelligence as well as high levels of mistrust and hostility. She attended the Academic Program for four consecutive semesters, entering as a second semester sophomore, and in the winter of 1992, during her senior year, leaving to attend classes at the community college. This was necessary because college admission language and science course requirements were unavailable at CEC. At this writing she is a recent graduate from the University of Colorado at Boulder, with a degree in chemical engineering.

Vi Parson - Vi was one of the program's most supportive parents. When Cloud was a senior Vi began a two-year period of service as chairperson of CEC's SIAC (School Improvement and Accountability Council), representing the school at the state level. Professionally, Vi is the controller for a local corporation and still mentors CEC career class students as interns at her company.

3. W.C. Jeffreys (son) and Jennifer Boll (mother)

W. C. Jeffreys - W.C. had the most recent experience with the program. He attended the Academic Program for four consecutive semesters, receiving his diploma in 1994. As a student, he provided substantial and consistent leadership to the program. During his senior year he represented the school in world issues seminars in state level competitions. He is currently working as a printer at a local company.

Jennifer Boll - Jennifer was an interested parent, frequently attending open houses and special events. The Jeffreys family had two sons participating in the program—one who had experienced success (W.C.), and Bobbie, the elder son who had been dropped for failing to meet attendance requirements his first semester. W.C. began the following year and completed high school from CEC. Jennifer has consequently had
two very different parental experiences with the program. She is the executive director of a local agency and operates her own business.

Table 4.1: Student Comments

Eighty-two comments were gleaned from the three student interview transcriptions (Table 4.1). Comments fell into three column-title categories: Student in Relation to Others (Social, 29 comments), Program and Curriculum Design (Pedagogical, 29 comments), and Student's Personal Freedom and Empowerment (Personal, 24 comments). The Pedagogical comments were given the distinction of the center column; there were eight different kinds of comments in this arena and they differ in nature from the other two more subjective arenas that frame them. The students' comments about the curriculum and program design reveal an image of curriculum and learning as active.

The right column of the table reveals the clear theme of freedom found in the student comments, balanced by accountability and responsibility in the column to the left. The students' comments in the right column reveal an image of the self as empowered; comments in the left column, regarding the self in relation to others, suggest an image of the school environment as safer {than their previous schools}, caring, welcoming, and accepting of diversity.
Table 4.1

Important CEC Academic Program Components Identified by Former Students

<table>
<thead>
<tr>
<th>Social</th>
<th>Pedagogical Program and Curriculum Design</th>
<th>Personal Freedom and Empowerment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student in Relationship to Others</td>
<td>Pedagogical Program and Curriculum Design</td>
<td>Personal Freedom and Empowerment</td>
</tr>
<tr>
<td>18 comfortable communicating with others</td>
<td>7 interactive seminars</td>
<td>5 choices in study topics</td>
</tr>
<tr>
<td>4 felt safer—no fights</td>
<td>6 participative process</td>
<td>4 Fridays off</td>
</tr>
<tr>
<td>3 felt cared for and about</td>
<td>4 field trips and work days</td>
<td>4 personal freedom</td>
</tr>
<tr>
<td>2 diverse learning styles honored</td>
<td>3 active style of administrators</td>
<td>3 gained confidence</td>
</tr>
<tr>
<td>2 two-way (student-teacher) discussions</td>
<td>3 spontaneity of activities</td>
<td>3 leadership experience</td>
</tr>
<tr>
<td>2 mastery of outcomes</td>
<td>2 longer class periods</td>
<td>2 peer tutoring experience</td>
</tr>
<tr>
<td>2 student-oriented teachers</td>
<td>7 choices in study topics</td>
<td>5 Fridays off</td>
</tr>
</tbody>
</table>

These student comments suggest the following set of common, dominant images:

Safer, caring, welcoming, and accepting of diversity school environment

Active curriculum/learning

Empowered self

Numbers indicate the frequency of the response which follows.

The coded comments were grouped into categories and named; the largest categories—those with the most coded comments compiling them—in all three columns in the student comment table were: comfortable communicating with others (18), interactive seminars (7), choices of study content (7), participative process (6), and Fridays off (5). The remaining fourteen groups represent fewer comments and are mentioned in the student protocol either (4), (3), or (2) times.

Typical of the kind of student comments represented in the center column, “Program and Curriculum Design,” is the following one by Cloud:

It wasn't just the teacher talking in class. It was ideas...we would break up into groups and work on different things. It's that process. I wanted...to participate. People were interested in what I had to say and I was interested in what other people had to say and there was an actual outcome to me participating—I really liked that a lot.... My favorite classes in college are when I have that sort of thing.
The left and right columns of Table 4.1 have to do with the effects of the program on the students—as the student relates to others in the program, and as the student relates to him/herself. There were eighteen such comments categorized as comfortable communicating with others, in the column of social comments—the highest number in a category. This comment by W.C. is representative of the left, or Social column: "I'm grateful for having learned all the {discussion} methods. I can hold conversations with my friends at work that are from other countries, discuss their politics as opposed to just mine." Further on he states, "We had every race and person you could want and we all got along. That was the weird thing... I never saw a fight."

Michael Fullan has written extensively about the roles of the constituencies in second-order educational change, and continues to monitor this topic in the research literature. His insights on both the roles of the stakeholders and the nature of second-order change have been used to align the interview comments in this study. A 1978 longitudinal study (Eastabrook & Fullan, 1978) on the role of students in forty Ontario classrooms identified lack of communication among students as one of four specific issues. In that study, the students interviewed reported that in their traditional school "there was virtually no communication inside or outside class with the vast majority of other students, (i.e., outside one's own small friendship group)"(p. 173). Results from student interview comments in this present study indicate that lack of extensive communication was not an issue in the Academic Program.
Table 4.2: Participating Parent Comments

There were 74 different parent comments identified in the coding process (Table 4.2). Their comments clustered into three categories for column titles: Rigorous, Interactive Curriculum Experience (Pedagogy, 34 Comments); Pro-active Communication Practices (Social, 16 Comments); and Student Ownership of Learning Experience (Personal, 24 Comments). Again, the Pedagogical column takes the center position, with 34 comments in eight different categories. Proactive Communication Practices was the largest comment group, with ten comments; Interactive Curriculum was next in size, with eight comments. The aspects mentioned most frequently were: effective communication/input between home & school (10), interactive curriculum (8), experiential classes (6), parents and students trusted teachers (5), and mastery of competencies (5).

An analysis of the parents' coded comments indicates an image of the Academic Program curriculum as interactive, engaging, and community-oriented. Their comments also revealed an image of the parent as significant and included in the process, and an image of the student as empowered, trusted, and known by staff.
Table 4.2

<table>
<thead>
<tr>
<th>Social</th>
<th>Pedagogical</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proactive Communication Practices</td>
<td>Rigorous, Interactive Curriculum Experiences</td>
<td>Student Ownership of Learning Experience</td>
</tr>
<tr>
<td>10 effective communication/input between home and school</td>
<td>8 interactive curriculum</td>
<td>5 parents and students trusted teachers</td>
</tr>
<tr>
<td>4 teachers worked and communicated as a team</td>
<td>6 experiential classes</td>
<td>4 freedom to speak and make decisions</td>
</tr>
<tr>
<td>2 firm and caring administrative involvement</td>
<td>5 mastery of competencies</td>
<td>3 self-sufficiency encouraged, career and goal-oriented</td>
</tr>
<tr>
<td></td>
<td>4 focus on processes</td>
<td>3 smaller classes</td>
</tr>
<tr>
<td></td>
<td>4 inspired love of learning</td>
<td>3 students known by all staff</td>
</tr>
<tr>
<td></td>
<td>3 off-campus trips and competitions</td>
<td>2 students had say in course and topic choices, including college prep needs</td>
</tr>
<tr>
<td></td>
<td>2 problem-solving and reflective activities</td>
<td>2 positive environment</td>
</tr>
<tr>
<td></td>
<td>2 opportunities to do something for someone else</td>
<td>2 students motivated by positive incentives</td>
</tr>
</tbody>
</table>

These parent comments suggest the following set of common, dominant images:

- an image of the parent as significant and included in the process
- an image of the curriculum/learning as interactive, engaging and community-oriented
- an image of the students as empowered, trusted and known by staff

Numbers indicate the frequency of the response which follows.

Some parent comments reference the teachers directly—comments like "teachers worked and communicated as a team", and "parents and students trusted teachers". Jennifer Boll, W.C.'s mother, describes communication practices:

No one worried about calling us when it was time to call us and let us know what was happening. I am so appreciative of that whole feeling that came out of CEC and I think looking back, as far as high school goes, that is what I absolutely appreciate the most ... [As parents] we give our children to teachers for 6-8 hours a day and my feeling is that we have to trust, we have to know enough, stay closely involved enough with the teachers to know that the discipline is going to be appropriate and then let them do it. We can't get in the way. If we get in the way, we send bad messages.
Fullan (1991) begins his discussion on the role of parents by affirming that research indicates with "remarkable consistency that the closer the parent is to the education of the child, the greater the impact on child development and educational achievement." He continues that certain forms of involvement seem to have good results while others can be "wasteful or counterproductive" (p. 227). Instructionally-related involvement, in which parents found their way into the classrooms as aides, visitors or volunteers, is related to academic success. In Fullan's study, the most effective schools involved parents in the academic function of the classroom in a systematic way. Interview comments confirm that the parents in this study appreciated proactive communication with the school (16 comments), had clear memories about the pedagogy (34 comments), and appreciated the ownership their student had of the program (24 comments).

The center column of Table 4.2, "Pedagogical", points to the parents' perspective of learning activities as "rigorous and interactive." Representative of the comments coded into this column is this story from the home front shared by Vi Parish. It is a story that complements her daughter's story:

We would get current events conversations going. She wouldn't come and say, "We were talking about this at school." But we would be watching the news and she would pitch in with a discussion about what she knew about that or how...what was interesting was what she thought about it. I think that one of the values of the school was that they concentrated a lot on process--maybe more than on end-product--so you could see the churning information.

There are more similarities than differences in a comparison of parent and student data. Both Tables 4.1 and 4.2 are anchored by a curriculum (Pedagogical) column in the center; both have an individual growth theme in the Personal column and a self-in-relation-to-others theme in the Social column.
Comparisons of these two stakeholder groups may be further facilitated by converting the number of comments represented by the six column titles of Tables 4.1 and 4.2 to percentages. Apparent commonalities in the column titles between the two tables suggest the following interesting analysis. Program and Curriculum Design comments made up 35% of the total student comments and 49% of the parents' comments dealt with Rigorous, Interactive Curriculum Experiences. Student Personal Freedom and Empowerment contained 29% of the comments in their table. Similarly, parents affirmed Student Ownership of the Learning Experience, with 31% of their comments on that subject. Both tables feature a relational title on the left. The student table features a Student-In-Relationship-To-Others at 35%, and the parent table had Pro-Active Communication Practices at 21%.

The Teachers

1. Lisa Caron, English teacher, came to the CEC Academic Program the same year as this researcher, attracted by the challenge of creating a new approach. During her outstanding public school teaching career she had served as an English department chairperson at one of Denver's ten traditional high schools; she had also worked with the district's Shakespeare Festival. Lisa is the mother of two grown children. She saw this CEC assignment as an appropriate professional service before retirement. Upon her retirement, Lisa joined the Academic Program's advisory board.

2. Zachary Heston, social studies teacher, came to the Academic Program in its third year, his first assignment back in the classroom after serving six years as president of the Colorado Education Association. His passion for American History provided a
significant contribution to the project each semester. Zachary is the father of two grown children and three young children; the younger ones were all born during his years at CEC. He served on the school’s CDM (Collaborative Decision Making Committee). After the Academic Program at CEC closed down he returned to a traditional high school, where he is currently teaching advanced placement American History.

3. Cassidy Weber, math and science teacher, came to the Academic Program at CEC from a physical science position at a neighboring traditional high school. She held a master’s degree in astronomy from the University of California at Berkeley which helped her provide many interesting and different project applications for the students. At CEC she also regularly taught an applied physics course called Principles of Technology, and Applied Mathematics.

Table 4.3: Teacher Comments

The teacher interview transcriptions produced the greatest number of coded comments (Table 4.3). Two hundred eighty-five comments were identified and coded. The three column titles in the teacher table are: Roles & Qualities Identified for Various Constituencies (Social, 94 Comments); Program Components Identified and Described (Pedagogical, 154 Comments); and Individualized Student Emphasis (Personal, 37 Comments). The center column, Program Components Identified and Described, had the greatest number of comments, shared the greatest number of comment categories (ten) with the Social columns, and featured the category (Expansive, Collaborative Learning Projects) holding the most comments.
<table>
<thead>
<tr>
<th>Social Roles &amp; Qualities Identified for Various Constituencies</th>
<th>Pedagogical Program Components Identified and Described</th>
<th>Personal Individualized Student Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 teachers knew and advocated for students; counseled needy students</td>
<td>28 expansive, collaborative learning projects included interesting, thematic topics</td>
<td>15 teachers pushed for each student's success</td>
</tr>
<tr>
<td>7 learning community of students, teachers, administrators &amp; advisors</td>
<td>25 unique, college-like program design</td>
<td>9 students known by teachers</td>
</tr>
<tr>
<td>2 administrators let teachers do it; teachers pushed district limits</td>
<td>18 community connections through projects included global and realistic contexts</td>
<td>8 student uniquenesses honored and strengths</td>
</tr>
<tr>
<td>9 parents grateful and supportive in most cases</td>
<td>16 student care and comfort for special needs</td>
<td>5 students given room to grow and realize potential</td>
</tr>
<tr>
<td>9 teaching team effectively functioned amidst diverse perspectives and disciplines</td>
<td>15 school-wide relationships through organization and narrative required attention</td>
<td></td>
</tr>
<tr>
<td>7 student achievement praised and celebrated</td>
<td>15 teachers experienced enough time for planning and student staffing</td>
<td></td>
</tr>
<tr>
<td>6 student <em>esprit de corps</em> helped school; students returned frequently</td>
<td>11 active, alternative learning experiences matter: field trips, outdoor education, hands-on classroom</td>
<td></td>
</tr>
<tr>
<td>6 teachers, inspired by students, loved the experience</td>
<td>10 eventful and fun learning activities</td>
<td></td>
</tr>
<tr>
<td>3 teachers worked hard; also raised money</td>
<td>9 integration of career interest &amp; academic skills</td>
<td></td>
</tr>
<tr>
<td>2 advisors protected against political assault</td>
<td>7 teachers participated in choice of team composition, affecting role models and effective work</td>
<td></td>
</tr>
</tbody>
</table>

These teacher comments suggest the following set of common, dominant images:

- **Advisors** as protectors against district turmoil
- **Teachers** as proactive, effective, inspired and hard-working
- **Administrators** as flexible and supportive
- **Parents** as grateful and supportive
- **Students** as cooperative and enthusiastic

- an image of the program as an expansive, rigorous, dynamic learning community, which was responsive to students and staff
- an image of the program as thoroughly planned to be a hands-on, project-based approach to learning
- an image of these students, acknowledged by the system as capable, unique, and filled with potential

Numbers indicate the frequency of the response which follows.
An analysis of the comments in that column suggests that the teachers’ image of the program was two-fold: 1) that of an expansive, rigorous, dynamic learning community which was responsive to students and staff and 2) that it was thoroughly-planned, hands-on, and with a project-based approach to learning.

An analysis of the teacher comments in the left column, Roles and Qualities of Various Constituencies, produced these four basic images: an image of the advisors as protectors against district turmoil; an image of the teachers as proactive, effective, inspired, and hard-working; an image of the administrators as flexible and supportive; and an image of the students as cooperative and enthusiastic. Teacher comments in the right column, Individualized Student Emphasis, indicate that they saw the students as acknowledged by the system as needy, and as capable, unique, and filled with potential.

The teachers, like the parents, noted repeatedly that the students were known by the staff. They referenced the fun and spirit built into the program with comments like, "student achievement praised and celebrated," and "eventful and fun learning activities." Cassidy Weber, science teacher, articulated these several important features:

The ability to do a lot of different things and not be constrained; to do whatever curriculum we really liked in most cases was the big point; field trips were fun, we did a lot of unique things; integrated learning; interdisciplinary (curriculum); ...we could interact with the whole school, so had whole school projects, is a point. I haven’t seen anything like that for a long time....

Lisa Caron, English teacher, made comments that complement Cassidy's and point to expanding the students' contexts or perspectives:

I think it (the Academic Program) was opening a lot of doors that hadn't been [opened] before--[things like the] Shakespearean movies, [and] all the outdoor programs we did were wonderful because a lot of these individuals had never been to the mountains and had never been outdoors very much and in a
situation like that they bonded with each other... They came from broken homes and broken families; they hadn't had any sense of belonging or identity before and suddenly they did! ... We did get them to be concerned about some things. They were concerned about the consumption of water after we took them all on the water board outings; we did {the project on} population growth and they suddenly became aware of overpopulation. They became advocates for the different [semester] issues we had talked about; --this wasn't part of their world before the program.

Zachary Heston, social studies teacher, also referenced "the projects" several times, saying, "I think the projects we did brought some focus to the program for everybody at the same time." However, the following comment, from this highly recognized, master teacher is most notable:

What stands out for me was the fun I had teaching; ...it remains for me the highlight of my teaching career. Because I changed. I became a different teacher than I had been previously. I think maybe those methods were in me all the time but just never had a chance to come out... I really liked myself as a teacher; I felt that I had done some of my best teaching {there}.

Cassidy summarized teacher affects in this way:

We evolved continuously--we were never the same. You don't want to get into a pattern where you can't change; we had the ability to flow and evolve. We could change the time around; we could change what we're going to do around; we could take the whole group someplace. We could choose our teachers {who joined the team}.... The projects were a lot of fun...it pushed those kids in a frantic kind of way into new levels of what they could do--in finding out who they were and how to work in teams. I think teamwork was very important there.

One of Fullan's (1991) key findings on the role and function of teachers in the change process concerned such teacher interaction around innovations:

Teacher isolation and its opposite--collegiality--provide the best starting point for considering what works for the teacher. There is a positive, and a dark side. Commonality of values and beliefs as well as a monitoring for increases in imagination are signs of teachers making change happen (p. 135). The more teachers can interact concerning their own practices, the more they will be able to bring about improvements that they themselves identify as necessary (p. 132).
Pullan cites Cuban (1988) in defining these teacher qualities as they interact with students—the teacher as technical actor vs. moral actor. "The technical or bureaucratic image conceives of teachers as giving knowledge and following and applying rules. The moral actor as artisan and craftsperson sees teaching as transforming students" (p. 142). In this study, the coded comments of both the teachers and the administrators clearly reflect this latter understanding.

The Administrators

1. Ann Stevenson was the principal of the Career Education Center the year the Academic Program was initiated and until one year before it ended. Her background as a teacher in business education gave her the perspective and skills needed to secure outside resources and manage this large magnet school. At the time of the interview she was an assistant to the superintendent of schools, working at the district office, a position she still holds at this writing.

2. Theo Withos was an assistant principal at CEC and the supervisor of the Academic Program until one year before it ended. His vision for an innovative, integrated curriculum—both among the disciplines in the Academic Program and between the academic and career classes—was one of the primary motivators for starting the program. He came to CEC from a traditional high school the same year as Ann, and retired the year she received a promotion to the district office. He was the last person to be interviewed, having been out of the country for an extended period of time.
Table 4.4: Administrator Comments

From the administrators' interview transcripts (Table 4.4), 160 comments were identified. The coded comments were sorted into three column titles: (a) Roles and Qualities Demonstrated by the Constituencies; (b) Evolving, Pioneering, Curriculum Plan; and (c) Classroom Environment. A large number of comments by this constituency fall into the Social category, descriptive of the roles and qualities, and found in the left column position (73 comments). Forty-seven comments were concerned with Pedagogical themes and forty with Personal--in this case, including the classroom. The administrators credited the dedication and talent of the teachers with much of the program's success. Their comments indicated that they as administrators perceived themselves to be supportive of the teachers, providing them with direction and leadership. The administrators also noted the involvement of the students at all levels from planning to program ownership.
Table 4.4  Slotta 1998

Important CEC Academic Program Components Identified by Former Administrators

<table>
<thead>
<tr>
<th>Social Roles &amp; Qualities Demonstrated by the Constituencies</th>
<th>Pedagogical Evolving, Pioneering Curriculum Plan</th>
<th>Personal/Other The Results — Classroom Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 multi-talented teachers did the program design</td>
<td>14 innovative curriculum design</td>
<td>12 school-wide momentum affected program</td>
</tr>
<tr>
<td>9 students affected positively by personal success</td>
<td>7 students involved in planning</td>
<td>9 students demonstrated academic mastery</td>
</tr>
<tr>
<td>8 student freedom/ownership of program</td>
<td>6 schoolwide, performance-based curriculum</td>
<td>7 non-academic skills celebrated and made significant</td>
</tr>
<tr>
<td>8 dedicated, “driven” teachers</td>
<td>6 collaborative project as program centerpiece</td>
<td>7 healthy dependency</td>
</tr>
<tr>
<td>7 respected administrators demonstrated vision and ability</td>
<td>6 career and academic class integration</td>
<td>7 student involvement at multiple levels</td>
</tr>
<tr>
<td>7 intentional administrative leadership</td>
<td>5 up-front, academic rigor</td>
<td></td>
</tr>
<tr>
<td>6 teachers supported by administrators</td>
<td>3 activities integrated</td>
<td></td>
</tr>
<tr>
<td>6 school-wide faculty support</td>
<td>students’ lives, community, and academics</td>
<td></td>
</tr>
<tr>
<td>6 students demonstrated responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 parental commitment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| These administrators’ comments suggest the following set of common, dominant images: |
| • An image of the teachers as dedicated, multi-talented and trustworthy |
| • An image of the students as responsible, empowered and on a fast track |

• An image of the curriculum as innovative, mastery-based, and collaborative
• An image of the classrooms as rigorous and engaging

Numbers indicate the frequency of the response which follows.

Administrators’ comments revealed (a) their image of the teachers as 
dedicated, multi-talented and trustworthy, and (b) an image of the students as 
responsible, empowered, and on a fast track. In the Pedagogy arena, administrators’ 
comments pointed to (a) an image of curriculum as innovative, mastery-based, and 
collaborative, and (b) an image of classrooms as rigorous and engaging.
Ann Stevenson, principal of the school during the academic program’s design and implementation, details her perspective of successful components:

I think you have got to have a dedicated, caring staff who are multi-talented; you’ve got to have staff who are not married to a traditional style of teaching; I think that is very, very critical; you’ve got to have staff who are not only not married to it, but they have to be fairly innovative. They’ve got to be the kind of staff who can see two or three or four or five different ways of attacking the problem. I think this is real critical. If you remember, when we started out, the only direction I gave the staff was "I don't really care how you do it, just make it different."

Tom Withos, the assistant principal who supervised the program for eight years, alludes to this passion for change, and for being willing to risk in order not to repeat what doesn’t work. He recalls, "There were a lot of times when I thought we were standing out there on a limb all by ourselves--that if we didn’t move very cautiously it would collapse."

Fullan (1991) is very direct regarding the primacy of the principal’s role in effecting second-order change. "Serious reform is changing the culture and structure of the school.... It should be self-evident that the principal as head of the organization is crucial" (p. 169). He also has this comment about principals as successful change agents: "...they all figured out ways of reducing the amount of time spent on administrative matters. They made sure that change had equal priority" (p. 168). Further on, he states that "effective principals talked with teachers…planning with them, helping them get together, being knowledgeable about what was happening."

These comments describe the teacher-principal relationships in the Academic Program.

A comparison of the comments in the present study of the two on-site professional constituencies, the teachers and the building administrators, is in order
and is facilitated by the use again of percentages for the six columns in Tables 4.3 and 4.4. The category of Program Components was represented by 54% of the teachers' comments—their highest number, while 29% of the administrators' comments dealt with this Pedagogical arena—an Evolving, Pioneering Curriculum Plan. The Social column, regarding the role and qualities of the various constituencies, contained 33% of the teachers' comments. The greatest number of administrators' comments, 46%, was in this Social column, titled Roles and Qualities Demonstrated by the Constituencies. The least number of comments by both of these professional groups was in the Personal arena with 13% of the teachers' comments referencing Individualized Student Emphasis and 25% of the administrators mentioning The Classroom Environment. A comparison of these percentages with those of the student-parent tables suggests that there is less alignment between the teacher-administrator perceptions than between those of the students and their parents.

The Advisors

1. David Burns was one of the two Institute of Cultural Affairs consultants who worked with this researcher during the summer of 1986 to design a curriculum and time rhythm for the first full year of the Academic Program. He coined the term "Project Approach" to define and describe the way in which curriculum units or modules would integrate into an overall theme. David was one of the first professionals to be interviewed as he was departing for several months of work with agencies and educators in the republics of Bosnia and Herzegovina where he still is serving at the time of this writing. It is of particular interest and relevance that this Project Approach has been used successfully by one of the former members of the
Academic Program's advisory board to involve high school-aged Bosnian young people in the restoration of their communities.

2. Rae Tennyson is an internationally recognized mathematics educator who is an associate professor at the University of Colorado at Denver. Her interest in the Academic Program focused on the problem-solving nature of the projects and the complex math inquiries that they inspired. She was a member of the Academic Program's advisory board and attended several project reporting sessions.

Table 4.5: Advisor Comments

From the transcripts of the advisor interviews (Table 4.5), 188 comments were identified. The Pedagogy column in this data set is titled Well-defined, Intentional Curriculum Design (95 comments). To its right is Effective, Focused and Productive Teachers and Students (Personal, 53 comments); to its left, Roles, Qualities and Interactions of Parents, Administrators and Advisors (Social, 40 comments). The advisors' comments indicated a keen awareness of the way the roles were played out in the Academic Program, evidenced by the fact that this table features two of the three columns dealing with the topic of "roles." The advisors, perhaps because of this constituency's unique outside position and inclination to compare among similar programs in other schools and districts, commented more frequently on the levels of intense engagement on the parts of students, parents and teachers.

The image analysis of the advisors' comments identified six images. In the Pedagogical arena, the category with the largest number of coded comments, the advisors hold two images of curriculum: 1) carefully planned and formally connected
to the whole school, and 2) project-based, real-world, and formally connected to the community.

Table 4.5

<table>
<thead>
<tr>
<th>Social Roles, Qualities &amp; Interactions of Parents, Administrators &amp; Advisors</th>
<th>Pedagogical Well-defined, Intentional Curriculum Design</th>
<th>Personal Effective, Focused &amp; Productive Teachers &amp; Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 advisors were active, visited site</td>
<td>35 distinct, well-understood curriculum design</td>
<td>15 highly productive, engaged students</td>
</tr>
<tr>
<td>10 advisors learned from and replicated program</td>
<td>20 overall, results-oriented curriculum design with semester rhythm &amp; schedule</td>
<td>13 personally diverse, invested, collaborative teachers</td>
</tr>
<tr>
<td>9 administrators watched for and guarded successful educational programs</td>
<td>17 multiple &amp; creative uses of space</td>
<td>11 students regularly demonstrated pride in learning accomplishments</td>
</tr>
<tr>
<td>4 there is a need to document this learning approach</td>
<td>15 community orientation encouraged real-world, connected learning</td>
<td>9 students involved as researchers and presenters</td>
</tr>
<tr>
<td>3 parents attended student presentations as learners</td>
<td>4 image-based instructional strategies</td>
<td>5 motivated teachers worked hard to involve parents &amp; advisors in the curriculum process</td>
</tr>
<tr>
<td>2 administrators were responsive to system failures</td>
<td>2 creative use of instructional environment</td>
<td>2 school-wide support of program</td>
</tr>
</tbody>
</table>

These advisors’ comments suggest the following set of common, dominant images:

- An image of the **advisors** as active and responsible participants in the learning community
- An image of the **administrators** as guardians and protectors of success
- An image of the **curriculum** as carefully planned, and formally connected to the whole school
- An image of the **curriculum** as project-based, real-world, and formally connected to the community
- An image of the **students** as successful and productive
- An image of the **teachers** as hard at work to involve all players in a collaborative process

Numbers indicate the frequency of the response which follows.

The next largest category of comments by advisors was Personal and revealed an image of the students as *successful and productive* and an image of the teachers as *hard-at-work to involve all players in the process*. A group of advisors’ comments placed in the Social column are titled Roles, Qualities, and Interactions of Parents, Administrators and Advisors. The comments in this column identify an image of
advisors as active and responsible participants in the learning community, and an image of administrators as guardians and protectors of success.

Rae Tennyson, mathematics educator from the University of Colorado at Denver, and member of the Academic Program's advisory board, readily shared her significant memories:

I think the students' attitudes and the educational process--that they were really learning how to do research and how to present--you saw how things fit together. And the enthusiasm of the kids! And the pride of the kids! What they accomplished in their presentations was very noticeable.... It was very interesting to talk to them. You could see their confidence. Some of them were shyer than others, but they really felt good about having something to offer and to say to the adults who were floating around to interview them at their project presentation tables.

David Burns, one of the two consultants who first worked with me in 1986 to conceptualize the program, described the work he observed on the part of the teachers:

You were working on planting some new images that they (the students) were able to make initiatives to learn, that what they were going to be learning was going to be very interesting, and useful and extremely pertinent. I saw it took huge amounts of energy for you to do that--to invest in that image change work. But I saw the kids enthusiastic... and engaged in learning.

David summarized what he believes were the keys to the program's success: "1) team teaching; 2) team learning; 3) participatory process; 4) in the community; 5) demonstrated products; and 6) celebration."

Fullan predicts that as "norms of collaboration and continuous improvement become embedded in more schools, seeking assistance to solve complex problems will be perceived as a source of strength and wisdom rather than as a sign of weakness" (p. 226). Academic Program advisors' comments indicate that they were more deeply involved in complex problems of curriculum than were the advisors described by Fullan (The New Meaning of Educational Change, chapter 11). He
describes the operative consultant dilemma as one of scope vs. intensity, driven by limited time and energy. The interview comments of the two CEC advisors reveal focused energy that seemed to be derived from the progress of the program itself.

Table 4.6: Discussion

Table 4.6 is organized to facilitate comparisons of participant comments across the five stakeholder groups. The data is the same as that in Tables 4.1-4.5, but merges all of the coded interview comments into one matrix; it is an entirely different sort of the data.

Table 4.6: Master Comments Table

Table 4.6 organizes the numbered interview comments that were made by a person in one of the stakeholder roles about another role or program component. Of the 789 total comments, 388 were descriptive of one of the roles or constituencies, while 401 referenced the school, program, or curriculum. This latter group, I called, "comments about." Of the comments that were descriptive of, or about the constituencies, the greatest number referenced the students (172). The next largest, from highest to lowest, discussed the teachers (128), the building administrators (41), the advisors (28) and the parents (19). A coded comment made by one of the stakeholders I termed "comment by" and may be found in the horizontal boxes across from that title.

The matrix design of Table 4.6 matches the horizontal column labels ("comments about") with the vertical listing of the stakeholder groups ("comments by") top to bottom. For example, to learn what was commented by students about the
student constituency, locate the word "student" in both the horizontal column and the vertical list.
Table 4.6

Interview Comments Descriptive of Five Constituency Groups, Curriculum, and Program

<table>
<thead>
<tr>
<th>Comments about:</th>
<th>Students</th>
<th>Participating Parents</th>
<th>Teachers</th>
<th>Building Administrators</th>
<th>Advisors</th>
<th>Curriculum</th>
<th>Program/School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students recalled...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 comfort communicating with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4 personal freedom</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>3 felt cared for and about</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3 gained confidence</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Parents/recalled...</td>
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<td></td>
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<td>4 freedoms to speak and make decisions</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>3 self-encouraged; career and goal-oriented</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3 students known by all staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2 students motivated by positive incentives</td>
<td></td>
<td></td>
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<tr>
<td>2 students had a say in course and study topics, including college prep needs</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Teachers recalled...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 student care and comfort for special needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 students known by teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8 student uniquenesses honored and strengths &quot;played to&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 student esprit de corps helped school; students returned frequently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 students given room to grow and realize potential</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Numbers indicate the frequency of the response which follows. Table 4.6 continues on the following page.
Table 4.6 Interview Comments Descriptive of Five Constituency Groups, Curriculum, and Program (Contin.)

<table>
<thead>
<tr>
<th>Comments by:</th>
<th>Students</th>
<th>Participating Parents</th>
<th>Teachers</th>
<th>Building Administrators</th>
<th>Advisors</th>
<th>Curriculum</th>
<th>Program/School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Administrators recalled...</td>
<td>9 students engaged positively by personal success</td>
<td>2 parental commitment</td>
<td>14 multitalented teachers did the program design</td>
<td>7 intentional administrative leadership</td>
<td>14 innovative curriculum design</td>
<td>12 school-wide momentum affects program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 students demonstrated academic mastery</td>
<td>8 dedicated, &quot;driven&quot; teachers</td>
<td>7 respected administrators demonstrated vision and ability</td>
<td>6 school-wide, performance-based curriculum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 student freedom and ownership of program</td>
<td>6 teachers supported by administrators</td>
<td>6 collaborative project as program centerpiece</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 healthy dependency</td>
<td>5 administrators positively design leadership design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 students involved in planning</td>
<td>4 momentum recalled...</td>
<td>6 career and academic class integration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 students demonstrated responsibility</td>
<td>5 students involvement at multiple levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisors recalled...</td>
<td>15 highly productive, engaged students</td>
<td>3 parents attended student presentations as learners</td>
<td>13 personally diverse, invested and collaborative teachers</td>
<td>9 administrators watched for and guarded successful educational programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 students regularly demonstrated pride in learning accomplishment</td>
<td>5 motivated teachers worked hard to involve parents and advisors in the curriculum process</td>
<td>2 administrators responsive to system failures</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>9 students involved as researchers and presenters</td>
<td>12 advisors active/visited site</td>
<td>10 advisors learned from and replicated program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 there is a need to document this learning approach</td>
<td>17 multiple and creative uses of space</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15 community orientation encouraged real-world, connected learning</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>4 image-based instructional strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2 creative use of instructional environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>35 distinct, well-understood curriculum design</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>20 overall, results-oriented curriculum design with semester rhythm and schedule</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 school-wide support of program</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Numbers indicate the frequency of the response which follows.
Stakeholder Role Findings

Examining Table 4.6 simply for noticeable language patterns and empty spaces, one notices the following:

- Only the comments by the teachers and the advisors mentioned all five constituency groups. The administrators did not mention advisors. Students did not mention parents or advisors; parents did not mention advisors.
- The teachers, as might be expected, had the most to say about the category of curriculum (93 comments), as well as about the program and school (62).
- The administrators, less expected, had the greatest number of comments about the students (51 comments). It is interesting that the administrators did not mention the advisors, although administrators typically supervise consultant work.
- In the arena of least number of comments, parents had only two comments about the administrators, and administrators had the same number about the parents.
- The stakeholders in general consistently made the most number of comments about the student constituency—the number of comments by each constituency about the students ranged from 14 (parents) to 51 (administrators).
- The advisor category had the most empty boxes in the table matrix. The role of the advisor in curriculum reform is frequently an "invisible" role, which may account for the few references.

A review of the horizontal role categories in Table 4.6 and of the comments in the columns beneath indicate the following stakeholders perceptions regarding valued characteristics of such a program:
• Students need to have their uniquenesses recognized, to have their accomplishments honored, and to feel comfortable and safe in the school environment. They should be engaged in successful learning activities that include research and presentations, and should experience a feeling of ownership of the program.

• Parents need to trust the teachers and support the events and activities of the program.

• Teachers must communicate effectively with parents. They should collaborate and function effectively as a team. Teachers need to be empowered to make choices regarding team configuration. The teaching team should be personally diverse, and multi-talented in the skills of program design. Teachers should advocate for students.

• Administrators need to provide intentional leadership, demonstrating vision and ability. They are respected. They should "let the teachers do it" (teacher comment).

• Advisors should be active on site. They should learn from, replicate, and protect successful programs.

Curriculum and Program Findings

Some further discussion of the interview comments regarding the curriculum of the CEC Academic Program is suggested by the sheer volume of comments in that arena. Four hundred one of the 789 comments were not concerned with the roles of the constituencies, but with some aspect of the school climate and activities. An experiential vs. envisioned aspect of change factors could also help to explain the high
number of program and curriculum references (401)--the observable and "real" aspects of school reform.

Of the 401 comments, 359 are found in groups in the center or Pedagogy column of Tables 4.1–4.6. The five titles given to the center column of those tables are: (a) Program and Curriculum Design (student comments); (b) Rigorous, Interactive Curriculum Experiences (parents); (c) Program Components Identified and Described (teachers); (d) Evolving, Pioneering Curriculum Plan (administrators); and (e) Well-defined, Intentional Curriculum Design (advisors). Seventy-two (28%) of the comments coded into the curriculum category referenced the community-based, problem-solving projects. *The Project* was referenced directly by all but the student constituency. An additional 69 comments across all five constituencies spoke of a project-related quality--the "interactive," or "experiential" nature of the learning activities.

The two largest clusters of comments regarding the curriculum came from the advisors, with 35 comments about a "distinct, well-understood curriculum design." The teachers made 28 comments describing "expansive, collaborative learning projects" including "interesting, thematic topics."

Discussion of Curriculum and Program Findings

The Project Approach accounts for many of the memories about the curriculum activities. An advisory board member whose job was to implement the SCANS (Secretary's Commission on Achieving Necessary Skills) outcomes across the state of Colorado, noted in a chance conversation that all of the articulated tasks of SCANS were implemented in just one of the project events. The eventful nature of
this curriculum component and its ability to engage all of the students in community issues were significant factors in the overall program's success (see Figures 1.1–1.3). Teachers in the Academic Program reported that students experienced being "driven" by the urgency of the problem itself; because of the intentionally limited time, they had to call on or even invent critical thinking skills. Because they were working under the gaze of the larger community, they needed to confirm the use of correct content information. The students experienced having their personal skills and talents both needed and used; they learned about the dynamics of teamwork by experiencing firsthand, for example, how it feels to be "let down" by a teammate. Their interview comments as well as earlier-recorded quotations revealed that they felt the responsibility of having to "pick up the ball" if necessary, and when all went well, they experienced the power and joy of being a part of an effective team. They always experienced the richness of the resources available outside of school walls—in museums, libraries, agencies of the city, and in the arts.

W. C. Jeffreys has this memory of the last election project:

I remember when one of Bill Clinton's advisors came into the school right before the election, and that just got us all psyched up about the election and everything, and we got to go see the President [to be]. That was pretty cool, that our school [program] got to go do that.... It was almost like talking to the President.

Of all of the categories, there were more coded comments in the Curriculum column of Table 4.6 than in any other. The data in the columns of Curriculum and of Program Design suggest that those designing curricula in second-order change programs may want to consider these following qualities or components: (a) distinct, well-understood designs; (b) innovative, expansive and collaborative learning projects with thematic topics; (c) community projects with realistic contexts and real-world
connections; (d) multiple and creative uses of space; and (e) active, meaningful learning experiences. Such programs of innovative change effort may be delivered in learning communities of students, parents, teachers, administrators and advisors.

Based on this study, one can conclude that high schools that intend second-order change may want to consider: (a) a results-oriented curriculum design with a semester rhythm and schedule; (b) a college-like program design; (c) school-wide relationships and momentum; (d) enough planning time for teachers; (e) time enough allotted for teachers to "staff" students; and (f) student choices in study topics.

Less-frequently mentioned aspects of the Academic Program that also provide clues to second-order change learning environments are: (a) image-based instructional strategies; (b) career integration; (c) strong recognition of academic achievement; (d) participative processes; and (e) celebration of non-academic personal skills.

Also noteworthy is the relatively small number of comments made by the study participants when queried on the weaknesses of the Academic Program (See Chapter 3). The tenor of the responses on the audiotapes implied that, when asked, the interviewees strained to find a weakness. For example, compared with the positive 82 student and 78 parent comments on the overall program, there were a mere 4 weaknesses mentioned by students and 7 by the parents. Weaknesses mentioned by students were: the "no hat" policy, few class choices, no bridge or structural help for students returning to their traditional school environment, and no student parking lot. Parents mentioned weaknesses such as limited curriculum, distance from school (2 items), bus transportation, lower expectations of some students, students who were distracting, change in administrators, and counselors who didn't buy into the program's philosophy.
Findings Based on Agreements and Differences Data

The findings just reviewed are based on repetitive patterns in coded interview comments. A discussion of the significant agreements and differences found among the stakeholder groups follows.

**Agreements regarding students role.** Students, parents, teachers, and administrators all mentioned some aspect of freedom and program ownership given to the students; administrators and advisors observed student success as key; both the student and teacher groups referenced students as cared for; demonstration of success by students was a theme for administrators and advisors--demonstration of pride in accomplishments, of academic mastery, and of responsibility; teachers and advisors agreed that an energy or spirit was observable in the student group."

**Regarding teachers.** Both students and parents mentioned communication as a significant aspect of the teacher role; students and administrators observed that teachers possessed unique/multi-talents; parents, teachers and advisors noticed that the teachers functioned as a team (perhaps this was just too obvious to the administrators, who always referred to them as "the Academic Team"); teachers, administrators, and advisors alike said the teachers worked hard, using terms like "driven," and "motivated."

**Differences regarding parents.** There was no common theme regarding the parent role; each of the groups saw parent involvement in a different way, and the students did not mention the parents at all.

**Regarding administrators.** Little agreement was apparent regarding specifics of the administrative role. The students described their encouraging style, the parents saw them as firm and caring, the teachers appreciated that the administrators left them
alone (were trusting), administrators saw themselves as intentional and supportive, and advisors described them as responsive and acting as guardians. Their role was helpful and not restrictive of creativity.

Results-Oriented Curriculum

Students, parents, administrators and advisors all mentioned the importance of a "learning outcome of the curriculum" or a "product" (Tables 4.1 through 4.6). These groups commented on the merits of "results-oriented learning" whereas teachers did not. It is possible that the teachers were simply not stating the obvious, focusing rather on other unique attributes like "integration of career topics," "collaborative learning projects," "realistic contexts," "alternative learning experiences," etc. (from Table 4.3). This agreement between stakeholder groups identifies the curriculum as requiring evidence of mastery as well as student engagement.

Discussion of Findings About Agreements and Differences

It is widely recognized that involving students in the education process increases academic success, and that motivated, hard working teachers are a key to classrooms that work. This study confirmed those findings. However, the very different perspectives of each stakeholder group regarding the parent and administrator roles identified in this study were surprising. Further insights may be gained in the discussion of Table 4.7, which is an "image analysis" of the data presented as Tables 4.1 through 4.6.
In conclusion, the analyses of Tables 4.1-4.6 have provided some descriptive information based on the perceptions of the key players in CEC's Academic Program, an episode of transformational change. Findings were informed by high incidence items from Table 4.6, with several identified as key.

The Academic Program at CEC was the creation of a group of teachers, administrators, advisors, and students in one urban high school. It was neither government-mandated nor objectives-driven. It was the visionary response to a desire for meaningful, connected learning—a vision that began in a classroom, not in a boardroom. The analysis in this section has identified several personal and structural qualities as significant in this event of transformational change. The next section presents the findings from the same coded interview comments analyzed a third time and in yet a different way—that of image analysis.

Table 4.7: Image Analysis Table

Table 4.7 contains the results of the third complete analysis of the interview comments—an analysis of the participants' images. The table provides a different perspective on the 789 comments, interpreting them as 24 images across all five groups and then across the curriculum and program categories. Because Table 4.7 represents a totally new review of the data, observable repetition from the other six tables would be expected.

Findings on the Stakeholder Roles Based on Images Held by Each Stakeholder Group About the Others

By examining the identified images of each group as perceived by the others, several surface observations emerge. Of the five roles, the teacher role was clearest to
all constituencies, indicated by the total of seven different defined images about

teachers. Teachers also held the greatest number of images about all of the other roles,

with 13 different images identified from teachers comments. An examination of the

advisor and administrator comments reveals that ten images were articulated by each

of those two groups regarding the other four roles. The boxes under the advisors

column are the most empty, with only the teachers and advisors themselves

expressing any image of that role, suggesting less consciousness of the advisor role

than of all the other groups.

In contrast, the student interview comments held the least number of

identifiable images. As the most important of all the constituencies (students are, after

all, education's customers or clients), they were the least aware of the pedagogical and

curricular details. The images held by parents and administrators and by the students

themselves about students, indicate that the students felt empowered, safe and

involved.

Parents felt included in the educational process, and detailed this experience as

they saw it for both themselves and their student. Parental experiences held emotional

overtones as well as general impressions.

That the teachers held an image of parents as grateful lends authenticity to this

above interpretation. Of all the stakeholders, the teachers seemed clearest about their

own role and about that of the students. It is interesting that teachers aligned with the

advisors as wary of district political turmoil. Also of interest is that the teachers

perceived that the administrators trusted them, the administrators perceived that the

teachers were trustworthy, but the teachers did not image the administrators as

trustworthy. The teachers uniquely described the students as "capable and needy--"
affirming, perhaps, their own mission, as well as reflecting their familiarity with
demographic data from school records and their familiarity with the students.
Table 4.7
Images of Five Constituency Groups, Curriculum, and Program

<table>
<thead>
<tr>
<th>Comments about:</th>
<th>Students</th>
<th>Participating Parents</th>
<th>Teachers</th>
<th>Building Administrators</th>
<th>Advisors</th>
<th>Curriculum</th>
<th>Program/School</th>
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<tr>
<td>Comments by:</td>
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<td></td>
</tr>
<tr>
<td>Students</td>
<td>Image of the self as empowered</td>
<td>[none]</td>
<td>Image of the teacher as accessible</td>
<td>[insufficient comments]</td>
<td>[none]</td>
<td>Image of curriculum/learning as active</td>
<td>Image of the school environment as safer, caring, welcoming and accepting of diversity</td>
</tr>
<tr>
<td>Participating Parents</td>
<td>Image of the students as empowered, trusted and known by the staff</td>
<td>Image of the students as significant and included in the process</td>
<td>Image of the teachers as cooperative, team-oriented, and trusted by the students</td>
<td>Image of advisors as firm and caring</td>
<td>[none]</td>
<td>Image of the curriculum/learning as engaging, inspiring, and mastery-based</td>
<td>Image of the school environment as positive and encouraging</td>
</tr>
<tr>
<td>Teachers</td>
<td>Image of the students as cooperative and enthusiastic</td>
<td>Image of the parents as grateful and supportive</td>
<td>Image of the teachers as a team, proactive, inclusive, effective, inspired, and hard-working</td>
<td>Image of administrators as flexible, supportive, and trusting of teachers</td>
<td>Image of advisors as protective against districts turmoil</td>
<td>Image of the curriculum as a collaborative, eventful and fun</td>
<td>Image of the program as an expansive, rigorous, dynamic learning community which was responsive to students and staff</td>
</tr>
<tr>
<td>Building Administra tors</td>
<td>Image of the students as responsible, empowered, on a fast-track, and involved in the planning at many levels</td>
<td>Image of the students as committed to student success</td>
<td>Image of the teachers as dedicated, multi-talented and trustworthy</td>
<td>Image of administrators as intentional, respected, capable and visionary</td>
<td>[none]</td>
<td>Image of the curriculum as innovative, mastery-based, and collaborative with a project as center-piece</td>
<td>Image of the program as thoroughly planned to be a hands-on, project-based approach to learning</td>
</tr>
<tr>
<td>Advisors</td>
<td>Image of the students as successful and highly productive, as researchers and presenters</td>
<td>Image of the parents as involved, co-learners</td>
<td>Image of the teachers as motivated, hard-at-work to involve all the players—parents and advisors—in the process</td>
<td>Image of administrators as guardians and protectors of success</td>
<td>Image of the curriculum as image-based, carefully planned, understood by all</td>
<td>Image of the curriculum as connected to the whole school and community</td>
<td>Image of the program as part of a larger, school-wide scheme</td>
</tr>
</tbody>
</table>

Slotta 1998

Image of the curriculum as project-based, real-world and results-oriented.
As previously stated, the building administrators imaged the students as empowered, making a total of three constituencies that applied that term to student images. Administrators held complimentary images of their teachers, seeing them as multi-talented and dedicated. Administrators, advisors, and the teachers all described the teachers as hard-working and dedicated.

Both advisors and teachers recognized the need to protect fragile reform success. However, the advisors assumed that the administrators would do it, while the teachers saw it as the advisors' responsibility. That the advisor's role in this reform effort was least recognized or acknowledged, may imply that their work should be made more visible or intensified. Or, if the credit for success ultimately must go to the other constituencies, perhaps this transparency of the advisor's role should simply be affirmed. In either case, Table 4.7 reveals that both of the advisors in this study maintained an interest in the program, but remained in the background.

Images Held by Each Stakeholder Group About Itself

Until now, the discussion of Table 4.7 data has focused on how the five stakeholder groups differ in their perceptions of the other groups and in their overall understanding of the learning process they had experienced. Of equal interest is how this table reveals the perception each of the stakeholders had about its own role. Reading the matrix diagonally from the top left to the bottom right we find the following seven key images: the image the students have of the students, empowered; the parents of the parents, significant and included in the process, and grateful and supported; the teachers of the teachers, a team--proactive, inclusive, effective, inspired and hard-working and in control.
of program decisions, pushing boundaries; the administrators of the administrators, intentional, respected, capable and visionary, and supportive of teachers; advisors of advisors, active and responsive participants in the learning community.

Findings on Curriculum and Program Based On Images Held by Each Stakeholder Group

The findings regarding the stakeholder roles have been discussed in three different ways: 1) as patterns, agreements, and differences based on coded comments; 2) as similarities of images; and 3) as differences of images between how each group saw itself versus how it was seen by the others. This study set out to carefully assess the roles played in second-order, transformational change. Another of the stated intents of the study is the identification of the elements of the curriculum perceived by each stakeholder group as being the most significant or useful. The curriculum and program columns of images identified by each of the groups (Table 4.7) is important to this intent. The participants' comments implied the largest number of images in the curriculum column (ten images). The teachers and advisors each held three different images about curriculum. The teachers images of curriculum were: the primary means through which students' interests were discovered and personal victories celebrated; an image as collaborative, eventful, and fun; and an image as flexible, honoring student uniqueness. The advisors identified the curriculum as connected to the whole school and community; image-based, carefully planned, understood by all; and project-based, real world and results-oriented. The administrators saw the curriculum as innovative, mastery-based, and collaborative with a project as centerpiece; and an image as involving, relevant, and engaging the larger community. Finally, students
saw the curriculum as active; and parents saw curriculum as engaging, inspiring and mastery-based.

The Project was intended by the Academic Program planners to provide real-world connections and meaningful learning for students. This is consistent with reform literature that stresses that to be permanent and meaningful, curriculum must be presented in a connected and real world format (NCTM 1989). Culturally relevant experiences and meaningful academic connections make significant differences in learning motivation with reluctant learners (Taylor, Stevens, Peregoy, and Bath, 1991). The projects at CEC presented interactive and meaningful learning activities in a replicable and dramatic way.

The following comment by W. C.'s mother, Jennifer Boll, reflects this particular curriculum aspect: "The way the science and English in particular were built into absolutely everything . . . I felt that writing skills were expected to be good. [and] I felt that the science part of life was made apparent." Another parent, Ron Spring points to the curriculum's experiential nature:

She (daughter, Teresa) has a block in math. We came over several times and sat in on classes. We thought that the approach was wonderful. We were ecstatic. We are both educators ourselves and are experiential educators and we were very positively disposed toward the experiential approach adopted by CEC.

In conclusion, I have described the agreements and differences identified by comparing stakeholder comments and possible images of their own and others' roles. And I have described stakeholders' comments regarding the curriculum of the Academic Program. The data tables and summaries hold insightful information about the actors, the stage, and the script for planning second-order educational change. Different portions of the findings will have significance for different educational
audiences. In Chapter 5, I interpret these findings within the context of this study, and in terms of informing and requiring future research.
CHAPTER 5
IMPLICATIONS

The stated intent of this historical, descriptive case study is to examine closely one meaningful high school reform program and to identify the commonalities and differences found in the ways students and their parents, together with their teachers, school administrators, and advisors, perceived its important components. This study examines interview comments, artifacts, documents, and personal experiences, and captures the significant attitudes, actions, and thoughts of the stakeholders in this particular reform episode. Metaphorically, it examines both the actors and their script, plus the producers, the audience, the critics, and the reviewers (Chapter 1).

This study began with the premise that a significant and successful episode of second-order reform happened; it purported that reform literature would be enhanced with a clearer understanding of how the roles of the five key stakeholder groups had been acted out (Chapter 2); finally, it found that the way in which the project curriculum component of the program fit into the overall design to increase student motivation and interest was significant (Chapter 4). The image analysis method that was used in the initial design of the program provides a second summary of participants' comments (Table 4.7). This chapter synthesizes the findings as implications for stakeholders in the reform process, as insights about the nature and design of curriculum, and as implications for further research.
Implications for Stakeholders

Comparing and contrasting these stakeholder perceptions produces many correlations, but it is the disjunctions that most inform the questions of this study. This discussion draws from findings presented throughout Chapter 4, with a focus on important disjunctions or agreements and their implications; Tables 4.6 & 4.7 are primary references. The stakeholders' perceptions of their own roles may be read from the diagonal of Table 4.6 (in the form of coded comments) and Table 4.7 (in the form of corresponding images). These perceptions can be compared with the findings of Tables 4.1 through 4.5, which focused on specific aspects of the reform process (e.g., interactive curriculum, supportive parents, etc.).

Empowered Students

In all the summaries of parent comments (Table 4.2), administrator comments (Table 4.4), and advisor comments (Table 4.5), students were seen as empowered and involved in the Academic Program at several levels. That the teachers and the students themselves did not describe the students with this quality (Tables 4.1 and 4.3) may be explained by the fact that this outcome was unintended but significant. Initial Program Guidelines described in Chapter 1 (p. 21) and provided in Appendix A (program initiating artifacts) do not specifically mention the objective of student empowerment, although this is clearly an implicit goal. Because students and teachers, including those who participated in this study, were well aware of program goals, we might expect the observed absence of explicit statements about the student role. Still, the clear disjunction noted above suggests that parents, administrators and
advisors perceived student empowerment as an important component of the Academic Program.

All educational communities are well advised to talk to the students. The Academic Program included students in the initial planning process, and always placed them in project leadership roles. Dewey (1938) suggests that "there is no defect in traditional education greater than its failure to secure the active cooperation of the pupils in the construction of the purposes involved in his (or her) studying" (p. 67).

The frequent mention of personal freedom and the responsibility of choice by both students and their parents implies that there are in fact structural ways to assure that high school young people can be prepared for personal success in a public school setting.

The students interviews had this to say about this aspect of the experience:

I had never accepted ownership of my life {before the Academic Program}. It was kinda like, well, whatever happens, we'll see. But at that point I think I realized that actually it was me that makes things happen in my life. If I wanted to do something with my life I would have to do that. To have to make those decisions. My life is up to me.

Teresa Spring-Andrews

The best thing that CEC did for me was to change my attitude and to let me know that if things weren't really going well that I could go and find something else--like how I took college classes before I graduated... I know if I'm failing or not doing well it might not be me--it might be me in the wrong situation.

Cloud Parson

While one might argue that this insight on the part of Cloud may mean that she retreats from personal struggle, the at-risk nature of adolescents is often a product of a no-win struggle of some sort and in the words of the song, "to know when to fold 'em", or even that "folding 'em" can be a self-conscious decision, is a true victory.
References in Table 4.1 to personal freedom such as "choices in study topics", "leadership experience", and "gained confidence" and in Table 4.2, as "problem-solving activities" and "opportunities to do something for someone else" point to what Maxine Greene calls "public spaces" (Greene, p. 13). In her theologically-oriented discussion of the topic of freedom, she calls for empowering students by creating in schools, "spaces of dialogue in their classrooms, spaces where they can take initiatives and uncover humanizing possibilities." If the Academic Program accomplished this, it would be important to probe further into the "how" of that particular curriculum design.

**Trusting Administrators (of Teachers)**

Administrators perceived themselves as trusting the teachers, and the teachers perceived that the administrators trusted them (from Tables 4.6 and 4.7). However, there is no indication anywhere in the tables that the teachers perceived the administrators as trustworthy. While these data represent a time span of several years of a creative working relationship between these teachers and administrators, it appears that the positive experiences were not sufficient to overcome tensions and prejudices on the part of the teachers doubtlessly derived from past disappointments and political battles. This implies that planners of transformational change may logically assume that some distrust of administrators by the teachers is likely to exist, and should not underestimate the stability of such images.
Proactive Teachers

Administrators agreed that they "should let the teachers do it," acknowledging that teachers are multi-talented and dedicated (from Table 4.4). Similarly, teachers saw their own role as effective and inspired (from Table 4.7). This agreement implies that establishing and maintaining the teachers in a role of empowerment in the change process is highly advisable and perhaps even essential.

Who's Guarding the Treasure?

Reform always takes place in a reality of limited resources and competition. Whom should we assume will guard and protect a young and fragile program from damage or destruction by political tampering? While several of the coded comments pointed to an awareness of this need, there was no agreement from the stakeholders as to whose responsibility it ought to be. Advisors thought the administrators were responsible, while the teachers saw the advisors as being responsible (Tables 4.5 and 4.7). Administrators and parents failed to identify the need for this guardian function. None of the stakeholders identified their own role as that of "program guardian," and no one suggested that the parents might contribute to this role. If any single finding from this study could be seen as illustrative of the reasons for the closing of the Academic Program, it would be this one. When it came time for a decision about the future of the Academic Program, there was no responsible guardianship dynamic in place. Thus, in any transformational reform effort, the importance of the guardian role should be recognized early on, and a consensus reached about the ways each group of stakeholders might contribute to that role.
This study has identified particular qualities among the key players who are involved in a transformational change process. What final form might the findings and insights of this study regarding the stakeholders take? Tables 4.1-4.6 are informative, featuring numerical analyses of comments, titles of columns, and even the visual drama of empty table cells. They represent a synthesis of hundreds of pieces of identifiable data and of comments and images regarding what worked. Table 4.7 is a unique and less verifiable presentation of the stakeholders' comments. It is one person's suggestion of the possible mental models (or images) that lie behind the stakeholders' comments (or messages). This image analysis product is included in this document because it provides additional insights into the operating assumptions of the stakeholders.

If the identified qualities of these five constituencies and their inter-relatedness do hold keys to successful systemic reform, a metaphor more appropriately encapsulates these insights. Many cultures throughout history have found utility and beauty in the wheel. Its elegant simplicity, ancient roots, and futuric formats make it a unique archetype and appropriate symbol for transforming education. The spokes of the wheel in this symbol would be: empowered students, included parents, active advisors, trusting administrators, and pro-active teachers; problem-posing, completely planned, deliberative curriculum becomes the hub. Action begins as the wheel turns on daily student learning experience with the point of contact community agencies on the grounded, real-world. When this wheel of transformation rolls into any school or district, it must have all five spokes, a solid structure, and more than kinetic energy behind it!
Wheel of Educational Transformation

Completely planned, problem-posing, deliberative curriculum

Empowered Students

Active Advisors

Proactive Teachers

Included Parents

Trustimg Administration

Daily Student Learning Experiences

Daily Student Learning Experiences

Local Community Agencies

Point of contact...

...heightened learning

Students address community issues and create solutions.
Insights About the Nature and Design of Curriculum

Today, our national goals and state standards are symbolic of the subject-orientation and knowledge-as-subdivided-pieces philosophy that drives much of educational reform. In school districts across the nation, standards are written in a language of what teachers will teach (benchmarks), what the students will know and be able to do, and how students will be assessed on that knowledge. The planners of the Academic Program intended their model of second-order change to be something quite different--change from the traditional high school with subject matter divided into Carnegie units and a knowledge-driven, curriculum-coverage approach. By examining the documents of initiation (see Appendix A) and the curriculum design methods (see Appendix C) it is clear that they intended a discovery-based, pragmatic approach to maximized learning. They intended interactive instruction, inspired by the needs of the community; they intended that the students would learn from the future.

It is curious that, in the objectives-oriented school climate of the 1980s, the administrators had the most to say about the students (Table 4.4) while the teachers had the most to say about curriculum (Table 4.3). Three hundred fifty-nine of the 401 non-role coded comments had to do with pedagogy and curriculum and 28% of the coded comments were about only curriculum. One might not expect to find curriculum as a central focus of the perceptions. It may be concluded from these analyses of the data that the curriculum of the Academic Program was understood by everyone, engaging and collaborative, and was connected to the real world. When these aspects are included in a reform event, second-order change is intended and enabled. It would be less likely to find agreement between young adults and their parents on a question like "what worked in high school?" The central position that learning holds in the
comment tables, however, reveals the memorable nature of the learning activities in the Academic Program's delivery model.

What exactly do we know about the curriculum of the Academic Program? This study has detailed many of the curriculum strategies implemented throughout the program, as well as the weekly and daily practices of the staff. From archival documents related to the planning phase (see Appendix A) as well as from program artifacts, several important values relating to the systemic nature of reform can be identified: (a) a student's time is equal in value to a teacher's time; (b) action takes place in and for the present—not just for the future; and (c) the community of learners as a whole has both needs and experiences, and must be cared for. These recurring values imply an awareness by the planners that serious reform involves changing a complex dynamic system, whose whole is greater than the sum of its parts.

In addition to the above esoteric framework, the examination of artifacts revealed that the Academic Program curriculum operated with these three foundational pieces (see Appendixes A & C):

• Each unit, project, and course learning plan had two different objectives statements—a "rational (or measurable) objective" and an "existensial(sic)(or experiential) aim." (The second form may have contributed to the stated sense of freedom and empowerment on the part of the students.)

• The program plan and many of the projects and units were framed in "desired images" about school, community and self.

• A project theme delivered in curriculum units over a semester of time and situated in the needs of the larger community made learning meaningful.

Let us examine each of these three aspects of the curriculum further.
Two Different Types of Learning Objectives

Each major unit and lesson plan of the curriculum of the Academic Program featured two types of learning objectives -- a measurable objective and an experiential aim. While the measurable objectives are customary in instructional planning, a consideration of what experiences might enhance the learning objectives is a unique approach. The experiential component served to inform the "how" of lesson plan delivery and encouraged continuity of student experience. John Dewey writes of worthwhile educational experiences, or continuity of experiences: "Experiences, in order to be educative, must lead out into an expanding world of subject matter, a subject matter of facts, or information, and of ideas. . . . a continuous process of reconstruction of experience" (Dewey, 1938, p. 87). Dewey's mandate would seem enabled by this two-part planning approach and is consistent with Alfred North Whitehead's (1949) concept of "occasions of experience."

Image-Based Planning

This lesson planning strategy takes into account not only the major concepts and skills intended for mastery, but also the key assumptions brought by the stakeholders, generally the students, into the classroom. Previous applications of this approach have been documented in the area of community development; further action research in the field of education is implied by the findings of this study. As demonstrated in the Academic Program, there are at least these two additional applications for the methodology in education: 1) Teachers and advisors can use this method to formally articulate a desired image and design strategic curriculum messages that may produce it, much as a commercial message is beamed to a
television audience; 2). Teachers can use image analysis to gain insights into the habits and behaviors of a problematic student; (Example: "Do his resistant actions or statements indicate a negative image of algebra class, or a negative image of his own math abilities?" In this latter case, student comments and behaviors are the clues to hypothesizing the image.) Once a possible negative image has been identified, the teacher can deliver strategic messages to that particular student.

A Project Theme Each Semester

The curriculum of the Academic Program was community-situated and deliberative (Chapter 1). The frequency and nature of references by interviewees to the project component of the curriculum design have implications for encouraging active, connected learning and for the role of the larger community in overall high school design. Throughout nine years of project activities, I observed students collaborating with others on root causes of community issues, eventually formulating recommendations. As the math teacher on the original team of four teachers, I can witness to the amazing impact that these projects had on students of all backgrounds and abilities. During the "water project," for example, I watched in amazement as urban high school students got worked up over the effects of water policy on rural farmers, surprising themselves as much as the faculty. In general, the intensity of the projects motivated underachievers to excel and signified the talents of the gifted; the team assignments provided teachers with a way to structure intentional peer influence, while the teamwork itself provided an opportunity for latent leadership to flourish. The project products or solutions provided the community with a smorgasbord of possible solutions to real and troublesome problems. The project quickly took on an
instructional life of its own. It provided for the students an experience of vocational usefulness, a curriculum attribute that is difficult to achieve, yet critical for the young of our time.

The descriptions of the community-wide components of the Academic Program are consistent with the descriptions Dewey (1902) made of community linkages for schools. John Dewey is widely recognized as a great innovator in education. His writings have taken on a timeless quality. His reflections on student behaviors and teacher propensities seem often to refer to situations of the 1990s as well as the 1890s when they were first written. He recognized the need for synthesis of the social, the psychological, and the philosophical elements of schooling. His pragmatic approach was a natural combination of inquiry and relatedness. It was at odds with the artificial pedagogy of most classrooms. Instead, he called for "a mode of activity on the part of the child which reproduces, or runs parallel to, some form of work carried on in social life" (p. 132). The subject matter of the studies must be re-connected to the experience from which it has been abstracted. "It needs to be psychologized, turned over, translated into the immediate and individual experiencing within which it has its origin and significance" (p. 22). The project component of the Academic Program's curriculum served this function each semester.

Reid (1992) purports that deliberation of many groups & perspectives are important in the curriculum process. Teachers, students, subject matter milieus, and curriculum-making are all important and unique sources of knowledge that need to be given equal weight in deliberation. He further laments that in our time, few are trying to establish a common interest.
These interactive pedagogical practices are what education literature terms critical pedagogy (Knoblauch & Brannon, 1993). These authors define such teaching as being "... about the willingness of people to inquire and change and make changes, to accommodate themselves to differences, and to read the social world, in its complexity, for the promises it makes about the qualities of its members' lives and the extent to which it delivers on its promises" (p. 49).

They further cite Pamela Annas, in O'Malley's, Politics in Education as saying: "Radical teachers believe theory and practice are not separable" (p. 48).

That the Academic Program teachers practiced this approach was evidenced by teacher Cassidy Weber's description of the learning environment created by the projects:

"It was a learning process for all of us... there was a big contrast. {The students} had probably never been in a school where they did that kind of thing before... {There was} a combination of their academics in a novel way... they could bring their career skills into the classroom when we did the projects so they could see a practical use for what they were doing and how it all intertwined.

Is the Project Approach, as a process of engaging any student anywhere in his/her community's future, replicable? Probably not in its entirety. It is the creative response of one group of master teachers to the needs of one group of high school students in one particular urban school. The Academic Program at CEC did have as its story and impetus that it was important for students to respond to perceived needs in their community and world. The specifics of each particular project provided a context or narrative for the English, math, science, and social studies investigations that term. Such a process of devising a community-based, active learning experience with relevant ties to the future could certainly be every school's goal.
Other Connections

Central Park East Secondary School

In addition to the three aspects of the Academic Program curriculum detailed above, three other related aspects bear further comment.

One cannot help but notice the marked parallels between the Central Park East Secondary School (CPESS) and the Academic Program. While the planning team of CEC's program was not aware of its counterpart in the New York Harlem neighborhood, the two were programmatically alike in these ways: a) date--CEC's Academic Program began in 1986, CPESS began in 1985; b) size--Class sizes and staff sizes were about the same--both averaged about 100 total students at a time; CPESS having a slightly lower student-teacher ratio; c) entrance requirements--None; both were eager to serve a microcosm of society; d) culture--both sought to create a caring learning community with celebrations and mournings; e) philosophy--both subscribed to the progressive schools approach inspired by John Dewey (1938); f) experimental--both saw themselves as doing action research on behalf of the larger reform movement; g) demographics--both were urban-based with high minority enrollments.

In addition to the above striking similarities, there were also these major differences: a) CPESS was initiated by a school district incentive and with university advisors, while CEC's Academic Program was initiated by teachers and administrators with research agency advisors; (University advisors became involved at a later time.) b) urban Denver is less affected by drastic social and economic factors than is east Harlem; c) CPESS took place at multiple sites, while CEC is one unique magnet school; d) CPESS had an elementary program which preceded it; CEC's
Academic Program was always only at the secondary level, and primarily with 11th and 12th graders.

In light of these similarities and differences, one wonders how significant an ongoing information exchange would have been between these two programs, had they known of each other's work.

Motivational Nature

It is also worth noting that participants referenced learning activities as interesting, not boring, (Tables 4.1, 4.2, & 4.3). This may be a product of the planning methods used, or a simple decision to view learning in a different way. Curriculum theorist Maurice Holt, in his 1996 article "Casablanca and the Making of Curriculum," details the roles and tasks required in the making of an engaging movie, and applies this understanding to curriculum-making. Using the characters and plot of Warner Brothers' 1942 film Casablanca as his illustration, Holt says,

If we suppose that, in curriculum terms, the analog of the movie and its story is the narrative that unfolds in the classroom, then teachers developing a curriculum assume at various times the role of writer, director, and part-producer of the movie. In the process of curriculum, teachers and students become both contract players and beneficiaries of the experience. The principal's role has production aspects.... (p. 5)

It may be assumed that the task of writing a movie script would be undertaken with different intents and expectations from that of writing a lesson plan, and that these very intents have everything to do with the final product and its effects.
Learning Community

Finally, a sense of community was both an internal and external reality for the Academic Program. The program itself became a learning community; though this was not stated as an initial intent, student interview comments defined and highlighted it. Within the school community, all students had important tasks for which they were responsible. Second year academic students (seniors) valued leadership assignments. The importance of social context to learning is detailed by Lave and Wenger (1991). Their theory of social practice claims that learning, thinking, and knowing are relations among people who participate in activity, in, with, and arising from the socially and culturally structured world (p. 51). Further on, they conclude that "Activities, tasks, functions, and understandings do not exist in isolation; they are part of a broader system of relations in which they have meaning. . . To ignore this aspect of learning is to overlook the fact that learning involves the construction of identities" (p 53).

In Democracy and Education (1916), John Dewey states, "The measure of the worth of the administration, curriculum, and methods of instruction of the school is the extent to which they are animated by a social spirit . . . In the first place, the school must itself be a community life" (pp. 415-416). The Academic Program at CEC intended and accomplished meaningful, connected learning, and a spirited community of learners evolved. Further interview comments illustrate this. For example, Cloud reflected on her experience of this learning community aspect:

- It's not that I said, "Oh! I want to be a leader, and I want to have leadership skills and so this is what I'm going to do." It was just a natural thing that--in that environment--that it would come out. . . Everybody could be a leader because they would always be able to bring something that nobody else would have.

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Assistant principal Theo Withos commented during his interview that "we did a whole lot . . . to integrate the academics to make them come together--through the projects and the midterm session."

Advisor Rae Tennyson recalled primarily the "students' attitudes, and the educational process [in which] they were really learning how to do research and how to present--how to integrate . . . and things were connected."

Curriculum reformers advise that meaningful curriculum experiences have an element of deliberation in them. William Reid defines this as a method of inquiry that is applied in cases where the problem to be solved is a practical one (p. 78). Holt (1996) cites Reid: "The key to an effective curriculum for schooling is the question of how all the experience represented by teachers, students, subject matter, and the milieus can be brought together to yield a workable plan that solves problems faced by curriculum in both its institutional and its practical aspects" (p. 2). The planners, teachers, and students of the Academic Program accomplished this.

In conclusion, perhaps the last word in the curriculum section should go to the teachers. How do the Academic Program teachers explain their understanding of themselves and their success? Caron: "You have to have a compatible bunch of people who are creative together; we could choose new teachers (to the team); you have to understand {that} the background and philosophy of what we were doing was important" (Weber): "We had time (extended planning period-1/2 day on Fridays) to evaluate the kids, [plus] it gave us time to get together and plan." Heston: "We talked every week and every day about those kids; we were accountable to those kids; I loved the Fridays--it was a time to confer with the kids in a different kind of way."
Implications for Further Research

Specific education communities may want to peruse the findings of this study for insights relevant to their particular interests and for further investigations. For example:

**Teachers and administrators** should pay close attention to the teacher-administrator relationship findings. Also of relevance to these groups are the learnings about successful reform practices (pro-active teachers, and empowered students). Both stakeholder groups should be aware as well of the learnings about the importance of the community in creating meaningful and motivational learning experiences. The community is an interesting learning environment; the community needs the energy and support of its young, and the young need realistic and encouraging experiences with many diverse community groups.

**District-level curriculum advisors and educational consultants** have the daily responsibility of planning for change—the image-change strategies used by the Academic Program advisors could be investigated and practiced. Of special interest to this community may be the references to the "guardian role." The advisors may want to examine the findings on all of the stakeholder roles, their interactions, and the disjointed pieces. Further research into the history and development of the image-based instructional methods that are cited and documented by this study may be of interest.

**State legislators** make first-order reform decisions as regular practice. They might ponder how to encourage teacher-selected, strategically-planned local change initiatives. They might consider the social situation in its entirety as well as the
improvement of instructional strategies. Where second-order change is needed in our schools, they might address school-wide structures, individual students' needs, parents' perspectives and values, and previously-mandated curriculum content. They must recognize that mandates for structural changes must include resources and options for comprehensive implementations, as well as agreed-upon program assessment procedures. There is no quick fix or common reform approach that works for everyone.

Those involved with teacher education programs—both pre-service and in-service program instructors and agencies—should have interest in the findings about the teacher-administrator relationship, about pro-active teachers, and about results-oriented curriculum. Also of special relevance to this entity are the instructional planning techniques. This study has shown that image-based planning and instructional methods help to frame second-order change. It has also documented a curriculum design process that includes a stated experiential objective—that of desired student experience. Further investigation into these two methodologies would seem advisable.

What if there were to be developed a formal (interdisciplinary) link between the schools of education and the departments of cognitive psychology at the university level? Fullan (1993) strongly suggests that those who are involved in teacher education not recommend things that they themselves do not practice, and this particular interdisciplinary link seems an advisable and informative one for all parties—researchers, professors, and teachers in the field.

Funding agencies in charge of deciding to which education innovations precious resources should go, may want to examine this study's findings about
stakeholder groups, and channel money into programs with components of "empowered students," "included parents," "pro-active teachers," "trusting administrators," and "active advisors." School districts and other educational communities work hard to innovate, plan comprehensively, and disseminate large sums of money equitably and efficiently. The findings of this study provide a framework within which to work smarter and budget wisely.

**Educational researchers** are interested in all aspects of the reform process, especially those related to instructional methodologies and societal impacts. In this case, the frequency of interview comments about the project component of the curriculum suggests the need for further investigation into that process. The findings of this study suggest that the community representatives who were involved with the projects in the Academic Program have important insights needing documentation. Volunteers from the social agencies, political campaigns, elected officials, and special interest groups, who came into the school for presentations or worked with student teams during the two weeks of problem-solving, have learned something about what it really means for the community to become more involved in the schools at the classroom and instructional levels. What were the benefits and costs to these individuals and groups? What formal, structural links would enable regular involvements with the student population in the future? We must continue to seek out new and efficient ways to link the schools with the larger community, to engage students in learning that is both rigorous and connected. We must continue to struggle with this larger research question: "culture shapes mind; what we resolve to do in school only makes sense when considered in the broader context of what the society
intends to accomplish through its educational investment in the young” (Bruner, 1996, p. ix).

Concluding Ruminations

Why do some reform programs succeed and others do not? While the question persists, there may never be a definitive answer as multiple variables—people, curriculum, local politics, national goals and policies, available funding, technologies, and warring philosophies and perspectives ebb and flow across historical time. However, this study has identified several markers that do seem to point towards success. This study began with the examination and comparison of the five constituencies of students, participating parents, teachers, building administrators and advisors. It produced detailed matrices that allowed the comparisons of interview comments. The findings provide extensive data about the roles of the five groups and the effective instructional approaches and planning processes used. The stakeholder findings are some of these success markers, as are the specific planning processes. The signification of academic learning—worthwhile tasks by imbedding of the subject matter in the community—is another. There are many impressive and noteworthy reform programs worth further investigation, and this research focus should continue.

Are the standards—not yet a reality when the Academic Program was in place—a piece of this puzzle? Another marker, perhaps? There is no question that high school graduates should know essential cultural information and be able to perform those tasks required for success in society. Yet standards do not address the "why" question; they do not take into account the human factor. Philosophical assumptions, unanticipated at the start of this study, were built into the curriculum design and eventually emerged as significant. The existentialist position, grounded in the
experience of existence, influenced the project and lesson planning by design. As teachers considered what they wanted the students to experience in order to master a particular concept, they were encouraged to include the needs of the student in the planning. It may help to account for the many comments about freedom and responsibility that comprise the Personal columns in Tables 4.1-4.5.

The relational aspects between the stakeholder groups and with the curriculum has been described and discussed. This relational aspect of stakeholder roles has also been examined and discussed at length by others. Fullan (1991, pp. 133-134) cites a study by S. Rosenholtz (1989) that links a collaborative work culture with successful schools. Rosenholtz found that:

Where teachers request from and offer technical assistance to each other, and where school staff enforces consistent standards for student behavior, teachers tend to complain less about students and parents. Further, where teachers collaborate, where they keep parents involved and informed about their children's progress, where teachers and principal work together to consistently enforce standards for student behavior, and where teachers celebrate their achievements through positive feedback from students, parents, principal, colleagues, and their own sense, they collectively tend to believe...their instructional practice (p. 137).

Rosenholtz, according to Fullan, (1991, p. 134) further found that "teacher certainty and . . . commitment feed on each other. . . increasing motivation to do even better. . . all of these factors served to channel energy toward student achievement."

The Academic Program at CEC accomplished both collaboration and celebration, which enabled the participants to meet further goals that were enormously complex. Such relating among stakeholder groups might become a clear and simple goal for reform.

The word curriculum derives from the Latin verb curro (currere) "a verb that stresses process (Reid, 1992, p. 15). Examples of the processes used to plan and

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implement the Academic Program provided substantial data for this case study. But just what is process? A branch of philosophy called process philosophy, whose most famous writer is Alfred North Whitehead, defines human experience in terms of "occasions of experience". A contemporary process writer states that "a process consists of integrated series of connected developments unfolding in conjoint coordination in line with a definite program" (Rescher, 1996, p. 38).

John Dewey was a pragmatist in his approach to education, but his metaphysic was that of a processist (Rescher, 1996). Process philosophy holds that "what exists . . . is not just originated and sustained by processes but is in fact ongoingly and inexorably characterized by them" (p. 8). Because the same could be said of the Academic Program, it may be described as processist as well.

Curriculum design was a biannual process (the semester project). The process of image-analysis guided the curriculum design and was used weekly to staff and counsel students. The experience of the whole learning community was always considered in the planning as well as in the guiding of the individual players (see Appendix A). These factors imply that process philosophy plays a role in the conceptualization of second-order change and meaningful learning. It is clearly a radically different way to plan for learning.

Philosopher and educator Maxine Greene envisions a "humane framework" for the kinds of education that will be required in the technological, 21st Century. My hope aligns with hers, which she describes as "reminding people what it means to be alive among others, to achieve freedom in dialogue with others for the sake of personal fulfillment and the emergence of a democracy dedicated to life and decency" (Greene, 1988, p. xii).
Driven by a yearning to provide interesting and effective schools for the children of the emerging generation, we might do well to remember these several, final insights: brood on what it means to be alive among others; plan for the experience of the whole learning community; and recognize the related nature of the stakeholders.

Let the wheel of transformational change roll on!
APPENDIX A

PROGRAM-INITIATING ARTIFACTS

Program Design Booklet
Student Input Workshop Results
Program Promotional Brochure
<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>CURRENT TRADITIONAL COURSE / CREDIT APPROACH</th>
<th>OUTCOME-BASED COMPETENCY APPROACH</th>
<th>1986-87 PILOT (PROJECT COMPETENCY) APPROACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINITION</td>
<td>A process in which students &quot;take&quot; courses to &quot;earn&quot; credits toward graduation.</td>
<td>Teacher and community compensate on &quot;exit outcomes&quot; defining units of study the competencies of which, when successfully completed, allow the student to move on at his/her own learning rate to the next unit.</td>
<td>Student interests and motivation define team projects which contain specific multidisciplinary units and fulfill competencies. (See #3.)</td>
</tr>
<tr>
<td>ASSUMPTIONS</td>
<td>Students earn credits by class attendance and achievement. The task of the school is to prepare students for the future and keep students busy.</td>
<td>Students pass competencies which signal advancement and mastery. The task of the school is to prepare students for the future by assessing competency in prescribed skills.</td>
<td>Student interest is catalyzed by the challenge of the project. The task of the school is to initiate students into life by discovering learning processes and by guiding the first phases of his/her journey.</td>
</tr>
<tr>
<td>VALUES</td>
<td>Work — Used as a punishment or a threat; and to improve skills. Student — &quot;Good&quot; students are often prioritized over &quot;all students&quot;. Time — Students compete for skill levels within time. Learning happens in linear time. Student — less value than the teacher.</td>
<td>Work — A way to improve skills to accomplish a competency. Student — each student is accountable to own contract. Time — Competencies are achieved within time and at individual rates. Student — Teacher and each student’s time are of equal value.</td>
<td>Work — Fulfillment is found in the task itself. Student — Project holds student accountable, each student plays a different project role and so is seen in a community setting. Time — Provides a frame within which learning projects are phased; learning happens through units of experience. Student — Teacher and each student’s time are of equal value.</td>
</tr>
<tr>
<td>MATERIALS</td>
<td>Resources — Textbook and teacher Curriculum — Board approved and teacher selected.</td>
<td>Resources — Problem to be solved, teacher, textbooks as needed. Curriculum — Exit outcomes which define yearly outcomes in each discipline.</td>
<td>Resources — Community agencies and institutions, teacher, textbooks, films, library, other students Curriculum — Exit outcomes which define unit outcomes and are enhanced by project descriptions.</td>
</tr>
<tr>
<td>MOTIVATION</td>
<td>Student motivation — comes from earning grades — class placement and competition. Purpose of learning — to assure future success.</td>
<td>Student motivation — success in completion of outcomes which releases momentum for next outcome. Purpose of learning — maximize the present learning rate and student interest by moving from competency to competency.</td>
<td>Student motivation — Is the initiation of a project and vs maintained by the project. Purpose of learning — focuses equally on the content and the process for present interest and future adjustment.</td>
</tr>
</tbody>
</table>
### CONTENTS

#### Contextual Statement:
How does this work function to take the Career Education Center's Academic Core Program to the next step? (A School Within a School)

#### 1986-87 Schedules for the School Within a School
- **1986-87 Project Schedule**
- **Weekly Schedule**
- **Orientation Week Schedule**
- **Chart Six Steps of "Project Building"**
- **Chart Six Phases of Project Learning**
- **Resources & Back-up Materials File (not included with this document):**
  - "Walkabout" by Haurice Gibbons
  - Systems of Learning Chart by Oliveann Slotta
  - "Student's Perspective" by Maurice Gibbons
  - "Teacher's Perspective" by CEC faculty
  - "Four charts by CEC faculty" to current directions in BPS by Burns

#### Implementation Models:
- **Orientation Week: Plans and Daily Procedures**
- **Orientation Week Schedule Form**
- **Student Project Selection Worksheet**

### Table: Six Phases of Project Learning

<table>
<thead>
<tr>
<th>Discerning the Projects</th>
<th>Maintaining Increased Motivity</th>
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<tr>
<td>Imaging the Product</td>
<td>Imaging the Product</td>
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<tr>
<td>Surface to Depth dialogue step workshop process (summative integration)</td>
<td>Surface to Depth dialogue step workshop process (summative integration)</td>
</tr>
<tr>
<td>Project description draft</td>
<td>Project description draft</td>
</tr>
</tbody>
</table>
# School Within a School: Projects Unlimited

## Learning Through Discovery Is a Life Process

### Plan & Launch

- **Phase One:** Getting the Book Out
  - **August:** Orientation
  - **September:** Plan/Project
  - **October:** Phase One: Getting the Book Out
  - **November:** Plan/Project
  - **December:** Plan/Project

### Faculty Planning

- **August:** Orientation
- **September:** Plan/Project
- **October:** Plan/Project
- **November:** Plan/Project
- **December:** Plan/Project

### Student Orientation

- **August:** Orientation
- **September:** Plan/Project
- **October:** Plan/Project
- **November:** Plan/Project
- **December:** Plan/Project

### Week Focus Areas:

- **Society—World Population: The Nuclear Age**

### Exit Outcome: Lived in the Real World

### Core Classes: Performance Focus

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<thead>
<tr>
<th>Core Class</th>
<th>Performance Focus</th>
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<tbody>
<tr>
<td>Social Studies</td>
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<tr>
<td>Science</td>
<td>Science</td>
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<tr>
<td>English</td>
<td>English</td>
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<tr>
<td>Math</td>
<td>Math</td>
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### Weekly Schedule

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<th>Day</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tr>
<td>8:50 AM</td>
<td>Core Class 1</td>
<td>Core Class 1</td>
<td>Core Class 1</td>
<td>Core Class 1</td>
<td>Core Class 1</td>
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<tr>
<td>9:30 AM</td>
<td>Core Class 2</td>
<td>Core Class 2</td>
<td>Core Class 2</td>
<td>Core Class 2</td>
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<tr>
<td>10:15 AM</td>
<td>Core Class 3</td>
<td>Core Class 3</td>
<td>Core Class 3</td>
<td>Core Class 3</td>
<td>Core Class 3</td>
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<td>10:45 AM</td>
<td>Core Class 4</td>
<td>Core Class 4</td>
<td>Core Class 4</td>
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</table>

### Core Classes: 1st Semester

- **Project Team Meetings**

### Core Classes: 2nd Semester

- **Project Team Meetings**
## ESSENTIAL ELEMENTS OF
CEC ACADEMIC CORE PROGRAM
AUGUST 1986

### WE SHOW UP

**AN ACTION STYLE:**
- Pizza Downtown Celebration
- Going Outside A lot
- Individual Validity
- Peer
- Student Project Teams
- Guest Speaker
- Newspaper
- Party Outside in the Snow

**A COMFORTABLE MOOD:**
- Comfortable
- Nice Teacher
- People Laughing
- No Bells

**Don’t Push You**

### WE WILL BE

**CREATING DENVER IMAGE OF CEC:**
- CEC Sports Identity
- Video for T.V.

**ENCOURAGE TOTAL SCHOOL SPIRIT & PARTICIPATION:**
- Spirit
  - Teams in School Competitions
  - Not Active for whole school
  - S For Going To School
  - Whole School Events
  - Bazaar

**ASSURING STUDENT INCENTIVES & IDENTITIES:**
- Different from other Schools
- Teacher want you to learn
- Friendly Teachers
- Project Awards
- Career Experience
- Good Facility
- Progress

**USING THE DENVER COMMUNITY AS A RESOURCE:**
- Resource System
- Fund Raiser as a Project
- Collaboration

### WE SHOW UP AS

**TEAMS OF PROBLEM SOLVERS:**
- Solve a Big Program
- Cooperation
- Student & Teacher talk to each other

**A CORE OF EFFECTIVE LEARNER:**
- Everyone Has Supplies
- Fewer People
- Special Breed
- Modern Varied

- New Programs
- Dialogue
- Responsibility
- Small Classes
- A Chance to Start Over
- Individual Help
- Different Way to Learn

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# NEXT STEPS TO DO

**RECOMMENDATION FROM STUDENT**

**ALL-DAY WORKSHOP ORIENTATION WEEK**

**1986**

<table>
<thead>
<tr>
<th>DURING SEPTEMBER</th>
<th>GRADES</th>
<th>PROGRAM IMAGE</th>
<th>PERSONAL SUPPORT</th>
<th>RESPONSIBILITIES</th>
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</thead>
<tbody>
<tr>
<td>Take a survey &amp; Write a summary</td>
<td>Summarize the &quot;what is this program&quot; paragraphs</td>
<td>Students meet &amp; maintain communication</td>
<td>Everyone-Each Student states their individual learning goals</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEPTEMBER 25 &amp; 26</th>
<th>GRADES</th>
<th>PROGRAM IMAGE</th>
<th>PERSONAL SUPPORT</th>
<th>RESPONSIBILITIES</th>
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<tr>
<td>Read the Summary &amp; refine into an official statement Create a symbol &amp; decide a name</td>
<td>Total Participation</td>
<td>To decide to go to Balarat</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>AFTER SEPTEMBER 26</th>
<th>GRADES</th>
<th>PROGRAM IMAGE</th>
<th>PERSONAL SUPPORT</th>
<th>RESPONSIBILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research other schools' models private and innovative, etc.</td>
<td>Use projects &amp; special activities to keep everyone involved</td>
<td>Ongoing Participation</td>
<td></td>
<td></td>
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</table>
NAMES BRAINSTORM

BOARD 1

1. ODYSSEY
2. QUEST UNLIMITED
3. VISION UNLIMITED
4. PROJECTS WITH A PURPOSE
5. GO FOR THE GOAL
6. GO FOR THE GUSTO
7. PROJECT UNLIMITED
8. RUG BY (RUGGED)
9. PLP-PERSONAL LEARNING PROGRAMS
10. VLP-VOCATIONAL LEARNING PROGRAMS
11. OPPORTUNITY
12. OUTER LIMITS
13. UNBOUND EDUCATION
14. PATHWAYS UNLIMITED
15. PATHWAYS TO SUCCESS
16. CAREER PATHWAYS
17. LEARNING PATHWAYS
18. EDUCATIONAL PATHWAYS
19.
20.
21.
22.
23.
24.
25.
26.
27.
Learning Through Participation

Denver Public Schools

classes are sized so you will get personal attention and have the opportunity to share your insights. Throughout the four-semester program, you will have opportunities to take traditional classes in areas like English, math, science, and social studies.

Would you like to be respected as an individual with valuable ideas?

During many group activities, students will work together and help one another.

You will:
• Be treated as an adult

Although the program stresses cooperation above competition, students are often recognized for academic excellence and community service during high school and they excel in future education and careers.

Would you like the opportunity to set a good example and be a leader?

Instructors:

This participatory academic program is designed for non-traditional students who like to learn about themselves and their world through discovery, hands-on experience, and community contact. The importance of recognizing diverse learning styles has made it necessary to develop new approaches to teaching. The unique learning style of each student is identified and teaching strategies adapted to the student's needs and the semester theme.

Would you like to have a say in planning your own education?

You can learn at your own rate and participate in projects you propose. Each semester, you can find challenges and integrate your career and life goals into class activities.

Would you like the opportunity to set a good example and be a leader?

Although the program stresses cooperation above competition, students are often recognized for academic excellence and community service during high school and they excel in future education and careers.

Would you like the opportunity to set a good example and be a leader?

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Would you like the opportunity to set a good example and be a leader?
APPENDIX B

PROJECT ARTIFACTS

Project Summary Chart

Sample Project Documents and Artifacts

Immigration Project

Sample Student Team Reports
### The Project Approach to Integrated Learning

**Fred N. Thomas Career Education Center**

**October, 1990**

<table>
<thead>
<tr>
<th>PROJECT TITLE</th>
<th>VOCATIONAL/</th>
<th>LEARNING EFFORTS</th>
<th>COMMUNITY GROUPS INVOLVED</th>
<th>NOTES</th>
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<td>10 Denver High Schools</td>
<td>Surveyed students in all 10 Denver public high schools</td>
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Project Team Selection Worksheet
Fall 1994

Student Name ____________________ Career Class: __________________

Directions: Listed below are the teams that we need to carry out our two week problem-solving project on immigration. We are formally calling this project "Crowded Shores, Closed Doors". While we need 3 - 5 persons on each of these teams, we would like to give you the opportunity to indicate your interest in a 1st, 2nd and 3rd choice manner. Please put a "1" beside your first preference for a team, a "2" beside your second choice, etc. Please read the specifics and consider carefully where your career and personal skills might be most helpful in making recommendations to our Congressional Committee on Immigration regarding this important issue.

The following teams represent all of the important "players" involved in the immigration issue as well as some of the special interest groups by category.

Federal Government and UN Groups:
1. U.S. Congressional Committee on Immigration - This project will focus on a report to this committee. As a member of this team you will organize and host a committee hearing where each team will present their perspective to CEC.
2. INS - Immigration and Naturalization Services - This agency enforces immigration law and national quotas in all states. Interview someone from this office. What are their opinions on our national policy? What do they like/dislike about their job? You will "be" the INS.
3. The UN Office of High Commissioner for Refugees - Monday, Oct 24 is UN day. Visit the local UN office and obtain information about the UN's work on refugee issues globally. What are the ethical and practical issues involved?
4. The organization of Eastern Caribbean States - What does this organization do and why does it exist? What are the member nations? Represent its position at the hearing on the last day.

Significant (top five) National Origin Populations (*legal) (#illegal):
1. *Russia - For the first time in nearly 100 years citizens of the USSR are permitted to emigrate. Many Russians have come to this nation because of religious persecution - primarily Jews and Orthodox Christians. (Remember Boris?) What are their pressing needs?
2. #Cuba - In recent months approx 19,000 Cubans per month have been arriving in Miami in small boats - illegally immigrating. You represent this group of people. What should our nation's policy be on such situations and why?
3. *Mexico - 214,000 Mexican nationals were admitted to this country legally as immigrants in 1992. From the perspective of this NAFTA country, should we increase or decrease this number. Why?
4. *Vietnam - 78,000 Vietnamese nationals were admitted to this country legally as immigrants in 1992. Why are immigrants from this Asian nation welcome here at this time when others aren't? Defend them!
5. *Dominican Republic - 42,000 D.R. nationals were admitted to this country legally as immigrants in 1992. Why are immigrants from this Caribbean nation welcome here at this time (vs others)? Represent their position.
Philippines - 61,000 Philippian nationals were admitted to this country legally as immigrants in 1992. Why are immigrants from this nation welcome here at this time?

The nation of Panama has recently offered to house 10,000 Cubans for six months. Why did they do this? Their position is your position for our project.

State Governmental Agencies:

- Colorado Welfare Office - What is the connection between new arrivals into our state and nation and the various welfare programs available? Who pays for these costs?
- "Colorado Cares" Health Plan - This long term health care coalition will be concerned with the costs to taxpayers of providing health care services to immigrant and refugee populations.
- Colorado Aids Project - Serves the needs of persons that are diagnosed HIV positive. This team would represent a position of whether or not persons so diagnosed should be permitted to enter this country legally and so strain our already inadequate health care system

States With Highest Immigrant Populations:

- California - More than 2 million illegal aliens already live in CA and an estimated 2000 more cross the border each day. A ballot initiative, Proposition 187 would bar children of illegal aliens from attending public schools (300,000 children).
- Florida - Boat loads of illegal aliens arrive on Florida southern shores every week. Agencies in Miami exist to deal solely with this problem, costing both the state and city millions of dollars annually.
- Texas - Texas shares well over a hundred miles of border with the country of Mexico. Border towns are the sites of frequent border crossings - both legal and illegal. This state has the third highest immigrant population in the US and all of the system impacts that accompany it.
- New York - This state has always been a gateway for immigrants. In the past, it has been proud that our symbol, the Statue of Liberty, is located in its harbor and that the Ellis Island has been the "first stop" for European immigrants.

Community and Religious Agencies:

- Lutheran Immigration Services - Deals with resettlement issues and policies for primarily protestant populations.
- Catholic Immigration Services -Deals with resettlement issues and policies for primarily Roman Catholic populations.
- Jewish Immigration Service - Recent warming of relations with the USSR has permitted immigration of Russian Jews into this nation for the first time in nearly 100 years. Entirely new systems need to be created for this population.

Special Populations:

- Refugee Women and Children - Refugees are those who flee a dangerous situation in hopes of starting over in a new location. This team will represent the perspective of the all-too-common global refugee phenomena of women and children who arrive in a new country in desperate need with little or no resources.
Haiti Boat People - This team will represent the perspective of survivors of a dangerous boat trip from the troubled nation of Haiti. Why take the risk? From what did you flee? What are your special needs? What should the US policy on refugees from Caribbean nations be and what makes your situation special?
Fall Semester 1994 • Project Learning Objectives
Crowded Shores, Closed Doors

For in-house use only

**Primary Images to be Shaped:**
Our uniqueness as a nation of immigrants
Complexity of the situation

**Rational (Measurable) Objectives**
Which U.S. states are impacted
Affects of global social change on immigration
U.S. Immigration Policy—how and when changed
Present immigration images vs historic
Role of immigration in terms of socio-economic
Role of immigration in terms of the labor force
Role of immigration in terms of welfare costs
Role of immigration in terms of social values—emphasis health and health care
Role of immigration in terms of politics
Ethical issues
Budget processes
What is a green card?
Geography of the Caribbean
Native American impact
What is the difference (technical) between an immigrant and a refugee?
Contributions of immigrants—culture, science, etc.
How to read charts and graphs
Immigrant advocate positions vs INS
Uniqueness of American historical perspective—foundations

**Experiential Objectives**
Experience the tension between our proud history as an immigrant nation vs the present situation and causes of the turmoil
Gifts of cultural diversity
Pain of hard choices for impact states
Empathy with the refugees
Write the word true or false in the blank beside each statement.

1. If adopted by the voters, Proposition 187 in California would provide additional funds for the education of the many children of illegal aliens living in that state.
   False

2. The initials INS stand for the Immigration and Naturalization Service.
   True

3. A "green card" is the equivalent of a work permit for legal aliens.
   True

4. Cubans are fleeing their country due to poor economic conditions brought on, in part, by a thirty year old United States embargo of that country.
   True

5. An Immigrant is someone who leaves his or her native country to settle in a new country.
   False

6. People are known as emigrants in the country from which they have moved.
   False

7. Refugees are people who flee their country because they are thrown out by their government.
   True

8. The United States is now known as a "salad bowl" rather than a "melting pot" because modern immigrants would rather retain their separate language and culture.
   True

   False

10. Immigrants cannot legally enter the United States if they have no job skills required by the U.S. economy.
    False

11. American history shows that when anti-immigrant sentiments rise too high, racist and discriminatory acts decline.
    False

12. The 1986 Immigration and Control Act forced 3.7 million illegal immigrants already in the United States to return to their home country.
    True
13. Under current law, to become a citizen, a legal immigrant must have a "green card", be at least 18 years old, have been a resident of the United States for five years and be familiar with English, unless they are over 50 years of age or have lived in the U.S. for 20 years or more.  **True**

14. Most legal immigrants apply for citizenship.  **False**

15. Most legal immigrants come from Mexico.  **False**

16. There are more political refugees in this country than illegal immigrants.  **False**

17. New York admitted the second highest number of immigrants in 1992.  **False**

18. Latin America and Asia are the origins of 85% of immigrants to the U.S.  **True**

19. Refugees from Haiti left their country primarily for religious reasons.  **True**

20. Supporters of the NAFTA, or the North American Free Trade Agreement, say it will change the face of Cuba by removing Fidel Castro from power.  **False**
Date: Monday, November 7  
MEMO
To: All persons and constituencies appearing at the Immigration Reform Hearing
Re: Final Details
• Today is your final set-up and prep time. Tomorrow at 9:55 be prepared to present a 2 minute report and to respond to questions.

• All team displays must be set up by the end of 2nd session today. A map showing the exact location of your display will be distributed shortly.

• Be sure to display all research material you used - articles, etc as well as all products from your research and your position paper.

• Photos and video tapes will be taken of the reports. Please dress appropriately.

• Several guests will be present at the reports. Ignore them.

Other Project Events:
During 1st and 2nd sessions tomorrow the career classes have been invited to drop by your displays. Talk openly with them about what your team's responsibilities were and what you learned. Be sure that your display is manned/personed during both sessions. You may miss your career class on Tuesday for this purpose if necessary. This is your academic class assignment for Tuesday.

About the Carnivál: A special team has been planning a Caribbean Carnivál in rooms 219 and 221 where the country and state teams will have their displays. There will be music - things to see and do - and Food. Please consider selling something at your team table with the proceeds to go to the El Pomar fund. There will be a bazaar table as well with small items from the Caribbean, so bring some money of your own to spend.

So What? So why are we doing this? Remember the serious nature of this issue. It needs to be resolved if this nation is to have a viable future. AND SO...on Wednesday during midsession your teachers have arranged for a facilitator to come and help us process all that you have learned. This implies - TAKE NOTES ON TUESDAY so you get the necessary info from all of the teams. The results of the Wednesday workshop will be your recommendations on immigration reform and will be sent to Pat Schroeders' office for delivery to the Congressional Subcommittee on Immigration.
ACKNOWLEDGEMENTS

A special thanks to the many career class teachers who willingly gave their time and expertise to the full time students.

Let's not forget all the team work that was put into this program. It could not been done without you! Thank You!

Caribbean Carnival
Katie Royce
Devin Wickham

Cover Design
Anders Olsen

Learning Resource Center
Cathy Jackson
Lee Cordova
Susan Gilbert
Claudia Finch

CEC Administrators
Mrs. Sharon Johnson
Mr. Bill Smith
Ms. Debbie Williams
Mrs. Patricia Johnson
Mr. Pete Hergenreter

Clerical Staff
Meg Blair
Carol Carpenter
René Coronado
JoAnn delHijastro
Judy Morr
Sachi Nagata
Ceci Wells

Academic Teachers
Gordon Heaton
Sonja Pedersen Carol Webb
OliveAnn Stotla

Panel Presenters
Rep. Patricia Schroeder
Alice Huppert
Barbara Diet
Kenta Stevens

Academic Math Volunteers
Michelle Agnew

WELCOME TO THE
U.S. CONGRESSIONAL HEARING
ON
IMMIGRATION POLICY
TUESDAY, NOVEMBER 8, 1994
U.S. Congressional Subcommittee on Immigration
Hosted by: Commission on Immigration Reform
10:00 a.m.-11:00 a.m.

Welcome Johnathan Moore
Moderator Yvette De La Cruz

Order of Presentations
1) U.S. Congressional Committee on Immigration
   (Johnathan Moore, Yvette De La Cruz, Tammy Valchalt, Chris Haney, Priscilla Bueno)

2) Mexico
   (Celena Sandowal, Carolina Jaramillo, Francisco Huizar, Adan Santillan)

3) Russia
   (Brian Marshall, Shawn Weitzel, Caleb Braaten, Ryan Carver)

4) Panama
   (Gennipher Burton, Ed Lewis, Devin Wickham)

5) Ecumenical Immigration Services
   (Andy Lehman, Anders Olsen, Isaiah Garcia)

6) Colorado AIDS
   (John Wilson, Martha Bailey, Damon Exum)

7) California
   (Ali Picard, Paul Lujan, Holly Scott)

8) New York
   (Ryan Calabrese, Katie Royce, Ama Lee-Gray, Lonic Reinal)

9) Texas
   (Jason Saulsberry, Henry Martinez, Ernesto Ocaña, Karsten Wynn)

10) Colorado Welfare
    (Candice Haro, Karen Tabb, Chris Garcia)

11) Refugee Women
    (Lateisha Shaw, Melissa Edwards, Paul Moya, Lisa Fitch)

12) Haitian Boat People
    (Angela Reese, John Dehman, Vincent Bailey, Brian Carter)

13) INS-Immigration and Naturalization Services
    (Nicole Vasquez, Anthony Rimbert, Bryan Stack)

14) Organization of Caribbean States
    (Jay Joy Ulion, Les Grant, John Mahoney, Margaret Martin)

Note: Names in italics are team leaders.

All are invited to attend the Immigration Forum tomorrow, Wednesday, November 9.
We will process the results of the team reports and write CEC's recommendations for submission to the
Congressional Sub-committee on Immigration.
ICA Facilitator, Linda Jones
Project Background: During the fall semester 1994 the full-time students at the John Dewey Career Exploration School (CES) participated in a special learning topic on U.S. immigration called "Crowded Shores, Closed Doors." In preparation for the increased emphasis on current news all students viewed a one hour Walter Cronkite news special on immigration, "Waiting at the Gates."

After several weeks of daily scanning the news for information on the many, complex aspects of this immigration issue, two weeks of intensive research and team problem-solving began on October 24. The first day featured a panel of diverse perspectives including a high school student who had immigrated to the U.S. from Africa, Barbara Carr from Catholic Refugee services and Representative Patricia Schroeder. On Tuesday November 8 each of the fourteen teams reported their learnings to each other and on the following day they were led through a reflection and proposal writing session by Ms. Linda Jones of Sundance Associates Facilitators. Ms Jones, a CES parent, volunteered her time to this worthy cause.

Process Note: The process used was a shortened version of the ToP strategic planning method developed by the Institute of Cultural Affairs (ICA). Following are the comments and proposals resulting from one this one class period workshop:

Question (Linda Jones): What facts do you recall from the team reports yesterday?
Responses (Students): "Panama's horribly poor." "The INS is messed up." "In New York 1 out of 5 inmates is an immigrant." "It's easier to get on welfare if you are an immigrant."

Question: What emotions do you recall feeling as the reports were presented?
Responses: "Individual pain of the issue caused me to feel sadness." "Discomfort. The stereotyping bothered me-- All immigrants are dirty, not educated, poor, don't want to work, etc." "Anger and frustration in that they are taking our jobs." "I'm happy when they become U.S. citizens."

Question: What results from negative emotions like frustration and anger?
Responses: "Riots" "Proposition 187's"
Question: We're going to talk now about your vision or desired future in the arena of immigration. What would you like immigration in the U.S. to be like?

Vision Responses

"The government should deal with the immigrants in a positive manner, i.e. - treat them better. Then they would look at themselves positively and become better citizens." "The welfare system needs to be cleaned up. Money should be only going to those people who really cannot work. I'd like to see supplemental money to encourage those who can't totally make it working." "The INS won't be a nasty, messed up place." "There would be birth control education and English language education for anyone who asked for it." All women immigrants should get health care." "There would be peace in all countries so they wouldn't want to come to the U.S." "We would stop so much spending on welfare and instead spend it on helping the poor countries." "After fixing their country we should build a creative boundary - like a big Jurassic Park-type wall around our border." "Help the economies of other countries." "Use technology to make the borders better to lessen illegal immigration."

Process Note: At this point Ms Jones asked the students to discuss with those around their table (five or six students) what realities are blocking their vision from becoming reality. Each table selected the one or two clearest statements and presented them to the entire group. The results of this discussion are as follows:

Blocks to Vision

"The following conditions seem to be blocking our vision from becoming a reality and need to be considered when solutions are designed:

• The borders between the US and Mexico are very vulnerable.
• People in charge are sleeping on the job.
• It should be harder to get in - legally and illegally.
• It seems to be "Who you know" when it comes to being admitted to the US. No one should be treated in a special manner -be fair and treat all nations' immigrants the same. Our present system is unfair and inhumane and must be corrected.

Example - You can get to the top of the list by who you know and bump those who have been waiting 10 years.

• Our planet must become more like a global village where people are cared for where they live and everyone gets along.
• There is very little population control throughout the entire U.S.
• Poor living conditions in other countries encourage immigration to other places.
• There is interference between religious practice and U.S. law.
Example: Native American practices
- Inefficient government bureaucracies
- Racism

Process Note: The final phase of our workshop was a 15 minute group writing session using cards and markers to brainstorm and then group and name, specific proposals. Following are the recommendations from our full-time students for actions that would reform our immigration system.

Recommendations

1) Redirect Taxes Toward Foreign Aid
In the arena of preventing the problem, we recommend 1) Use some of the money now spent on immigration and refugee programs to build the economies of poorer countries so people won't want to leave their homelands. 2) Support the philosophy of NAFTA

2) Diversity Education in Schools and by Families
In the arena of understanding all perspectives we propose education programs on cultural gifts and differences in all schools and through family activities.

3) Reform the System Toward Effective Integration into Society
In the arena of the systems of integrating immigrants and refugees into U.S. society we propose 1) Facilitate legal entrance into the U.S. with innovative approaches like an INS office in Mexico and Canada or neighborhoods adopting an immigrant. 2) Fund and fix the structure of the INS. 3) A training program for INS and welfare workers who deal with immigrants. They should focus on humane services and be highly capable and motivated. 4) Immigrants or their sponsors pay more for their medical bills; when they become citizens those costs would go down.

4) Secure the Borders
In the arena of restricting ground entrance into the U.S. we propose stricter measures at border crossing points including motion-sensitive devices and real, high technology boundaries (fences and electronics).

5) Stronger Immigration Laws
In the arena of regaining control of the numbers and types of immigrants we propose 1) A total ban on immigration for a waiting period of up to five years to settle in existing immigrants. 2) Then only those who go through the channels of applying should be admitted. 3) All immigrants should have a complete physical and 4) After the waiting period, reinstate an immigration policy with fixed quotas and the position that immigrants have 6 - 12 months in which to become self-supporting.
November 10, 1994 PROJECT EVALUATION

Dear full-time student,

The academic teachers want to thank you for your involvement in the "Crowded Shores, Closed Doors" project. We would appreciate your honest answers on this evaluation so that we can plan for future projects. How well you complete this evaluation will partially determine your final project grade. Thank you for your hard work and dedication to this program.

Name_________________________   Project Team__________

Project Team Teacher:   Midsession Credit:

I. Please list all of the things you personally did during this project.
   1.  
   2.  
   3.  
   4.  
   5.  
   6.  
   7.  
   8.  
   9.  
   10. 

II. Please rate each of the following items by checking the appropriate column.

   1. Immigration Video shown in August 1994 "Waiting at the Gate", narrated by Walter Chronkite. 
   3. Carnivál 

   Excellent     Good     Fair
VII. List the three most important things you learned during the project, either personal or factual.

1.

2.

3.

VIII. List a report and a display, other than your own that you were most impressed with.

1.

2.

IX. Describe one application of an academic skill that you were required to use.

X. What skills learned in your career courses were you able to apply?

XI. Describe the most memorable learning experience from your team's work on the project.

XII. OVERALL PROJECT EVALUATION
    In two or three sentences please give your reaction to working on the Immigration project.

XIII. Anything else you would like to share?

III. We worked during these two weeks in fourteen teams, primarily of our own choice. In two or three sentences, give your reaction to the experience of working with your team.

V. Using letter grades of A, B, C, D and F rate each member of your team according the his/her performance in each of the following categories.

Name | Attendance | Dependability | Creativity | Leadership
--- | --- | --- | --- | ---
1. | | | |
2. | | | |
3. | | | |
4. | | | |
5. | | | |

VI. List ten things about Immigration that you did not know before.

1. 6.
2. 7.
3. 8.
4. 9.
5. 10.
STUDENT TEAM REPORTS
TEXAS VIEWS

Our findings on immigration in TEXAS suggest that illegal immigration causes a lot of problems for the state of TEXAS because of:

1. When an illegal immigrant comes from Mexico or a different country and somehow gets hurt, the state of TEXAS pays for their health care.

2. When immigrants come from neighboring countries, they usually have no place to stay. Therefore, the state of TEXAS has to provide them with a place to stay at the cost of the taxpayers.

3. Should the state of TEXAS give free education to illegal immigrant? Presently they do, although there has already been a court case regarding this issue. The education of illegal immigrants also costs the taxpayers of the state millions of dollars.

4. Illegal immigrants take jobs from legal citizens of the state of TEXAS.

5. Illegal immigrants make it hard on people who take the legal way to come to the United States.

We, as the TEXAS team, feel that more action should be taken with the illegal immigrant problem because it is costing more and more money to deal with the problems of illegal immigrants; money which we feel could be better spent on things such as education for the legal citizenry. We are sure a lot of people agree with this statement. Here is a VERY IMPORTANT QUESTION. How can the United States take more action in stopping illegal immigration? Nobody knows, except the illegal immigrants. Somehow we must work together to solve this very complicated problem.
New York

In the black of the night one Sunday, lost June, a mysterious vessel called the Golden Venture ran ashore just 200 yards off the coast of New York City. Torn apart by a raging tide, the ship lost its contents into the ocean: nearly 300 illegal Chinese immigrants. New York has been struggling with a huge immigration problem since nearly a century ago, when many immigrants came to the U.S. by boat and landed on Ellis Island in New York. Today, they arrive by plane at New York's Kennedy International Airport. "There is a limit to our powers of assimilation and when it is exceeded, the country suffers from something much like indigestion." That observation wasn't made recently however, but in May of 1880 when anti-immigration sentiment was also on the rise.

Twelve percent of the under eighteen population in New York is foreign born. What does this do to the school systems in New York, which is full of immigrants? A lot. Newton High School in Queens, New York is called a mini United Nations by students and teachers there. The school's students come from 73 countries and speak dozens of different languages. Three-quarters of Newton's 4,600 students are immigrants. The school offers bilingual classes in four languages and has the largest program in New York for students learning English as a second language. These programs cost the state of New York millions of dollars each year.

Look at the labor problem that occurs because of the high number of immigrants in New York. In downtown New York City, dozens of Chinese immigrant women work sewing blue jeans. Illegal workers are taking scarce jobs away from U.S. citizens and residents of New York. For example, the Chinese women making blue jeans work a 60 hour week for less than $200 dollars, and they don't complain because some of them may be here illegally. It is estimated that 3.5 million American workers have lost their jobs to illegal immigrants in the past 10 years.
PROPOSITION 187

PROPOSITION 187 MAKES ILLEGAL IMMIGRANTS INELIGIBLE FOR PUBLIC, SOCIAL, AND HEALTH-CARE SERVICES, EXCEPT EMERGENCY MEDICAL TREATMENT. IT WOULD BAR CHILDREN OF ILLEGAL IMMIGRANTS FROM ATTENDING PUBLIC SCHOOLS OR UNIVERSITIES. IT WOULD REQUIRE STATE AND LOCAL AGENCIES AND THEIR EMPLOYEES, SUCH AS SCHOOL OFFICIALS, TO REPORT SUSPECTED ILLEGAL IMMIGRANTS TO FEDERAL LAW ENFORCEMENT. THIS PROPOSITION MAKES IT A FELONY TO CREATE, DISTRIBUTE, OR SELL FALSE CITIZENSHIP OR RESIDENCY DOCUMENTS. THE LEGISLATIVE ANALYST ESTIMATES THAT THE INITIATIVE COULD SAVE THE STATE 200 MILLION DOLLARS EVERY YEAR. THE ANALYST WARNS, HOWEVER, THAT THE MEASURE PUTS AT RISK BILLIONS OF DOLLARS WORTH OF FEDERAL EDUCATION, HEALTH, AND WELFARE FUNDING BECAUSE IT CONFLICTS WITH U.S. LAW AND COURT DECISIONS.
Russia is currently undergoing massive reform in terms of government, economy, and social order. The people of Russia and its republics are being posed with problems such as getting food, healthcare, and political rights.

Currently only two percent of immigrants admitted to the United States are of Russian origin, within the next year the projected percentage is expected to be at five percent. Most of which can be considered either political or economic refugees.

The main dilemma placed in the Russian government's hands are the reordering of the economy away from weapons and defense, and government research, and more towards an efficient mercantile economy, and the harvesting of natural resources to generate surplus and revenue through the international trade market that up until now they have been disconnected from. And acquiring the modern medical technologies that the Russian public have not had access to.

The United States and several other capable nations are providing whatever aid they can to assist the redevelopment of Russia and the former Soviet States. But the estimated time for these lands to reach the so called "International Average" will take two or three generations of solid progress.

Through all the research that we have been doing in regards to this project I personally attempted to get through the telephone computer system of the I.N.S. to have questions answered in regards to Russian immigration and virtually got lost. After a half hour of directionless button pushing and enduring redundant recorded messages I was finally able to reach a real human being. Unfortunately, much to my dismay this person seemed to know nothing on the topic of which her profession dealt with and seemed that she has never and maybe will never master the English language. All in all she was very uncooperative, offered no direction in which I could get helpful information. I attempted to ask several questions, all of which were responded to with patronizing overtones. At the end of our conversation I asked for a phone number that I may get a hold of a real person that might have the information I needed, she said no. I furthered my search in the Denver branch of the National Census Bureau. There I was able to talk to a real person right of the bat, whom was very cooperative in tracking down a phone number of the I.N.S. in Washington D.C. She gave me a number that turned out to be the number of the I.R.S. When I got in touch with them and finally got the number I was looking for. I called directly into the I.N.S. main office and had the privilage to speak with someone who actually knew her job, went out of her way to get the
I needed, and managed to be polite and refer me to people that could answer the questions that she could not.

I would like to suggest that these government agencies strongly reevaluate there employees, and the manor of which the general public can get in touch with the employees. And possibly even consider dumping the phone computer and teaching the operators about the topics they where hired to deal with. I can feel nothing but sorrow for the immigrant who needs info. on becoming a citizen, especially if they don't know english very well.
PROPOSITION 187
ARGUMENTS

AGAINST:

Opponents, including Hispanic labor, teachers and medical groups, call the proposal demographically sound, expensive and cruel. It would put to risk billions of dollars won in federal programs, including Medi-Cal and state and local education funds. All state and local government employers would become de facto immigration officers, required to check on the citizenship of everyone they deal with. The initiative does nothing to help the federal government control the border and does not discourage employers from hiring immigrants. Prop 187 threatens public health by forbidding doctors and nurses from treating communicable diseases of illegal immigrants. It would cause crime by increasing the children of illegal immigrants cut of school and into the streets, where they could get into trouble with the law.

CONCLUSION

We, as Californians, believe Governor Wilson has a good idea. We stand by Proposition 187 for it will save 200 million dollars a year and will reduce illegal immigration into California.

Thank you.
FOR:

Proponents say voters can make a symbolic gesture to force the federal government to do its job and crack down on illegal immigration. The legislative analyst estimates California is home to 1.6 million illegal immigrants and the number is growing at a rate of 125,000 per year. Those people, backers say, should not be enjoying taxpayer-financed services. They are, in fact, using money that should provide added programs to citizens and legal residents, involving schools, hospitals and police protection. The initiative is sponsored by the Save Our State organization, an Orange County-based coalition that is opposed to illegal immigration.
Immigrants and AIDS

The U.S. Immigration service’s policy for Immigrants infected with AIDS is that they are never let in. This makes legal immigration candidates try to get in illegally and the national problem grows larger.

Americans don't want immigrants with AIDS coming into the country legal or illegal for a couple of reasons, they don't want there tax dollars paying for there treatment. The U.S. also doesn’t want more exposure to the virus.

These are understandable fears, but should we segregate an ill person out of there hopes to become a u.s. citizen. Is that moral no not really. It is however the American way. Where do these rejected people go they might not even be allowed back in there original country (exiled ) and dying, a bad situation. Should the U.S. help out these HIV and AIDS victims or are they back on there own.

It's hard to say no to anyone trying to get into the country but it is even harder to say no to someone who really needs help like a 3rd world AIDS victim.

Immigrants, are going to get in if they are not let in they may try to get in on there own illegally and then what do we do it is a dilemma that the U.S. needs to deal with as a whole because the problem will just grow and the rate of that growth is astonishing.
"The Bush administration ordered a military invasion of Panama but troops failed to capture General Manuel Noriega. Noriega took shelter at the Vatican Embassy while the U.S. and Panama demanded that he be turned over for trial on drug-trafficking and money-laundering charges."

A coup attempt against Noriega failed when rebel troops were unable to get sufficient support from other military officers. The U.S. said, initially, that it did not get advance warning of the coup attempt and it claims not to have played any role in the attempted overthrow of the Noriega regime. Noriega said that the U.S. did support the rebel troops, and some of those people associated with the coup attempt who were able to flee to the U.S. did have prior knowledge and, in fact, agreed to block roads leading to the Panamanian Defense Forces headquarters and to hold Noriega at the military base if he was captured. Captain Javier Licona, the highest-level rebel leader to arrive in Miami, said that he had been informed by Major Moises Giraldi that the U.S. promised it would supply gunship cover over Panamanian airfields, thereby preventing loyalist troops from airlifting support to Noriega who had been captured early in the coup attempt. He also indicated that he understood there would be more road blockades into Panama City by U.S. troops. Captain Licona said that when he went to the U.S. Southern Command to speak with General Mark Cisneros about why the U.S. had not become more involved as promised, General Cisneros replied, "I don't have the authority to do anything." Rebel officers were said to number approximately twenty, led by Major Giraldi, commander of the Urraca Battalion, or the Panama City Police. They were said to have received support from the cavalry regiment stationed in Balboa, about two miles from the PDF headquarters. Captain Licona heads the cavalry regiment. The coup was stopped when elite loyalist troops (Batallion 2000) stormed the PDF headquarters. Some sources say that Noriega was held captive for several hours, although this has not been confirmed. Afterwards, three members of Noriega's high command were arrested. The Wall Street Journal reported that one U.S. military officer said that, "We would only have needed three armored personnel carriers to block the only three roads that gave them (Noriega's loyalist troops) access to the headquarters." He went on to say that, "It would have been a surprisingly simple operation—but the order never came for us to move."
Noriega, Manuel Antonio

Manuel Antonio Noriega Morena was de facto ruler of Panama from 1981 until he was deposed during the U. S. invasion at the end of 1989. Born in Panama City in 1934, Noriega attended military school in Peru and later joined Panama's national guard as a sublieutenant. He was an early supporter of Omar TORRIJOS Herrera, who dominated Panama from 1968 until his death in a plane crash in 1981. Under Torrijos, Noriega became head of Panama's military intelligence organization. Following Torrijos' death, Noriega became chief of staff of the Panama national guard and eventually its commanding general. In February 1988 he was indicted by two U. S. grand juries for drug trafficking and racketeering but, supported by the army, he remained entrenched in power in Panama, in spite of U. S. economic sanctions. National elections held in May 1989 were widely believed to be fraudulent, and Noriega retained power through candidates designated by him. An Organization of American States report declared in November 1989 that the Noriega government was "devoid of constitutional legitimacy." In mid-December, Noriega declared that a "state of war" existed between Panama and the United States; shortly thereafter one U. S. soldier was killed and others were subjected to violence. On Dec. 20, President George Bush ordered troops into Panama, and Noriega went into hiding. On Jan. 3, 1990, Noriega surrendered to U. S. forces and was flown to Miami, Florida, where he was arraigned on drug trafficking charges.

Bibliography: Dinges, John, Our Man in Panama: How General Noriega Used the United States--and Made Millions in Drugs and Arms (1990); Kempe, Frederick, Divorcing the Dictator: America's Bungled Affair with Noriega (1990).

Source: Grolier
Panama Refugee: Position Paper
by
Devin Wickham
Gennipher Burton
and
Ed Lewis

We feel that all the Cubans in Panama should be sent back to Cuba. Our economy is in horrible condition and we can not support 10,000 Cuban refugees. We only agreed to support the refugees based on a compromise dealing with more visas and less illegal aliens and boat people. The refugees will either need to be sent back to Cuba or the United States will need to take them and support them.

Since the invasion of Panama by the United States, the drug abuse rate has escalated significantly, the unemployment rate has doubled, and the crime rate has gone up. Panama is in a state of chaos, therefore we feel that the only choice is to send the Cubans back to Cuba.
What about illegal immigrants and their children who use public hospitals and schools, receive welfare and other government benefits in New York? The cost of all this is picked up by the American taxpayer.

**Solutions**

The government needs to take control and put a stop to the immigration problem. This nation accepts more foreigners than the rest of the world combined. We've had a multi-billion dollar deficit 3 years in a row and yet we continue to pay for these immigrants. We take better care of them than we do our own, yet immigrants account for 1 in every 5 inmates in federal prisons. When there's a problem in the world, people come here to New York. The U.S. needs to control our borders and crack down on immigration because we're bursting at the seams.
IMMIGRATION AND WELFARE

On Wednesday, Thursday November 2, 3rd, Paul and I went to the Colorado Division of Welfare, by this we received little or no help from them. Although they did refer us to a company the name of C.R.I.S.P. Colorado, Refugee and Immigration service Program. They treated us like children watching our every move. They really didn’t want to waste their time on helping us so they sent us to their library to try and scrape up as much information as we possibly could. We had a hard time getting around a place like that with no idea where to start we begin to search.

We first found out that 27-31% of the newly arrived refugees go on welfare. So to be eligible for SSI, an individual must be either a citizen of the united states or a legal alien, but immigrants are more likely to receive welfare than natives. In a span of three years Colorado spent $5,584,632 on Cash Assistance for immigrants. The use of welfare by immigrants is still increasing today.

So as the numbers increase and more and more people continue to enter the U.S.A. the money tends to shorten. Native’s in America who need welfare have less chance for the help they need, simply because people from another country have a better chance at getting welfare. We both agree that there needs to be a tighter cap on who can come to the U.S. and who can’t. I think that it is best for our country.

BY Chris Garcia,
Paul Moya,
When refugees first come to the United States they have to learn to read and write in English. For most of them this is a hard thing to learn because more than half of them can barely read and write in their own native language. Also, since in most countries women don’t go past the sixth grade, they have an even harder time than the men. Most of the refugee children can speak a little bit of English, but not a great deal. Most of the time the children will go to school and learn how to read and speak English and then go home to teach their parents. At other times the children will have to go with their parents and interpret what is being said to them. In most cases this is very hard for the kids to do because it interferes with the child’s studies and time for fun.

Most of the time refugees are forced out of their countries because of war or famine and sometimes because of dictatorship. In the Sudan, over 300,000 Eritreans had been forced to flee their homes. About 25% of them were staying in refugee camps and, as population grew in the camps, the more people died because of over population and living conditions. Also, 34% of the women in these camps have lost at least one child.

Another example is of the dilemmas of refugee women. During the Vietnam war, many of the women and children were fleeing the country to go to America. A lot of the women were pregnant by the American soldiers and didn’t want to bring a baby into a place of chaos such as Vietnam. Also a lot of them believed that the soldiers were in love with them and would take them to America with them when they left. Half of them never saw these men again and there are, many of them had to flee on their own. Much of the time the children were left behind because of the number of people trying to leave. If not left behind, then more than half of the children died on the way over to America because of starvation or because of the deplorable conditions on the boats.

In 1986, the Immigration Reform and Control act was passed. It focused on getting temporary workers into the United States. It also, signaled an effort both to end exploitation of illegal workers and to make family relationships and needed skills, not national origin, the basis for selection. In 1990, Bush signed a bill that would overhaul the nation’s system for granting immigrant visas. It also increased the number of specially trained workers who will be eligible to take jobs in the United States.
Over the years the laws on Immigration have gotten stricter and the other countries' problems have gotten worse. Also, the worse economic and political situations get worldwide, the more refugees and immigrants that come to the United States. Nowadays people don't care about the laws. They just leave and hide out. Most of the time people don't have time to think about what will happen if they get caught. All they are worrying about is getting out of their country.

Our recommendation to the problem is that we should have a limit on the number of people we let in each year for each country. Also, if we're going to let Cubans, Hispanics, and Asians into the United States then we should allow Haitians in too. Now, we understand about the problem with a lot of them having A.I.D.S., but can't we have tests. For the women and children is to educate the women when they get here so they can get a job. Set up financial aid and health care until they are stable. Also, if the husband and the wife get separated we should try to reunite them in the U.S. Thank you!!!!!
The Catholic Archdiocese, and the Jewish Family are both government founded organizations. Both organizations help immigrants come into America legally. The Jewish Family deals only with Jewish Russians'. Once these people are legal they are given housing, food, phone, water, and electricity for four (4) months. They are also sent to school to learn English, and are given six (6) month's medical evaluations.

A U. S. citizen can petition for:
Mother / Father / Brother / Sister
Husband / Wife

A permanent Resident can petition for:
Husband / Wife / Unmarried children
The Organization of Caribbean States

Position Paper

Our team represented the Caribbean nations of Cuba, Haiti, Puerta Rico and Jamaica. The Organization of Caribbean States is primarily concerned with trade needs of the various islands. Our request of this commission is ask congress to have the embargo lifted after 35 long years. On Cuba and Haiti.
Haitians are considered to be the poorest people in the western hemisphere. Haiti, which shares the island of Hispaniola with the Dominican Republic, is populated by descendants of African slaves who have been brutalized and exploited by a succession of dictators ranging two centuries. Francois "Papa Doc" Duvalier, who took power in 1957, and his son Jean-Claude, who succeeded him in 1971, presided over a 29-year reign of terror with their Tonton Macoutes, Baby Doc's overthrow was followed by a succession of short-lived, brutal and incompetent military regimes until Haiti's first democratic election in December 1990.

The winner was the Rev. Jean-Bertrand Aristide. Aristide was a product of his society. He had escaped several assassination attempts by Duvalier's gang and, in turn, advocated mob lynching. But his inauguration didn't last long. Seven months after he was in office, he was overthrown by his own army commander, Lt. Gen. Raoul Cedras, who terrorized the populace with paramilitary gangs known as "attaches".

The United Nations persevered, imposing an oil and arms embargo after Cedras reneged on an agreement to step down in October 1993, even after Nicholas Lopez Rodriguez, head of the Dominican Republic's church warned them not to do so, stating that it would be a 'grave blunder' to reinstate Aristide.

So as Haitian Refugees we were glad to hear that President Clinton sent a contingent of American troops to police and disarm the "attaches". It was also a day of jubilation when we heard that our freely elected President was returning in triumph to vanquish the ghosts of the country's past.
There are some Haitians that want to return to Haiti, and continue life there. But there are some of them who want to be admitted to the U.S. That is why we feel that the United States should have open immigration. Right now they have the refugees in camps in Guantanamo Bay, Cuba. Does it not state on the Statue of Liberty "Give me your tired, your poor, Your huddled masses yearning to be free, The wretched refuse of your teeming shore. Send these, the homeless, tempest-tost to me, I lift my lamp beside the golden door!"?

But as the U.S. has shown in recent months, it should state "Don't give me your tired, your poor, Your huddled masses yearning to be free." They wouldn't let the refugees in when they needed help.
"Give me your tired, your poor,
Your huddled masses yearning to be free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
'I lift my lamp beside the golden door!"
APPENDIX C
CURRICULUM DESIGN MATERIALS

Messages Planning Worksheet

Image-changing Strategies Chart
# Message Planning Worksheet

<table>
<thead>
<tr>
<th>Rational Objective</th>
<th>Existential Aim</th>
<th>Mood</th>
<th>Drama</th>
<th>Audience Uniqueness</th>
</tr>
</thead>
</table>

- **Symbols**
  - Opening
  - Movement I
  - Movement II
  - Movement III
  - Conclusion

- **Rituals**

- **Main Images**

- **Body Postures**
  - Stories or Examples
  - Evaluation

**Time:**

**Space:**

**Relationships:**

**Materials:**
CHANGING IMAGES

Of Self:
From: A failure or unsuccessful learner
To: A successful, curious learner with creative potential
From: A high school student
To: A young adult

Of School:
From: A place to play
To: A place to work
From: A place where passive endurance is rewarded
To: A place where passive endurance results in failure
From: An inaccessible, pre-determined program
To: A learning community that requires everyone's participation

Of Community:
From: A sometimes hostile and closed group of elected officials
To: Particular, dedicated people working on special causes

2 weeks

ACADEMIC SEMINARS

English
Math
Career Classes
Social Studies
Science

6 weeks

A COMMUNITY PROJECT

Of Self:
From: A disengaged high school student
To: An effective, practical problem-solver

Of School:
From: A place where facts are dispersed in classrooms
To: A community resource center

Of Community:
From: Inaccessible, scattered groups of people in unknown buildings
To: Coherent groups of people whose causes need everyone's care.

2 weeks

PERSONAL PORTFOLIO

Of Self:
From: Student of facts
To: Creator of products

Of School:
From: Dispenser of rewards in segmented grades
To: Acknowledger of integrated, learning accomplishments

Of Community:
Enhanced from:
Cause of my care
To: A source of resume recognition
From: A place where luck is required to succeed
To: A world in which my future is within my control

2 weeks
APPENDIX D

ADVISORY BOARD ARTIFACTS
MINUTES
ACADEMIC ADVISORY COMMITTEE
OCTOBER 7, 1994

Present: Loyal Darr, Burna Dunn, Claudia Fitch, Dorothy Gottlieb, Gordon Heaton, Victoria Lucero, Sonja Pederson, Tom Murnan, Oliveann Slotta, Dr. Lynn Taylor, Carol Webb, Debbie Williams

Absent: Jeff Fields, Tanya Hope, Sherrie Schneider, Eleanor Moller, Norma Zarlow, Senator Don Mares, Karen Troxel

Committee members first found their folders distributed around the table. Oliveann Slotta greeted committee members and gave opening remarks. All participants then introduced themselves as follows:

Lynn Taylor has been a tenured associate professor at UCD for seven years and is excited about the CEC Academic Program.

Carol Webb, science teacher.

Claudia Fitch began working at CEC in 1983 and has a daughter who is presently a student here.

Loyal Darr supervises ten student teachers as part of the Teacher Education program at DU. He knew about the interdisciplinary nature of the CEC program from having been employed by DPS.

Gordon Heaton, social studies teacher

Victoria Lucero is attending Metro and plans to become either an English or social studies teacher. She feels the CEC program keeps students from "falling through the cracks."

Norma Zarlow, Community College, is a believer in non-traditional delivery of instruction and helped guide the integration project.

Tom Murnan came to CEC in 1986 and introduced the interdisciplinary, performance-based program to aid CEC students who were experiencing difficulty at their home schools.

Burna Dunn went to a teacher training program in 1986 at Spellman College in Atlanta and returned to develop Kaleidoscope Learning Strategies, which Oliveann invited her to implement here. Burna's daughter attended CEC her senior year. Burna has been in attendance at several project presentations.

Dorothy Gottlieb is a former school board member and initiated a statewide newspaper about education. She learned of the CEC Academic
Program in 1988 and feels that it "saved two of her three children's academic lives."

Debbie Williams, CEC A.P., reported that students here like the program and that it is meeting their needs.

Oliveann then talked about the committee members who were unable to be present.

Sonja Pederson, English teacher and scribe for this meeting.

**PROGRAM DESCRIPTION**

Oliveann then presented the structure of the Academic Program. Four teachers, one para, and one counselor work with approximately one hundred students in a performance-based curriculum. Mrs. Siotta explained that the team works with students on self-image and on changing student assumptions about their images of self, school and community. She explained the orientation process. Focusing on the term project, she explained its placement in mid-semester to help maintain students' interest. The end-of-the-semester portfolio defines whether or not students learned what they said they were going to learn.

Discussing enrollment, Mrs. Siotta informed the group that present enrollment is down partly due to block scheduling at home high schools. The program has a two to one boy/girl ratio. Sixty-eight per cent of the students have jobs; thirteen have full-time jobs.

Mrs. Slotta requested that members of the advisory board return on Tuesday, November 8, at 9:50 a.m. in 212 to hear the Immigration and Naturalization project reports.

**IMMIGRATION AND NATURALIZATION PROJECT**

Gordon Heaton explained how and why the project functions, explaining that the teachers select the topic and that students participate in it during their midsession. The project topic is selected early in the semester so that references can be made to it and information amassed throughout the semester. He gave historical references to past projects. Students' responsibilities are to work together as a team to produce and present a product; students are expected to draw from what they are learning in their career classes to aid in their presentations. Students will evaluate each other as well as themselves. Built into the project is the opportunity to do volunteer work. Victoria Lucero recalled that she worked during her project at Head Start.
ADVISORY BOARD MEMBER INVOLVEMENT

Members were asked to write down two to three ways that an advisory board could be of service and to select their top choice. Suggestions were grouped into categories: funding, curriculum, community networking, visibility in promoting program beyond Denver and Colorado and project resource.

Above process was repeated answering “Where do you see yourself in this kaleidoscope? What will you do?” Norma Zarlow assumed that this is a unique program and needs to be advertised. “You are on the cutting edge for schools of the future,” adding that the secret is solely here.

RESPONSES

Loyal Darr observed that a program is only as good as its members. Dorothy Gottlieb was interested in accountability so that the concept of performance-based education and CEC can survive and can be justified. She wants these programs out in the other schools and noted that we might revive the old humanities units.

Carol Webb closed with the question. “What do you hope for education in the future?” Queried Tom Murnan, “How do we measure it?” Norma Zarlow suggests a value system that helps students respect their community and realize that they are part of a larger community. Take the best from what exists and apply it.

CLOSING

Members were asked to make corrections on the membership roster. Oliveann reminded group of future meetings and of upcoming events, tours and open house.
Workshop Notes • October 7, 1994

Topic: "Ways in Which the Advisory Board Can Be of Assistance"

Give Input for Curriculum Content
Program Enhancement Ideas
Brainstorm Enhancements (Creativity)
these ideas all seem to be about program content

Program Evaluation Planning
Annoy (positively) - I.E. Question
Keep learning interactive for students
Suggestions for educational change
Supporting staff in implementing of concepts, ideas, etc.
Whatever you most need - esp. program quality and growth
these all seem to be about program quality

Visibility for program across the state
Tell the community about us
Network - share
Visibility to promote the program - national and interstate
"Advertise" and promote to the community
Networking and sharing - curriculum, resourcing and advertising
these all seem to be about documenting and promoting the program nationally and statewide

Community resource referrals
Resource and technical assistance
Educational liaison and financial resources
these all seem to be about broadly acquiring resources

In school - student support
Student advocate
these all seem to be about general student support

Talk to friends in foundations
Funding sources
these all seem to be about fund raising for specific things

Strategies for getting students
Recruiting
Recruiting
these all seem to be about reaching our student quotas

Support for teams
Refugees to talk to - Volags to talk to
Support for projects
these all seem to be about project support
Mission Statement of the career magnet school, the Fred N. Thomas Career Education Center (CEC), in which the Academic Program was situated
CEC MISSION STATEMENT
REVISED JUNE 1989

The Career Education Center, as an extended campus of the Denver Public Schools, has as its mission to provide secondary school students with basic and advanced, specialized and diverse career education preparation which assures up-to-date job entry-level skill achievement and/or fulfills entrance requirements to continue education.

- The Career Education Center shall be performance based, achievement oriented, with individual success by each student its major concern.

- The Career Education Center instructional system and facility shall be designed with the greatest possible degree of flexibility to meet new and changing needs.

- The Career Education Center shall blend academic, art and occupational experiences into meaningful educational programs.

- The Career Education Center shall extend educational opportunities through cooperative arrangements with business, industry, labor, civic organizations and agencies, and post-secondary institutions.

- The Career Education Center offerings shall complement and extend the high school educational programs.

- The Career Education Center shall provide resources to meet the special needs of students.

- The Career Education Center shall maintain a positive learning climate.

- The Career Education Center shall encourage staff, student and community involvement in the decision making process.

- The Career Education Center shall seek the cooperation of the Denver School Board and administration and urge them to utilize their leadership and decision making authority to bring about complete articulation with the home school to enable all high school students the opportunity to pursue their career goals by attending the Career Education Center.
The Instrument

The instrument was in questionnaire format and comprised two sides of a single page. It contained eight sections. Six of the sections elicited eight short answers by checking boxes; two asked for written comments. Students required approximately 10 minutes to complete it.

The question of student outcomes was addressed by these five sections: High school completion; Continuing education at a college or technical school; Community volunteer work; Activity in the political process--was the student registered to vote and had they voted and; Self-sufficiency--had the student received public assistance money or food stamps.

Study Design

The study collected the objective data detailed above regarding former students' accomplishments and community involvement. Comparing this data with community norms measured whether or not immersion in community issues and participation in...
successful solutions during their formal high school years had transferred into participatory adult patterns.

Subject Selection

Three hundred seven students had completed at least one semester in the academic program at CEC during the four years of Fall 1986 through Spring 1990. Of these three hundred seven, addresses were available for all but ninety-three. In August of 1990 the questionnaire was mailed with a stamped, return envelope to these two hundred and fourteen former students (hereafter referred to as program alumni). Forty-three or 20% returned the questionnaire by mail or in person. Results from these forty-three are referred to as the "motivated responses."

Forty-three additional names were randomly drawn by number from the remaining one hundred seventy-one program alumni and surveyed by telephone. If a telephone number had been disconnected the number of that student was returned to the drawing pool and another student's number drawn. Forty-three additional students were documented in this manner. Questionnaires were filled out for them by the researcher and results compiled. These results are referred to as the "unmotivated responses."

This study compares these two bodies of data and then combines them for a valid representation of participatory patterns of the young adults who as high school youth experienced the "Project Approach" as a part of their curriculum. By comparing the combined results with official, related statistics of Denver county residents in this same age group (18 - 24 yrs.* ) conclusions can be drawn about the impact of the CEC Academic Program. (*The 1990 program alumni would be at least 18 years old
and the 1986 alumni not older than 24 years. Students in the DPS may remain in school until the age of 20 increasing our span to 18-24 yrs.)

Results

Motivated Results

Following are the responses to each question by percentages. Question 1) High school completion: Forty-two or 98% graduated from one of Denver’s ten high schools. The remaining one has received a GED. Question 2) Continuing education: Twenty-three or 53% of these past students have attended a college or technical program since graduation. Four others, or 9% are in the military service. Question 3) Community volunteer work: Thirteen or 30% said “yes” and four did not respond. Question 4) Voted: Twenty-one or 49% have voted. Three did not respond. Question 5) Self-sufficiency: Forty-one have not received public assistance or 95% are self-sufficient.

Unmotivated Results

Question 1) High school completion: Thirty-one or 72% graduated from one of Denver’s ten high schools. Seven have received a GED. Question 2) Continuing education: Sixteen or 37% of these past students have attended a college or technical program since graduation. Two others are in the military service. Question 3) Community volunteer work: 33% responded “yes” Question 4) Voted: Twelve or 28% have voted. Five did not respond. Question 5) Self-sufficiency: Forty have not received public assistance of whom four are under eighteen for an 84% self-sufficient rate.
Combined Results

An arithmetic combination of the motivated and unmotivated data correlate with available comparison statistics as follows: Question 1) High school completion: Seventy-three of the eighty-six total respondents have graduated from high school. Eight of the remaining thirteen have received GEDs and two are still enrolled in school for an 87% graduation rate. Eleven of our eighty-four did not receive a diploma for a drop-out rate of 13%. (figure 4) Question 4) Voted: Thirty-three respondents or 38% have voted. (figure 5) Question 5) Self-sufficiency: Seventy-seven of the eighty-six have not received public assistance or 90% are self-sufficient. (figure 6) Five respondents or 6% have received public assistance.

Comparison to Community Data

For comparison purposes statistics were obtained from Colorado state and Denver county agencies. By question, results follow: Question 1) Denver Public Schools lists a drop out rate of 14.5% for 11th graders and 8.7% for 12th graders or a loss of 21.9 students per hundred (21%) during the 1989-90 school year. No statistics were available on drop out rates for high-risk students only, the population of our sample. Question 2) No statistics available Question 3) No statistics available. Question 4) Voting: 1,284 of Denver county’s 45,880 18 - 24 year olds or 3% are classified as active voters. Question 5) Self-sufficiency: 5,270 of Denver county’s 45,880 18 - 24 year olds or 11% received public assistance money in 1990. The following three figures illustrate the combined results.
Figure 4.1 Graduation data

- Graduated: 84.88%
- GED: 9.30%
- Neither: 3.49%
- Still in High S: 2.33%
Figure 4.2: Program alumni voting statistics


