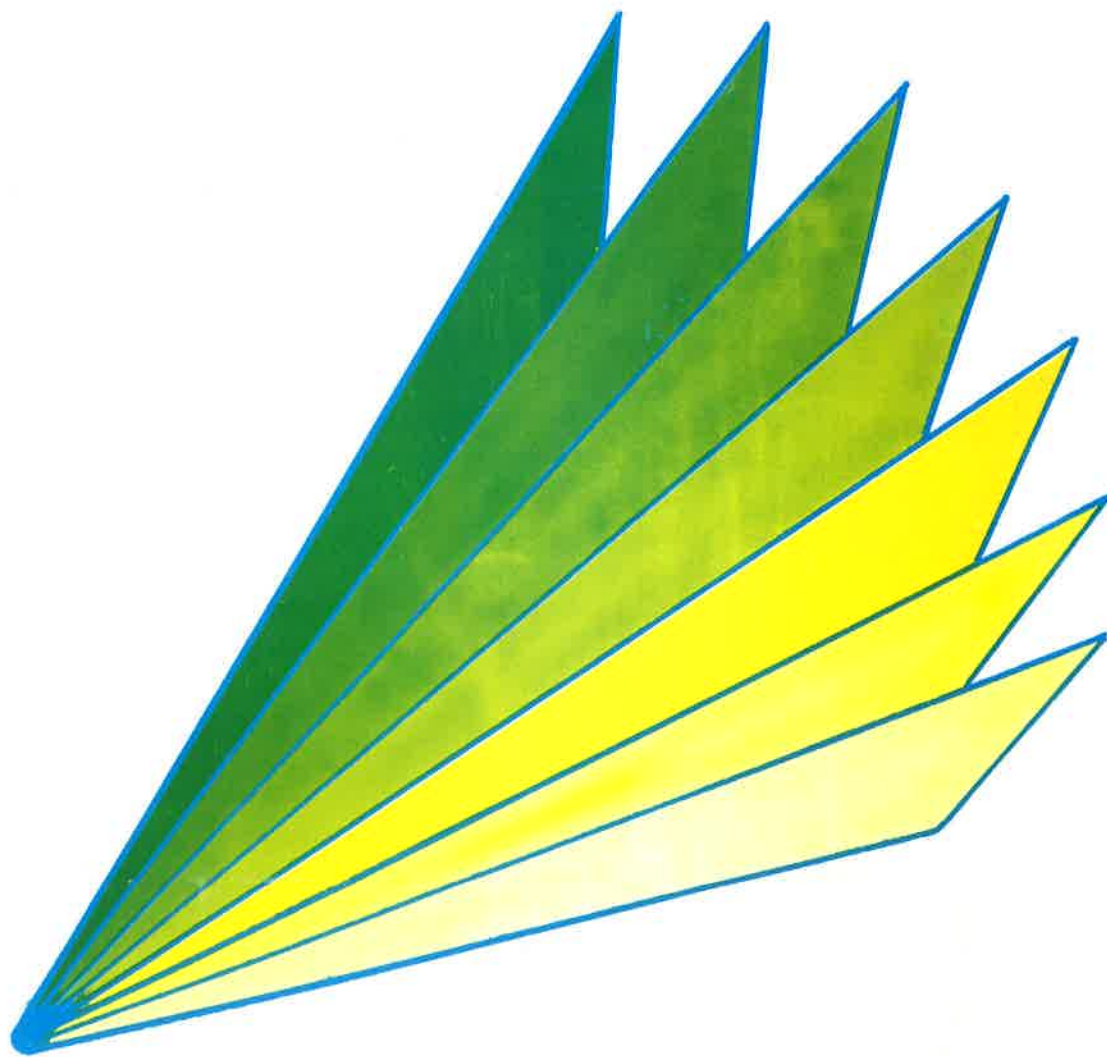


Vol. V, No. 3

THRESHOLDS

IN EDUCATION



VOL. V NO. 3 AUGUST, 1979

TO ... YEAR ... 2000



EDITORIAL

One cold windy day last January, with snow several feet deep on the NIU campus outside Gabel Hall, the editorial committee for this issue of THRESHOLDS met to select a theme. After some deliberation we decided on the theme "Teaching and Learning: Toward the Year 2000."

This theme seems particularly appropriate as we move well into the final quarter of this century. The hope of the editors was that we would not only engage in educational soothsaying, although enough of that will be found in the articles to spark the imagination, but also look at present trends, issues, and directions in teaching and learning and make intelligent guesses - nothing so pretentious as projections - as to where we are likely to be at the turn of the century and a few years beyond. What are our present problems in teaching and learning and how might we move toward solutions? What do we really know about how human beings learn and therefore about how to teach? What use can we make of the theory, research, and knowledge we now possess? These are some of the questions which are addressed in this issue of THRESHOLDS.

Obviously, there is some danger in dealing with future orientated themes, especially those which discuss the near future. One can easily be proved wrong. It was Josh Billings who said, "Don't lay any certain plans for the future; it is like planting toads and expecting toadstools." Nevertheless, we have moved on in quest of some direction and guidance for teaching and learning as we approach the year 2000.

It is our hope that this issue of THRESHOLDS will prove not only useful and interesting but also somewhat prophetic, for as Don Quixote so wonderfully understated, "Tomorrow will be a new day."

Lowell Horton, Editor

Lowell Horton

EDITOR	Lowell Horton	
ASSOCIATE EDITORS:	Rodney Borstad & James Walker	
ART & GRAPHIC EDITOR:	Dorothy Beck	
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TOWARD THE YEAR - 2000:

THE COURTS WILL RETURN TO SANITY?

Dr. Earl E. Hoffman

The legal system has been established to assure a degree of orderly activity within our society and its institutions. This system may, at times, lead the thinking of its members. At other times, it may be influenced by the desires and needs of the people for whom it designs and interprets acceptable modes of behavior. During the last two decades, the legal system has faced a myriad of social problems as it has attempted to prevent chaos within and among our social institutions. Perhaps the next decade will find the legal system refining the great issues of the recent past and returning again to a semblance of sanity.

Courts do not create laws. Courts interpret laws which have been made. When a decision has been made based upon a law and certain circumstances, members of the society can generally feel assured that in another situation with similar circumstances, the decision will be the same. The courts operate on precedents to lend stability to decisions. However, it is possible that when social needs genuinely change and legislation has not kept pace with that change, courts may overturn a precedent and in a landmark opinion establish a new direction in law. An example of such a change occurred in 1959 when the Illinois Supreme Court was faced with an issue related to the responsibility

of a school district for the negligent acts of an employee. Precedent had been established in American law that the state and its created subdivisions such as school districts had tort immunity. That is, the school district was not legally responsible for injury to individuals which might have been caused by its negligence of by that of its employees. In this famous decision the Supreme Court overturned that precedent when it stated:

We conclude that the rule of school district tort immunity is unjust, unsupported by any valid reason, and has no rightful place in modern day society.¹



Dr. Earl E. Hoffman is professor of Education, Department of Curriculum and Instruction at Northern Illinois University, DeKalb, Illinois

The major litigation that has occurred during the last decade of two has been concerned with the "rights" of individuals and organizations. These rights have been discovered as the result of new of different interpretations of several amendments to the Constitution, notably the First and Fourteenth. The First Amendment phrase that has generated most concern states that "Congress shall make no law...abridging the freedom of speech or of the press..." A more lengthy section of the Fourteenth Amendment involving newly described rights guarantees that no state shall:

...deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Unfortunately, these rights which have been uncovered by the courts have often been directly construed as responsibilities for school districts. Legal conflict has been the result.

An area where it appears greater sanity may appear in the next decade is in the requirement for curriculum and equal opportunities for the handicapped and/or minorities. One important curriculum change was initiated by *Lau v. Nichols* in San Francisco in 1974. Approximately 1800 children

of Chinese ancestry were enrolled in the school system who could not read, write, or speak the English language. The U.S. Supreme Court ordered the district to develop programs whereby these children would be taught the English language so as to be able to receive the benefits and opportunities of a free public education. Even though the decision was not based on the Fourteenth Amendment but on Title VI of the Civil Rights Act of 1964, and because H.E.W. guidelines required correction of language difficulties in order for the district to receive any federal funds, the result was the same. The Court noted:

There is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education.²

Consequently, legislation in the various states has developed wide ranging bilingual, bicultural programs supplemented by Federal monies. Universities have developed programs to train special teachers for that new curriculum effort. But while the Lau decision sought only an education in English for the children, it seems to have been interpreted by some educational leaders to mean programs for not only education in English but also in the maintenance of the particular language and culture where much of the general curriculum continues to be taught in the native language without an intent of transition. In reality, a dual system has been developed in these school districts. A petition in the Ninth District Court of Appeals recently requested a curricular program which would give Mexican-American and Yaqui Indian children instruction in grades kindergarten through twelve such that these children would become competent and functional in both English and Spanish.³ It was rejected by the court reaffirming the original intent of Lau and restraining the further development of dual

programs. The Wisconsin statutes which created programs for bilingual instruction in that state speak succinctly on the point:

...the ultimate objective shall be to provide a proficiency in those courses in the English language in order that the pupil will be able to participate fully in a society whose language is English.⁴

In the early 1970's, sentiment was rising for the appropriate education of handicapped children. The decision in Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania⁵ gave impetus to that movement. The intent of the action was admirable, but the manner in which programs have been established, mandated, and administered throughout the nation has resulted in one of the most wasteful displays of finances, personnel, and materials in public school history. Based upon court decisions, legislation, and sentiment, these inappropriate uses of resources will be challenged and faced in the next decade to again restore some balance and sanity to school programs and to every child's opportunities.

In the Pennsylvania case, parents of retarded children who could not be enrolled in the public schools sought relief from the courts on the basis of the equal opportunities' concept of the Constitution and the free education clause in the Pennsylvania constitution. A U.S. District Court ordered state schools to implement educational programs for all mentally handicapped children by September 1, 1972. It summarized its deliberations by noting:

(H)aving undertaken to provide a free public education to all its children...the Commonwealth of Pennsylvania may not deny any mentally retarded child access to a free public program of education and training.⁶

A similar decision resulted in Washington, D.C. shortly after the Pennsylvania case where only

4,000 of more than 16,000 handicapped children were being served by the school district.⁷

While these two decisions related to handicapped children had no legal influence on other parts of the nation, the precedents and social pressures were enough that states began to develop their own mandatory programs for handicapped children. The federal Education for All Handicapped Children Act culminated this movement with requirements for mainstreaming and Individualized Educational Programs for each child. The result has been a great expansion and development of programs at a great cost in financial expenditures. These costs have been borne mainly by the local school districts since the federal and state mandates for such programs neglected to fund them appropriately from those levels.

There seems to be little argument that the programs established are, in the long run, beneficial to most of the students involved and to society in general. However, rumblings are being heard that the priorities for expending school monies have tipped too far in favor of the handicapped at the expense of the 'average' and gifted students. For example, Illinois state aid to school districts was determined primarily upon a basic foundation level of \$1310 per child in 1978-79 for average daily attendance. The Illinois Office of Education reports that state appropriations for the gifted programs in Illinois were \$3,630,000 while total funding made available for the handicapped, including transportation, was approximately \$220,000,000.

While it is not politically expedient to vote against appropriations for handicapped children, more legislators and parents will become aware of the great inequity in funds for the education of various classifications of children. One such case, Irwin v. McHenry (II.) C.C. Sch. Dist. 15, has already been filed alleging the failure of the school district to provide ade-

quate education for Irwin's son who has a measured I.Q. score of 169. Additional cases such as this are certain to be filed in the next decade, and the plaintiffs will find sympathetic ears among the jurists. The courts will modify priorities which the legislative and executive branches of government are unable or unwilling to make.

Judicial changes and modifications will also be made in the next decade in decisions related to the general 'rights' movement of the late 1960's and early 1970's. In the last decade, students and teachers have sought additional rights provided by the courts when those rights were challenged or were infringed upon without the higher quantum of due process recently uncovered by the courts. Perhaps the most important case related to school children was *Tinker v. Des Moines Comm. Sch. District* in which the U.S. Supreme Court recognized children as 'persons' in the eyes of the law, rather than as objects or things to be used and manipulated by parents, schools, and society.⁸ The First Amendment's protection of free speech was provided to children, and the symbolic armbands worn by the *Tinker* children became the basis for a multitude of cases involving school children and oral, symbolic, and written speech. Cases involving leather jackets, long hair, no ties, appropriate dress, school newspapers, school reading material, and obscene language inundated the courts' dockets. Space does not permit a listing and discussion of cases illustrating each of the issues, but several may demonstrate a change in attitude of the courts toward a more rational interpretation of freedoms and rights and a greater reverence to established authority.

Student speech and publications have been given practically free reign through court interpretations of the right to freedom of speech. However, there are an increasing number of reports appearing in newspapers indicating that school boards are successfully monitoring books and other

reading material available to students more often than in the past. While these actions could possibly be fought in the courts, many times it is not being done.

The early landmark decision related to newspapers circulated in the schools was *Scoville v. Board of Education of Joliet Twp. H.S. Dist. #204*.⁹ In this underground newspaper, the editors urged students not to deliver communications from the school to their parents and "...in the future to either refuse to accept or destroy upon acceptance all propaganda that Central's administration publishes."¹⁰ They also criticized an article describing a racial breakdown of the student body and concluded that the senior dean had a sick mind. It was suggested that oral sex might stop tooth decay. A subsequent issue outlined the quiet take-over of the school and the quick dispatching of the superintendent, principal, secretaries, and certain deans. The publications also contained attempts at serious poetry as well as comments and essays, usually related to sex or the sick society, which would be revolting to more sensitive readers. The U.S. Supreme Court upheld the rights of the student to publish and distribute the paper since the effort did not disrupt the educational programs of the school, and freedom of speech and press was a right of students even though the contents might be critical of programs or individuals.

A rash of newspaper cases followed in which decisions were rendered allowing students to publish almost anything they wished within the bounds of general journalistic responsibility even though it included such controversial topics such as Viet Nam, birth control and abortion, or nuclear power. However, a recent case has tempered that movement when the Second Judicial Circuit Court of Appeals upheld the right of a school board to refuse to allow students to distribute a sex survey in the school and to publish the results. Considering the potential psychological harm to students, the Court agreed that "...the school authorities are sufficiently experienced and knowledgeable concerning these matters which have been entrusted to them by the community."¹¹

The rights of teachers and of their manner of dress have also been given wide parameters by the courts. A change may be coming in this area as well since two court decisions recently have limited those individual rights in favor of the desires and authority of local school boards. The same Court of Appeals above ruled in favor of the Town of East Hartford Board of Education in the dismissal of a teacher over school dress. The teacher claimed freedom of speech, albeit symbolic speech, by not wearing a necktie while teaching his English classes, and this was contrary to board regulations. The court demonstrated an apparently growing attitude that some issue between employer and employee are best settled locally and are not worthy of constitutional balancing. The court wrote:

If the teacher has any protected interest in his neckwear, it does not weigh heavily on the constitutional scales...By bringing trivial activities under the constitutional umbrella, we trivialize the constitutional provision itself.¹²

Similarly, on March 26, 1979, the U.S. Supreme Court refused to hear a case and thereby let stand an Appeals Court decision invol-

ving a teacher who refused to shave his beard according to directions from his board of education. Gene Ball, a junior high school teacher in Kerville, Texas pursued his legal rights through a myriad of courts for ten years, but the final decision was that he had failed to show "...a constitutional question worthy of a federal court's attention. His claim to a deprivation of liberty was 'wholly unsubstantiated and frivolous.'"¹³

The foregoing illustrations do not cover all of the facts of controversy related to school affairs. In fact, such issues as unisex athletic programs or quota enrollments and assignments were not mentioned even though they will also continue to bring cases to court dockets. However, there do seem to be some indications that the judiciary is attempting to place decision-making back into the hands and control of those who are elected to make those decisions. Perhaps a summary of future directions of court opinions related to schools and education would include the following:

1. The courts will more quickly quash nuisance cases thereby enabling quicker decisions on weightier cases.
2. Constituted authority will be given greater latitude in making decisions without fear of constant legal involvement.
3. Priorities in the support for equal educational opportunities will be reevaluated.
4. The rights movement will continue, but modifications will occur in the implementations of changes approved in the last decade.
5. A greater stability in school law will evolve, and the courts will embark upon a period of relative sanity during the 1980's.

Schools and education have been involved in a period of legal Future Shock. It is over, and educators deserve the period of relative legal tranquility which is coming in the next decade.

Dr. Hoffman is supervisor of student teachers and instructor in the area of school law. He writes school law column for ILLINOIS PRINCIPAL.

Footnotes:

1. Mollitor v. Kaneland Comm. Unit Sch. Dist. No. 302, 163 N.E. 2d 96.
2. Lau v. Nichols, 414 U.S. 565.
3. Guadalupe Organization v. Tempe Elem. Sch. Dist. #3, 587 F. 2d 1022.
4. Wisconsin Revised Statutes Chapter 115.95 (5).
5. Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania, 334 F. Supp. 1257.
6. Ibid.
7. Mills v. Board of Education of Washington, D.C., 348 F. Supp. 866.
8. Tinker v. Des Moines Independent Comm. Sch. Dist., 393 U.S. 503.
9. Scoville v. Board of Education of Joliet Tp. H.S. Dist. #204, 425 F. 2d 10.
10. GRASS HIGH, student publication sold at Joliet Central High School on January 15, 1968.
11. Trachtman v. Anker, 46 LW 2157.
12. East Hartford Education Association v. Board of Education of the Town of East Hartford, 46 LW 2135.
13. Ball v. Board of Trustees of the Kerville Independent Sch. Dist., U.S.

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WHERE ARE WE HEADED?

Alexander Frazier

What does lie ahead in teaching and learning? My prediction is that the eighties will be a period of consolidation around agreements on basic skills instruction which will free us in the nineties for a surge ahead toward development of a more broadly based curriculum.

REDUCTION OF ANXIETY ABOUT BASIC SKILLS

We are already well on the way to finding a sensible set of agreements that may reduce public anxiety over whether the basic skills are being properly taught in the schools.

Fixed achievement standards.

The foundation of the new educational detente is our acceptance of the idea that students must be able to do certain things in the reading and math line before being released from school. While a few test-phobiacs continue to worry over the prospect of social bias in the results, standards are being spelled out in terms that almost everyone can understand and accept — and eventually achieve.

The ease with which minimal achievement standards are being framed is testimony to how much we have learned from a generation of emphasis on behavioral objectives, and our readiness to accept fixed standards in testing is a tribute to the respect we have come to feel for the non-normative tests developed by the National



Alexander Frazier
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The Ohio State University

Assessment of Educational Progress project.

Linkage to life goals. But our wisest ploy has been to persuade evaluators to tie the achievement of basic skills to everyday matters like making out job applications, taking drivers' tests, and balancing a checkbook. The result has been the paring down of basic skills to a level that defines goals in terms of functional literacy — that is, what does it really take to keep afloat? A brilliant example of educational statesmanship, this has been for sure — and one that could possibly put the basic-skills anxiety permanently to rest.

Selective testing. With achievement testing oriented to minimal standards, we predict that other testing procedures will come to be

regarded as specialized or selective in nature. Normative testing and full-universe testing (the latter of the college entrance variety) will continue to have their uses, mainly perhaps in counseling but also in research. Curriculum evaluation will be free to accept the challenge that still remains in the arena of diagnosing learning-and-teaching needs.

Learning limitations. For we do agree that why we fail to teach some students is a problem to be worked on. Agreement on minimal achievement standards should help take the pressure off. It will give us time to learn more than we now know about why students from some neighborhoods and groups don't do as well in school as all of us would like. What we must do is to accept the fact that learning limitations apply to us as educators as well as to some of our students. However, it does seem that we may be on our way here with the help of federal dollars rechanneled into basic research on learning and teaching.

By its agreements in basic skills, the eighties should clear the board for a return to what most of us would see as the greater need — the modernization of the school program toward the goal of human potentialization.

RESUMPTION OF CONCERN FOR HUMANISTIC LEARNING

What areas will we be working on when we find ourselves free to

return to creative curriculum-making? Those I name are all ones where I would predict we will begin to make a truly impressive investment by the year 2000.

Communicative arts. Largely neglected in school, speaking and listening skills have had to depend on life experience for their development. Yet how important competence in expressive and interactive communication really is: from it come the bonds that make for personally rewarding and socially productive human relations. Stand-up-and-speak-out activities, goal-oriented group experiences, training in pantomime and theatre — these are where more attention will need to go.

High-level study skills. Schools in general have a long way to go in transcending their centuries-old dependence on the textbook. We know that if investigative undertakings in the sciences (natural, physical, and social) are to have much scope in school as well as out, they demand something more than just learning how to read. We are thinking here of being able to locate, extract, combine, and report information from a variety of print and non-print sources — and also of being able to design and carry out simple ventures in collecting, evaluating, and sharing

original data. We have made a good start here since mid-century but have far to go.

Physical functioning. The present game-and-sports focus of most school programs is ready to be enlarged by more attention to movement, nutrition, sexuality (maturation, stereotyping, etc.), outdoor activity, and lifelong fitness or well-being. Successful integration of all these concerns in some kind of framework that will honor the psycho-motor base of human behavior will demand much of us.

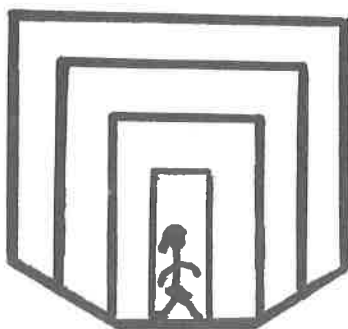
Fine arts experiences. In the past, music and art — and, in many schools, literature as well — have been regarded as of less than prime importance. However, few of us would deny that access to the fine arts must be one of the major goals of any educational enterprise that aims at human fulfillment. Today we have inexpensive resources in the form of recorded images, sound, movement, and print that offer a broader base for education in appreciation. But we have not thus far thought through some of the key questions: How much do we ourselves know or care about the arts? How are creative activity and appreciation linked? Where do school and community have to work together here?

Moral-ethical-political behavior. Most of us would concede that human beings are predisposed to develop guidelines to behavior

based on tested conceptions of what is good. And we agree that such individual conceptions govern the development of shared goals. How, then, can the curriculum be shaped to put the learning of values closer to the heart of the school experience? We have begun to work in this area with renewed vigor; and while we may not have made much progress as yet, we know one thing for sure: something more is called for than just talking about what is and what ought to be. Students learn values in action.

And so do we all. We learn what we live. Curriculum-making in the crisis-ridden, cold-war years broadened our horizons. But it also served to clarify old values as well. Too much stress on key concepts or structure in the disciplines can lead to trying to teach dry-as-dust abstractions. Mathematico-logical models of teaching and learning may make more sense on paper than in practice. And whether something can be learned is perhaps less important in the long run than whether it should be.

Let us work hard in the immediate years ahead to resolve the controversy over teaching the basic skills so that we can return the sooner to the task of setting forth exciting new opportunities for the young—all of them—to learn what it takes to make the most of the human adventure as it is and to create an environment that will be even more rewarding.



“When planning for a year, plant corn. When planning for a decade, plant trees. When planning for life, train and educate people.”

- Chinese sage

THE MESSAGES OF RESEARCH -TOWARD YEAR 2000:

TRAINING OURSELVES TO TEACH

By Bruce Joyce
and Beverly Showers

Over the last twenty years a number of relatively powerful teacher training methods have been developed and researched, although none of them is in general use today. These methods represent the current "best practice" in self-instructional and agent-assisted preservice and in-service techniques. Research on them constitutes our present fund of knowledge about ways to improve teaching through direct training. To prepare this paper we analyzed more than 200 studies in which researchers investigated the effectiveness of various kinds of training methods. From this analysis we have developed working hypotheses which we can use as we design school improvement programs which incorporate training.*

**The process of analysis of the literature was complex. The literature is uneven and few of the working hypotheses have been tested directly with completely acceptable designs. The hypotheses were extrapolations made after a scrutiny of investigations which tested training elements by attempting to determine their impact on teacher behavior. It should be stressed that the conclusions here are, in fact, working hypotheses rather than immutable conclu-*

TWO PURPOSES OF TRAINING: "TUNING" OUR PRESENT STYLES AND MASTERING NEW STRATEGIES

Improving our teaching can be focused on "tuning" our present skills—learning to do better what we presently do or on learning new (to us) ways of teaching. When tuning our skills, we try to become more affirmative, involve students more, manage logistics more efficiently, ask more penetrating questions, induce students to be more productive, increase the clarity and vividness of our lectures and illustrations, understand better the subject matter we teach—in short we work on our craft. Training oriented toward fine-tuning consolidates our competence and is likely to increase our effectiveness and attractiveness.

Quite a different goal is to master new teaching strategies or models and/or learn to put alternative curriculums in place. To master a new approach we need to explore and understand its rationale, develop the ability to carry out new teaching strategies, and master fresh content.

sions. However, we believe that they adequately represent the present state of the literature and that training programs can use them reliably as representing the available state of the art.

Beverly Showers



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Bruce Joyce

Generally speaking, it is easier to "fine tune" our existing approaches than it is to master and implement new ones. This is simply because the magnitude of change is both greater and more complex when we change our repertoire than when we refine an already mastered teaching strategy. We have to learn to think differently, to behave differently and help children adapt to and become comfortable with the new approaches. As we analyzed the training literature, we came to the belief that the mastery of new approaches requires more complex combinations of training elements than does the fine tuning of our present styles. In both cases they require training that relates directly to the clinical acts of teaching. Teaching skills and strategies and curriculum implementation are part of our clinical performance as professionals and training in those areas also is directly connected to potential effectiveness in the classroom. If the objective of training is achieved our teaching behavior is changed in a way which will probably improve it, whether that be the refinement of our style or the mastery of the new approaches.

LEVELS OF IMPACT OF TRAINING

Whether we teach ourselves (serving as our own instructor) or whether we have the assistance of a training agent, the outcomes of the activities we engage in can be classified into several levels of impact. The first level is awareness. The second is concepts or the acquisition of organized knowledge. The third is the learning of principles and skills. The fourth is the ability to apply those principles and skills in problem-solving activity.

The Awareness Level

At this level one becomes conscious of the importance of an area and begins to focus on it. If we use the example of special education with reference to "mainstream-

ing," the road toward competence begins with an awareness of the kinds of handicaps that people have, the kinds of education that has been provided to them and a philosophy of incorporating their education into the ongoing flow of the mainstream of American schooling.

Concepts and Organized Knowledge

Awareness provides the condition which enables one to study the area and begin to get an understanding of it. Concepts provide intellectual control over relevant content. Knowledge of how "handicaps" affect responsiveness to teaching and an understanding of the kinds of conditions that enable persons with so-called handicaps to flourish in a school environment are examples of organized knowledge related to "mainstreaming."

Principles and Skills

Principles and skills are tools for action. At this level we learn ways of reaching out to handicapped persons in the school environment, identify the teaching strategies which can be used with them, and develop the skills for carrying out those strategies. At this level there is the potential for action—one is **aware** of the area and can **think effectively** about it and possesses the **skills** to act.

Application and Problem Solving

At this level one transfers the concepts, principles and skills to the school itself. Continuing the above examples, teachers begin to use the teaching strategies they have learned. The administrators arrange for the orientation of the handicapped into the school environment and mainstreaming is put into practice.

Only after this fourth level has been reached can we expect an impact on the education of children. Awareness alone is an insufficient condition. Organized knowledge

which is not backed up by the acquisition of principles and skills and the ability to use those in the school situation also is likely to have little effect. To see the effects of inservice education on pupil learning, it is necessary first to determine that the inservice activities under evaluation have reached the fourth level.

COMPONENTS OF TRAINING

Most of the training literature consists of investigations in which training elements are combined in various ways, whether they are directed toward the fine-tuning of styles or the mastery of new approaches. From our analysis of this quite diverse literature we were able to identify a number of training components which have been studied in a number of ways. Alone and in combination, each of these training components contributes to the impact of a training sequence or activity. (As we shall see, when used together, each has much greater power than they do when they are used alone.) The major components of training in the studies we reviewed are:

- (1) presentation of theory
- (2) modeling or demonstration of skills or models
- (3) practice in simulated and classroom settings
- (4) structured feedback
- (5) open-ended feedback
- (6) coaching for application

1. Presentation of Theory

The substance of theory components is the rationale, theoretical base and verbal description of an approach to teaching or a skill or instructional technique. Readings, lectures, films, and discussions are used to describe the approach, its conceptual base and potential uses. In many higher education courses and inservice institutes and workshops it is not uncommon for the presentation of theory to be the major and in some cases the sole component of the training experience. In research it is frequently combined with one or more of the other components.

Level of impact: Either for tuning of style or mastery of new approaches, presentation of theory can raise awareness and increase conceptual control of an area to some extent. However, it is for relatively few teachers that it results in skill acquisition or the transfer of skills into the classroom situation (although there are some people who build and transfer skills from theory presentations alone). However, the presentation of theory appears to boost conceptual control, skill development, and transfer when it is used in combination with the other training components. This is, alone it is not powerful enough to achieve much impact beyond the awareness level but it is an important component when combined with the others.

2. Modeling or Demonstration

Modeling involves the enactment of the teaching skill or strategy; that is, it is demonstrated either through a live enactment with children or adults, or mediated through television, film, or filmstrips and audiotapes. In a given training activity, a strategy or skill can be modeled any number of times and much of the literature is flawed because only one or two demonstrations have been made of some quite complex models of teaching, thus comprising relatively weak treatments.

Level of Impact. Modeling appears to have a considerable affect on awareness and some on knowledge. A good many teachers can imitate demonstrated skills fairly readily and a number will transfer them to classroom practice. However, for most teachers modeling alone is unlikely to result in the acquisition and transfer of skills unless it is accompanied by other components. Fairly good levels of impact can be achieved through the use of modeling alone where the tuning of style is involved, but for the mastery of new approaches it, by itself, does not have great power for many

teachers. All in all, however, the results of the research at this time appear to indicate that modeling is very likely to be an important component of any training problem which has as its goal the acquisition of complex skills and their transfer into the classroom situation. Demonstration alone increases the mastery of theory. We understand better what is illustrated to us.

3. Practice Under Simulated Conditions

Practice involves trying out a new skill or strategy. Simulated conditions are usually achieved by carrying out the practice either with peers (usually other teachers or education personnel), or relatively small groups of children in a setting where the management of an entire class or larger group of children is not required simultaneous with practice.

Impact. It is difficult to imagine practice without prior awareness and knowledge—that is we have to know what it is we are to practice. When, however, awareness and knowledge have been achieved, practice is a very efficient way of acquiring skills and strategies whether related to the tuning of style or the mastery of new approaches. Once a relatively high level of skills has been achieved, a sizeable percentage of the teachers will begin to transfer the skill into their instructional situations, but this will not be true of all persons by any means, and it is probable that the more complex and unfamiliar the skill or strategy, the lower will be the level of transfer. All in all, research supports common sense with respect to practice under simulated conditions. That is, it is an extremely effective method for helping persons to obtain competence in a wide variety of classroom techniques.

4. Structured Feedback

Structured feedback involves learning a system for observing teaching behavior and providing an opportunity to reflect on teaching

by using the system. Feedback can be self-administered, provided by observers, or given by peers and coaches. It can be regular or occasional. It can be combined with other components which are organized toward the acquisition of specific skills and strategies. This is, feedback can be directly combined with practice and a practice-feedback-practice-feedback sequence can be developed. Taken alone, feedback can result in a considerable awareness of one's teaching behavior and knowledge about alternatives. With respect to the fine tuning of styles, it has reasonable power with respect to the acquisition of skills, and their transfer to the classroom situation. For example, if feedback is given about patterns of rewarding and punishing, many teachers will begin to modify the ways that they reward and punish children. Similarly, if feedback is provided about the kinds of questions asked in the classroom many teachers will become more aware of their use of questions and set goals for changes. In general these changes persist as long as feedback continues to be provided and then styles gradually slide back toward their original point. In other words, feedback alone does not appear to provide permanent changes, and probably regular and consistent feedback is necessary if people are to make changes in very many areas of behavior and maintain those changes.

5. Open-ended feedback

Unstructured feedback, that is, feedback consisting of an informal discussion following observation, has uneven impact. Some persons appear to profit considerably from it while many do not. It is most likely that unstructured feedback best accomplishes an awareness of teaching style and as such can be very useful in providing "readiness" for more extensive and directed training activities. For example, teachers might begin to observe one another informally and engage in general discussions

about teaching behavior and then proceed toward focused attempts at change. Modeling followed by practice and feedback can be very powerful in achieving skill development and transfer.

6. Coaching for Application

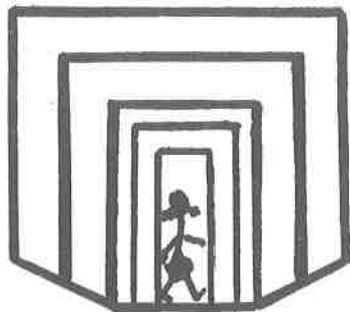
When the other training components are used in combination the levels of impact are considerable for most teachers up through the skill level, whether the object is the tuning of style or the mastery of new approaches to teaching. For example, demonstration of unfamiliar models of teaching or curriculum approaches combined with discussions of theory and followed by practice with structured feedback reach the skill acquisition level of impact with nearly all (probably nine out of ten) of teachers at the inservice or preservice levels. If consistent feedback is provided with classroom practice a good many, but not all, will transfer their skills into the teaching situation. For many others, however, direct

coaching on how to apply the new skills and models appears to be necessary. Coaching can be provided by peers (that is other teachers), supervisors, professors, curriculum consultants and others thoroughly familiar with the approaches. Coaching for application involves helping teachers to analyze the content to be taught and the approach to be taken and make very specific plans to help the student adapt to the new teaching approach.

THE MESSAGE FROM THE TRAINING RESEARCH: THE COMBINATION OF COMPONENTS

In general then, it appears wisest to include several and perhaps all of the above training components in the development of preservice and inservice activities. Where the fine tuning of style is the focus, modeling, practice under simulated conditions, practice in the classroom, combined with feedback, will probably result in considerable changes. Where the mastery of a new approach is the desired outcome, theory, presentations of discussions of theory and coaching to application are probably necessary as well. If the theory of a new approach is well presented, it is demonstrated.

Practice is provided under simulated conditions with careful and consistent feedback, and that practice is followed with application in the classroom. With coaching and further feedback, it is likely that the vast majority of teachers will be able to expand their repertoire to the point where they can utilize the wide variety of approaches to teaching and curriculum. If any of these components are left out, the impact of training will be weakened in the sense that fewer numbers of people will progress to the transfer level (which is the only level of impact which has significant meaning for school improvement). Hence it appears that the most effective training activities will be those that combine theory, modeling, practice, feedback, and coaching to application. The knowledge base seems firm enough that we can predict that if those components are, in fact, combined in inservice programs, we can expect the outcomes to be considerable at all levels.



“The future does not exist. It has not been made. It is only as we make it. The question is: What kind of a future do we want?”

TOWARD THE YEAR 2000

CURRICULUM PRIORITIES:

Lowell Horton

As we look to the year 2000 and beyond we must also consider in JANUS fashion our past. Our future will not be separated from our past. The future lives now in our celebrations of our past successes and in the realizations of our past failures. The future lives now in our hopes, in our dreams, and in our intelligent preparation for what lies ahead. The future is not to be discovered; rather it is to be invented piece by piece as we attack the problems that presently plague us and as we reflect on where we go from here. As we examine curriculum priorities for the future it is important to think not only of schools as they are but also of education as we would like it to be. With that in mind let us explore some concerns which need our attention. Some of the following problems are perennial issues in curriculum planning. Others are problems we have examined inadequately or not at all.

PRIORITY: A REDEFINITION OF THE ROLE OF SCHOOLS.

Our social institutions and customs are changing. The role of the school will change either by design or by default. We still have the power to control our educational destiny but we will lose that power if we fail to examine objectively and thoughtfully the legitimate role of schools in contemporary society. Kenneth Keniston and the Carnegie Council on Children report that the

American family is under pressure. (1) The old myths about families do not apply to the new realities. For the first time in our history the typical elementary school child has a mother who works outside the home. The percent of working mothers of preschool children has increased from thirteen to thirty-seven during the past thirty years. In only about one third of the husband-wife families is the husband the sole bread winner. A 700 percent increase in the divorce rate since the turn of the century has resulted in many children spending part of their childhood in a one parent family. Statistics only hint at the personal stresses that accompany these shifts.

We must grapple with the question of what a society can reasonably expect from its schools. To assist us in answering that question we need help. We need the help of professional educators, parents, technicians, politicians, and business leaders whom we have always looked to for guidance but we also need the help of philosophers, artists and poets. If the first group can ask what and how, the second group can ask questions about purpose and goals.

It seems clear that the schools cannot continue to be all things to all people, but the solution is not so simple as a debate between the back to basics advocates and those who lean toward a broader,



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more liberating curriculum. The question is the essential one of "What are Schools for?" in a society that has rapidly and fundamentally changed and is continuing to change in ways both overt and subtle which we neither fully understand nor recognize.

PRIORITY: CLARIFYING NOTIONS OF WHAT IT MEANS TO BE HUMAN.

Our past theories of what it means to be human may no longer be adequate to direct our educative efforts. Our theories, rooted in a Judeo-Christian ethic, moving toward a scientific, rationalist, behavioristic model for human activities, may be incomplete for dealing with a new generation of learners. Walker Percy has suggested that we may have, without realizing it, left one era and not yet arrived solidly in another.(2) We may somewhat resemble the cartoon cat who runs

off the edge of the cliff and doesn't fall until he suddenly realizes he is no longer on solid ground.

Alvin Toffler has warned of the danger to society and to individuals of schools producing people in the model of industrial man when that model is no longer relevant to the world in which those people will live. Toffler suggests we seek goals and objectives rooted in the future.(3) Marshall McLuhan has cautioned us against driving into the future with our eyes fixed firmly on the rear view mirror.(4)

The changes in the past twenty-five years have produced a way of viewing the world which is substantially different from the way we saw the world in the 1950's. Consider: Other generations have known violence but violence is now featured in family rooms daily via television both in news reports and in fiction. We have come to accept Star Wars technology as a fact of life. Remember the early space shots when people gathered around the television and entire school enrollments were crowded into gymnasiums to watch? The last space efforts gained little attention from most of us. We have changed. Political assassinations, terrorism, and the most heinous crimes are outrages so common to us that the indignation has come to last only until we close the newspaper or switch off the television. We are increasingly unable to feel surprise at any incident, no matter how bizarre. Recently a sixteen year old girl in San Diego sprayed an elementary school yard with forty bullets, killing two people and wounding several others. She explained that she did it because she didn't like Mondays. She was having too much fun to stop, she said.

While it is not possible to deduce trends from one confused teen-ager, there is something about this shooting that is disturbingly more recognizable than it would have been twenty years ago.

We saw John Kennedy assassinated and his killer

murdered. We have witnessed the Bobby Kennedy and Martin Luther King killings. Political violence and murder are subliminally and indelibly blended in our collective psyches with the stuff of the evening television shows and our everyday reality. We remember Viet Nam, Cambodia, Kent State and Jackson State. American political life for us is often a disturbing collage of related, yet somehow disjointed absurdities: Lyndon Johnson, Richard Nixon, riots in the cities, American flag patches and anti war marches — Watergate, Patty Hearst, Son of Sam, and now John Wayne Gacy — energy crisis, wars in Lebanon, Northern Ireland, and Angola — Jim Jones' People's Temple, Charles Manson, the neutron bomb which kills people but preserves buildings — and Red China is now the People's Republic of China.

We have lost our innocence and are in danger of replacing it with apathy and cynicism which comes after bruises, batterings and scars. We have learned that the good guys don't always win, that our country - right or wrong - is as often wrong as right, and that increasingly sophisticated technology is not always progress.

We have changed and it remains for us as educators to help make sense of who we are now and who we are likely to become.

PRIORITY: STRIVING FOR A BALANCED CURRICULUM.

The achievement of a balanced educational program has long been a goal of curriculum planners. Traditionally we have sought some sort of balance among all curricular areas. We have tried to give social studies and science, as well as reading and arithmetic, some attention. We have tried to achieve a balance between the arts and the sciences, between the humanities and the hard stuff, between work and play, between free time and structured activities, and between physical and mental work. Our efforts to achieve balance in these areas must continue but we must also look for balance in other realms of the educative process.

We must look for balance between structure and lack of structure — education demands structure (without it there is floundering and frustration) but too much structure or structure of the wrong sort is stifling and fosters only narrow learning. We need to seek balance between teaching coping skills and providing enhancing activities. We need to distinguish between training and nurturing and select the most appropriate instructional modes to secure the desired results. We need to look at the school day in terms of what children do and what we would have them do to arrange the curriculum accordingly. Alexander Frazier has proposed a strategy for teaching children based on a balanced program of adventuring (in which children explore their environment), mastering (when necessary competencies are learned) and associating (in which interpersonal and intrapersonal skills are gained).(5)

We must look for balance between creativity and conformity, between independent and group projects, between the school's early intervention in the development of children and the primacy of the family, between the teacher's need to know and the parent's right to

privacy, between our concern for educationally disadvantaged children and the opportunity for academically gifted children to maximize their potential, between the need for close human interaction and the efficiency of the computer, between an emphasis on early childhood education and opportunities for lifelong learning.

It is not a simple problem. There are far more bits and pieces than we have believed but we must continue this work.

PRIORITY: DEVELOPING A SOLID THEORETICAL STRUCTURE.

We need to develop a solid theoretical structure around which we can construct a viable and appropriate curriculum. The plethora of "how to" books is adequate testimony to the far too frequent hit and miss strategies of the classroom. Without sound theory on which to build, there is no basis for systematic selection, utilization, and evaluation of classroom teaching strategies, curriculum materials, staffing patterns, and environmental structure. Growth is rarely a product of random approach. Good theory is essential to prediction and continued progress. Without it we have curriculum by accident rather than by design. There is danger in looking only at trends and issues and basing our program on what we see there. We too often end with a curriculum of administrative or political expediency rather than one based on what we know about how people learn.

The work of Bruce Joyce and his models of teaching may be an excellent place for us to look for direction with this concern.(6) His work should help us bridge the gap from theory to practice. He has identified more than eighty distinct models for teaching and categorized them into four groups. Each model is grounded in a rationale or theory and clearly enough defined to be of practical use in instructional planning.

There are other sources of help as well. We must learn to use the theories which exist and are readily applicable to classroom planning; we must adapt those theories which exist but for which we haven't found convenient bridges to practical application; and, finally, we may need to generate new theories to guide us as we look toward education in the year 2000. Theory, research, principles and conditions of learning exist. Our task is to make use of the stuff we already know. From John Dewey on, our ability to apply sound theory has been blunted on the classroom door. This is a problem which demands continuing attention.

PRIORITY: BUILDING LEARNING ENVIRONMENTS.

A major task for curriculum planners in the future will be that of structuring learning environments. By now we largely believe that education and schooling are not synonymous terms and are often only weakly related. We know that children learn at least as much from their peer groups and from the neighborhood as they learn from our classrooms and that those learnings outside of school are often the most important learnings. We have come to believe that television is a potent influence on children although we are not sure of all the implications. There is some evidence now that television keeps children from play and since play is a basic component of experiential education — in Piagetian terms, one means by which children de-center their thinking — watching television contributes directly to the decline of academic achievement.(7) We somehow know that television is a major influence in the learning environment but that it is inadequately understood and poorly used.

We know that there are interactions between the learner and society at various levels. We know that institutions react to each other in what Lawrence Cremin

calls configurations of education which greatly influence learning outside the formal classroom setting.(8) Robert Hutchins has written of a learning society where education is viewed in broad and classical terms in which the liberation of the spirit is the highest ideal of education. This liberation occurs, in Hutchin's vision, in a society which holds to a liberal education, supported by that larger society, and avoids schooling which fosters a narrow, immediately pragmatic approach to learning.(9)

We have diverse models for constructing learning environments both within and beyond our present schools. Ivan Illich suggests the radical notion of deschooling society in which educational webbing or networks, resembling present learning exchanges, would be established with only a minimum of administrative and bureaucratic structure.(10) Jack Frymier has offered the analogy of a football stadium, where the environment is organized (gates, rows, seats) but people flow freely in and out in a controlled way, as a model for organizing educational settings.(11) Robert Glaser has suggested moving from models which he labels selective (which pretty well correspond to present schools) to adaptive models which assume many educational goals and many paths to success.(12)

John Goodlad has pointed out that, based on what we know about the variety of learning styles human beings employ, alternative means and ends expressed through an array of learning environments can be virtually limitless.(13) Formal curriculum and traditional schools may or may not be part of the learning environment we design for the future but those of us who are concerned with curriculum priorities need to begin the work of planning what models will best meet the needs of learners. We may very well use what we have now but in some different form. Perhaps, in light of the

present back to basics movement, schools as we know them will be limited to teaching only reading, writing, and arithmetic leaving students to seek education on broader fronts in other places yet to be described or designed. The possibilities are endless. In any case we need to begin inventing learning environments for the future. It is not enough to tinker with the familiar if we are going to free people to realize their full potential.

PRIORITY: LEARNING NEW WAYS TO LOOK AT SCHOOLS, EDUCATION AND OURSELVES.

There is a parable that goes:

"Once upon a time in a society of fools, there was a tall hill in the center of a city. The children of the city were continuously falling off the hill and being injured. They received broken bones, cuts, and bruises. The situation got so bad that the elders of the city, who were the oldest fools, decided something must be done. So the elders met, discussed, and debated for long hours. At last they announced the solution: they would build a hospital at the bottom of the hill."

This parable illustrates a condition in which obvious solutions are overlooked because participants have a narrow view. We need to develop new ways to examine the familiar. Edward DeBono has described lateral versus vertical thinking.(14) Vertical thinking can be compared to digging a hole which is the deepest, widest, and best hole possible, never mind the hole should not be there. Lateral thinking suggests digging holes in different places. It ill behooves us as educators to do more and better those things which we should not be doing or should be doing in radically different ways. We need to learn to look at schools, teaching and education in fresh ways. We need to borrow from the anthropologist the skills used to

look at a foreign culture and apply those skills to looking at education. An exercise frequently used in classes with teachers is to have them respond to a person from outer space who asks "What is a school and what is it for?" This exercise forces the participants to examine assumptions which seem obvious when approached from a familiar viewpoint but which may fail to be obvious to one with a different frame of reference.

In order to gain an adequate perspective it is essential to step out of the constraints of tradition and to view schools analytically. We must begin to explore what schools really are and to envision what they might be. What is needed is both critical objectivity and free and creative lateral thinking. Until we gain some skill in these areas we will be confined to the dictates of the past and not free to define the future as we would have it be.

PRIORITY: ACCOUNTING FOR DYNAMIC INTERPLAY AMONG SCHOOL, CURRICULUM AND SOCIETY.

Schools do not operate in a vacuum. They influence and are influenced by economics, politics, and values prevailing in the larger community. Schools are inextricably related to all facets of society. There is also a profound interrelatedness within the school curriculum as well as the relationship to the society outside the school. One part of the school curriculum cannot be revised without changing in some way other areas of the curriculum. There is a non additive quality in the school program and in the relationship between the school and the community. Changing a third grade reading program cannot be accomplished without reflecting on what happens at subsequent levels also.

If we combine a beaker of clear water and a drop of red ink we no longer have clear water and red ink. We have changed the quality of both by changing their relationship to each other. This analogy is ap-

propriate to illustrate the dynamic interplay between each part of the school curriculum and between the total school program and the society in which it functions.

We have not fully understood this non additive quality in our planning as evidenced by our piecemeal approach to school planning. We must learn to account for all the pieces and to put them together in innovative ways which will enhance the curriculum and the society.

PRIORITY: PROVIDING FOR AND NUTURING RENEWAL.

One of the most pressing problems we face in the years ahead is that of providing for and nurturing renewal of educators at all levels. Teacher morale is a major problem. There is some talk of offering teachers in difficult schools extra money as combat pay since teachers in those schools demonstrate many of the symptoms of battle fatigue. Not only must we concern ourselves with recruiting the most competent and complete human beings into teaching but we must also find ways to enhance and maintain the skills and desirable qualities of those who are now in the classrooms.

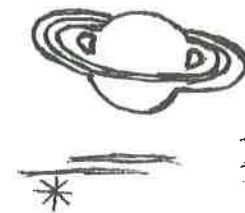
Teachers are for the most part humanistically oriented people who go into teaching for idealistic and worthwhile reasons. Unfortunately, they find themselves working in schools which are based on factory model efficiency rather than on humanistic psychology. This creates conflicts and problems early on. In addition, all of the basic contradictions of a troubled society are reflected in the schools. The conflicts between class, race, and competing values are magnified in the social microcosm of the classroom. Add to this the essential risk taking nature inherent in teaching and it is not difficult to see why the concern for renewal must be one of our priorities.

(continued page 18)

How to Get an 'A' in the Future

Today, as never before, we have the opportunity to take hold of our destiny. We are at last free for the task of growing up as a species. But growing up is not comfortable; it is accompanied by stresses and strains.

L. S. Stavrianos



We Create the Future

**WASN'T THE FUTURE
WONDERFUL?**

Futurism: The Need for Synthesis

Changing





The Futures Field: We Have Met the Future and It Is US

The Pace of Change

Curriculum Approaches
to Teaching About the Future

Alvin Toffler and Anticipatory Democracy



THROUGH THE 80s **THINKING GLOBALLY, ACTING LOCALLY**

(continued from page 15)

Some of the solutions to our problems are extremely complex and esoteric, other solutions appear prosaic and simple. We must attack this issue on several levels. We can start by providing teachers, both in service and in preparation, with coping skills which enable them to deal with the daily realities of public schools. We can help by providing a blatantly pragmatic solutions to real problems. We can help each teacher construct a "survival bag" filled with aids, tricks, and devices for coping in the classroom.

We must encourage educators at all levels to actively pursue physical, intellectual and emotional renewal. Activities must be planned for and built into a comprehensive program. Physical renewal should include big muscle exercise — walking, jogging, swimming, tennis, cross-country skiing — on a regular basis. Good nutrition and adequate rest are essential. Smoking, over eating, and too much alcohol must be discouraged. Intellectual renewal should include, but not be limited to, reading books intended for intelligent adults, attending plays, concerts, lectures, movies, engaging in conversation with informed people and travel. Emotional renewal must include a planned support system for teachers where they can express anger, frustration, and hurt in a safe environment. The literature and our collective experiences suggest guides for such support systems. With

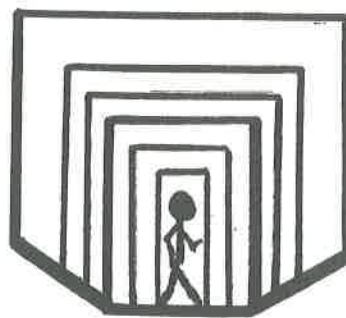
some creative and sensitive thinking we could design other appropriate models.

As another means toward renewal we need to open the range of viable options for teaching behavior in which each individual's unique talents and teaching style are appreciated and nurtured. There are many different ways to learn and many different ways to teach. We must move from the analogue of teacher as light bulb — screw one out, screw another in. Teachers differ from each other and if we can assume that everyone wants to do well (and we have evidence from perceptual psychology for believing this) we must begin designing techniques which allow individual styles to flourish.

We need for our model not only teacher as technician but teacher as poet and teacher as artist as well. We need to see ourselves and other educators as teachers in the process of becoming. This mental set will allow us to be less harsh and to have more faith in ourselves and in others.

CONCLUSION

In this presentation I have discussed some of my concerns about education as we move toward the year 2000. I have described problems which suggest priorities for our consideration as we plan the curriculum for citizens of the twenty-first century. I suggest we plan for the worst, hope for the best, and celebrate anything between.



"The real value of looking ahead, even prophesying, is that it clarifies our present perspectives, priorities, and hopes."

Robert F. Kennedy

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SPECULATION - YEAR 2000

EDUCATIONAL CONFUSION

Will Roy



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It was tempting to begin this article with, "By the year 2000, the American School will differ in the following significant ways." And then, leave the page blank.

I did not succumb to the temptation for the following reasons:

1. It would be an overly pessimistic view.
2. Since I am only speculating (speculation differs from history in that educated lies are made about the future rather than the past), who could fault me for having a cloudy crystal ball?

3. Leaving a blank page might have the following consequences:

- a. Wasting natural resources
- b. Although there has been a "nothing book," I am not sure a "nothing article" would count as a publication on my vita.

Now some reasons why I was tempted: Simply, I considered the fact that the year 2000 is only 21 years away. Recalling 1958, 21 years ago and a year after Sputnik, I wondered how really different it was then. I see no significant differences. The major differences are external to the school. Internally, schools remain amazingly the same. Only superficial differences such as dress, length of hair, fads, and the like can be found. Important differences may well be only in the socio-psychological atmosphere found in the building. For example, there may well be more rebelliousness and, ironically, more apathy in today's schools.

Schools are still doing pretty much the same things now that they did in 1958. Since the goals have not changed, the only difference lies in the means used: different textbooks, machines, varied media, mixed groupings, alternative schedules and some institutional reorganizing. If we accept Martin Haberman's definition — "Change as I would define it, refers to establishing new basic pur-

poses or markedly reordering the priorities of existing goods"(1) — we see that most so called **changes** in education are simply reforms based on the assumption that schools are essentially sound. Professor Haberman sees these reforms as **improvements** rather than changes.(2) As can be seen by visiting schools, the curriculum offered now varies minutely from the basic curriculum offered in 1958. It just costs more! Why, then, do we expect anything related to teaching and learning to be singularly different in the year 2000?

There are many disturbing areas of contention in education. My predictions rely on the likely continuation of three of these disturbances and the confused thinking which surrounds them.

1. (Return to the Basic Skills The "B.S. Factor.") While there are those who see current dissatisfaction with schools as a mandate for change, we can easily recognize that the displeasures with our school system is tied directly to tax dollars. The back to basics movement is clear proof that people believe that our schools are fundamentally sound but must improve by refocusing on the basics. The Proposition 13 mentality hits at the most ob-

vicious target other than government waste, overspending, or legislative abuse of citizens' trust. I can easily predict that the money spent by the Pentagon will continue to exceed by high amounts what is spent for education.

The confusion here is "what is basic?" Judging by our government's expenditures, survival through annihilation is more basic than education. The public has decided that the 3 Rs are basic. That's why we can hear rallying cries for the B.S. "There are people out there who can't even balance their checkbooks or make change for a twenty!" And I answer, "There are people out there who don't have checking accounts; and there are people willing to take advantage of those who cannot make correct change. Which do we worry about?" As for not balancing a checkbook, mine has not been balanced for twenty-five years. When I get nervous I simply change banks!

The primary confusion is that **Quality Education** means the basic skills instead of something related to the quality of life. We know, as I believe Louis Rath has stated that, "The mere accumulation of facts is not the same as knowledge and knowledge is not the same as wisdom." In a future in which we will grow more dependent on reading (I'm certain I depart from most futurists here because I focus on schools and not society) and in which we will allow ourselves to be tyrannized by standardized testing, we will continue to give legitimacy to the B.S. factor.

2. The Engineer's Answer - The increase in technical wizardry from Buck Rogers to Flash Gordon to Star Wars has been seen as evidence for an increasingly high technological/scientific society. But futurists who talk of robots teaching in the future should visit some schools. They would find that robots are

already there, carrying out the mindless ritualism that passes for teaching in some buildings. It seems to me that technology has been used more to run school systems than to educate in them.

What an innovation the "Squawk Box" was! I recall my personal hassles when, as a speech teacher, I asked that all announcements on the PA system be done by my students. You would have thought that I had stripped the secretary of all her power. And in a way I had. She did run the school through that technical marvel!

The use of media in the classroom will not increase appreciably in the future, and educational television will continue to sink into visual mediocrity. Money is one issue, misuse of the media is another. Advertisers spend more dollars on a 30 second commercial than is usually spent to underwrite an entire educational T.V. series; and educators often use visual media in such static ways that radio should have been used.

Radio is a fine example of how a well-established medium has "educated" millions, but not as a part of an established schooling procedure. Educational uses of radio have been spasmodic and hardly competitive with commercial radio. The television case is similar.

What confusion exists here? There is the technocrat's delusion: What technology cannot do or whatever problems are caused by it can be overcome by more technology. So we envision educational problems as being solved by ever increasing technological sophistication. We hope to seduce by gadgetry those we cannot teach. We believe in the power of technology to alter minds. Consider the debate of whether or not violence is taught through violence on television. Psychologically, what is taught is only learned through the will-

ingress of the learner. Those wanting to be violent will be stimulated to violence. There is as much or more danger that those moving towards apathy and anomie are lulled by television into a passivity that would allow corporate demagogues to control society.

Will schools in the year 2000 give as much time and effort to technological literacy as they do now to print? I doubt it. Current TV programming serves as overwhelming evidence that we are not wise media consumers. Data on time spent watching television gives us proof that we would rather do anything than interact with each other. We prefer to be responsible for what happens to characters in soap operas than to each other. The media is not only the message and the message it begins to think for us and to do for us.

As an undergraduate English major, I remember an English professor who was fond of saying, "**Life Magazine** is for people who cannot read; **Time** for those who cannot think!" Sometimes when I see or hear solicitations for **Time** subscriptions, I am convinced that they (the corporate they) want to do my thinking for me!

3. The 1984 Syndrome - David Goodman in last year's final issue of **The Futurist** claims that 1984 is pretty much on schedule in terms of Orwellian Big Brotherism. The symptoms he lists involve over 100 of 137 predictions in 1984 have come true.(3) Assuming he is correct and the "1984" becomes a reality by the year 2000, will that change our schools? No. . . simply solidify what exists today. Schools have always reflected a Big Brother attitude based on our lack of trust in children's judgements.

The classroom resembles the medieval court more than a town meeting. Even the words teachers use are reminiscent of lordly commands: "You shall be

detained," "I shall confiscate your property," "You are exiled (suspended)" "You are under house arrest (in-house suspension)."

In a recent article, Ralph J. Kane argues that the American classroom encourages authoritarianism and sabotage besides affecting teachers and students in other negative ways.⁽⁴⁾ While I agree with most of what he says, I cannot accept his "optimistic view" of organizing high schools after research hospitals and his easy dismissal of our failure to "democratize" the American classroom. As a student/client in schools, am I supposed to be kept in the dark about my diagnosis, lied to about my prognosis and have unnecessary operations/remediation performed as in a patient/client status? I do not find that comforting. I suppose the educational equivalent of an autopsy (M-team?) would tell me what went wrong!

We have failed to create a more democratic atmosphere in the American school. Does that mean we should give up? The confusion here is simple: People have either confused democracy with permissiveness or they have confused the "responsible citizen" with the "obedient citizen." One leads to anarchy, the other to ethical slavery.

We have difficulty with the concept of democracy and find it easier to use authoritarian methods. I suspect that by the year 2000, we could have schools that resemble maximum security institutions. The movement is clearly towards a tightening up and relates to the B.S. factor. The prospect of TV monitors and loudspeakers in school halls and stairways to be used for crowd control, does not seem so far fetched. Nevertheless, I predict that increased authoritarianism will result in increased rebellion and sabotage and irrational demands that we tighten up even more.

It seems that even without leaving the pages blank I have been

quite pessimistic. Yet, I merely point out the dangers. Speculation is not simply wild guessing. It should be based on observable data. It is my opinion that these difficulties will continue, but they need not! As a confirmed adlerian, I believe things can be better or worse. If we continue down the path we've been treading upon, things will be worse. To confront the issues and do something different could lead to things being better.

Here are some of the issues which should be confronted:

1. Do away with compulsory education. It is an idea whose time has gone. Rather than make parents responsible for their children's attendance and students responsible for learning it tries to make an institution responsible for both. Rationally, the institution must be responsive to parents and students, but its major responsibility is to provide learning environments and good teaching. I do not believe that such a change would affect attendance in a significant way; I do believe that the psychological atmosphere would improve. Cooperation and sharing and joy occur best when the participants are acting willingly.

2. Do not allow the B.S. pushers to sway people into believing that cognitive learning occurs in a vacuum apart from affective concerns. There is no dichotomy, they occur together. We feel and we think. Sometimes either gives us better information; sometimes neither is reliable.

3. Let us move forward in efforts to improve visual literacy and begin stronger programs in other overall media/technological understanding. (I do not by any means exclude verbal literacy.)

4. Begin to focus more heavily on non-reading alternatives as means for learning in various fields.

5. Lobbying for more taxes will not be viewed favorably. So, why not lobby for a re-ordering of

priorities in federal and state spending. How many times can we kill the enemy? How many chances do we get to educate an individual?

6. Learn to question the reactionary rather than defensively answer his/her attack. No one has a corner on the truth. Socrates demonstrated that a long time ago.

7. Teachers must learn to use what we know about psychology; and, at the same time, not expect psychology to be the same as exorcism. It takes time to use rational models of behavior.

8. Practice what we preach in terms of democracy. Teachers and administrators are leaders not tyrants. Students are often well aware of their rights. What do we know about democratic leadership? I am not writing about taking a vote on everything, but of a student's right to a voice, and when possible, a choice.

9. Support the movement towards responsibility education under its various names: moral, values, decision making, problem solving. As long as you can ascertain that the program is not just another way to put fetters on students.

10. All recommendations must come in packages of ten! Despite the tone of this article I believe that we must have faith in the school's potential as a significant positive influence on children. It is impractical to believe that schools will be agents of societal change; it may be reasonable to suggest that schools can help people cope with life in the year 2000.

FOOTNOTES

1. Martine Haberman, "Realities and Rhetoric in the Process of School Change," *Cultural Pluralism and Human Relations in the American School*. University of Wisconsin-Extension, 1974, p. 126.
2. Martin Haberman, *Ibid*, p. 127
3. "From Here to 1984," *Saturday Review*, March 17, 1979, p. 8.
4. Ralph J. Kane, "The Mindless Box: The Case Against the American Classroom," *Phi Delta Kappan*, March, 1979, pp. 502-503.

THE PRECISION ERA - TO YEAR 2000

Kurt Slobodzian
Gregory Slobodzian

Introduction

In 1967 the last Mom & Pop type grocery store in our old Chicago neighborhood closed its doors for the final time. The store had not died because it was no longer functional in a literal sense. It had died because Super Markets had encroached upon its territory, had filled its social niche, and because it simply had no reason to go on existing. In Super Markets consumers could fill **their own** baskets with a cornucopia of choices. In Super Markets they could squeeze tomatoes anonymously and insult the butcher with impunity.

The same year that that little store closed, the **Harvard Business Review** ran an advertisement by Wang Corporation that began: "Now an Electronic Calculator. . ." This dandy new device offered ten functions, including addition, subtraction, multiplication, division, floating decimal and natural logs.

It was tiny, only slightly larger than rather large book. It was reasonably priced. The basic electronic calculator could be purchased for \$1,690.00, with more sophisticated models costing to \$10,000.00.

The electronics industry, like the Super Market, had not just added something new to society's toy collection. It did not merely replace one element of society with another, it changed an elementary structure of society. As the Super Markets had enculturated Americans to the concepts of vast choice and self-service; of speed and efficiency; and of supreme cleanliness. So, too, has the electronics industry trained us to expect precision, accuracy, and simplicity.

To the wearer of a digital watch, the time is never "about a quarter to one," the time is 12:43 or 12:45 or 12:46, and to the fourth grade student with an inexpensive calculator $21 \div 4$ does not equal 5 remainder 1, it equals 5.25. Our children are not amazed by this simplified precision; they expect it, and many have never known

anything else. They are surrounded by digital gas pumps, radar and satellite weather reports, computerized music synthesizers and computer controlled microwave ovens, washing machines, television tuners, and video games.

Yet, while technology surrounds children in every aspect of their outside life, upon entering school they walk into an environment devoid of everything they know except electric lights and a central heating system. They are taught that mathematical competency in computation is necessary to insure fair treatment in the market place; so one can oversee cashiers, balance a check book and fill out tax forms. They are told by parents and teachers that this is reality. Outside of school, however, few of them ever see adults checking their grocery receipts against their purchases. None of them ever see



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adults adding by hand the figures on a three-foot long register ribbon to see if the machine made a computational error. They know from watching their parents that if a check book does not balance that one checks one's own figures first, and not the bank's, and they also know that those people brave enough (or foolish enough) to compute their own tax forms surely do not risk an audit by attempting manual computation which might result in errors. After all, "to err is human" and "to forgive is against company policy".

One has to wonder just what the word, reality, is going to end up meaning to the next generation, and what role we will have played in the formulation of that definition. One thing is certain, adults who unashamedly fear technology are going to be ill equipped to deal with children who just as unashamedly enjoy their computerized toys and their digital aids; and the gap between the two is destined to increase by orders of magnitude.

The Economics of Electronics

Since 1967, new developments in the electronics industry have made its products the most readily available and inexpensive technology in all of the industrial age. Never before have such sophisticated machines been so easy to own or to operate. At \$1,690, the Wang electronic calculator mentioned earlier would be a poor investment today because one can now easily purchase a Texas Instrument SR-40 calculator (with over twice the functions, plus a memory) for as little as \$21.95. Or, for \$209.95 one can purchase a Texas Instrument TI-59 pocket calculator which is a micro-computer capable of reading and writing miniature magnetic cards and capable of performing 960 program steps, 100 memories and over 170 functions.

Comparing the Wang original to a modern calculator is like compar-

ing a Wright Brothers aircraft to a 747 jet. Except that while the price of airplanes increase with inflation and advancement the price of electronics seemingly ignores inflation and is reduced by advancement. For example, since 1967 the value of the dollar has diminished to the point that as of January, 1979 it took 2.02 1979 dollars to purchase what one 1967 dollar would purchase. If calculators were aircraft a simple pocket calculator would now cost well over \$3,000.

The home computer systems which are flooding the market today are generally selling for less than \$1,000. Five years ago a device of this sophistication would have been difficult to find for under \$20,000 and impossible to find ten years ago for under \$100,000.

In other words, for approximately the same amount of money that the average school district spends to educate one child for 5 months (one-half school year) the school district can now afford to buy the child his or her own personal computer and probably throw in a T.V. and a clock radio. Add to this the cost of another one-half year of schooling and the district could also afford enough computer software to cover the entire Kindergarten to 12th grade curriculum as it now exists.

In the light of the current and upcoming technological advances in computer sophistication it may become difficult to justify not giving children at least some time off in order to free enough money for a major per pupil electronic expenditure. Perhaps for no other reason than because of its overwhelming cultural presence (as when the authors' parents allowed them to stay home from school in order to watch Alan Shepard become the first American to blast into space).

The State of the Art in Electronic Education

Hand calculators do not memorize the multiplication facts, square roots, or any other "simple" functions. They process the answers brand new each time (like repeated addition only accurate). They do this chemically and electrically and they do it exactly the same way every time the buttons are pressed.

The difference between a calculator and a computer is that computers not only have the circuits of a calculator, but also have some form of modifiable memory.

While early mechanized teaching aids consisted of machines that asked questions which children answered and which the machines corrected; the memories and circuitries of even a small computer allow much more flexibility.

New programs, employing mathematical algorithms have been developed which allow students to create new situations and which evaluate those situations in terms of a basic "rule book". For example, computers can play chess by evaluating the players moves, it does not have to be "taught" every possibility on the chess board. For a better example, the PLATO computer based instruction system offers young children a "game" called **Form a Sentence**. A video screen displays twenty words, and when a child selects one of the words (by simply touching the television screen) the word appears along the bottom edge of the screen and begins to form a sentence. After touching several words a sentence is formed and the child lets the computer evaluate it. If the child has formed a grammatically correct sentence the computer will produce a cartoon of his or her sentence (for example the sentence "the dog ran" will produce a cartoon of a dog run-

ning from one side of the screen to the other). With the 20 words available the computer and the child can form approximately 100,000 sentences and, of course, 100,000 cartoons, again by algorithm. The PLATO system currently offers programs that range from elementary math all the way to law and organic chemistry, and more are being produced daily.

In addition to the variety of educational programs which can be presented via computers the computers can of course also log, chart, graph, and analyze the full range of a student's performance, based upon any possible combination of criteria, and can do it continuously, instantly and in as unbiased a manner as the "teacher" desires. At the same time, the machine can offer something that no human being can afford to offer any single learner; infinite patience. Whenever a learner wants to ask or answer a question, wants to explore art or auto mechanics, or wants to just talk, or just listen, it is always his or her turn to do just exactly that.

The Educational Establishment

If the maintenance of past culture is to be the sole purpose of our public school system then it can certainly, at least for the next twenty years or so, continue to teach culture with texts that are encyclopedia of early scientific

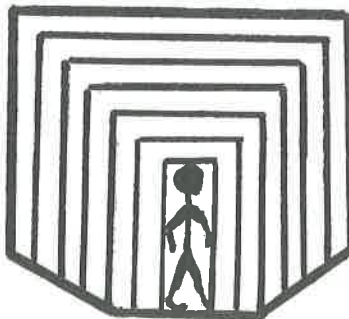
achievement and archives of obsolete facts. It can continue to teach a mathematics which is primarily concerned with the computation of pre-formulated equations. It may even be able to continue building massive, technologically sterile school buildings that gobble valuable fossil fuels.

But, regardless of what this country's school system does during the next 20 years, true education is going to transform itself dramatically for many American children. Many will be taught scientific concepts and practice scientific inquiry at home with a micro-processor fully capable of staying up to date on a day to day basis. Many will explore real mathematics, its art and its algorithms without playing trivial games of computation. They will expect precision, immediacy, thoroughness, sophistication and finesse; and they won't be disappointed. Many American children,

but not all, because, unless schools accept a position more sophisticated than mere cultural maintenance, a substantial portion of the population will once again be left behind.

The public school system in America is the only agency that can guarantee equal educational opportunities for all children. Without an effort by the public schools to secure technological experiences for all children, **some** children are going to race ahead, while others, whose parents can not or will not afford technology, will receive only a public school education in the humanities. The only way for children to be insured both technology and the humanities is for the public sector to provide them, because denying one portion of the population access to computer technology is no different than denying them pencils or paper.

If the schools do not adapt to technology it is going to be increasingly difficult to produce a citizenry secure in its environment. It would be an interesting turn of events if the traditional class struggle between the "haves" and the "have nots" were to convert to a struggle between the "knows" and the "know nots." It would be an even stranger turn of events if the "know nots" turn out to be those who remained in school the longest period of time.



"Generals are always fighting the last war and educators are always instructing the last generation."

- John Wilkinson

READING IN THE RIGHT DIRECTION...

TOWARD THE YEAR 2000

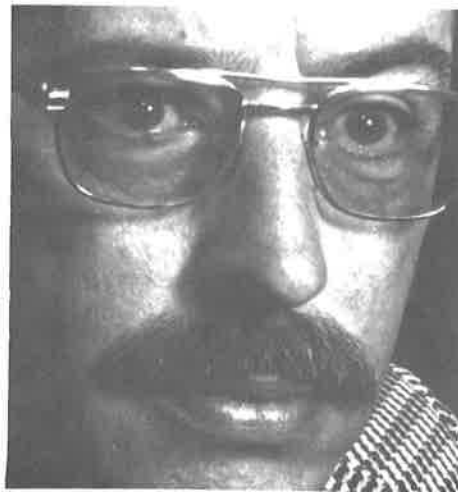
by James E. Walker

In his Distinguished Leaders Address to the International Reading Association in 1968, George Spache warned that other disciplines such as medicine, linguistics, etc. may take over the field of reading if reading experts failed to exercise the proper leadership. While his tale of woe was aimed specifically at the diagnosis and remediation of reading problems, Spache's forecast had implications for the entire field of reading, albeit the entire spectrum of language arts.

That Spache's admonitions were heeded in large part is evident when we consider some of the gratifying gains in reading in the past several years. To offer greater substance to what we will suggest to be areas of concern and in need of professional resolution, we should first understand some of those areas where progress has been made in the last dozen years or so.

Only ten years ago, Helen M. Robinson (1970) spoke of some significant unsolved problems in reading. She cited the problems of terminology, process, research, teacher training, reading retardation, and critical reading. In each of these areas, significant progress

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has been made in the intervening ten years. Each area will be considered briefly.

Part of the problem George Spache alluded to was that of terminology. As we gained more and more knowledge about this phenomenon called reading and as additional disciplines tried to contribute to reading and the other language arts, there would be an

obvious concern with the language used to explain our behaviors. The problem has been addressed on at least three fronts. In 1973, Clifford L. Bush and Robert C. Andrews compiled a complete listing of terms used at that time. They have since updated their effort to offer the profession a workable series of definitions for our use. In addition, the Professional Affairs Committee of the College Reading Association has worked with that organization's Clinical Division to compile a series of terms for clinical usage in particular. The most comprehensive effort, however, has been that of the International Reading Association. This major professional organization has formed a committee on Terms in Reading which has been pursuing the task with diligence as they aim for completion by the organization's silver jubilee celebration in 1980. The problem of clarifying the language we use has not been ignored.

The reading process also has not been ignored. For the last decade, the contributions of psycholinguists including Frank Smith and Kenneth Goodman have raised myriad questions about how learners read. The impact of the

naturalness of children's language and the relationship of that language to the reading process have been clarified in part by the mutual efforts of psycholinguists, language experience advocates, and the writings of researchers such as Piaget. Further clarifications to the difficult problem of understanding the reading process have been made by Singer and Ruddell (1976). More recently, the research conducted by the Center for the Study of Reading has started to address the major questions of language acquisition, development, and usage in the reading process.

Important inroads in research over the past decade include the work of Herber and his graduate students in reading in the content areas, the simplification of readability estimates of materials, and the refinement of techniques such as the cloze procedure and the development of the maze technique. Research in these areas has not been conclusive but we nevertheless can enjoy the insights in helping us to improve day-to-day reading instruction in the schools.

Teacher training has also been a focus which has seen dramatic improvements since 1970. The attempts at individualization, the alternatives to grouping, and the increased use of media in instruction have taken on greater emphases in recent years. At least twelve states now require preservice secondary teachers to have a reading course before they are certified. Simulations and microteaching experiences, as well as field-based internships are more common today than ten years ago.

In clinical work, the impact of miscue analysis and the implications for classroom teaching continue to expand. The way in which youngsters' reading errors are viewed today is dramatically different from the focus of the preceding decade. Refinements in evaluative instruments have been made also. Publishers and authors have heeded the complaints of professionals on some of the major

reading tests to the point where far superior products are now available.

The Ralph Nader influence has not escaped the field of reading either. For example, our schools today are far more prone to judge the credentials of "authorities", to evaluate the statements of commercials, and to question the claims of producers than was the case in the 60's. The Adult Performance Study has lent great influences also on the development of materials now used in many high schools. In a word, readers are gaining in their ability to question. Critical reading does not remain restricted to the analysis of a piece of profound literature. Consumer protection has done much to increase the sensitivity to reading and listening in an intelligent, critical fashion.

These are some of the areas in which significant progress has been made in the last ten years. Taking these modes of progress into consideration, what does the future hold for us? Our projection will consider three general areas related to reading and language arts: programs, students, and professional concerns.

Programs

The back-to-basics movement will fade quickly in favor of the forward-from-fundamentals mentality. Trends similar to the focus on phonics have historically been matters of simple cycles. They remain the proverbial sound and fury syndrome which signifies little, if anything, of substance. The mainstream of language educators have typically seen the basics and, in reading especially, phonics, as parts of the entire picture which they truly are. The problem, however, that emerges and which evidently will have to be addressed in the next several years is a far more cohesive public relations program. Roger Farr for one has reiterated that in fact children are reading better today than they were twenty years ago. The tests have changed and standards always increase. These factors

need be taken into account when we look at national data to "prove" that students are not reading well. The way in which the story of reading and language development is being formulated today and tomorrow will have to be more clearly explicated to the public. It is true though that by the year 2000 the phonics follies will again be resurrected for a shot at the top tune of carping critics.

The insistence on basics does highlight another problem which will be addressed in the years ahead. Grade equivalents as such are losing ground as bases for discussion of academic progress. Today there is more talk of absolute competencies as the criteria for evaluating the effectiveness of language programs. Again, it would seem quite warranted to say that this either-or situation will be replaced more solidly with efforts to see what are the necessary components for an effective program which is really learner-centered. Our language will reflect our thinking to the point of identifying learning styles more accurately than we can do presently.

The concern for what the schools are teaching will continue and a direct outgrowth of that concern will be even more volunteer help, especially from parents and senior citizens. Funding to encourage this support system will be established by the federal and state governments as a partial answer to the rising costs of professional instructors and teachers. Overall teaching strategies will be questioned as more and more "cute" techniques are suggested. This is especially true at the junior and senior high levels. The tried and true ideas of the past will be resorted to more often, especially when working with adult learners.

The public's concern for excellence will continue as the National Assessment of Educational Progress Reports are distributed. This movement undoubtedly will instigate a much greater integration of the language arts than we have seen to the present. Writing as a skill area will be the center of

continued focus for the next ten years.

The major publishers will continue to exert a profound influence on what materials will be used in schools. At the secondary and college levels, it will be commonplace to have texts which obviously have taken readability and study skills practices into consideration. Publishers will hire reading professionals to attend to just these responsibilities. Sexism in reading materials by 1990 will be a matter of historical fact. Teachers will read excerpts as a matter of "light moment" in the same manner that we can today read excerpts from past basals and other reading materials.

Students

Two areas at the extremes of the age continuum will receive the most attention: early childhood and adult. More teachers will be hired for actual teaching and smaller classes on the primary level instead of hiring remedial teachers at the higher levels for later instruction. More time will be spent by teachers on this level with the development of language, with more opportunities for children to use language than we have now.

There will continue to be a keen interest in consumer-types of materials from adolescent to adult years. Research will develop again from the basis of andragogy and not from pedagogy. Not only will survival literacy be a continuing interest for high school students as a direct outcome of the competency movement but there will also be an emphasis on programs for older learners. The entire area of adult reading will be seen in the light of a national interest in lifelong learning. Programs and materials for such learners will need to be developed. That this prediction is in the realm of probability can be

supported from the amount of research and program and materials development undertaken from 1970 to today. More has been accomplished in this facet of instruction during this decade than in the preceding fifty years.

From early childhood to the golden years, there will be increased interest in research focusing on the learning styles and rates of learning of specific types of learners. The questions remain as to how some students learn best. More and more answers to these important questions will be demanded. The level of graduate study to find these solutions will be a matter of course by 2000.

Professional Concerns

As programs and students will take on some more significant changes in the next twenty years, so too professional concerns will have to be addressed accordingly. Teacher training, inservice, and professional growth will all see significant changes also.

As a continued development from the call for competency movement, more training institutions will consider a teachable minor area in reading. Even more important perhaps will be the trend that every state will require at least two reading courses of all secondary majors by the year 2000. Further, these courses will require manifested evidence of performance as opposed to paper-and-pencil evidence as many colleges now require. Field-based programs will continue to be the rule rather than the exception, especially with particular problem learners. In other words, to teach in an urban setting, an internship will be a prerequisite in the future. Paper credentials will not suffice.

Staff and curriculum development will see the end, it is hoped, to one shot inservice offerings as we see them today. Such offerings

in the long run accomplish little of lasting benefit. Colleges will look instead to the year-long type of inservicing with personnel assigned to a particular school building as part of faculty load. This will be accomplished with reluctance but it will be accomplished.

Professional organizations such as the National Council of Teachers of English and the International Reading Association will join more readily in common pursuit of mutual goals for the teaching of language and reading in particular. The Council on Exceptional Children will likewise join in supporting similar concerns with a more unified lobbying force than we have presently.

DOCTORAL TRAINING

The level of doctoral training will continue for a time but probably face the same development as the training of history teachers. When the job possibilities gradually diminish, there will be far fewer candidates for the doctoral degree. As with many other educational cycles, the year 2000 there will again be a demand for reading and English language instructors. Particular areas will be multiplied in an individual candidate. An example of this is to suggest that a doctoral candidate will be studying reading, statistics, and early childhood in equal proportions in the hope of being more remarkable. That situation already exists today in many students' programs. Language arts and children's literature could be added to the combination as well as psychology and linguistics and bilingual education.

Unless there is a sudden thrust to the idea of a Sunrise-to-Sunset Semester on one of the local channels, by the year 2000 there will certainly be some significant gains and improvements from the pre-

(continued on page 28)

TOWARD YEAR 2000 - METHOD

A Promise of Actual Things

Mary Louise Seguel

Walter Lippman once suggested that "the living zone where the present is passing into the future is the region where thought and action count." This unfolding present is not so far behind that there is nothing but memory, nor so far ahead that there is nothing to but dream. One of the forces which educators might extricate from the professional world as we find it today is the lively and vigorous interest in teaching method. We would do well to surround this force with criticism and suggestion so that we may be most creative in its development.

Professional attention to method per se was strong in the twenties. In another paper I have called attention to the spate of educational literature on method in this period and the coining of a rich vocabulary to discuss it. This

interest languished partly because of attention to the concept of the curriculum and curriculum development which was comprehensive in its integration of content and method, and partly because of the influence of the ideas of Dewey and others on the primacy of learning. For whatever reason method as a term has been replaced by others more fashionable, the current favorites being model and strategy. And the rich lore of methodological suggestion has been largely relegated to dusty unused shelves in libraries.

In the last decade however a renewed interest in teaching has emerged. There has been a general social unease over documented inadequacies in basic skill performance, linguistic and computational, of youth coming out of



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schools and entering colleges and the work force. Flaws in the product have led to questions about the procedures used to secure the product. As a result professional educators have shown a growing

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sent scene. The pundits and critics will be seen again and again in prodding us to better teaching. Education will continue on the defensive but under it all will be some of the greatest strides imaginable. The only reason short of national disaster which will not allow this projection to be accomplished would be if we did what George Spache warned us about in 1968: if we sit down and let everybody else in the related

professions exercise the leadership which already is ours by profession, by training, and by interest. When we look at what has been done in the last decade, it seems certain that we are headed in the right direction toward the year 2000.

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awareness of the lack of clarity, precision, and predictability in the way in which the teaching act is conceptualized. Borrowing from medicine, with its exclusive emphasis on pathology, the profession has been searching for more predicable and precise diagnosis and prescriptive procedures in education. Whether education is rightly concerned with only pathology is less important than is the fact that educators are beginning to demand greater conceptual control over the teaching act itself.

This development has been a reaction to the nature of the field of curriculum. The curriculum concept is an integrative one. The curriculum is thought of as the instrument by which the school as an agent of society accomplishes the major socialization tasks for all its members. It is my thesis that curriculum makers answer two sets of questions, one set of peripheral questions which are not in the main answered by professional educators, and the other set of core questions which are. Examples of peripheral questions are, "Who teaches?" (persons certified by the state not by the professional directly), "Who is taught?" (all persons of a certain age, not clients selected by the professional), "Who pays?" (the society through taxes, not the individual through professional fees). Examples of core questions are, "What to teach?" "How to teach it?" "How to organize for teaching?" "How to evaluate learning and teaching?" "How to improve learning and teaching?" Although answers to each set of questions are interactive, and educators influence peripheral questions and other social groups influence the core questions, in the main there is the division of labor I have suggested.

Beginning in the thirties, it is my thesis that a number of events have contributed to a shift away from attention to the core questions in the direction of the peripheral ones. First, psychologists over decades have analyzed the nature of the learner and those aspects of human development which affect learning. Sociologists and anthropologists have analyzed the

context of learning, that is the school as an institution in a particular society, identifying the various institutional factors which affect learning. Professional educators themselves have analyzed the nature of knowledge and its basic characteristics as they influence learning. Although there have been other influences, these appear to be important ones.

Each set of factors has come to the attention of the educator accompanied by a set of prescriptions for teaching. Often these prescriptions show a serious ignorance of the nature of teaching. Piaget describes the growth of child logic, but teachers are advised both to let that growth occur naturally and to plan teaching which will foster it. Sociologists describe the school as a gigantic social sorting mechanism, but teachers are counselled simultaneously to teach the higher-order mental processes to future leaders and concentrate on the basics for future workers, without any way of knowing which will be which. Curriculum theorists outline the explosion of knowledge today but teachers are urged both to teach the structures of the various fields and to teach that detailed information relevant to survival in contemporary culture.

As a result, the teaching profession today appears to suffer a severe information overload on answers to the peripheral curriculum questions, and starvation on answers to the core questions. Since the teaching profession has relatively little power to affect answers to the peripheral questions, we would be better advised to concentrate on answers to the core questions over which the profession has a very great deal of control, and for which it is held responsible by society. The education of the pre-teacher in schools of professional education reflects this bias away from the core questions. The graduate comes out of teacher education with a head full of the implications of the various factors, psychological, sociological and epistemological which condition the teaching act. Such awareness is all to the good, but the same graduate has been previously undersold on the detail-

ed, predictable, and clearly communicated details of his craft. The graduate doesn't get it because it doesn't exist and there is a growing awareness that the important task right now is to forge it. A vital element in such a body of knowledge would be those reliable procedures and techniques which might be thought of as basic method.

What might the profession do to develop greater greater predicability and control? We have had available for some time a taxonomy of educational objectives which is a useful tool in approaching the answers to the question "What to teach?" Another useful tool would be a taxonomy of method, developed with attention to clarity, communicability, and precision. Such a taxonomy if well made would give the profession a common set of concepts with which to study method. Attempts to discover which methods are most frequently in actual use in practice demand some standardization of concept and language. Controlled research on the success or failure of selected linkages between method and outcome also absolutely demands such standardization. Only if such a standardization exists can prescriptive methods begin to be codified with some expectation of predicability and control and be made available both as a guide to teacher preparation and to school practice.

In sum, we as a profession should surround this growing force for clarity and communicability in method with criticism and suggestion and strengthen professional impetus toward greater precision and control of teaching. Our culture respects this professional attitude. Those who cry "but teaching is an art" may still use codified knowledge in creative and expressive ways. If the day ever comes, and I think it may sooner than we think, that teachers operate as autonomous professionals relating to a self-selected clientele as do doctors and lawyers today, we should be ready with as well a validated body of method as we can muster.

TOWARD THE YEAR.....

2004

Charles W. Fowler
Superintendent of Schools
Fairfield, Connecticut



There is a genre of literature of prognostication into which such epics as **1984**, **2001 Space Odyssey**, and **Future Shock** fit, to say nothing of the myriad of prophecies contained in the **Bible** and other religious writings. Educators tend to be so preoccupied with the challenge and dilemmas of the "here and now" that even a five-year budget or program projection poses itself as an obstacle infranchisable. Such a state of affairs within the profession constitutes an anomaly of dramatic proportions inasmuch as our responsibility to the young rests not solely on passing along the culture and wisdom of the civilizations past, but also, and perhaps more impor-

tantly, in preparing our progeny for what the future holds.

As a practicing school administrator, my perceptions are most sensitive to matters within the social and political sciences. In the following paragraphs I hope to take you on an educational odyssey to the year 2004. Paul Mart, renowned professor at Teachers College, Columbia University, completed a series of studies on educational innovation in the first part of this century. One of the concepts which he annunciated was that of "lag time"--the time it took for an educational "innovation" to spread through the entire nation's schools from its first acceptance or use to the point where it was relatively commonplace. He described a number of examples of this phenomenon for which the lag time was as much as forty years. I strongly suspect that the pace of education and cultural change has increased so dramatically that my choice of a look at schools a quarter-century from now is well within reason.

Travel with me now to the year 2004 and to the megapolis of Chiquaukland, a 150-square-mile area bordering Lake Michigan with a population of 30,000,000. This megapolis is one of four in the country which are independent of any state, have their own represen-

tatives in the U.S. Congress, and together account for 60% of the nation's population and a higher percentage of the gross national product. The hub of most non-employment activities is the Cachment Area, a massive housing and community center where the majority of the population resides. Few own their own property and most pay rent based upon their income levels. The community center contains shopping, banking, medical, and entertainment facilities, as well as educational and recreational centers.

Public schools or school districts do not exist and have not since the late 1980's when they were phased out as a part of a massive reorganization of government and taxing practices in the nation. Instead, each citizen is provided an "Education and Training Certificate" in varying denominations by the megapolis government. The denomination of the Certificate varies according to age, handicap, or giftedness of the individual, as well as the scores attained on government-administered proficiency tests. The higher value Certificates tend to be issued to persons between the ages of five and twenty-one (a throwback to the ages in the former public school-college systems), but children under five and persons over twenty-five also qualify.

These E & T Certificates can be redeemed for programs in a variety of places, including government-sponsored "education centers." The Certificates are also redeemed, however, at education centers operated by churches, non-profit cooperatives, and entrepreneurs engaged in education for profit. The education centers vary as to the scope and level of programs offered, but most go through the levels associated with the former community colleges. Beyond this, Certificates are redeemable at megapolis-sponsored senior universities. Only the most heavily-endowed private colleges survived the economic and political upheaval of the last two decades of the twentieth century and attendance at these institutions requires a significant supplemental payment by the individual or by the scholarship committee established by the megapolis.

Once a citizen has demonstrated proficiency in basic skill areas on the government-administered examinations, he or she is eligible to apply the Certificate to a variety of job-specific training programs operated in a few instances by the government education centers, but in most cases by private business and industry. On-the-job training now accounts for approximately ten percent of the typical business or industry's expenditures, and the revenue from its employees' E & T Certificates significantly offsets those expenditures. It is also possible to accrue Certificates over a period of years, thus allowing a worker involved in a major career change to undertake an intensive training program, sometimes under a paid-training leave provision of the employer's union contract (something akin to the "sabbatical leaves" in educational organizations years ago).

Public and private education centers also honor the E & T Certificates for adult counseling and

recreation programs. Much of what in earlier years was called "adult education" is now conducted by public as well as private, church, or social groups with support from the revenues from E & T Certificates.

While the government-sponsored education centers are subject to extensive regulations and requirements, the private recipients of E & T Certificate proceeds must meet only minimal organizational standards, which include the licensing of employees. However, the government-sponsored programs are administered in accordance with the requirements of the megapolis public employees union, the national union conglomerate which encompasses forty percent of all workers in America. The employees involved in E & T programs in business and industry are part of and subject to those union contracts, while the small religious or profit education center employees tend not to be included in bargaining units. This factor, coupled with the freedom from extensive government regulations, makes these centers far less costly to operate and more attractive to many citizens. In order to deal with the equal protection ideology, however, all centers permitted to redeem the E & T Certificates must accept any applicant who meets reasonable and approved standards of age and performance, and the institutions must use a lottery system if there are more applicants than the center can accommodate.

Only one dwelling in four in Chiwaukland has anyone between birth and age 21, and the average citizen's age is 52. There is an equally small number of automobiles since few can afford the gasoline or propane power and most people can work, shop, attend classes, and receive medical or dental care within five miles of their residence. In seventy-five per-

cent of the families, both adults work, and in thirty percent of families one adult holds two jobs. Private or government-run child-care facilities operate in most large residential centers with costs covered by E & T Certificates, except if formal education programs are desired, which must be covered by a supplemental payment by the parents.

Education centers utilize a variety of approaches to teaching and learning depending upon the philosophy of the sponsoring organization and the desires of the parents and/or child. Several employment categories exist within most centers with the highest salaries going to those who prescribe learning activities based upon regular testing of achievement levels. Most teaching takes place in small groups, with a good deal of learning being undertaken independently under the supervision of learning monitors (paid half the salary of the master diagnostic prescriber). Social interaction occurs principally in the recreation part of the program under the supervision of recreation specialists. Most education centers operate year-round programs, with staff and students taking "leaves" according to employee contract provisions and family preferences. Involvement in some form of learning is mandated from ages three to eighteen, although from age fourteen beyond the learning experience can occur within the context of one's employment. Proficiency testing is the controlling variable in all educational activities for it prescribes the level of learning activity and controls the dollars available to the individual for learning activities.

In this final paragraph the author wishes to make clear that what he sees for teaching and learning in 2004 is not his prescription or preference, but is what he anticipates.

Quotations to Ponder...

"The human race is now experiencing the most rapid change in its history. There is little agreement, however, on where this change is leading or what its ultimate outcome and meaning may be. We know for certain only that a hurricane of change is sweeping through all human institutions, upsetting, destroying, and creating more in a generation than was accomplished during centuries or even millennia in timespast. No known force can stop this pervasive metamorphosis; generations may pass before the powerful social and technological processes now at work are controlled or dissipated."

- Edward Cornish

"Change is life itself. . . change is essential to man."

- Alvin Toffler

"How much flux can a man stand?"

- Alvin Pitcher

"People must change if the system is to change."

- Donald Glenes

"It is a peculiar phenomenon that in contrast with the insect world, human beings start out as butterflies and end up in cocoons."

- Anonymous

"Wise men have known for a long time that if you can change a person's expectations you can change his behavior."

- Allan Cox

"What we need today and will continue to need are interspecialists—individuals with interdisciplinary backgrounds who can look at problems in terms of the interrelationships involved and arrive at compatible solutions."

"We must understand that a totally new society is coming into being, one that rejects all our old values, conditioned responses, attitudes and institutions."

- Anonymous

"Today you can be over-informed without being well informed."

"The future of work consists of learning a living rather than earning a living."

- Marshall McLuhan

"I find the great thing in this world is not so much where we stand as in what direction we are moving. . . We must sail sometimes with the wind and sometimes against it. But we must sail, and not drift nor lie at anchor."

- Oliver Wendell Holmes

Compiled by Rodney Borstad



Rodney Borstad is Professor of Education at Northern Illinois University and associate editor of this issue of Thresholds.

"The future belongs to those who can blend vision, reason, and courage into a personal commitment."

- Robert F. Kennedy

"On improving teaching—is it only a new curriculum or new ways of teaching that we need? Or do we need to change our ideas about children, about childhood itself, about how children learn, what they learn, what they need to learn, from whom or from what kinds of experience?"

"It is essential that the student acquire an understanding of a lively feeling for values. He must acquire an understanding of the beautiful and of the morally good. Otherwise, he --- with his specialized knowledge --- more closely resembles a well-trained dog than a harmoniously trained person."

- Albert Einstein

"Where there is no vision, people perish."

- Book of Proverb

"People, even children, are educated much more by the whole society around them and the general quality of life in it than they are by what happens in schools."

- John Holt

"The future will evolve out of the present."

"In studying the future we need to expect the unexpected. . . we must be less certain of our 'certainties'."

"The more automated our technological society becomes, the greater will be our need for personal autonomy."

"You can't teach more than you are. You can't teach what you do not know."

- Anonymous



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