#### DOCUMENT RESUME

ED 347 696 EA 024 148

AUTHOR Kniep, Willard M.

TITLE From Image to Implementation. Some Results of

Education 2000: A Process for Redesigning Educational

Systems.

PUB DATE Apr 92

NOTE 40p.; Paper presented at the Annual Meeting of the

American Educational Research Association (San

Francisco, CA, April 20-24, 1992).

PUB TYPE Speeches/Conference Papers (150) -- Reports -

Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS \*Community Support; Cooperative Planning;

\*Educational Innovation; Elementary Secondary Education; \*Global Approach; Holistic Approach;

Participative Decision Making; \*Program

Implementation; School Based Management; \*Systems

Approach

Schools WY

#### ABSTRACT

Educational visions developed by two participants in the Education 2000 project—Redwood Falls, Minnesota, and Yonkers, New York—are described in this paper. An overview of the blueprints that are being developed from these visions is provided as well as a description of the design process. The Education 2000 process offers a new design for entire educational systems to link students and schools with the global community. Programs are based on the development of a world view, systemic design, a student—centered orientation, and local empowerment. Lessons learned from the participating communities underscore the importance of committed leadership, shared understanding, and the development of trusting interpersonal relationships among all stakeholders. Two figures and the communities' vision statements are included. (LMI)

Reproductions supplied by EDRS are the best that can be made

from the original document.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

U.S DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERICI

This document has been reproduced as received from the person or organization originating if

Minor changes have been made to improve reproduction quality

 Points of view or opinions stated in this document do not necessarily represent official OERI position or policy "PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

#### FROM IMAGE TO IMPLEMENTATION

SOME RESULTS OF EDUCATION 2000: A PROCESS FOR REDESIGNING EDUCATIONAL SYSTEMS

by

Willard M. Kniep

Paper presented as part of the symposium

"Perspectives on Systems Design as a Strategy for Educational Change"

at the Annual Meeting of the

American Educational Research Association

**April 1992** 

San Francisco, California

The work reported in this paper has received support from The Blandin Foundation of Grand Rapids, Minnesota and The Otto Bremer Foundation of St. Paul, Minnesota. It continues to receive support from The Hitachi Foundation, Washington, D.C.

ے

What kinds of schools and schooling do our children need to prepare them for the twenty-first century?

Consider the following characteristics of an educational system, designed in response to that question:

The educational system provides learning opportunities which are ongoing, active, relevant, and reflective of current world realities and which are accessible for all learners.

All students experience significant academic, vocational, personal, social, and cultural growth.

Learners personalize their curriculum and are actively involved in the learning process.

Educational programs offer a strong basic core but are flexible enough to allow for individual interest and specialization.

The curriculum reflects the interdependence and interconnectedness of the people of the world and it helps learners understand themselves, their community, and their nation as part of a world that consists of interrelated physical, biological, economic, political, and social systems.

Learning environments are closely connected to and integrated with the community and the world.

Learners view learning as a life-long process.

Learners develop their abilities for critical, creative and reflective thinking; problem-solving; and conflict resolution.

The schools are designed to carry out their mission of providing life-long learning opportunities and enabling individuals to become confident, happy, productive, and responsible citizens living in a interdependent world community.<sup>1</sup>

Or consider another vision of an educational system, directed to the same question, developed in a very different place a thousand miles from the first:

The educational system is committed to taking the bold actions necessary for preparing students to competently adapt to change, think critically and creatively, model ethical integrity, and value democratic ideals.



Students develop self esteem, recognize the contributions of diverse groups, uphold the dignity and rights of others, and acknowledge the responsibility of each individual for the welfare of the whole.

All students become literate and numerate, are steeped in the arts and sciences, develop sophisticated skills, and possess a balanced perspective of humanity. They realize their full potential to become well-rounded individuals and contributing members of society.

The schools are responsive to the entire community and model their goals for students by engaging all educators and parents in shared decision-making and problem-solving resulting in productive and inspiring learning environments.

All children have their basic needs - for safety, food, shelter, health, and self-esteem - met.

Students, parents, teachers, and administrators along with government, business, health, community and religious agencies all consider themselves members of the learning community and take responsibility for the education of the community's children.

The educational system is designed to accomplish its mission of preparing all students to be life-long learners who fulfill their potential to meet the challenges of today's world and the 21st century. Among the challenges and opportunities that children face are living and thriving with diversity, interdependence, and accelerating change.<sup>2</sup>

Idealistic. Visionary. Impossible. Impractical. All of these terms and others could be, and have been, applied to these images of educational systems.

But for those who developed these visions other terms also apply. Yes, idealistic and, perhaps, visionary. But, also, do-able; in fact, imperative if today's students are to be prepared for the future.

These images were not developed in white houses or state houses; think tanks or research centers. They were not developed by education presidents, concerned governors, or nationally prominent CEOs. Nor were they formed by theoreticians, researchers, or professors.

These visions were developed in two very different communities, both participants in the EDUCATION 2000 project.<sup>3</sup> The first vision comes from Redwood Falls, Minnesota, a small rural community in southern Minnesota, the heartland of



America. The other vision was developed in Yonkers, an urban school district located in an increasingly diverse community in the New York City metropolitan area. In both cases, they were developed by local people: by parents, students, teachers, and administrators along with men and women from local businesses, farmers, community organizers - by the people who have the greatest stake in their own educational systems. Literally hundreds of people in these two communities participated in community forums and other activities to have their informed input into how the educational system might look if it were to be re-designed to fit the realities of a changing world.

The educators and other stakeholders who developed them saw these visions as a practical first step in the redesign of their educational systems. In each case, the vision has served as the foundation for developing additional building blocks of a blue-print for the system. In the sections that follow I shall provide an overview of the blue-prints that are being developed from these visions and a brief description of the process of design that has been followed in the two communities.

#### THE REDWOOD FALLS BLUE-PRINT

Redwood Falls became an EDUCATION 2000 community in the Fall of 1988. From the outset, the project has been guided by a twenty-three member steering committee. During the first year of the project, the steering committee members' primary concern was to develop their own competence in working together effectively and to educate themselves about changing local and global realities and educational change efforts. The products of their first year's activities included a mission statement and goals for the project and a strategic plan for how they were going to involve their community in activities and events that would lead to a new educational blue-print.

The community's vision for the educational system and the District's mission statement are a direct result of the series of community forums that were planned and carried out by the steering community. The complete text of these statements is appended to this paper.

#### District Goals

In the months following the development and adoption of the vision and mission statements, the steering committee initiated a series of activities and events that would result in an educational blue-print that includes a statement of primary goals for the district, specifications for programs and professional practice, and recommendations for how the system should be organized to support effective programs and practice.



#### Designing Educational Programs

Once the goals for the district were identified, those within the system began to address what programs, professional practices, and organizational structures - the means - were needed to achieve these goals. Specifications, or standards, were developed in each of these areas by drawing implications for each of the student outcomes for what should be taught to achieve this goal, what instructional strategies should be used to accomplish this goal, and what supporting structures are needed to accomplish this goal.

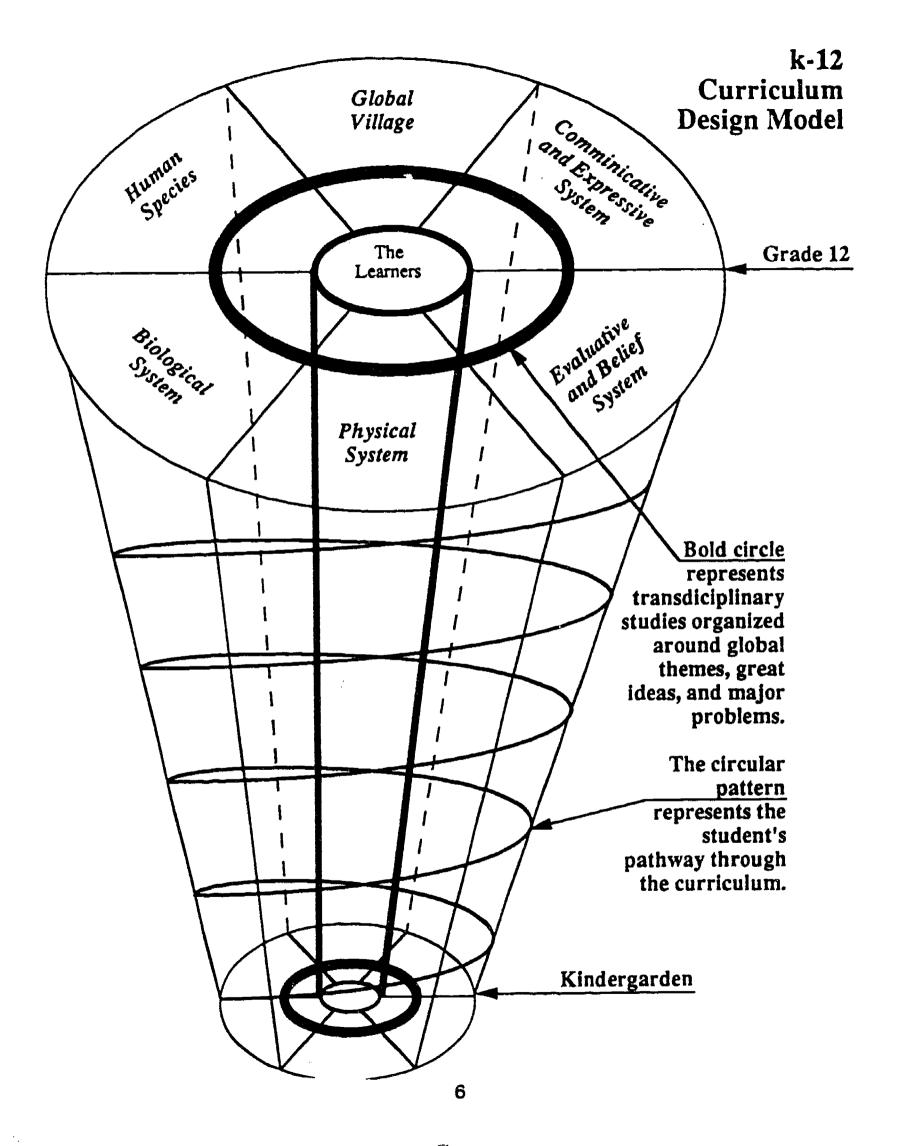
The implications of the primary goals for what the schools should be teaching were refined and distilled into four overarching standards that are to guide the development of all programs in the district.

- 1. Curricular programs will be organized according to world systems.
- 2. Curricular programs will be designed to provide all students with a strong common education and will allow learners to advance in areas of their personal interest and ability.
- 3. The common curriculum will be connected by the study of global themes.
- 4. The common curriculum will be trans-disciplinary by the study of major problems, great ideas, and concepts.

These statements were intended to provide a framework for a K -12 curriculum that would organize the learners' experiences thematically around studies of world systems. In applying these standards, the district has developed the curriculum model, included on page 6, which identifies the six organizing themes for the curriculum and illustrates how these themes are connected and spiraled through the curriculum. Since the adoption of this model, the district has begun a process of identifying more specific learner outcomes in terms of knowledge, skills, attitudes and social participation for each systems theme. These outcomes, which are appended to this paper, are currently being refined within each school level.









#### Professional Practice

The specifications for professional practice derived from the district's primary goals were developed as statements of preferred instructional strategies. These statements were intended to drive instructional decisions at each school level. To implement these strategies, the district has begun to plan and implement a long-term staff development program to educate all teachers as experts in these strategies. Following are the statements of preferred learning strategies:

- 1. Learning strategies will be designed to reflect various learning styles.
- 2. Learning strategies will be designed to have learners involved in active learning.
- Learning strategies will be designed to have learners discover knowledge through experience.
- 4. Learning strategies will be planned and evaluated with the collaboration the learner in terms of goals and process.
- 5. Learning strategies will be designed to emphasize higher order cognitive skills.
- 6. Learning strategies will be designed to connect students' learning with the community.
- 7. Learning strategies will be designed to involve learners in real world tasks.
- 8. Learning strategies will be structured cooperatively, competitively, and individually with an emphasis on cooperative strategies.

#### Structures

The districts primary goals, along with the guidelines for program and practice, were the basis for developing specifications for the organizational structure of the system. These specifications included the following:

- 1. The school and community will form a partnership for mutual learning and growth.
- 2. Staff and students of the school community will be involved in meaningful decision-making affecting all aspects of school structure, management and organization and will assume responsibility for the implementation of those decisions.
- All learners will be recognized for their continuous progress and for their achievements in all areas.
- Learners' progress and proficiency will be evaluated and reported through a variety of criteria-based methods.
- 5. Time components of school organization will be structured flexibly to allow for transdisciplinary planning and learning.



7

- 6. The preferred structure for grouping students will be heterogeneous and will allow for multi-age grouping.
- 7. School structures and organization will be designed to promote a collaborative, supportive, and democratic environment.
- 8. The school district will continuously assess the primary goals and related means and adjust its programs, instructional practices, and support structures to reflect changing needs.
- The school district structure and staff will be continuously evaluated to assure congruence between the district goals (primary and intermediate) and actual practice.

Several of these statements, especially statements 3 through 6, are closely related to professional practice and may have been better place as specifications within that element of the blue-print. The remaining statements prescribe an organizational structure for the system in which decision-making is shared, democracy is practiced, and self-assessment is the norm.

#### Implementation

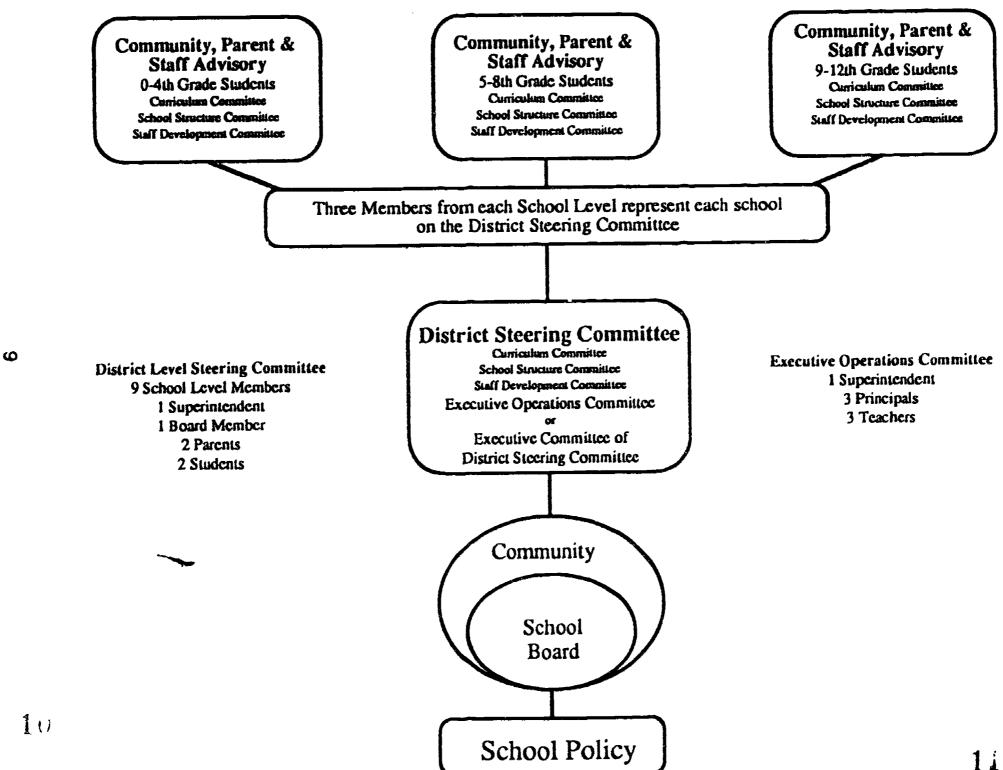
Early in 1991, the district took the first steps in implementing its blue-print with the formation of a "School Restructuring Committee," made up of teachers, administrators, and community members to develop a management structure for the district based on the specifications cited above. The draft model of their plan, included on page 9, illustrates how shared decision-making is to be implemented at both the school and system levels. Beginning in the Fall of 1991 this organizational structure was put in place within the schools. The district hopes to make the transition to the system-level structure during the 1992-93 school year.

With this new structure in place within the three schools, activities are underway within each to develop curricula consistent with the adopted model. A staff development plan, based on the specifications for practice, is being coordinated at the district level. Even with these activities underway, full implementation of the blue-print is still several years in the future.



 $\mathcal{G}$ 

## School District Reorganization Plan - Draft #2





#### THE YONKERS BLUE-PRINT

Project activities began in Yonkers in the Fall of 1989. As in Redwood Falls, the project has been guided by a twenty-three person steering committee who spent the first year developing their own competence and planning the activities and events that would lead to a blue-print for the educational system. The blue-print, and the process used in its development, followed the same general pattern as in Redwood Falls but with some significant variations, both in process and products. These variations reflect the differences in community contexts along with on-going refinement of the process of systems design being applied in EDUCATION 2000.

The Yonkers vision for the education system was highlighted in the opening section of this paper. The complete text of the Yonkers Mission Statement, which describes this vision, is appended. The Mission Statement serves as the foundation for each of the subsequent elements of the blue-print.

#### District Goals

The goals that were set for students flow directly from the mission statement. Based on the themes established in the mission statement's opening paragraph, the student goals identify forty-one outcomes which define five overarching goals agreed to by a broad cross-section of staff, students, parents, and community members. These goals and outcomes are included on the following two pages.



## STUDENT GOALS: YONKERS PUBLIC SCHOOLS

# Goal 1: Students completing their education in Yonkers Public Schools will develop a love of learning and will be prepared and committed to be life-long learners. They will be people who:

- > Recognize that knowledge is personal and has meaning in and of itself.
- Are motivated to apply their knowledge to the betterment of humankind in their community, nation, and planet.
- ► Experience the joy of learning throughout their lives as they consider their own questions and probe the universal issues that have motivated human inquiry throughout history.
- ▶ Use their understanding of the arts, humanities, physical and natural sciences, and history as the basis for their own quest for knowledge.
- Are literate, numerate, articulate and communicate effectively in English and another language.
- ▶ Are able to access, process, analyze, and evaluate information to solve problems.
- ▶ Use alternative and creative strategies in problem solving.
- > Are skilled in the use of computers and other emerging technologies.
- ▶ Use leisure time effectively.

# Goal 2: Students completing their education in Yonkers Public Schools will achieve their full human potential as individuals and contributing members of society. They will be people who:

- ▶ Have a personal philosophy of life which will contribute to their self-respect and their sense of personal responsibility and also will serve as a guide for making satisfying and responsible decisions throughout their life.
- Are committed to ethical integrity in all areas of living.
- ▶ Possess habits of perseverance, determination, and independent thought which will contribute to their on-going physical, intellectual and spiritual growth.
- ▶ Are able to make appropriate and realistic vocational choices based on marketable work-place skills and the ability to assess their own interests and abilities.
- ▶ Are concerned with creating a vision of the future based on knowledge of local and global issues and problems, their role in them, and a commitment to shaping solutions.
- > Sense the opportunities afforded by living in today's world and are determined to make the most of them.
- ▶ View adversity as a challenge to be met with optimism and creativity.
- ▶ Have a sense of belonging, pride, and loyalty to family, community, nation, and the planet.
- ▶ Be committed to patterns and life-styles that contribute to personal health and physical well-being.
- Possess physical fitness and recreation skills.
- ► Have the desire and competence to be successful parents who will raise physically and mentally healthy children and have high expectations for their off-spring.



1.4

# Goal 3: Students completing their education in Yonkers Public Schools will be prepared to live with the challenges and opportunities of a world that is characterized by interdependence and a variety of inter-connections. They will be people who:

- ► Know that they live in a variety of systems, understand the basic structure and characteristics of systems, and comprehend how systems are inter-related and connected.
- ► See their role and the community's role in the global political, economic, technological, and ecological systems that connect people, communities, and nations in today's world.
- ▶ Understand and appreciate the uniqueness of their own country's economic and political systems and the special role played by them within the global systems.
- > Value democratic principles and participate in the political process as informed and responsible citizens.
- > Recognize the interdependent nature of all social groups and possess the sensitivities and understandings necessary for effective relationships and group participation.
- ▶ Demonstrate the respect and commitment necessary to function effectively in the family.

# Goal 4: Students completing their education in Yonkers Public Schools will be prepared to live in a world that is characterized by a variety of Individual differences and great diversity in social and natural systems. They will be people who:

- ▶ Understand, value, and act to preserve the great biological and physical diversity of the planet's ecosystems.
- ▶ Understand the historical ontributions and contemporary roles of the variety of groups that make up their community, nation, and world.
- > Understand that all societies and cultures adopt unique economic and political systems based on their own histories and circumstances.
- Appreciate that many diverse cultures have contributed to humankind through unique forms of artistic expression and their histories of ideas.
- ➤ Are able to interact effectively with a variety of people regardless of individual differences due to heredity or culture.
- ▶ Respect and are open to the opinions of others in a free exchange of ideas.
- ▶ Understand the perspective of others and are able to negotiate and resolve conflicts.
- ▶ Are aware of the differences in how they see themselves and how others see them.

# Goal 5: Students completing their education in Yonkers Public Schools will be prepared to live In a world that is characterized by accelerating change. They will be people who:

- » Have a historical perspective on how and why change occurs in social and natural systems.
- ▶ Understand that change is central to human development and cultural evolution.
- Know how to evaluate and adapt to change in order to make intelligent and realistic choices.
- ▶ Understand the forces and changes that have shaped the history of their community and nation.
- ▶ Understand the evolving role of the United States and other nations within the international community.
- ▶ Comprehend and are able to evaluate the role, appropriateness, and effects of technology in accelerating rates of change.
- ▶ Comprehend the changing demands of the contemporary workplace and be prepared to meet them.



16

#### Exit Standards

In a significant refinement of the EDUCATION 2000 design process, the Yonkers steering committee decided to undertake an intermediate step before beginning the process of program design. This decision was to put in motion a process for identifying exit standards for all students, regardless of where in the community they live or in which schools and programs they are enrolled. This decision was taken out of concern for establishing common standards of excellence in a large and diverse educational system. It also reflected a desire to ensure that program design, which ultimately would be carried out within individual schools, would proceed from commonly held standards and that those standards, and ultimately curriculum and instruction, would be driven by assessment grounded in performance measures.

Since early this year, a task force comprised of teachers, administrators, students and parents has been working to develop exit standards for each of the forty-one student outcomes. As of this writing, the task force is nearing the completion of its work. To illustrate both the process that has been followed and the kinds of standards that are being developed, examples (in penultimate draft) from Goal 2 and 4 are included on the following pages. Ultimately, the standards will be combined and synthesized into a more manageable set to facilitate the development of performance measures. More immediately, the standards and the implications derived from them will be turned over to additional task forces on program, practices, and structures.

#### Completing the blue-print

Work is continuing in Yonkers to move the blue-print to the stage of development where implementation within individual schools can begin. To accomplish this the steering committee has convened two additional task forces comprised of teachers, administrators, students and parents: one on programs and curricula, the other on learning systems and professional practice.

The task force on programs and curricula has been charged with undertaking its own inquiry about alternative approaches to organizing programs and curricula. Based upon the exit standards for students, the task force is to make recommendations regarding the major ideas and themes to be included in the knowledge base offered in the schools and develop guidelines for how the knowledge base should be organized. It will also develop recommendations for how the skills and content areas of the knowledge base should be organized and interrelate and for how the knowledge base and its organization should be differentiated among various level of schooling.



## Goal 2: Students will develop a love of learning and will be prepared and committed to be life-long learners. Outcome 4 A

#### Outcome

#### They will be people who:

-use their understanding of the arts, humanities, physical and natural sciences, and history as the basis for their own quest for knowledge.

#### Suggested:

Have an understanding of the arts, humanities, mathematics, physical and natural sciences, and social sciences, and of their interrelationships.

#### **Characteristics**

## Persons who have achieved this outcome:

-understand the domains (wavs of knowing and expressing) the "big" ideas and themes of the disciplines. -understands how the knowledge from the disciplines is used to address individual and social problems. -appreciate that knowledge from the disciplines can be used to derive enjoyment. -knows the value of both disciplines and interdiscipline approaches.

#### **Standards**

## Exiting students will be able to:

-articulate the major themes, and key concepts of the disciplines and can differentiate the processes of knowledge acquisition of each discipline. -when presented with a problem, can use knowledge from the appropriate discipline or disciplines to present alternatives for dealing with the problem. -can articulate how the knowledge from the disciplines was used to derive enjoyment.

#### **Implications**

#### For what we teach:

-instruction must include process as well as knowledge of the discipline.

## For professional roles and practices:

-provide planning time for teachers in different disciplines areas.
-use of different assessments.
-staff development.
-curriculum arranged around thematic topics.

## For organizational structures:

-flexible scheduling.
-expand opportunities for students to use interdisciplinary skills in practical applications.



Goal 4: Students will be prepared to live in a world that is characterized by a variety of individual differences and great diversity in social and natural systems.

Outcome 1

#### They will be people who:

-understand, value, and act to preserve the great biological and physical diversity of the planet's ecosystems.

#### Characteristics

## Persons who have achieved this outcome:

-are committed to the protection of the environment.
-understands and respects integrity of our planet life forms.

-understand and respect integrity of out planet life forms.

-understand the interdependence of the planet's ecosystems. -realize need for proper

management of limited resources.

-understand the varied geographical forms of the planet.

#### **Standards**

## Exiting students will be able to:

-demonstrate awareness of the concept of ecosystems. -are familiar with biological and physical characteristics of ecosystems.

-have practical knowledge of how various forces can upset balance of nature. -have participated in an

-have participated in an ongoing ecological activity geared towards restoring the natural balance.

-engage in ongoing ecological activities.

-know local, regional, and world geography.

-are knowledgeable consumer and are able to manage limited natural resources.

-actively contribute toward restoring the natural balance of the planet's ecosystems.

#### Implications:

#### For what we teach:

-the interdependence of our ecosystem.
-an awareness of what it will take to save our planet for future generations.
-more emphasis on travel for students.

## For professional roles and practices:

-use photographs, video and other media to transmit knowledge.

## For organizational structures:

-provision for integrating this outcomes into requirements for graduation.
-funding for student travel.



The second task force will also begin its work with an agenda for inquiry, focusing on alternative approaches to professional practice and organizing and delivering learning programs suited to the needs of the learner. Using the exit standards as a starting point, and based upon their own inquiry, the task force will develop recommendation regarding approaches to teaching that are deserving of trial, professional roles within the educational system, alternative learning environments, alternative student groupings, and how time might be organized and used differently.

A third task force, which is to make recommendations regarding the organizational structure of the system, will be convened at the beginning of the next school year.

#### Implementation: school-level design

Looking to the future, the steering committee has determined that the next step in the project is to turn the building blocks developed so far over to several selected schools in the district and to support them in implementing the design process within their own school-communities. Therefore, through a request for proposals, they are inviting participation by individual schools in the first cycle of implementing EDUCATION 2000 which will begin during the 1992-93 school year.

By issuing this invitation, the steering committee is putting in motion a process to identify up to four schools to take part in the first round of implementation of the EDUCATION 2000 process at the school level. The schools selected for participation will have the opportunity to be on the cutting edge in creating new models of schooling in Yonkers. Moreover, because this will be the first attempt at school-level implementation, the selected schools will have access to support and technical assistance which may not be available to the same degree in later phases of the process.

The schools selected for participation must evidence their willingness to work within the parameters established by the mission and goals. Their efforts will be informed by the recommendations from the task forces on student learning, curriculum, and professional practice. Most important to this expectation is a commitment on the part of the local-school community to broad involvement of educational stakeholders in shared decision-making and problem-solving.

To encourage the development of new models, the Steering Committee is working with the Board, Administration, and professional bargaining units, as well as with the New York State Education Department, to identify and, to the extent possible, remove barriers and constraints in policy and procedures which could limit design possibilities. However, the district will continue to implement a desegregation

order of the federal district court and participating schools will be expected to work within the parameters the court order establishes. Moreover, except for funding they may attract from outside sources, redesigned schools will ultimately operate within whatever financial situation emerges in the district and state over the next several years.

To facilitate school-level design, school faculties and their communities will receive technical and financial support from the project in developing their own vision for the school that will serve as the basis for accomplishing the following:

Identifying/adopting student outcomes;

Developing performance measures to assess achievement;

Designing curricula and courses to meet outcomes;

Agreeing on delivery systems to maximize student achievement;

Putting in place effective communication and decision-making structures;

Identifying staff development needs and a strategy for meeting those needs;

Developing short and long-term implementation plans.

#### THE EDUCATION 2000 PROCESS

Redwood Falls and Yonkers are both participating in an educational redesign effort that I, and my colleagues at The American Forum for Global Education, have been leading over the past several years. This effort, called EDUCATION 2000, has been initiated in six diverse communities in different parts of the U.S. since 1987.

When we initiated the project nearly six years ago, we did so out of a strong conviction born of our work in global education, that there is a serious mismatch between schools, and their programs, and the realities of an increasingly interdependent, rapidly changing, and ever more diverse world. In fact, establishing educational systems that will equip students to function effectively in such a world and to contribute to society and the economy is considered by many to be one of the greatest challenges facing our nation today.

We believed that schools will need to be radically different if they are going to be up to this challenge. We were also convinced, and remain so, that the creation of such radically different schools is unlikely to result from restructuring efforts



proceeding school by school. What is needed is a new design, not only for individual schools, but for entire educational systems.

In the following paragraphs I will describe the educational design process as it is being carried out in EDUCATION 2000 communities. This description is based primarily on the experience of these two very different communities as they have participated in an evolving process to redesign educational systems. The reader should understand that this description is written from hindsight and that the process has evolved and changed since the project's inception.

By choosing to participate in this project, schools and their communities have committed themselves to a process that is focused on the central question: "What kinds of schools and schooling will our children need to prepare them for the twenty-first century?" In addition, they are committing themselves to a process that is distinguished from other restructuring and school improvement efforts by two unique characteristics.

The first of these characteristics is that the project is explicitly designed to surface a world view. EDUCATION 2000 reflects the assumption that the world in which we, and our children, are living is characterized by rapid change, increasing interdependence, and cultural diversity. The process itself is designed to enable local communities to determine how these characteristics are reflected within their own contexts and how their schools should respond to them if they are to be truly schools that prepare students for the challenges of the future.

Secondly, EDUCATION 2000 has evolved a process of design that is systemic and system-wide. Rather than tinkering around the edges of the existing system or attempting to make piece-meal changes in programs or schools, the process is to result in a system-wide infrastructure that is ultimately enabling of design at the school and classroom level.

From the outset of the project, we knew that the support and involvement of entire communities would be needed if educational systems were to be successfully redesigned. Our strategy was to engage entire communities in rethinking the mission and goals of education in light of the changes that are taking place all around us. This informed input was to be the first step in developing an "educational blue-print" which would provide an overarching conceptual framework defining the domains as well as the comprehensiveness and balance that students' curricular encounters should reflect. This blue-print, starting with the new statement of mission and based upon the system's goals which are its expected outcomes for students, was to address questions of what the school should be teaching, the kinds of learning experiences most valued by the staff and community, and the kinds of organizational structures that need to be in place to support effective programs and good teaching.



18

In our early efforts the process was rather linear and the project was interpreted to too great an extent as a curriculum development effort. We saw movement toward improved programs and curricula but little real change in schools or the system as a whole. As our work continued, however, we discovered a promising match between systems design theory and what we hoped to accomplish in our work. Increasingly, we have incorporated principles and strategies of systems design into our work.

We were initially attracted to social systems theory because of the elegant congruence between the view of the world that drives this project -- that we live in an interdependent world which is increasingly dominated by global systems -- and a systems view of schools and educational organizations.

To be sure, schools are among the most complex of social systems. They have changed very little in over a century and are driven by hundreds of powerful external constraints. Most recent innovations or intrusions into the existing system have been rejected because they don't account for the complex nature of a system. Sometimes they temporarily fix what they intend to, but mostly they produce, or threaten to produce, unexpected or unacceptable outcomes in another area of the system - outcomes resisted by forces more powerful than the forces for change.

Bela Banathy, one of the foremost theorists in systems design, has argued that the only way education will be changed to deal with the demographic and economic shifts of a changing society at the same time we deal with the human needs of the individuals within the society, is through a complete paradigm shift in defining what education is: a shift to a systems perspective. At the core of this shift is a move away from problem solving and linear approaches to school improvement, and a move toward the creation of new visions for the system and the use of cyclical and organic strategies to accomplish those visions. According to Banathy, entire communities will need to be involved in the creation of new images for educational systems. These images need to be informed by and grounded in the overall societal context, developing the largest possible picture of education within the largest possible context.

In our work, incorporation of the systems design perspective has enabled us, as well as those implementing the process within their own communities, to understand and account for the dynamics of the system in new and profound ways. Moreover, it has allowed us to deal with those dynamics with more powerful strategies than we had available before.

In addition, the process embodies other characteristics that are consistent with the project's world view and design perspective. Among the most important of these, participation in this project brings a commitments to:



-The broadest possible involvement of all the educational stakeholders within the local community.

This means involvement both in the decision to participate in EDUCATION 2000 and in the design process itself.

- -Placing students, and their needs in a changing world, squarely at the center of the design process. As a result, the design will-
  - -Be based in and driven by desired student outcomes.
  - -Reflect the belief that all students can learn.
  - -Provide for standards of excellence for all students.
  - -Accommodate the view that all students possess unique intelligences that need to be tapped by the school.
- -Focusing on the entire range of functions within the educational system throughout the design process. Among the primary areas to be addressed are the following:
  - -The substance and organization of programs and curricula.
  - -Specifications for valued and effective professional practice.
  - -The extent to which the organization and its structures support effective programs and practice.
- -Empowering local schools, and their communities of stakeholders, to redesign themselves.

The process embodied in EDUCATION 2000 is intended to result ultimately in both unique local school designs and a larger educational system that has been redesigned to support these local efforts. This commitment reflects the belief that while visions, goals, and standards can be owned by an entire community, local schools and their communities of stakeholders are in the best position to determine how they are to be realized in their own context.

As originally conceived, the project was designed to proceed through three phases. These phases were intended to move a community from planning the project through developing its educational blue-print to beginning implementation activities in approximately three years. The following excerpt from the project's leadership manual describes some of the activities and results of each of the phases in the process.

The activities of Phase I are intended to result in a strategic plan for carrying out the program design and implementation activities of Phases II and III. In this phase, the project's primary actors are the members of the project steering committee. This committee is charged with



transforming itself, through self-education activities, into a panel of experts; with developing a project resource center; and with developing a plan and supportive infrastructure for program design and implementation.

The outcome of Phase II is an educational blue-print which will be used to design curricular programs, to guide instructional practice, and to organize institutional structures. In this phase, the focus shifts from the internal work and preparation of the steering committee to broad involvement of the professional staff and community in developing the blue-print. The success of the project requires the broadest possible involvement in setting the schools' mission and goals, assessing needs and collecting baseline data, program planning, and designing curriculum and staff development.

Phase III of this project involves the on-going work of implementing the educational blue-print. The specific tasks to be undertaken in this phase will depend upon the specific elements of the local blue-print. However, each will require on-going staff development; curriculum writing, selection and development of instructional resources, piloting and revision of courses and resources, on-going data collection, and on-going oversight and monitoring of implementation strategies.

This description of the three phases was written as part of getting the project underway in Yonkers. Both communities described in this paper have approximated the process it describes. The first phase, which results in a strategic plan for the project, took a year to complete in both Redwood Falls and Yonkers. The second, in which a systems blue-print was designed, took more than two years to complete in these two communities. The final, implementation, phase is just beginning and because of the nature of the blueprint as a long-term guide to programmatic design and decision-making, implementation will necessarily be a long-term and openended process encompassing three to five years or even longer.

We are finding, however, that it is possible to accelerate the process somewhat by making better use of the times when school is not in session. For example, in our newest active site, Community Consolidated School District 146 in Tinley Park, Illinois, Phase I was completed in three months by using the summer time to provide for training and education activities and strategic planning. As a result, after one year of the project they will have developed their vision and mission and begun work on the District's goals. According to the time-line that has been established there, we anticipate that implementation will begin during the third year of the project.

#### LESSONS FROM EDUCATION 2000

Early in the project we developed a research agenda for the project that we hoped would enable us to learn from the experience of communities involved in educational redesign. Our agenda had three objectives: to document the process



in each of the communities, to determine how unique community contexts affect the process and its outcomes, and to determine what impact, over time, involvement in the project has on school programs, classroom practice, organizational structures and educational outcomes.<sup>8</sup> In the following paragraphs, I will attempt to summarize some of the lessons emerging from the research agenda and from the practical experience of being part of the process in these communities.

Six communities have been engaged in EDUCATION 2000. The two communities described in this paper have been the most successful in carrying out the process thus far. A third district, District 146 in suburban Chicago, appears to be on a track to complete the process in a manner that will meet, or exceed, the experience of these two communities. In three other districts, the process was terminated at a point before serious systemic and structural redesign were considered and implemented. In each of these districts the process went no further than consideration (and implementation, in two of the cases) of curricular improvement. The differences in the experience of each community can be explained, in part, by at least three inter-related variables that have come into play in all of the project sites.

One of these variables has to do with the leadership role we at The American Forum have played in the project. More specifically, our ability to articulate the process and achieve a common understanding among local leadership of the project has had an important effect on the project's outcomes. The data we have collected from the steering committees at each of the sites shows that, in the sites where the process was not completed, the project leadership team neither understood, nor made a commitment to, the project as a comprehensive redesign effort. This difference is partially explained by the project's history and our own ability to refine the process as we have gained greater experience, especially with the more explicit focus on strategies of systems design with newer sites in the project. However, this explanation is only partially satisfactory because of the experience of Redwood Falls which was one of our early sites.

The difference in experience and outcomes can be further explained by a second important and related variable: identifiable leadership and commitment to the project and goals within the district. Another paper in this symposium, by Madylon Leslie, describes the importance of the superintendent's commitment and leadership to the project and of his or her willingness to involve and empower other stakeholders in the redesign effort. Her conclusions are being validated by our experience in District 146 where the superintendent has made clear his commitment to the process and to involving the entire community in the effort.

These conclusions are also supported by our experience in at least two of the sites not completing the process. In one of those sites, the process was terminated shortly after a change of superintendents. In a second site, the project was never



22

embraced as the umbrella for school change efforts by the superintendent who, in fact, initiated a competing effort in outcomes-based education.

Our experience and research, thus far, would indicate that these two factors are necessary, but not sufficient, in explaining the full completion of the process of educational redesign. A third variable that is equally important is the support and involvement of a broad range of stakeholders in the process. A major difference between the three communities who terminated the process and the others was the purposefulness and seriousness with which the larger community of stakeholders has been involved in the process.

In both Redwood Falls and Yonkers, and now in District 146, literally hundreds of community members and professional staff have been involved in community forums and other activities and events as the blue-print has been developed. By contrast, in one of the other communities, the steering committee decided to hold a series of "informational" meetings, after design activities had begun, rather than to hold forums seeking meaningful input from the community. Within several months of these meetings, a dissident group of concerned community members, representing fundamentalist Christian churches, took credit for successfully pressuring the superintendent and board of education to terminate project.

In addition to learning about these critical factors, we are also learning some important lessons about the process itself, especially as it relates to the community context in which the project is embedded. The paper by Martin-Kniep in this symposium describes some of the data we have collected on perceptions and attitudes among different educational stakeholders. This data is being used not only to explain the process as it has been played out so far, but is also being used to inform the structure of the process in our new sites.

Another important lesson that our research and documentation has yielded has to do with the role and function of the project steering committee. In each of the project sites we have collected extensive data on the emerging concerns of steering committee members and have documented both the process and products of their decision-making. Within this data we have seen a consistent shift over time in their expressed concerns. A parallel shift is reflected in the process and substance of decisions taken.

Early in the process, our data shows, steering committee members most frequently mentioned concerns having to do with issues of roles, power, trust, and group dynamics. In the early stages, members are often skeptical about their autonomy as a group, distrustful of the motivations of those in other roles within the group, and suspicious that a hidden agenda is being imposed by district leaders, EDUCATION 2000, or The American Forum. Consequently many of the decisions early on have do with how members will work together, how decisions will be made,



23

and how they can access information about the project and about the issues involved.

Over time, concerns expressed by steering committee members reflect a marked increase in trust, both within the group, and for district leadership and the project itself. Decisions reflect this shift. As the project continues, and the steering committee becomes more cohesive, decisions also shift to issues of involving other stakeholders in the process, identifying useful resources, and shaping practical next steps.

We believe we are learning some lessons from our research agenda and day-to-day experience that will be of great importance to our future work in this project. It may also be of interest to others involved in similar endeavors. Our experience has confirmed the importance of starting such an effort with a shared understanding of the goals of the project and with a clear commitment by district leadership to those goals and to sharing meaningful decision-making with others. We have learned that broad involvement of the community in shaping the design of the educational system is not only viable, but a powerful factor in the project's success.

We have learned that the process of design can be, and probably must be, shaped to fit the community context in which it unfolds, without losing its basic integrity. Finally, we have learned that when stakeholders, from a variety of roles, are engaged in giving meaningful leadership to an effort such as this, it is important to provide a means for them to deal with issues of trust and interpersonal relationships before expecting them to take on the more substantive issues of redesign.

So far, EDUCATION 2000 has demonstrated that, with support and under the right conditions, it is possible for local communities to develop a vision and a blue-print for their educational systems that are quite different from the systems in place today. It remains yet to be seen if these blue-prints can be implemented, and sustained over time, and if they will yield the kinds of educational outcomes that their designers had envisioned.



#### **ENDNOTES**

- 1. Adapted from the District Vision and Mission Statement of Independent School District 637, Redwood Falls, Minnesota adopted by the board of education in February, 1991.
- 2. Adapted from the Mission of the Yonkers Public Schools, Yonkers, New York adopted by the Board of Trustees in February, 1992.
- The first statement was developed in Redwood Falls, a rural community in southwestern Minnesota. Dependent upon agriculture, with a sprinkling of manufacturing and high tech enterprise, for its economic livelihood Redwood Falls lies in the heartland of America. Approximately 2,000 students attend the schools coming not only from the town itself but also from surrounding villages and farms and a nearby Indian Reservation.

The second vision was created in Yonkers, New York a community of approximately 200,000 population adjacent to the Bronx in New York City, but located in Westchester County. Because of its location, Yonkers has both the rich diversity and many of the attendant problems of the larger New York City metropolitan area. With thirty-two schools, and approximately 20,000 students, Yonkers possesses a scale and manageability that is unattainable in larger urban school districts with many of the same characteristics.

- 4. Such a model was suggested in John Goodlad in "A New Lock at an Old Idea: Core Curriculum" in Next Steps in Global Education. The model is adapted from Kenneth Boulding's book, The World as a Total System.
- The project grew out of the work of the Study Commission on Global Education. Some of the dimensions of this mismatch is documented in their report: The United States Prepares for its Future, published by Global Perspectives Education, Inc. in 1987.
- 6. Reflects the findings of John Goodlad in his Study of Schooling. See, for example, "A New Look at Old Idea: Core Curriculum."
- 7. See, for example, his article "New Horizons through Systems Design" in Educational Horizons, Winter 1991.
- 8. As part of the research agenda, annual reports have been prepared on the sites that are the subject of this paper. Copies of those reports and a description of the research agenda are available at The American Forum for Global Education.
- Our experience shows that the leadership provided by the individual to whom day to day coordination has been delegated is an important factor in this variable. In Redwood Falis, coordination was delegated to a secondary social studies teacher, in Yonkers to a recently appointed assistant principal with high credibility as a teacher. In both cases, their conceptual leadership and commitment to the project were critical to the success of the project.

BEST COPY AVAILABLE



#### **REFERENCES**

- B. H. Banathy, Systems Design of Education: A Journey to Create the Future, Educational Technology Publications, Englewood Cliffs, N.J., 1992.
- B. H. Banathy, New Horizons Through Systems Design, Educational Horizons, Winter 1991, pp 83 ff.
- K. Boulding, The World as a Total System, Sage Publishing, Beverly Hills, California, 1983.

Study Commission on Global Education, *The United States Prepares for its Future*, The American Forum for Global Education, New York, New York, 1987.

- J. Goodlad, A New Look at an Old Idea: Core Curriculum in Next Steps in Global Education: A Handbook for Curriculum Development, W. Kniep (ed.), The American Forum for Global Education, New York, New York, 1987.
- D. Hoffbauer and J. Hand, Education 2000 Research Report: Redwood Falls, Minnesota 1990-91, The American Forum for Global Education, New York, New York, 1991.
- W. Kniep and G. Martin-Kniep, Year Two Research Report: Yonkers Education 2000 Project, The American Forum for Global Education, New York, New York, 1991.
- G. Martin-Kniep, Perceptions of Different Educational Stakeholders Regarding the World, Schools, and Educational Change, paper presented at the annual conference of the American Educational Research Association, San Francisco, 1992.



## COMMUNITY VISION FOR THE EDUCATIONAL SYSTEM REDWOOD FALLS, MINNESOTA

Educational opportunities should be accessible for all learners. These opportunities should be ongoing, active, relevant, and reflective of current world realities.

All learners should experience significant academic, vocational, personal, social, and cultural growth. This experience should be comprehensive with a strong basic core and flexible enough to allow for individual interest and specialization.

The learning environment should allow learners to personalize the curriculum and to be actively involved in the learning process. It should enable learners to develop collaborative skills and demonstrate positive competitive behaviors. It should also be closely connected and integrated with the community and the world.

Learners should view learning as a life-ling process. Critical thinking, creative thinking, reflective thinking, problem solving, and conflict resolution should be emphasized.

The curriculum should reflect the interdependence and interconnectedness of the people of the world. It should help learners understand themselves, their community, and their nation as part of a world that consists on inter-related physical, biological, economic, political, and social systems.

### THE MISSION OF INDEPENDENT SCHOOL DISTRICT 637 SHALL BE:

to provide life-long learning opportunities enabling individuals to become confident, happy, productive, and responsible citizens in an interdependent world community.



#### THE WORLD AS A COMMUNICATIVE AND EXPRESSIVE SYSTEM

#### KNOWLEDGE

-Multiple literacy

-Communication is the exchange of information between systems.

-History of communications systems.

-Arts are a basic system for communicating feelings re:time, place,

and circumstance.

-Humans are meaning makers.

-Humans are creators and consumers of symbolic forms-arts, myths.

·Communication systems differentiate humans from other animals.

-Effects of technology on modern communication.

-Characteristics of information age.

-How to find information.

-Forms of communication.

-Career opportunities in communication.

-Knowledge of parts/actors of communication systems.

Symbolic functions of communication.

-Power of symbols.

-Relationship between parts of communication system.

-Contributions of various cultures to literature and other expansive forms.

-How cultures express ideas.

-Know information systems.

-Research methods.

-Various ways information is communicated over time/space.

-Oral literacy tradition connects communication and expressive systems.

Knowledge of propaganda techniques.

#### **ABILITIES**

-How to find information.

-How to communicate well in various formats.

-Express oneself through the arts for personal satisfaction.

.Use state of the art technology for communication.

-Research critically, analyze, and interpret information.

-Use humor appropriately.

-Analyze and describe the relationship between the parts of communication systems.

-Engage in cross cultural communication.

Describe relationship of communication system to other parts.

-Engage in effective interpersonal skills.

-Apply aesthetic standards.

-Make connections between self, society, and others in literature.

#### **VALUES**

-Appreciate communicative diversity.

-Appreciate well-crafted forms of communication.

Appreciate folk arts of all people.

Appreciate local artists.

-Value creative expression.

-Enjoy expressing one's self.

-Enjoy communicating/relating with others.

-Support the rights of others to communicate.

Strive to value the truth. (THE BIG TRUTHS).

-Value the role of communication with all systems.

-Value the role of debate, discourse, discussion, disagreement in a democracy.

#### SOCIAL

-Cooperate with others.

PARTICIPATION-Take the opportunity to communicate.

Read as a leisure time activity.

-Ignore dishonest/misleading messages.

-Attend/perform in expressive performance.

Support the arts.

-Participate in public debates/discussion.

Continuously upgrade their expressive abilities.

-Advocate communication as a means of conflict resolution.

Hee communication as a way to alleviate stress



#### THE WORLD AS A PHYSICAL SYSTEM

#### KNOWLEDGE

- -Subsystems making up our physical systems e.g. weather systems, oceans, land masses, universe.
- -History of the above.
- -Relationships between the systems and social systems.
- -Actors, relationships, functions of these systems.
- -Numbers/measurements related to the physical systems.
- -Rules, laws, principles that govern the interaction within and among the physical systems.
- -Energy use-past, present, future.
- -Current resources in physical systems.
- -How physical systems change.
- -Career opportunities/demands of careers related to physical systems.
- -How time is determined.
- -Relationship between human behavior and physical realities (weather, land masses).
- -Impact of social, economic, and political systems on the physical system.
- -Change involves trade offs.
- -Interdependence between physical/biological systems.
- -Personal connection/impact of the physical system.
- Nonrenewable nature of the earth's physical system.

#### **ABILITIES**

- -Observe, measure, compute, predict.
- -Experiment and interpret.
- -Build/construct to solve problems.
- -Take care of their physical environment.
- -Trace connections/analyze relationships within and among systems.
- -Use physical system in ways beneficial to humanity (long term).
- -Conserve natural resources (and manage).
- -Adapt to changing world and differing physical environment.

#### **VALUES**

- -Physical systems as part of other systems.
- -Accepting responsibility for conserving the physical system for future generations.
- -One's personal physical system.
- -Accept responsibility for one's own physical well-being.
- -Being responsible for waste management.
- -Value the beauty, size, complexity, diversity of the physical system.

#### SOCIAL

- -Join with others in promoting sound conservation and management practices.
- PARTICIPATION-Conduct one's own life in a sound and conserving manner.
  - -Continuously develop understanding of one's environment.
  - -Refer to social participation under biological systems.



#### THE HUMAN SPECIES

#### KNOWLEDGE

- -Knowledge of traits and characteristics of human beings.
- -History of humankind as a record of cultural contact and exchange.
- -Cultural adaptation to their local environment.
- -Differences and similarities of human cultures.
- -World religions and spirituality.
- -Literature as a reflection of human experience-folk art, stories, oral traditions.
- -Understanding of oneself and others.
- -What motivates people to do what they do.
- -Human sexuality.
- -Uniqueness of every person.
- -Limitations in sciences (psychology, history).
- -Interaction of mind and body.
- -Knowledge of human development and behavior.
- -Basic human need to create and organize socially, create social systems-family, community.
- -Norms of human behavior.
- -Potential of human beings.
- -Relationship to other species.

#### **ABILITIES**

- -Act human.
- -Describe the past and anticipate the future.
- -Thoughtful decisions.
- -Communicate within and across cultures.
- Motivate others and self to take positive actions.
- -Think globally and act locally.
- -Collaborate and cooperate.
- -Maintain emotional equilibrium.
- -Self-control.
- -Manage change.
- -Respect individuality.
- -To be an individual.
- -To care, love, serve others.

#### VALUES

- -Human knowledge.
- -Self respect and respect for others.
- -Individuality.
- -Community.
- -Their place in the human drama of history.
- -Human diversity.
- -Creativity and change.
- -Universal human rights.
- -Family beritage.
- -Spirituality.
- -Accepts responsibility for one's actions.

#### SOCIAL

- -Treats others with respect.
- PARTICIPATION-Participates actively in the human conditions.
  - -Displays concern for others.
  - -Displays self-confidence and individuality.



#### EVALUATIVE AND BELIEF SYSTEMS

#### KNOWLEDGE

- -Beliefs and values systems plus other systems are interrelated.
- -Recognition of one's own frame of reference is necessary to objectivity.
- There's evolution of universal value of what it means to be human (human rights).
- -Core values on which this nation was based and have become point of debate about what it is/means to be human.
- -Schools reflect the values of a democratic society.
- -Role of schools and families and other institutions is transmitting the core values.
- -Philosophical tradition.
- -Interlocking nature/relationship between belief systems and cultural and evaluative systems.

#### **ABILITIES**

- -Able to describe behavior in terms of their belief/evaluative system
- -Analyze cultures in terms of underlying belief systems.
- -Accept the discrepancy between philosophical ideals and behavior.
- -Analyze, understand, and accept "the difference" diversity.
- -Make timely, thoughtful choices/decisions.
- -Evaluate by our beliefs, a career/profession.
- Problem-solve, collaborate, adapt to change.
- -Identify one's own values.
- -Know oneself.
- -Direct and design change.
- -To be comfortable with one's own values and decisions.

#### **VALUES**

- -Diversity of belief system.
- -Respect (but not necessarily agree) with other belief/evaluative systems.
- -The Bill of Rights and democratic process and Universal Declaration of Human Rights and United Nations.
- -Take pride in one's own ethnicity/racial/gender status and belief system.
- -Value the importance of a value system.

#### SOCIAL

-Practice their values.

PARTICIPATION -Actions that reflect their values-except when to do so is injurious/infringsment on other values. (Do unto others as we would have them do unto us).

-To eliminate violation of human rights through social participation-to act upon what you value.



#### THE GLOBAL VILLAGE-SOCIAL, POLITICAL AND ECONOMIC SYSTEMS

#### KNOWLEDGE

- -The way human beings collectively manege their lives sociologically, economically and politically.
- -Human relationships.
- -World cultures.
- -Cultures and cultural change.
- -Local, state and national culture.
- -History of nation/state.
- -Inter-nation relations.
- -Economic systems.
- -Political systems.
- -Global economic system, primarily capabilities.
- ·Two kinds of national economic command or market economies.
- -Nature of treaties, coalitions, alliances.
- -Current and historical role of U.S. in Global Village.
- -Development of human sciences.
- -Development of human societies.
- -Evaluation of social systems from hunting and gathering plants, to agriculture, to trading and industrial.
- -Conflict management.
- -Multinational corporations as political decision makers.
- -History of democracy.
- ·History of systems.
- -History of changing family structures.
- -Methods of political change.
- -Global interdependence.
- -Systems theory.

#### **ABILITIES**

- -Conceive the global village as an interdependent system.
- -Get along with others.
- -Resolve conflict in non-violent ways.
- -Perspective taking.
- -Analyze and describe the parts and relationships of systems.
- Identify connections to other people and places and analyze their mutual effects.
- -Understand roles and responsibilities of citizenship.
- -Make economically prudent decisions for oneself and others.
- -Make politically informed decisions and act upon them.
- -Skills of social inquiry.

#### **VALUES**

- -Constructive diversity.
- -Eager to participate in the political process.
- -An independent thinker and decision maker.
- -Respect for the law and for the democratic process.
- -Positive feelings towards one's own country.
- -Responsible towards the human family.
- -Values universal human rights (mutual respect, equity, tolerance, empathy).
- -Appreciate the ramifications of personal decision making.
- -Appreciate societal decision.
- -Enjoy learning about people different from ourselves.
- -Financially responsible.

#### SOCIAL

- -Active in political, social and civic processes.
- PARTICIPATION-Works on human and social problems.
  - -Travels widely.
  - -Collaboration and cooperation are second nature.
  - -Helping organizations-volunteering.
  - -Service in community.
  - -Continuous learning.
  - -Economic contribution to community and nation.
  - -Productive citizen contributing to the well-being of the community.
  - -Striving to increase their capacity to contribute to group goals.
  - -Display global thinking through local action.

#### THE WORLD AS A BIOLOGICAL SYSTEM

#### KNOWLEDGE

- -Body functions as one system; homeostasis.
- ·Characteristics of living organisms vs. non-living organisms.
- -Co-dependence of organisms i.e. ecosystems.
- -Relationship between living things and their environment.
- -Classifications of living things.
- -Cause/effect relationships (behavior to organism response).
  -Humans have greatest potential to change the coosystem.
- Theories of specie development orar time.
- -Relationship between cultural values and use of the environment.
- -Individual, community, and global well-being are dependent on healthy ecosystems.
- -Exponential growth potential of population.
- -Organisms are open systems characterized by organization, adaptation, and self-regulation.
- -Knowledge of paris/actors of the system.
- -Career opportunities of parts/actors of the system.
- Knowledge of the current "state of the planet".
- -Understanding of self as a biological system.

#### **ABILITIES**

- -Trace connection and see cause and effect.
- -Think holistically (systematically).
- -Using scientific method of procedure.
- -Monitor and maintain one's own health.
- -Provide basic first aid for others.
- Analyze and describe an ecosystem.
- Grow and raise plants and animals properly.
- -Care for environment-conservation techniques.

#### **VALUES**

- -Value all parts of the biological system and accept responsibility for ecological balance.
- -Accept responsibility for one's own well-being.
- -Value the aesthetics of the infinite complexity of ecological system.
- -Value the need for ethical decision making.
- -Accept responsibility for well-being of the ecological system (i.e. students caring).
- ·Value human life.
- -Love of nature and of the outdoors.

#### SOCIAL

-Join with others in promoting sound environmental practice.

#### PARTICIPATION-Conduct one's own life in a sound environmental manner.

- -Consistently display reasoned and informal decision making on environmental/biological issues.
- Consider environmental consequences of political and economic decisions that one makes.
- -Actively participate in solving social and environmental problems in the community, nation and the world.
- -Participate in healthful, lifelong activities.
- -Consider environmental consequences of career decisions.
- Engage in lifelong learning regarding environmental/biological issues.



#### THE MISSION OF THE YONKERS PUBLIC SCHOOLS

The mission of the Yonkers Public Schools is to prepare all students to be life-long learners who fulfill their potential to meet the challenges of today's world and the 21st century. Among the challenges and opportunities that our children face are living and thriving with diversity, interdependence, and accelerating change.

The Yonkers Public Schools are committed to the bold actions necessary for preparing students to competently adapt to change, think critically and creatively, model ethical integrity, and value democratic ideals. Students will develop self esteem, be prepared to recognize the contributions of diverse groups, uphold the dignity and human rights of others, and acknowledge the responsibility of each individual for the welfare of the whole. Our students will be literate, numerate and steeped in the arts and sciences. They will possess the sophisticated skills for life and work. A balanced perspective of humanity will be fostered through an accurate and representative presentation of historical truths.

The district will ensure that all students in its care realize their full potential to become well-rounded individuals and contributing members of society. Therefore, the education provided to our children will stimulate their respect for the similarities and differences in individuals and among cultures, ethnicity, and religious beliefs. It will also develop the interpersonal skills and encourage the multi-lingual ability that communication with others requires.

For our schools to meet the needs of students in a world of changing social, economic, environmental and technological structures, they must be responsive to the entire community. The Yonkers Public Schools will provide an environment for nurturing and empowering both children and adults within the learning community to be decisive, creative and flexible human beings.

The school district will model its goals for its students by engaging all educators and parents in shared decision-making and problem-solving that will result in productive and inspiring learning environments. The school system will enable and ensure that teachers can participate in decision-making and problem-solving on a school and system-wide basis because of their special role as primary agents in students' learning in school.

Our children's basic needs for safety, food, shelter, health and self-esteem must be met. Throughout the entire educational process, these needs must be met through an alliance that includes not only students, parents, teachers and administrators, but also government, business, health, community and religious agencies — all members of the learning community — to support and enhance the work of our schools. All are responsible for the education of our children.

