

A
NATIONWIDE
TRANSFORMED SCHOOL
PROGRAM

Proposed by

The
William C. Norris
Institute

on behalf of

THE
K-12
TRANSFORMED
SCHOOLS
CONSORTIUM

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ABSTRACT

As the first step in implementing the basic structural change required to provide the type of education and training system America's work force will need in the 1990's and beyond to meet the challenge of a fiercely competitive world marketplace, it is proposed that new transformed schools be established. The initial number of schools will be determined by individual states. For planning purposes, this proposal is based upon an individual district establishing a school. Designing and implementing new schools is under the aegis of The K-12 Transformed Schools Consortium, which is an organization designed to achieve the broadly based cooperation necessary for successful implementation.

A large number of organizations and individuals have participated in the design of the program, which takes into account studies and recommendations made by many national and state commissions. Emerging from this extensive work is the clear call for a "transformation" from traditional group learning to individual learning occurring through the further development and utilization of computer-based technology. This technology is essential for helping educators, administrators and teachers create a more productive, affordable and cost-effective learning environment. It must not serve as a supplementary component of the educational system, but as the primary means for implementing a comprehensive approach.

Widespread cooperation is required to accelerate the utilization of technology in education and to continue its development, because educationally and economically, it is simply not feasible for one school to develop and implement such a program. The magnitude of the undertaking requires a large number of schools working cooperatively in a nationwide organization.

Each transformed school will incorporate a personalized education plan for each student, developed by a team of teachers, parent(s) and the student. Specially designed computer-based technology will be a composite tool available to the teachers to help them manage the total individual environment. The teachers and administrator who will staff each school will utilize a seven month period to prepare for implementation. Students will be selected based on a typical range of abilities, socioeconomic background, racial, color, age, gender, religious preference and disabilities. Private school students will be included according to the local ratio.

Comprehensive evaluation will measure the outcomes. Funding assistance is sought only for the start-up costs for the Transformed Schools. The school district will bear all subsequent costs.

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Background

A large number of organizations and individuals have participated in the design of the program, which takes into account studies and recommendations made by many national and state commissions. Emerging from this extensive work is the clear call for a "transformation" from traditional group learning to individual learning occurring through the further development and utilization of computer-based technology. This technology is essential for helping educators, administrators and teachers create a more productive, affordable and cost-effective learning environment. It must not serve as a supplementary component of the educational system, but as the primary means for implementing a comprehensive approach.

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The William C. Norris Institute (WCNI), a non-profit organization, catalyzed the formation of The K-12 Transformed Schools Consortium (TSC) to plan and implement this transformation. The TSC is composed of teachers, media specialists and administrators who have the official approval of their school boards, and representatives from teacher and other organizations and businesses who are committed to pursuing the mission of establishing transformed elementary and secondary schools.

Goals

Through transformation, the widely recognized reform goals of accountability of learning progress and achievement, and program cost-effectiveness will be met. To seriously address accountability of both forms, the TSC members from 14 school districts have worked diligently with WCNI to design a new program that creates a personalized learning environment providing a personalized education plan (PEP) that will enable each student to develop to his/her full potential. The ability of students to learn at their own pace holds the promise of improving the motivation and learning achievement of each student and assures equity of learning opportunity for each student. Cost effectiveness is achieved through the effective utilization of computer-based technology and human and learning resources focused on the learner, which results in declining need for supplementary resources, remediation and literacy programs required for dropouts and underachievers.

Another major goal is to increase parental involvement. Each student receives a custom-designed PEP developed by a team of individuals composed of teachers, the student's parent(s), and the student. The parents(s) then follow the progress of their youngster along the path designated in the plan they helped compose through continuous progress monitoring, frequent reports, and periodic consultations with the teachers.

Educational Innovation

The Transformed School is educational innovation of the highest order. It is a composite of components that have been proven in the field and others that are new. Each Transformed School will incorporate an individualized, computer-based management system that will provide essential generic functions, yet will permit local option and choice in the selection of learning outcomes and objectives, learning resources and activities, and evaluation criteria and methods. The computer-based management system is under local control and serves to free the teachers from time-consuming administrative chores, thereby enabling them to devote more time to working directly with the learners. By utilizing technology's range and power, the teachers will be able to address the needs of each student in the transformed school environment, thereby providing greater learning achievement and the more complete development of each student.

Although education research has long established the reality of individual differences among learners, Americans are accustomed to a traditional system in which students are taught in groups with uniform practices and pacing and are evaluated against arbitrary group norms. As has been made clear in many recent national reports on education, the result is a mediocre system that discourages and poorly serves many students, most particularly the least able and the most able. In addition, the traditional system has tended to frustrate teachers, to discourage young adults from choosing teaching as their profession, and to alienate parents. Advocated reforms based on more rigorous course content, more classroom time, and stricter discipline have resulted in scattered improvements, but do not promise to improve learning achievement and motivation to the levels our nation needs. The reforms have been unsatisfactory because they have not provided the means to assist each student to maximize learning at his/her own pace. Only an environment that provides a personalized plan for each student that is rich in learning resources and has unencumbered teachers will accomplish that goal.

Program Objectives

Objectives of The K-12 Transformed Schools Program include:

1. Assistance for implementing, disseminating and replicating an *innovative approach* at the elementary/secondary level.
2. Creation of a unique learning environment that has the goal and potential of enabling *each student to develop to his/her full potential*.
3. Providing educators and policy makers with *sound, tested models* for achieving significant improvements in the outcome of our education system.
4. Providing *parental and student choice* with the innovative model offered as an alternative to the traditional format, one of President Bush's reform goals.
5. Furthering the President's reform goal of *accountability*.
6. Furthering the President's goal of increased *parental involvement*.
7. Positively impacting curricular reform.
8. Reducing dropouts and inspiring underachievers.
9. Permitting the more able students to progress beyond the restrictions imposed by the traditional environment.
10. Providing technological assistance to teachers to free them from management chores that drain their time and energy, thus allowing them to focus their activities on individual learners and/or small groups.

Needs Served

The needs of students, parents, teachers, the public, and the Nation will be served to a degree not possible in the traditional school and will be met in the following ways:

1. *Students.* Student achievement will improve both quantitatively and qualitatively because each learner will be challenged to *do the possible in terms of his/her potential*. The atmosphere created will be positive to each participant, thereby motivating each to progress according to his/her Personalized Education Plan (PEP). Constant, positive feedback about mastery of goals will reinforce individual efforts. Each student will feel equal attention and opportunity is being afforded him/her. In the proposed environment no youngster can be passive or uninvolved. The PEP demands the active participation of each.
2. *Parents.* Direct parental involvement in the development of the PEP will translate into increased support and interest on the part of parents and parent organizations. More frequent interaction with the teachers will result in fewer misunderstandings regarding learning expectations and will lead to growing confidence in and satisfaction with the school system. Parents will be able to become productive allies of both their youngsters and the school system.
3. *Teachers.* Teachers participating in TSC are eager to work in a learning atmosphere that permits and encourages them to become more involved with individual students. They envision becoming more productive, more efficient, less encumbered, more valued, and more personally fulfilled. Happier, more productive, more effective teachers will positively impact learning, and will lure bright, talented young people into the profession.
4. *Supporting Public.* Improved student achievement data coupled with documented increased cost-effectiveness will be quickly communicated to the public. Greater public support will follow.
5. *Nation.* Through the more complete development of each student, the nation will realize many benefits, including fewer citizens in need of social program support, reduced costs to business in shoring up inadequate preparation of those entering the work force, and general upgrading of the human resources that will keep America competitive and maintain our standard of living.

The innovative, restructured model when replicated across the nation will serve to meet all the needs stated above. The format is designed to bring each student as far and as fast as he/she is able must result in individual and collective improvement in all areas of measurement. Better satisfied and professionally functioning teachers, more involved and supportive parents, a supportive public, and a nation that is developing its human resources to the optimum, will produce a proud and confident education system for the future.

Plan of Operation

Each Transformed School will incorporate the following essential components:

1. A Personalized Education Plan (PEP) for each student.
 - parental, student and teacher(s) involvement in PEP development
 - the utilization of technology managed functions to provide data and processes for PEP development.
2. A personalized education environment.
 - defined learner outcomes and learning objectives
 - varied learning resources, activities and methodologies
 - mastery learning and learning accountability
 - continuous feedback and progress monitoring
 - frequent progress reporting
 - technology is the tool for use by the teacher to manage the processes and the environment.
3. An evaluation plan and procedures.
 - to evaluate learning achievement
 - to evaluate effectiveness of learning resources, activities, mastery criteria and testing instruments
 - to provide progress data to verify validity of PEP's
 - to evaluate overall cost effectiveness.

To transform education, TSC is dedicated to the creation of learning environments where a PEP composed by a team of teachers, parent(s) and student will permit each learner to follow his/her personal learning blueprint at a pace that is achievable, that makes no unjust comparisons with the progress of others or with group norms, that prevents students from becoming passive, and that assures continuous positive reinforcement and steady progress. Such environments will encourage the more able to progress rapidly without traditional restrictions and the less able to find their own achievement levels.

To achieve the goals of the project, TSC encourages site-based implementation, either at a separate facility or a school within a school. At each school three consecutive grade levels of 30-50 students per grade level will be selected, enrolled, provided a PEP and will progress at the pace each can achieve. The teachers will be selected from the school district's staff based on their commitment to the Transformed School concept and their willingness to function effectively in the transformed environment. Consortium members insist that prior to implementation each new Transformed School will devote at least seven full months in preparation of staff, curriculum, facilities, equipment and site, evaluation techniques and instruments and in selecting students and preparing their personalized education plans. The teachers and part time administrator at each new school will be freed to devote time to these preparation tasks.

Advance notice will be given to students, their parents, staff members, civic, business, and professional organizations and the public prior to student selection. Each student will be eligible, but the selections will be made on the basis of typical local distributions of ability levels, socioeconomic backgrounds, race, gender, color, national origin and disability. Private school students will be included in the eligibility total according to the local ratio.

At the conclusion of the seven month period, the following steps must be completed:

1. Teachers must be trained in the effective use of the technology.
2. Outcome-based goals, learning objectives, learning resources and mastery criteria must be established and programmed.
3. Students must be selected, assessed and provided with PEPs based on data and inputs by teachers and parents.
4. Modifications in facilities and equipment must be completed.
5. Evaluation plans, techniques and instruments must be developed and available.
6. The community must have been conditioned to the new format.
7. The technology core of hardware, software and courseware must be functional.

Once implementation occurs, all operational costs will be born by the school district. The school will agree to communicate regularly with the other schools utilizing a telecommunications network to share progress and experience in preparation of the environment and design of the PEP's. Active participation in the network will be required over the three years of the program.

During the first year of operation that incorporates three consecutive grade levels, a subsequent grade level will be prepared for inclusion during the second year of operation. It is planned to add a grade level to the original three year program each year that it operates. In addition to the preparation for the next grade level, the following goals will be achieved during the first year of operation:

1. The validity of the processes used to establish PEPs will be assessed and evaluated. Adjustments will be made, where appropriate.
 2. Student learning achievement will be evaluated qualitatively and quantitatively.
 3. Cost effectiveness of the total operation will be evaluated and compared with the cost of traditional education.
 4. Teachers, parents and students will respond to the Transformed School operation through comments and suggested improvements.
 5. The effectiveness of the technology will be assessed and improvements, modifications and alterations will be made.
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Staffing

Teachers and part-time administrators will be identified by the school district through a non-discriminatory, voluntary process, with the support of the local teacher organization. The nature of this program requires the participating teachers' dedication to this innovative concept and the requisite skills, creativity and experience to plan for implementation.

Commitments

Members of TSC have made long-term commitments to the program along with WCNI. Current membership in TSC includes 14 school districts and a state-wide commission. Each member has signed a five-year agreement with WCNI which includes committed staff, teachers, parents and school board, selection of a school, the necessary equipment and supplies. One member of the Consortium, St. Paul Independent School District, which commenced work in early 1988 in preparing the Saturn School, a Transformed School, will initiate operation in September 1989, and will serve as a working model from which other members will learn as they create and implement their own versions.

WCNI is providing the organizing initiative and central administration for establishing standards, procedures and processes and coordination of communications. In addition, it is responsible for the design and development of the PEP and the computer-based system for its management.

Cost Estimate

The cost for the implementation of the program is estimated at \$248,500 (Appendix 1). This funding applies only to the preparation phase of the Transformed Schools Program, and it includes the cost for the expansion to an additional grade at each school in each of years two and three. Each school will share in the cost of the preparation phase to the extent of \$30,000 during each of the three years of the program based upon local option and available resources. WCNI will provide the organizational initiative, software design and administrative services relating to standards, procedures and other functions. The district will utilize only local funds to operate each transformed school in the second and third years. Costs of operation are estimated to not exceed those of traditional schools.

Evaluation Plan

With planned changes in organizational structure, teacher roles, the delivery of instruction and parent and community involvement, the Transformed Schools concept represents a unique model for creative, needed educational change. Given the inadequacy of traditional evaluation techniques to measure progress of an individualized model, the unique features of this concept provide a significant opportunity for measurement of the effectiveness of the overall educational system.

Consequently, the development of a comprehensive, research-based evaluation design is required. The design will build upon a multi-dimensional plan developed by St. Paul for the Saturn School. It will address four major purposes:

1. to measure individual student achievement;
2. to provide formative information to help staff and parents assess implementation, progress, achievement and the ongoing need for program modification;
3. to measure cost effectiveness; and,
4. to provide summative information to enable the teachers, administrators, parents, funding agencies, the public, potential replicators and other educators to judge the success of the concept.

Evaluation of learning achievement and cost effectiveness will be on an ongoing and yearly basis during years two and three. A full three year evaluation will be conducted during the third year to assess the overall effectiveness of the program. The method will document and evaluate changes in curriculum and application of learning resources, organizational change (particularly in roles and relationships), and in implementation techniques. This design also permits the study and interpretation of learning outcomes and causal relationships, and a

comprehensive and systematic description of the approach as well as the necessary quantifiable data to assess achievement of the program purposes. The data will permit comparison among the schools to determine where commonality of approach can be beneficial and enhance productivity where site-based management as well as other local needs require different techniques for implementation that are appropriate to urban, suburban and rural circumstances and conditions.

Conclusion

A key to success of the Transformed Schools operation is the quality use of the preparation period. Concentration of resources and personnel during that period permits teachers the opportunity to configure the Transformed Schools model involving the unique integration and combination of education plans for each student, parent choice and involvement, specially developed technological functions, capabilities and features, modified and diversified roles for teachers, mastery learning criteria, data base utilization, and new evaluation methods.

Successful implementation of the transformed schools model in a district will facilitate rapid adoption of a highly effective and dramatically improved education system.

Appendix 1

COST ESTIMATE—One School

| | Year One | Year Two | Year Three |
|---|-----------|----------|------------|
| Personnel | \$64,816 | \$16,822 | \$16,822 |
| Fringes | | | |
| 21% Average per School | 12,981 | 3,533 | 3,533 |
| Equipment | | | |
| Management System (Hardware/Software) | 50,000 | | |
| 30 Station Computer Network | 60,000 | | |
| WCNI Management | | | |
| Organizational Initiatives; Standards, Procedures, Processes | 10,000 | 10,000 | 10,000 |
| ANNUAL SUBTOTAL: | \$187,807 | \$30,355 | \$30,355 |
| THREE YEAR COST ESTIMATE: | | | 248,517 |
| SCHOOL BASED CONTRIBUTION: | 30,000 | 30,000 | 30,000 |
| THREE YEAR FUNDING TOTAL: | | | \$338,517 |

Assumptions (Partial)

1. Three consecutive grades, an additional grade in years two and three. Two FTE teachers for seven month preparation period in year one, 2/3 FTE teacher in years two and three, 1/5 FTE administrator and part-time staff support.

2. 90 - 150 students.

3. Staff development included in FTE release time. School district staff development allocation and additional learning resources also contributed as in-kind.

4. The school will contribute funding support for expenses associated with evaluation, telecommunications, training and travel estimated at \$30,000, depending on local option and available resources.