DOCUMENT RESUME

ED 122 413   EA 008 205

AUTHOR   Goodlad, John I.
TITLE   The Uses of Alternative Theories of Educational
                Change. Phi Delta Kappa Meritorious Award
                Monograph--No. 1.
INSTITUTION   Phi Delta Kappa, Bloomington, Ind.
PUB DATE   75
NOTE   40p.
AVAILABLE FROM Phi Delta Kappa International, Eighth and Union,
                Bloomington, Indiana 47401

EDRS PRICE   MF-$0.83 HC-$2.06 Plus Postage
DESCRIPTORS   *Change Strategies; *Educational Alternatives;
                *Educational Change; *Educational Theories;
                Elementary Secondary Education; *Models; Research
                Methodology; Research Utilization

ABSTRACT
        It is not likely that the schools as presently
organized and conducted and with the prevailing model of change
employed for their improvement can be redesigned to meet
satisfactorily the wide and varied range of expectations for them.
The schools are suffering from a confusing array of expectations and
a crippling overload of functions. Our present efforts to improve the
schools appear to be unproductive because we are almost blindly
caught up in a single model of change that stems directly from our
Western rational bias. The rational bias of our highly technological
culture places purposes before activity in a linear fashion and has
produced the research, development, dissemination, and evaluation
(RDD&E) model of change that serves rather well when we have a
purpose in mind, when we know what it is we want to do or produce.
The responsive view embodied in the League of Cooperating Schools
model that involves staff dialogue, making decisions, taking action,
and endeavoring to evaluate both the process and its outcomes (DDAE)
is conducive to probes, open-ended inquiry, and the kind of
exploratory activities designed more for finding a course of action
than for reaffirming directions already preceived. (Author/IRT)

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PHI DELTA KAPPA MERITORIOUS AWARD

CENTER ON EVALUATION, DEVELOPMENT & RESEARCH

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LOUISVILLE, KENTUCKY

THE USES OF ALTERNATIVE THEORIES
OF EDUCATIONAL CHANGE

A Monograph

by

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University of California, Los Angeles
and
Institute for Development of Educational
Activities, Inc.

PDK AWARD
FOR
MERITORIOUS CONTRIBUTIONS TO EDUCATION
THROUGH
RESEARCH, EVALUATION, AND DEVELOPMENT

1975

PHI DELTA KAPPA INTERNATIONAL
Eighth and Union, Bloomington, Indiana

PREFACE

To emphasize Phi Delta Kappa's concern for systematic inquiry and its contribution to improved educational practice, PDK instituted an award for meritorious contributions to education through evaluation, development, and/or research. The individual chosen as the recipient for this award was to be one of the featured speakers at the 35th Biennial Council and his presentation was to be published by Phi Delta Kappa as the first of a series of biennial award monographs.

The selection of an award nominee involved solicitation of nominees from the more than 450 PDK chapters, the Board of Directors, and PDK's Research Advisory Committee. Through the balloting process John I. Goodlad, Dean of the UCLA Graduate School of Education, was selected as the first award recipient. Prior to presentation of his paper Dean Goodlad was presented a plaque which read:

> John I. Goodlad, winner of the 1975 Phi Delta Kappa Award for Meritorious Contributions to Education through Research, Evaluation, and Development, has demonstrated outstanding professional leadership and exemplified the humanizing fraternal spirit which Phi Delta Kappa believes essential to its purpose: the promotion and improvement of universally available, publicly supported education.

William J. Gephart
Director of Research Services
Phi Delta Kappa

THE USES OF ALTERNATIVE THEORIES OF EDUCATIONAL CHANGE*

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Activities, Inc.

When I was growing up, going to school and teaching in Canada, the problems of developing educational systems and programs appeared infinitely less complex than they appear today. The general public seldom questioned what schools taught or did. Parents rarely interfered in the education of their children; indeed, they tended to support decisions made there. They focused on trying to provide for their children more schooling than they had received and hoped that their offspring would have the ability to partake of it. Few could hope that sons and, especially, daughters would attend the university

Things have changed vastly during the intervening years. Many nations now 'have rather fully developed systems of primary, secondary, and tertiary education. Some young people of recognized intellectual ability actually choose not to go to a university but to drop out of the system for a year or two or permanently. What should go on in these institutions is now conversational fodder for almost everyone at some time or other.

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*Paul M. Cook Memorial Lecture, Phi Delta Kappa, October 17, 1975. Not to be copied or reproduced without the permission of Phi Delta Kappa and the author.

The questions raised go far beyond those of *what* to teach and *who* should teach into a wide range of socio-political issues pertaining to who should make what educational decisions -- indeed, into who .runs the schools. These are relatively new questions:for which legislators, educators, and citizens have few answers and with which they have had little experience. Furthermore, in recent years, both developed and developing countries have had increasing doubts about the effectiveness of their systems of schooling. Interest in reform and innovation has been high. But concerted efforts by many countries to improve their schools appear not to have increased satisfaction with them.

The nature of this dissatisfaction is exceedingly varied. Universities are dissatisfied with the products of secondary schools. Many parents want the schools to do much more than prepare for college or university entrance and object to what they view as over-domination of secondary education by tertiary education. People of all ages and groups want educational opportunity extended to them and call for alternatives to the lock step age stratification. of schooling. Lifelong education is now the catchword worldwide. Primary and secondary teachers often view themselves as caught between, unappreciated, and unable to satisfy all these diverging expectations. Most resent the charge that the schools have failed and the proposal that society should be deschooled.

The response to dissatisfaction and disaffection often has been a galvanic one: do something else or try more of this or that. Low reading performance is to be corrected by more time or a new method of teaching. But almost all the instructional time in the primary grades already is devoted to the teaching of mathematics and the language arts, including reading. A new approach seems to result in some children doing a little better and some a little worse. However, it appears to change overall performance only a little. Recently, in some parts of the world, there has been an

upsurge of interest in teaching attitudes and values, but in this realm the effects of schooling are neither easily traceable nor conspicuously impressive. And it is exceedingly unlikely that two half-hour sessions a week in the intermediate, grades will contribute much to overcoming or offsetting the values built into the ways schools and classrooms carry out their business. Undoubtedly, schools teach values, but these tend to be those of the surrounding society which schools too well reflect. We frequently dislike our predominant values when we see them faithfully reflected in the schools.

I am not optimistic that schools, *as presently organized and conducted* and with the prevailing model of change employed for their improvement, can be redesigned so as to meet satisfactorily the wide and varied range of expectations for them. However, I am encouraged to think that schools, perceived more modestly as only part of the total educational enterprise, can be reconstructed to be satisfying work places for those who use them and much more satisfactory in the eyes of the general public.

My pessimism regarding present directions stems from observations such as the following:

First, most efforts to reform and innovate are guided by a theory of change which is useful for many purposes but inadequate in relation to the demands placed upon it. The elements usually manipulated are few and represent such a small fraction of all those likely to be influential that the production of visible change can only be a fond, unrealized hope. Even if the innovation is installed. which frequently turns out not to have been the case, the evaluator concludes that no significant differences occurred. Of course, if he is an advocate of the project. he goes on to say some glowing things about the changed attitudes of all participants and other benefits not measured but, to be kind. the best one can conclude is that the data are soft.

Second. in seeking reform of the schools, we have given

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precious little attention to the school as a social system and to the self-renewing capabilities of those who inhabit it as a work place. Legions of would-be reformers outside the schools — university professors, developers of materials, child psychologists, politicians, and parents — know what is best for schools even if they have not been inside them for a long time or have taken a look at what problems characterize their existence. Again, the conventional change model is quite inadequate. It focuses on individual teachers, materials, or patterns of organization but rarely on the school as a social institution with its own sense of existence and sets of regularities by means of which it conducts that existence. In effect, we talk a great deal about what is wrong with the schools but rarely focus on the school as the key unit of and for change.

Third, the schools suffer seriously from functional overload. We have expected a great deal of them and, in general, they have served us well during a time when their function has been almost exclusively that of preparing the most able academically for an upwardly expanding school system and an increasingly educated work force for a growingly complex society. But, now, large segments of the world expect much more. Yes, they want access to higher education and to better jobs. But they also want individual talents to be both recognized and cultivated by the educational system. Further, in some countries, including the United States, various groups no longer want to be integrated into what they perceive to be a limiting homogeneous society. They want simultaneously to hold on to their cultural identity — indeed, cultivate it even more through education — while acquiring all the knowledge and skills essential to success in the larger society of which they are a part. And, of course, in some countries, the schools are seen as the primary agents for developing a national identity and, often, an accompanying ideology. We ask a great deal of our schools; in my judgment, we

ask more than can be fulfilled.

We are confronted with a dilemma. On one hand, there are increasing doubts as to whether schools are, as we once considered them to be, the bastions of our civilization. On the other, the myth prevails that schools are at the heart of our salvation; we need only make them better. And so we continue to provide some funds for their reform and a good deal for evaluating them. But the results of these added expenditures rarely meet expectations — the reality fails to match the rhetoric — and so there is danger of an even deeper malaise setting in, a malaise likely to destroy all faith in schools. This would be most unfortunate. I contend the central problems do not lie in finding some single powerful innovation; not in curriculum reform on a grandiose scale, although curricula always require updating; and not in dramatically changing the socio-political processes by means of which schools are guided and conducted.

One might ask, "Why is fundamental change in the conduct of our educational enterprise necessary? Change will take care of itself. We have managed in the past; there is no reason for our not doing so again." There are signs, however, that simply doing more of what we have done in the past or doing it a little better will not suffice.

In recent years and at local, state, and federal levels, we have endeavored to adopt various innovations as well as, in places, to get back to the basics. Meanwhile, the dissatisfaction with schooling expressed in 1957, following Sputnik, has changed to disaffection. There are conflicting views as to what should be done and little confidence in any of these. Pupil effects are disappointing, but nobody seems to know why, although many have their pet reasons and solutions. Although we know how well the horses seem to be doing in at least a few of the races, we know very little about the handicaps, track conditions, and other circumstances that might help explain the results.

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Not to be outdone, I would like to introduce two possibly explanatory theses. The first I shall discuss only briefly here before returning to it later. The second provides motivation for discussing an alternative model of change which, combined with the prevailing one, might visibly improve our existing schools and, in the process, increase our satisfaction with them. Moving from our present slough to a dry plateau would at least give us a chance to take careful stock and put an end to our present, somewhat galvanic, tendency to continue beating the tired, overburdened horse.

Turning to the first thesis only briefly, I believe that our schools suffer from a confusing array of expectations and a crippling overload of functions. We have moved from the sparsest set of expectations in Colonial times – take account of children's ability to read and understand the principles of religion, and the capital laws of the country – to a full range of academic, vocational, social, and personal goals in the 1970s. For more than 250 years, emphasis in schooling was on moral, religious and national responsibility. The notion that individual talents and capabilities should be cultivated to the full is of relatively recent origin, at least so far as our stated social-political commitments are concerned.[1] But we are no less concerned that all of the traditional goals will be achieved as well.

Compounding the implications for an institution that now competes for attention with many others and that holds sway for only a small part of a child's life is the fact that our nation is in a period of disillusionment, if not disarray – internationally, economically, morally, and probably spiritually. Uncertainty about our schools is merely symptomatic of uncertainty about ourselves and our futures. What is implied is that the school can expect no clear articulation of expectations. To try to respond empathetically to this cacophony and to attempt to be all things to all people will guarantee continued dissatisfaction and disaffection.

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Reconsideration of directions and options for schooling and alternative models for change are called for. Each has quite different uses; they are not mutually exclusive.

The Western Rational Bias

My second thesis regarding present, apparently unproductive, efforts to improve the schools, is that we are almost blindly caught up in a single model of change which stems directly from our Western rational bias. This bias, highly productive in its application to business, industry, and the military when resources appear to be unlimited and when the race favors the strongest and biggest, has been so to our advantage, until recently, as to be scarcely questioned. Indeed, to do so has been and, in many quarters, still is regarded as unpatriotic, if not seditious. But the Vietnam war, investigations into the role of the CIA, Watergate, unemployment, and declining raw materials now give us pause. The day is drawing close when not to recognize the need for new national orientations will be commonly regarded as not in the best interests of the country and certainly not in the interests of humankind.

The rational bias of our Western, industrialized, highly technological culture places purpose-before activity in linear fashion. Such a view dominates the military, industrial and business domains, as previously noted, but also spills over to be the prevailing perspective in religion, education, rites of passage and a host of personal relations, especially those deemed essential to economic success. Even courtship and marriage are still, for many people, instrumental to other "more basic" considerations.

For much of what actually takes place under these rubrics, however, there are no specific, predetermined purposes to be met. Clarifying goals may be as far away from what touches on daily existence as the setting of precise behavioral objectives for

savoring a good meal (although the advent of expense accounts and the business purposes for which they were created certainly have done much to diminish the purely aesthetic and gustatory delights of relaxed dining). For some people, especially in non-Western cultures, a sense of intense *being* rather than a clear purpose is quite enough.[2] Education, too, is as much a way of life as it is a set of goals to be achieved. It is conceivable that a bias admitting to the importance of activity *qua* activity, whether or not purpose arises or comes later, has much to say to reforming the schools. Because the Western rationalist bias is so pervasive and so exclusive of other rationalities, however, gaining credence for any alternative will be a monumental task.

In the United States, as in most Western nations, the purpose-before-activities orientation is generally accepted as *the* rational approach to schooling. To the virtual exclusion of any other, it guides the formulation of federal and state policy, the development of curricula, most processes of research and evaluation, proposals for school reform, and educational accountability. In relatively rigorous form, it has stimulated programmed instruction, various other approaches to individually prescribed instruction, performance contracting, program planning and budgeting systems (PPBS), and competency-based teacher education. Clearly, it is an exceedingly useful orientation for many things, providing needed system and rigor in the preparation and dissemination of a wide array of tools, techniques, materials, and organizational arrangements.

This is an engineering production model with an impressive philosophical and methodological lineage. Although implicit in some pedagogical practice for a long period of time, it received widespread favor following World War II, especially in large-scale federal involvement in educational reform in the 1960s and, subsequently, in evaluative efforts to appraise the effects of supplementary expenditures for a host of special programs. Now,

when one speaks of RDD&E, it is not some general image of research, development, diffusion, and evaluation that comes to mind, but a specific paradigm associated with curriculum development projects supported by the National Science Foundation and a wider array of reforms and innovations supported by the United States Office of Education in the late 1960s and early 1970s and by the National Institute of Education today.

As a general theory of intelligence and both individual and social improvement, what I have been describing has many uses. It has attracted many first-rate minds and harnessed human and material resources for the betterment of humankind. But, as in many things, its obvious strengths have given rise to abuses and misuses. The abuses have pertained primarily to narrowness and singleness of purpose while attacking complex problems. Consequently, there has been overextension of expectations and applications. For example, an exponent of a useful, limited theory of learning becomes so enamored of this tool that he extends it to a wide array of human processes, allowing a few instances of success to block out the failures. Now, the rhetoric of claims to virtue and justice becomes grossly overblown. Of course, these vices are not the exclusive prerogative of this particular model. But it is the inherent claim to rationality, to exclusive rationality, that lends such irony to the excess.

The misuses, virtually by definition, constitute inappropriate applications. One of the most serious of these involves a kind of pseudo-scientific ordering of complex phenomena which are as yet scarcely identified or described and which, in any case, call for the exercise of exploratory probes rather than scientific explanations. It is an old problem — one, about which Aristotle had this to say: "It is a mark of the educated man and a proof of his culture that in every subject he looks for only so much precision as its nature permits."[3]

But it is not in unproductive inquiry that the danger lies;

foolish studies tend to be ignored or soon forgotten. It is, rather, in the attribution of a verity where little exists, especially in the formulation of social policy (for example, in the legislation of a method for teaching all children to read, or the accrediting of teacher education programs according to a single set of specified competencies for all, or a state-mandated program of teacher accountability requiring the alignment of specific behavioral objectives with broad goals for schooling).[4] These are matters to be kept in the realm of the alternative, not just because a budding science of education has not yet produced the rigorous evidence implied – which should be reason enough – but, even more important, because there are alternative views of the appropriate norms for significant human enterprises such as education. While further development of the embryonic science of education is essential, we must look to it not to sanction what are, at best, only temporary, limited truths but to enlighten those, many decisions for which we need good reasons. Uncertainties take on no special truths by making them laws.

The foregoing suggests a second major misuse of the engineering/industrial model which sets purpose before activity and assumes efficiency as defined by the input-output ratio as the prime criterion of value and effect. It lies simply in lack of awareness of alternative views of man, nature, change, and improvement. In effect, the very pervasiveness of the Western industrial view of man and his world imposes cultural blinders which simultaneously exclude for many people the possibility of alternative views and condone allegiance to what becomes not just one tentative model but truth, virtue, and justice. The response to crisis is virtually galvanic; more and better become as one; the social response and, therefore, the rewarded individual activity is "try harder; don't just stand there, do something." But be rational, that is, conform to the model.

Ironically, although this model is essentially expansionist and

is well described by the slogan, "Think big," its very dependence on singleness and clarity of purpose tends to blind it to danger signals such as delayed side effects and diminishing resources. There is room for industrialist and nature lover alike when huge forest resources are only being trimmed around the edges. But sharply different interests come out of the woods when resources dwindle and when more devastating techniques for extracting them emerge. The so-called energy crisis poses the issues sharply. The environmentalist loses ground rapidly when oil for the lamps of home and factory is in short supply. Most people now find themselves less tolerant of an alternative ethic and respond to the consumer-oriented drumbeat in the face of such crises, whatever the long-term costs.

Thoughtful men and women who have dared to look down the road apiece, learned men and women who are aware of alternative value systems, and futurists who have extrapolated the future in a straight line from the present see much danger and, indeed, disaster in continued adherence to the model of intelligence which has served us well in the past, judged by its own inherent criteria.[5] They see a need to suspend or relax some of the conventional rules of Western rationality and progress in order to explore the possibilities of alternative rules.[6] This is not a new vision: it is as old as civilization itself.[7] But the present urgency brings not only fresh formulations of the human condition but also alternative views of change and improvement enriched by knowledge of our own cultural traditions as well as growing awareness of those of the rest of humankind.[8]

Because I believe education and schooling to be suffering from both abuse and misuse of the conventional model of change stemming from the Western rationalist bias and because I believe that it is essential to examine and use alternative views, the former probably will come through in what follows as being short-changed. However, the record will show that I have

advanced its cause over the years, albeit blindly at times, and that, space and time permitting, I could mount a strong case in defense of its merits. It does not lack in strong defenders and proponents, however, and needs little in support from me. But to shift a critical mass of attention to alternative explanations, theories, and models and to open up fresh options for research, development, and evaluation in education will require Herculean effort.

The Linear RD&D Model

As pointed out earlier, highly productive research and development has emerged from our dominant bias. What placed excessive strain on the input-output derivative refined in business and industry was its tranformation into a change strategy for reforming the schools.

The rationale is straightforward. One intuits or researches a need: Children are not learning to read as well as we think they should, the curriculum is out of date, or teachers are not getting the benefits of relevant research. A solution is posed, perhaps by extrapolating from existing research. It is tested, presumably through the use of appropriate methods, and the feedback is used for further refinement. The methodological literature frequently is characterized by diagrams involving input, response, feedback loops, and output. These are the terms used, of course, in conventional management manuals for factory productivity.

In the 1960s, I described curriculum projects supported by the National Science Foundation which often were rather close cousins of similar activity in business and industry.[9] However, whereas the purpose of the later was to produce more and better products for less money, the purpose of the former was to place before children attractive packages by means of which sound learnings might be systematically acquired. The criteria for

judging success often were elaborately obscure and, indeed, evaluation was a low priority. The judgment of scholars required little or no further verification, presumably.

Teachers were regarded.as important and were involved in the development process, but what was required for them to become effective users was grossly underestimated. Administrators were largely bypassed and the entire bureaucratic structure of school districts was simply excess baggage, incapable of being understood and best ignored. Schools were viewed as classroom collections of teachers and children eagerly awaiting the largesse about to be bestowed upon them if only supervisors and principals would get out of the way.

Ernest House describes the movement of this dominant model for curriculum development to the United States Office of Education, its further refinement and legitimatization there, and its adoption and adaptation for massive nationwide school reform.[10] There, the theory which sets purpose before activity was reinterpreted into a linear model for change that soon was commonly referred to as RD&D — research, development and diffusion, with an E for evaluation soon to follow.

Undoubtediy, many good things can be attributed to what occurred. However, it also is overextension, and inappropriate adherence to the model that explain much of what did not occur. Its rationality and claims to rationality beguiled many who became expert in this approach into thinking that it is a complete theory of change, if not the only viable one. It is both the virtue and vice of theories and research, development, and evaluation models stemming from them that they screen out or ignore events not explained by them.[11] The more tight or precise the model, the more this is so.

Proponents came to believe that they knew not only how to improve the schools but also what reforms needed to be installed. Once R and D produced the necessary structure and products, all

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that was needed was to disseminate them or put them into the system. Little thought was given to the receivers; they were viewed as passive or only mildly resistant. There is a certain arrogance here; arrogance still visible in the view of innovation and change held by many would-be reformers in government, federal and state education offices, some philanthropic foundations, and others who see change as a rather straightforward, linear process.

In retrospect, it becomes apparent that the developers and those for whom their products are intended live in two separate worlds which not only are fundamentally different but which never have learned to communicate very well. It appears that all of the carefully detailed steps involved in getting a product ready for adoption constitute a relatively simple stage in a comprehensive change strategy and that getting new materials, techniques, ideas, and the like into the system may be the least understood, most difficult, and most demanding stage. It requires knowledge, skills, and abilities quite unlike and, to a degree, in addition to those required for developing innovations to the point of readiness for utilization.

Institutions have their own sense of tradition and existence. They are partial cultures geared more to activities and self-preservation than to the adoption of new modes.[12] The reformer who does not comprehend this, who fails to take these cultures into account — indeed, to take them into partnership — will end up with a lot of fine goods on his hands which cannot be marketed. The institutions, in turn, will go on as before, changed in no fundamental ways, but perhaps a little more capable of resisting unwanted reforms in the future. Those in schools, for example, may even strengthen their professional association, union, or whatever group is to represent them in the bargaining process where the name of the game is to fight power with power. The old trenches of self-defense are dug just a little deeper. The

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linear RD&D model is an excellent approach to the production of all kinds of potentially useful ideas, tools, and techniques for the use of those who come to see them as relevant. It is vastly improved when users are involved in the entire process. But such involvement in no way assures significant educational improvement; it simply increases the relevance of what is produced.

Rigorous use of the RD&D model necessarily requires a rather limited focus. Schools are exceedingly complex; the array of factors entering into what children and youth take away from school is broad, diverse, and only dimly understood. The installation of a few of even the most elegant products of RD&D will enhance measurable pupil effects only a little — only enough, usually, to be detected by using the most sophisticated statistical techniques. This does not satisfy legislators, boards of education, administrative officials, or parents. In time, they become disillusioned, decry the expenditure of funds for RD&D, without recognizing that this is only a partial, limited approach to improvement. Sometimes, harsh demands to produce are then placed on the school, demands which cannot be fulfilled. Arbitrary practices determined centrally and bureaucratically are substituted for judgments by teachers close to the children. The educational work force becomes fragmented and divided. The cohesiveness of legislators, administrators, teachers, and parents essential to widespread educational renewal moves beyond attainment. Everyone is the loser.

The Responsive View

The unhappy sequence I have traced is far from imaginary. It has occurred in many places: it will happen in some of these again as well as in other places. It will happen in places which might well profit from experience acquired elsewhere. The repetition of this folly stems in part from the attractiveness of the model. It is

deceptively rational and sensible from our cultural perspective: There is danger in applying it indiscriminately to problems and situations which simply do not lend themselves to tidy, purposeful, single solutions. Schools are not factories even though this analogy is popular in some quarters. Although society sets goals for them, schools are only mildly goal-oriented. They are activity-oriented; teachers frequently rationalize what they do by seeking to find purpose after the activity is under way or completed. This is not necessarily good or bad; it simply is a fact of schooling. For most teachers to become precisely goal-oriented in all of their classroom behavior would be a rather far-reaching innovation. It might be one requiring more time and energy for inservice education than it is worth.

However, the problems of improving school programs are much more complex than is suggested by the thesis that change agents and school personnel live in different worlds and hold differing orientations. There has been a long and intense debate about whether change arises from within or occurs because of the intrusion into the organism of some externally motivated irritant or stimulant.[13] An outer-oriented theory of change assumes little capability for self-renewal on the part of the organism and, usually, assumes that those on the outside have viewed the situation "objectively" and know what is best. The linear RD&D model fits such a theory.

An inner-oriented theory of change assumes that the organism can and will renew itself, probably with some nutrients from the outside but the selection of these must be at its own discretion. Most intervention from the outside, however well-meaning, is regarded as at best misdirected and dysfunctional and at worst dangerous and immoral. Derivations from the theory have been utilized almost exclusively in individual therapy, person-to-person counseling, and small-group processes but only a little in institutional renewal and hardly at all in school reform. Given the

fact that the popular RD&D model of externally motivated change has been applied to schools and found wanting, might it not be potentially productive, to extend the relatively untried inner-oriented theory to school reform? Or, better, might there be some reasonably happy combination of inner- and outer-oriented change strategies which would be much more powerful than either of the alternatives so far suggested?

This was a thesis that began to rise in my mind in the mid-1960s as I endeavored to stand back and observe what was happening in curriculum construction, teacher education, and the development and dissemination of various proposals for structural changes in the schools. Instead of persevering in what was showing increasing signs of strain and impotence, might it be productive to consider not more of the same but markedly deviant alternatives? For want of a better term, I shall call what emerged and subsequently was tested and refined the responsive view.

The underlying theory is that the primary participants who make up the institution, with help and understanding, are capable of becoming productively responsive to their present condition as well as to resources likely to be needed in seeking to improve it, both those resources now available but improperly or underused and those on the outside only potentially available. In seeking to develop a strategy for change, I combined this general theory with the concept of a school being the largest organic unit of and for effecting change, a concept which had arisen in my mind much earlier.[14]

Because I was not at all clear on the ramifications of such a view, nor on how to proceed toward deriving and testing an operational strategy based on it, I adopted with my collaborating colleagues a non-linear and only vaguely goal-oriented approach which James March appropriately terms "playfulness", which involves the temporary relaxation of standard rules in order to

explore the possibility of alternative rules.[15] A review of the literature suggested that the critical point of breakdown in the linear RD&D strategy was in "getting the products into the system." The complexities of this system and mechanisms for influencing it simply were not included in the model. Furthermore, those inside the system designated as targets by the change agent neither presented themselves as bull's-eyes nor displayed other signs of responsiveness to what was being aimed at them.

One of my basic assumptions, never well articulated (perhaps because it is not one of those one polishes up every day and sets out for display on the window ledge) was and is that human beings need and seek good work in the same way that they need and seek love. People do not need to be prodded, persuaded, and regularly reinforced to seek love. Nor have we discovered any way to prevent them from corroding, corrupting, and debasing it. Most people do not need to be prodded and persuaded to seek good work, either. (Oh, yes, I've heard of the incorrigible four percent.) Their problem is in finding it − or, better, creating it. As with love, we have not found any way to prevent people from corrupting and neglecting good work once found or from meddling in the good work of others. A certain amount of folly is one of the prices we pay for freedom (and, of course, a considerable degree of folly is the price we pay for lack of it).

Applied to schools, the responsive view means that those in schools, under appropriate conditions, can develop considerable self-renewing capacity. With encouragement and a supporting infrastructure, they will rise to the challenge and the opportunity to redesign their place of work so as to produce and experience a high measure of satisfaction for all. In a relevant, productive strategy for change based on this view, the total culture of the school and how that culture relates to the larger, contextual social system become the locus and the focus for change. All the rest becomes a supporting infrastructure existing only to assist

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the school in its efforts to become relevant and self-renewing. Let me hasten to say that I do not think all schools are *now* ready for or capable of this. Indeed, perhaps the number constitutes a minority. But I believe that almost all have the potentiality and, given some preliminary understanding of what is likely to be involved, most teachers would rise rather eagerly to the opportunity. Most teachers, I believe, want more than a job. They want good, satisfying work. The chance to create a better workplace provides its own satisfaction and ultimate reward.

This is essentially what my colleagues and I discovered when we entered into a collaborative agreement with a consortium of eighteen schools in southern California in creating the League of Cooperating Schools. We offered no material rewards, set no specific goals, proposed no particular reforms, promised no rose gardens. We indicated our interest in studying the phenomena of educational change. We knew relatively little about the trials, tribulations, and cycles of experiences through which teachers proceed when they try to innovate in their schools. We wanted to know a little about such matters. We assumed that most school staffs want to affect some improvement in the setting of which they are a part and so we offered to help them as best we could with whatever they might wish to do. The *quid pro quo* clearly was there, even though vague with respect to specifics. We entered into a five-year agreement to assist each other.[16]

From previous research, we were aware that few schools possess explicit, accepted, regular processes for conducting important business.[17] They run by a whole array of agreements and negotiations which are more or less assumed, which usually are not codified, and into which newcomers must be socialized. From other experiences and inquiries in the 1950s and 1960s, I had come to the conclusion that few school faculties know how to concentrate their time and attention on critical school-wide problems and issues. These just go on and on, in time becoming

chronic and endemic; there is enough to do in just keeping school. Early on in our work with the league, this earlier, tentative conclusion clearly was a reasonably accurate description of most, if not all, of the eighteen schools. Consequently, we ultimately chose as our dependent variable in seeking to assist the schools to improve themselves some process of self-determination or renewal. It involved staff dialogue (total and sub-group), making decisions, taking action, and endeavoring to evaluate both the process and its outcomes (DDAE). It proved to be both a powerful tool for the staff and an indicator of propensity for effecting change.[18]

But I already have suggested that an inner-oriented change process needs certain support and encouragement from the outside. The usual way to get this is to seek out a consultant. But many consultants have dependency needs; some want to change the problem until it is unrecognizable or something else; many get co-opted; all leave. Besides, the consultant is not one of those seeking to create in the institution a better workplace; there is always, to some degree, a "we-they" relationship. The idea from the beginning, in putting the league together, was that there would be peer school support to assuage the loneliness of effecting change. Peer schools are both inside and outside. The problems and experiences are similar; the specifics of each school's social system are different. It was our expectation that, by massaging the essentially new social system of the league, much of what is sought in consultants and other forms of support from the outside would be provided; that loneliness would be shared in a genuine way; that different perspectives on the same problems would be provided; and that the supportive structure would be reasonably permanent.

We recognized, however, that an almost self-renewing process in each school — DDAE for short — and the supporting infrastructure provided by the other seventeen schools would not emerge

easily. We anticipated that an effectively operating system would
require three to five years of ard, collaborative work and so we
entered initially into a formal, three-year agreement with the
expectation of a two-year renewal, an expectation that was
fulfilled. We saw our office as a temporary part of the whole,
serving as a limited service agency, at first for each school but,
more and more, for the social system of the eighteen. We referred
to this office as the hub from which spokes ran out to each
school which, in turn, was connected to all the others, forming
together the rim of the wheel. Meanwhile, we began to gather
certain data on what was going on in the schools and how the
whole was functioning.

The role of the hub changed over the years. At first, we
responded to the expressed desire on the part of school personnel
to provide substantive input. Our collaborators wanted to know
what was going on in American education. What were the
recommended reforms and innovations? Instinctively, we knew
that this was a stalling tactic, an excuse for not taking initiative at
the school level. But we yielded, nonetheless — don't stand there,
do something. It is difficult to escape from the conventional
paradigm of school improvement.

Gradually, however, our role and tactics changed. It became
increasingly clear that providing substantive input appropriate to
the needs and interests of eighteen schools and all the people in
them was virtually impossible. More and more, we were learning
the importance of putting the social system to work through
bringing together those teachers who expressed need for help and
those who had advanced to the point of readiness for and interest
in giving it. The hub became a kind of switching station for
joining these complementary interests.[19]

Ultimately, however, the role of the hub moved beyond
substantive input, feedback from research findings, and a com-
munications center, important as all of these are. Those in the

schools came to believe that we cared about them, that we wanted them to succeed, that we did not scold or punish but, rather, suggested, questioned, and provided support. We exercised no punitive or potentially punitive authority. This is a profoundly different relationship than the customary one between a school and the central office to which it normally relates.

Teaching is a solitary, lonely activity. To know that someone in a stable, perhaps prestigious institution or agency cares and stands ready to assist, without any punitive potential, is exceedingly important and, I fear, quite uncommon. We had pre-ordained the hub to an ultimate demise but we learned that sustained, external support from an aware, sympathetic alternative drummer probably is an essential element in a responsive change strategy. The hub does not become nonessential; it adapts to and changes its roles and activities in the light of evolutionary needs and characteristics emerging in the cycle of change experienced by the social system of which it is a part.

As the process of DDAE in the schools became refined, the teachers became more aware of significant problems and more eager to reach out for whatever materials, techniques, or innovations RD&D operations outside the school might have to offer. A school responsive in this way comes to know what it requires by way of resources and thus endeavors to pull into its orbit whatever promises to assist. The responsive view described here, which we sought to test in a strategy, and the well-known RD&D model came to have certain compatibility in our structure. They needed each other. It now mattered little that the developers and the practitioners lived in different worlds; they developed a healthy trading relationship. They effected a highly productive symbiosis.

One of the most significant findings from ongoing accompanying research was that several positive elements of school life appeared to be associated with high DDAE. I am not prepared to

say that the relationship was a causal one; the correlations were descriptive. For schools with high measured DDAE, there also was higi: teacher morale, high teacher professionalism, and a high sense of teacher power or potency. In such schools, pupil attitudes toward their experiences in schools also were more positive.

Interestingly, too, as the principal and teachers grew in confidence and feelings of self-worth, they found it much easier to develop a variety of participating relationships with the community. In many of our league schools, teachers and parents worked readily together; there appeared to be few barriers between school and community. I have grave reservations about legislating or mandating some common, arbitrary structure for citizen participation in schools. If the primary participants are encouraged to develop dynamic, relevant work settings, they will find it desirable and probably essential to establish a wide variety of partnerships with the surrounding community. Too often, legislation of structures only succeeds in alienating those groups who must come together naturally and collaboratively if the necessary reconstruction of our schools and, satisfaction with them are to occur.

There are many who perceive the responsive view to be very puzzling, if not wrong-headed. Visitors to the project often wanted to know what reforms and innovations we were endeavoring to install and were far from satisfied with our answers. They failed to see that the League of Cooperating Schools was the innovation. It broke sharply from the conventional in the creation of an infrastructure designed to support inner-oriented change as well as ready access to both inside and outside resources. Although primitive, barely functioning, and only dimly perceived at the outset, it *was* the innovation from the moment of its fragile beginning. All the components we believe to be minimally essential — an internal responsive process (DDAE); a

peer group socialization, support, and reference system; and an alternative drummer/resource center in the form of a hub – were there at the outset. Ultimately, they were refined into a relatively smoothly functioning infrastructure. As stated, these are the minimal, essential elements; there are other currently existing elements in the larger educational enterprise needing to be brought into a supportive stance. These I have analyzed else-where.[20]

One of the gravest problems in an alternative approach stemming from a different view of intelligence and social improvement, whether expressed in research or a change strategy, is that of gaining legitimatization for what deviates markedly from the conventional. In effect, as Joseph Schwab[21] so well points out, inquiry almost all of the time is conducted within prevailing rubrics and is both described and evaluated within these same rubrics. Generally accepted basic principles are not challenged. Further, it is seen as perfectly rational – indeed, essential – for all inquiry to be judged by the well-established principles. The implications and consequences often are quite devastating for innovators who fail to understand that others do not easily comprehend what the innovator now believes to be sound and just. Principals in league schools, for example, expressed from time to time anger and frustration over jibes from principals in nonleague schools. They were particularly frustrated when their superintendents did not always express jubilation over changes which the latter group saw, of course, as often creating problems for them.

One sees this difficulty expressed most clearly in the response of those in the scholarly community who review the work of peers. One reviewer, whose own orientation closely parallels the one finding expression in the league, identified immediately with our at times bumbling, probing, playful efforts to get close to the heart of schools seeking to do better and to let our inquiry follow

the crooked paths rather than to follow straight lines established at the outset. His review is almost poetic as he tries to ride along with and even extend both spirit and substance of what we were about: A second reviewer of this same book, one of only several endeavoring to tell the story, expresses both frustration and disappointment. He looked for precise goals at the outset, puzzling as to why we took so long, about three years down the road, before we seemed to know something of what we were about.[22] His review, like the other, is serious and honest. Both did their homework very carefully. For one, there was no dissonance, everything fell rather nicely into his orientation. For the other, very little fit; the review was understandably negative.

What March proposes as a useful counter-balancing bias to the Western rational one is very appealing to those of us who see grave limits to excessive uses of the latter, "... the deliberate, temporary relaxation of rules in order to explore the possibility of alternative rules."[23] While the trip is filled with adventure and satisfaction, it has its perils, too.

Toward an Ecological Perspective

We have seen that the RDD&E model, indigenous to Western rationalism, is exceedingly useful for producing the tools so often needed in endeavoring to affect constructive change. It is amenable to rigorous analysis and to the formulation of precise ends and means. It serves us rather well when we have a purpose in mind, when we know what it is we want to do or produce.

The responsive view, on the other hand, appears to be useful for preparing the ground of the environment to use the fruits of RDD&E. It is conducive to probes, open-ended inquiry, and the kind of exploratory activities designed more for finding a course of action than for reaffirming directions already perceived. A responsive approach is not instrumental to some external goal;

rather, it is a state of existence. It seeks no condition outside of itself, only an increasingly healthy (not just healthful), satisfying state of being for itself. Consequently, the responsive approach to change should be useful to those in social institutions who wish them to become satisfying workplaces. It is conducive to institutional self-renewal.

But our institutions are not complete unto themselves. They are expected to serve functions for a larger ecosystem, in collaboration with other institutions and, in doing so, to give satisfaction to persons in addition to those who work there. Part of the responsive view is, of course, that creating satisfying workplaces will tend also to create more satisfactory institutions.

However, my earlier argument suggests that a present overload of expectations and functions for schools seriously impairs the prospect of creating fully satisfying workplaces which will become, in turn, highly satisfactory to major segments of the larger society. Even the effective combining of sound RDD&E strategies with a dynamically responsive setting will assist us only a little in achieving the grandiose expectations we have for our schools.

Schoois can be effective in doing only a few things. After all, by the age of thirteen, children have spent a little less than 7 percent of their total lives in schools; by the age of seventeen, only about 8.6 percent. In the United States, on reaching seventeen, young people have spent about 9 percent of their lives before a television set, some of it at a very early, impressionable age. In spite of this limited, shared role, we still expect the schools to provide for universal literacy, prepare for more schooling, provide for entry into the work force, inculcate certain ideologies, and develop a staggering array of personal traits. Meanwhile, we blame the school both for contributing to social and economic malaise and for reflecting too well the malaise of our times. Let us lower our sights. Better, let us allocate to

schools a relatively limited array of functions they might best perform.

Let me repeat my concern about the improvement of education in countries with rather fully developed educational systems. They have become accustomed to responding to need with "more" – more of that which appears to have worked in the past. I have endeavored to explain why this galvanic response is not accompanied by effects and satisfaction commensurate with concern and effort. A relatively short and intensive period of attention to reform, usually rather well supported financially, tends to be followed by a period of increased dissatisfaction. Part of the problem lies in the fact that, in almost all areas of human effort, the ratio between effort and return appears to decline as the enterprise reaches more and more sophisticated levels of development. This is true in teaching. For example, early in the teaching of a second language, students appear to make phenomenal progress and are highly motivated. Later, a great deal of teaching and learning effort seems to produce relatively little gain. Only part of the answer is to try harder. More promising are efforts to introduce alternative modes of teaching and learning, to try fresh alternatives.

This is essentially what I am proposing with respect to the whole of the educational system. By the time Canada, Australia, the United States, or any other country with comprehensive educational systems, had moved from universal primary education to universal secondary schooling, the surrounding society had vastly changed. For example, the family is no longer the stable unit it once was; at least one parent at home is much less common than it was a generation or two ago. Anonymity in one's community is now commonplace. Requirements for satisfactory entry into the workplace are vastly diversified. Although the demand and the opportunity for tertiary education have increased, the formerly accepted principles regarding the strong

positive relationship between financial return and more education are being questioned. A job merely as a means to other things no longer has the appeal it once offered. People want satisfying work; some people would rather be unemployed than work at what bores them.

In the United States, a quiet revolution of great educational significance has taken place. In 1950, about 4 percent of the homes contained television sets. Today, the figure has jumped to over 95-percent, many homes have three sets, and it is estimated that home-viewing occupies about six hours daily. And yet, we scarcely have considered television from an educational point of view. Parents are quick to condemn the contents of a school textbook, but are slow to question what their children view on television at a tender age. Television is still regarded as entertainment and is credited or blamed for little, even though it may be influencing our children more than does school.

What this suggests is the need for an ecological approach to thinking, planning, and acting in regard to education. We must wake up to the fact that school is only one of many actual or potential educational forces in a developed society.[24] Instead of crushing the institution of schooling under the burden of responsibility for all of our educational goals, let us raise the level of our imaginations so as to envision how other agencies might carry some of this load. Let us consider, also, the possibility of creating other institutions if our appraisals reveal gaps and whether there are important functions to be performed by new alliances of potentially educative agencies. The challenge becomes one of viewing each educational institution as a responsive unit in a healthy ecosystem of interdependent institutions, each sharing a part of the total array of functions to be performed.

Two alternative educational scenarios come readily to mind. There is no reason why both could not be played out side by side as appropriate to community dissimilarities and preferences. One

approach calls for expanding the scope of school as a six-hour-a-day institution to a twenty-four-hour concept embracing coordinating virtually all of the resources available and, in addition, extending its service-to all ages and many more social services. The other calls for a systemic interrelating of all educational and potentially educative institutions with school as we know it serving as only one, with its functions precisely and discretely defined. My guess is that both scenarios will be played out in various ways during coming years.

In general, I favor the second, although it probably is not viable in some places, perhaps not in rural ones. I shall not go into all my reasons but a few examples help. In spite of many exuberant claims for the success of functions added to schools in recent years, my appraisals lead me to doubts and questions. Children need to be fed and transported and so schools have gone into the restaurant and transportation business. In colleges and universities, bookstores frequently look more like supermarkets, pharmacies, and clothing stores. All of these are under the general administration of academic officials. I am not denying the need for these resources, but I would leave them entirely to private enterprise or other agencies. Frankly, it bothers me when school principals or headmasters spend most of their time managing these businesses instead of directing their attention to what once was a more centrally educational endeavor.

Moving closer to the academic, I question the effectiveness of schools in a great deal of what goes on in vocational training. The training function could be more effectively undertaken by business and industry or by new institutions intermediately located between school and the world of work. A good education prepares for work as well as for more education, but training prepares for very little. I fully realize that my remarks here will be disagreeable to many educators. But there is still plenty for them to do in the academic realm and the more fundamentally

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educative aspects of career education. I suggest, also, that school has endeavored to replace the home in realms where the latter often has been too ready to accede and the former too ready to take over. Early childhood education programs, for example, often pay precious little attention to the markedly differing roles played by various kinds of homes in the educative process. Some children need what good early schooling programs provide; others would be much better off remaining for several additional years at home. The perspective I am suggesting might result in more schools asking what would be best for the child instead of fussing about whether the child is ready for what school already has planned for all.

In an ecological approach to education, I envision a much more significant role for the home in lifelong education for the entire family. There are many arguments for this: For example, we do not yet have any reasonably adequate substitute for home and family and the advance of modern technology for educational purposes is likely to occur much more rapidly in the large market of home than in the more limited market of the school. (This has been the history of radio and television, although that history is far more barren of substance than it would have been had we more adequately appreciated the educational potentialities of these media.) The home as a learning center for all ages also will reduce automobile traffic, pollution, and the demand for energy resources. It might even stabilize and reduce that alarming breakup of homes which is contributing so pervasively to general malaise in our society and incredible loneliness for millions.

Let me give just one example which is now clearly on the horizon. The same principles that produced the long-playing record and made possible uninterrupted home concerts have now been applied to the video-cassette. It is now possible to provide a visual sound program of twenty-six hours on a one-hour cassette inserted into a adapted television terminal. Imagine the possi-

bilities of fifty-two one-half-hour lessons in any subject on a single tape viewed on the family television set. Illiterate adults ashamed to go to schools with young children could learn to read in their homes; an entire family might use a program on ethics and morals to address subjects which parents and children normally have difficulty discussing. Just beyond this development is a home-based computer terminal providing films, filmstrips, television, radio, self-testing capability, and regular print-outs of all cultural and educational activities and resources available in a community at any given moment.

However, these details — not figments of my imagination but presently or potentially available — are secondary to my central message. We must endeavor to shake ourselves loose from the limited models of education, defined to mean schooling, which have guided us in the past. This is not easy. Why change what has proved successful in the past? The history books are replete with the sad stories of long-gone societies which failed to develop self-renewing capability. Many people who are well established in the existing structures will be threatened by what I say and they already are bracing their feet in resistance. They fail to realize that an approach which increases the educative character of our society also provides fresh opportunities for more satisfying work for a wider range of would-be educators.

Most of what I am suggesting lies beyond the authority of those who manage or function in any single institution and, therefore, cannot be achieved through either of the two views of change and improvement described and contrasted earlier in this paper. The task calls for imaginative long-term policy planning in which citizens throughout the nation should be very much involved. Radio and television would have much to gain, in the long run, by providing the means for a national dialogue about the aims of education and the functions of schooling.

One implication of my remarks is that there are far more
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important educational matters to challenge the citizenry than becoming participants in the daily details of keeping school. For my part, I am quite content to let teachers manage the little bit of education children get in school. I would rather not have my neighbor messing about there, either. From my perspective, the teacher must be held responsible and accountable for *instructional* decisions. I know to whom to complain when I am unhappy with what goes on in the classroom and where to find her or him.

Today, in a developed country, with schools overloaded and other educational possibilities scarcely tapped, I want to participate with my neighbors in dialogue, decisions, and action in creating the educative society we could have, the educative society conceived by the Greeks for only a few but today potentially available for all of us. Unless we move our thinking above those daily preoccupations of managing bureaucracies, struggling to place one interest group over another, seeking to impose our wills on others, and defending our own little bits of scruffy turf, that sad line will ring once more in our ears:

> Of all the words of tongue and pen
> The saddest are these, it might have been!

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