This paper describes the science of managed change and how this technique can be applied to educational situations. It also points out current educational problems to which this science of change should be applied. The initial step of a managed change in a client system is the examination of the present state of affairs and an analysis of possible "driving" and "restraining" forces. The establishment of a relationship of mutual respect between change agent and client system is an important next step. After a successful relationship has been established, the third step involves collecting information to clarify and diagnose the client system's problems, examining alternative routes and goals, establishing goals and intentions of action, and transforming intentions into actual change efforts. Concluding steps involve stabilizing the change and withdrawal of the change agent. An example of such planned change is the performance contract with Behavioral Research Laboratories to run Banneker Elementary School in Gary, Indiana. This change is analyzed in terms of the steps outlined above. (RT)
HOW TO IMPLEMENT CHANGE
A Position Paper

Presented by
Clyde W. Hall
Savannah State College
Savannah, Georgia

National Workshop on Comprehensive Vocational Education Development and Utilization
June 15-17, 1971
Washington, D. C.
The world in which we live is one swept by a wind of change. The rapidity of this change can be witnessed in all aspects of our daily lives from that of the weather which is as old as mankind to the most advanced stages of man's technological conquest of outer space. This kind of changing society demands changes in people and forces them to acquire a facility for change if they are to live healthy and productive lives. In order for one to develop this facility for change, he must actively engage in change efforts directed toward himself and his material, educational, social and spiritual environment.

Candidly speaking, the pressure of change is forcing the educational institutions of this nation to redefine their goals and change their methods of achieving these goals. No longer can one think of the educational process as a means of transmitting and preparing one for the constant things of life, but rather as a medium which prepares one for a society characterized by fluidity. Nothing is static; therefore, change must be a part of the educational process.

Many times educators recognize the need for changes and introduce them rapidly without making the necessary preparation for their introduction. These kinds of changes are initiated with the assumption that by the adoption of change the task is finished. Usually, unplanned changes, regardless how worthy they may be, have great potential for failure and produce resistance to their acceptable adoption. The educator must apply to his change process the same scientific procedure that the psychiatrist does when he is attempting to make mental changes in the individual.
Science has been rightly called the most powerful force moving in the modern world. As a method of inquiry, it is man's most reliable source of knowledge about his environment and himself. Experimental in temper and scornful alike of both sacred tradition and temporal authority, it has moved triumphantly during the past four and a half centuries from conquest to conquest. Beginning its revolutionary career in the sphere of astronomy, it has left its mark on every field of thought. It has penetrated to some degree, though by no means equally, all departments of life and overthrown countless ideas and customs hallowed by time. Pointedly, the modern application of scientific acumen can lead to the effective implementation of legislated change in all spheres of human endeavor, and especially in education.

In this paper attention will be given to the science of managed change and how this technique can be applied to educational situations. Attention also will be given to current educational problems to which this science of change should be applied.

SCIENCE OF PLANNED CHANGE

Concepts of Change

What do we mean by "Change"? Funk and Wagnalls Standard Dictionary of the English Language defines change as a "cause to vary or become different in appearance, form or nature" which implies to make other than the way it was through transforming, transposing, converting or altering. Change distinctly denotes the making of a thing into something other than what it has been in some degree.

There are a variety of changes which may take place in a dynamic society. Some of these may be short or long term, spontaneous or planned, controlled or uncontrolled, and may take place in an individual, group, institution, community, state, nation or continent. For example, a sudden earthquake
may violently alter temporarily or permanently the behavioral characteristics of an individual. The passing of time modifies the strata of the earth and creates an evolution in animal and plant life that relates to changing environmental conditions. Man, for certain specific reasons, can and does consciously induce change in people, institutions and his physical environment.

Mankind, throughout the ages, has been cognizant of the importance of understanding and guiding changes which will affect his well being. The philosophers of ancient Greece and the sages of India and China sought tirelessly to prescribe practical solutions to the preparation for and the guiding of changes which mankind would eventually encounter. During the Dark Ages man sought preparation for and technique to cause changes through theological, rather philosophical or scientific means. Modern man has recognized that this problem requires the same scientific approach he uses to effectuate other desirable aspects of his life and has come up with what is called "legislated, managed or planned change."

This type of change "originates in a decision to make a deliberate effort to improve a system and to obtain the help of an outside agent in making this improvement." This approach requires the definite identification and isolation of the problem, proceeds through a series of activities directed toward finding solution to the problem, and ends with the diffusion of the solution on the target population. In other words, where a deliberate attempt is made to change a situation, the course of this change can be charted, analyzed, evaluated and stabilized.

Change Agent and Client System

In a managed change process an outside agent is usually involved which is referred to as a "change agent" and the population with which it works is called a "client system."
The change agent may be a practitioner who is able to open up channels of communications that were previously closed between two persons, or a highly organized professional organization working with a large industrial complex on changes in personnel organization in order to increase production and profits. A change agent may be an individual or group of individuals and the client system may be an individual, small group, institution, organization or community. A professional change agent may be a teacher, psychiatrist, psychologist, social worker, human relation expert, marriage counselor, public administration consultant, community-council organizer, university, etc. depending upon the type of client system in which a change is being induced.

Stages of Planned Change

It is generally recognized that managed change proceeds through several distinct stages from beginning to end. In 1951, Kurt Lewin suggested a three-phase change cycle consisting of (1) unfreezing of present situation, (2) moving to a new condition, and (3) refreezing or stabilizing the changed situation.

Lippitt, et. al. several years later enlarged this cycle to a five-step process encompassing: (1) the development of a need for change (unfreezing), (2) establishment of a change relationship, (3) working toward change (moving), (4) generalization and stabilization of change (freezing), and (5) achieving terminal relationship.

Daniel H. Jenkins identified four general steps which must be taken if the desired change is to be effectuated in a client system, and he classified these as: (1) analyzing the present situation, (2) determining the changes which are required, (3) making the changes indicated by the analysis of the situation, and (4) stabilizing the new situation so that it will be maintained.
Whether the planned change process is recognized as one having three, four, or five stages, the basic ingredients of this process are: (1) the recognition of the need for change, (2) applying an appropriate treatment to the situation to cause the change and (3) stabilizing the results of change. This paper will focus on these areas of "planned change."

**Recognition of the Need for Change**

The initial step of a managed change in a client system is the examination of the present state of affairs. This may be done by the change agent through some type of survey or by a self-study conducted formally or informally by client system. There must be an identification and isolation of the problems of client system so a managed change can be planned and executed.

Two of the key questions which should be asked during this analysis are: (1) "What are the sources of difficulty?" and (2) "What are the forces preventing the changes from occurring?" One must recognize that there are usually present in each client system two types of forces which are referred to as "driving or changing forces" and "restraining forces." The former are those which tend to initiate a change and keep it going while the latter only prevent or retard movement toward change.

Jenkins in his illustration of engineering a change from teacher-centered method of teaching to teacher-pupil planning method in a school setting cited the following examples of possible driving and restraining forces present in an educational client system:

**Driving forces:** (a) a generally progressive philosophy of education may be accepted by a large number of teachers; (b) the teachers want to train students in the ways of living as citizens in a democracy; (c) the pupils desire some freedom in making decisions.

**Restraining forces:** (a) many teachers lack training and skill in methods of planning cooperatively with pupils; (b) learning the present methods and experi-
menting with the "unknown" makes teachers like anyone else, feel insecure; (c) criticism may be directed against the school by the more conservative parents; (d) pupils have little skill in planning together.

J. Lloyd Trump concluded that the following restraining forces exist in educational institutions and should be carefully appraised when initiating educational changes:

Teachers feel deep emotional attachment to their personal responsibility for pupils' learning outcomes. Thus, they hesitate to allow instructional technology, teacher assistants or other teachers to come between them and their students...

Training and habit accustom teachers to certain patterns of teaching and evaluating, so they hesitate to change their methods, or the size of student groups they confront, for fear of personal "inadequacy" or, ... the fear that their students may learn less...

Some teachers are psychologically reinforced by security of the self-contained classroom...

Teachers bear heavy work loads ... Those who propose change must not add to this work load if they expect sustained interest on the part of teachers...

Parents and their children feel reasonably secure in today's schools. Parents understand most school practices since those practices have remained quite constant...

Taxpayers are interested only in tax reduction ... They tend to resist educational change because their experience is that changes cost additional money.

It goes without saying that one must also recognize in a scholastic client system that the administrator can be either a driving force and/or a restraining force. School administrators generally are anxious to present to the public a smoothly run organization which has come about by systematizing and stabilizing as much of their jobs as possible. Therefore, they may be hesitant to initiate or support changes which will damage this image regardless of how worthy they may be. In such cases, the administrators serve as restraining forces. However, some administrators
may be pointedly interested in changes which will improve their image and will use their influence to get these implemented in which case they become driving forces.

In addition to driving and restraining forces in a client system, there may be present the third force, which is referred to as interference. This is not an opposing force, but a competing one. The client system would like to make the change, but there is present something which is more important. For example, a proposal to build a new school was defeated, not because of opposition to the need for the school, but because of the need for an expressway between the inner city and suburbia for commuting workers was more pressing. Lippitt, et. al. stated, "Interference is most likely to be a problem in cases where the client system has inadequate time, money, or energy."

All types of forces in a client system must be cataloged and examined in terms of their magnitude and classification so appropriate action can be selected to bring about the desired change. This action may be the increasing of driving forces, or the decreasing of the restraining forces, or both.

A client system may determine the need for planned change in one of several ways. An individual who is in physical pain seeks a physician, a change agent, to cause a change in his feelings. A corporation whose production efficiency is far below a competitive concern may be forced to employ an unbiased time and motion organization to improve its operation in order to remain in business. A school system may be dissatisfied with the adaptability of the curriculum of its schools to the employment needs of its young population and, as a consequence, may seek advice from local employers concerning the educational needs of their employees. A university located in an economically depressed area of a city, upon recognizing the
inability of residents of the area to succeed in school, may establish
development centers to effectuate changes in the study habits of
the local population. A school system may ask a change agent, in this
case, a local church group to make contact with parents concerning the
out-of-school behavior of its students.

The need for change may originate with the client system, or may be
recognized by an outside agency, or may be stimulated by the third agent.
Nevertheless, the need for change arises out of some kind of difficulty
in which the client system finds itself and this difficulty must be
recognized and identified.

**Some Difficulties of a Client System**

It must remembered, too, that the need for change in a client system
may be due to: (1) a faulty power structure, (2) improper use of internal
energy, (3) ineffective communication system, and (4) improper relation-
ship of client system with environment. These are by no means the only
sources of difficulty in a client system, but probably are by far the
ones which appear most frequently.

The base of power may be so structured that the concentration of
power is at one or two centers and no avenues are provided for input of
authority at other points. A change agent probably could activate a
change which would create a broader base of authority in terms of
representation and remove this difficulty. For example, this appears
to be one of the great difficulties of the inner-city schools today. The
authority for running these schools is usually vested in a remote place
with very little input from the local level.

The non-productive use of energies of sub-parts of a client system
such as the displacement of energies in irrelevant activities and the
investment of energies in negative producing efforts can create confusion
and conflict. A good example of this is the great dissatisfaction, found
among teachers, due to the many perfunctory activities in which they must engage that do not relate directly to the learning process in children, e.g. selling and collecting tickets at football games, collecting lunch money, and filling out a multitude of forms. Educational systems are beginning to witness teachers seeking change agents, such as organized labor and professional organizations to help alleviate this difficulty.

Many times a sub-part of a client system is fully aware of its difficulty, but the client system itself may not possess the machinery or techniques for the sub-part to make its wishes known to all parts of the client system. Even though its intentions are probably good, they cannot be communicated effectively because of ineffective communication techniques of client system. Sometimes, inefficiency in upward and downward communication in a hierarchical organization is the key to problems.

The relationship between the client system and its environment must be realistic, if the system wishes to avoid difficulty. Often there exists a discrepancy between the environment, as it really exists and as it is perceived by the client system, or vice versa. If the client system isolates itself from its environment and is incapable of or refuses to understand messages coming from its environment, or vice versa, there is a need for a change. I believe most laymen would agree that higher education in America today is faced with this dilemma. It is in this context that one also must keep in mind the fact that anxiety, frustration and feelings of insecurity in client system will be sources of difficulty, and that these deterrent forces must be dealt with positively.

Establishing A Relationship

When establishing a relationship between the change agent and the client system, special effort must be put forth to see to it that this
relationship is a healthy one and that it has the necessary ingredients for success. It makes no difference what type of change agent is to be used; initially, the client system must demonstrate its readiness to establish a rapport with such a change agent, and must have the feeling that the agent has the necessary relevancy and competency to cause desired change. The change agent cannot expect to force its wishes on the client system and expect a welcome reception. Neither can the client system expect the change agent to be responsible totally for the change. There must be mutual respect and acceptance by both parties, if the change is to materialize.

The initial contact of change agent with the client system should be a wholesome one, and it must convey the idea that the agent's motives are meritorious. All questions concerning why the change agent wants to help must be answered positively and clearly. The change agent should attempt to introduce changes under positive conditions and try to avoid early failures. A realistic time schedule should be established which will provide ample time for the desired change to take place.

From the outset, the change agent must be aware of the fact that there may be a particular individual or a group of individuals within the client system, because of vested interest and the threat which proposed change will cause, who will serve to destroy the relationship between the agent and the client system.

The relationship between the change agent and the administrator in an educational client system should be one which will promote desired change. Taylor speaks to this subject by saying that the administrator plays a major role in producing constructive change. He establishes a positive climate for change without which a model would not be able to operate. The administrator, while effective in establishing a climate
favorable to change, should not take the role of a change agent. When the administrator tries to move in and out of the role of a change agent, it results in role conflict. Change agents may be from inside or outside the system, but should be someone other than the administrator.

**Working Toward Change**

After a successful relationship has been established between the change agent and client system, the change agent proceeds to the next step of the planned change process. Lippitt, et al. refer to this next step as the "moving step" with three facets.

1. The clarification or diagnosis of client and system's problems.

2. The examination of alternative routes and goals; establishing goals and intentions of action.

3. The transformation of intentions into actual change efforts.

In order to clarify or diagnose the client system's problem adequately, data must be collected and compiled concerning client system. These data may be collected by change agent, outside groups or client system through testing, observations, interviews, questionnaires, outside informants, etc. The important elements in this process are objectivity, reliability, and validity, with special attention given to the accuracy and relevancy of the information to the desired change.

The change agent may diagnose collected information independently or cooperatively with client system and/or in cooperation with other agents or client systems. Regardless of the approach used, the change agent must not proceed on assumptions based on generalities. Such assumptions may encourage change agent to cut short its work and move rapidly in areas of active change efforts which may prove fatal to its process.
Once the information concerning the client system has been collected and analyzed, the machinery for actually making the change must be set in motion. Oftentimes change models are used as the working force in the planned change process. Bob L. Taylor reports of three types of change models which may be used for the introduction of innovations in a client system. These are as follows:

First, social interaction type that introduces innovations to a population whose needs are determined by the initiator. If the receiver reacts positively to the innovation, this starts a series of stages of acceptance or rejection...

Second, the research, development and diffusion type of model concentrates on changes from the perspective of the originator of an innovation who formulated his original problem on the basis of receiver needs ... The initiative ... is taken by those other than the receiver who remains passive.

Third ... the problem-solver types of model is directed toward the involvement of the receiver in solving his own problem.

Although the receiver may be able to create or find suitable solutions to his problem by himself, problem-solver models are primarily concerned with those cases in which outside resources are utilized.

The change agent may divide sub-parts of client system into "buzz" groups and allow each to suggest changes in the areas of identified problem. Once these are collected and tabulated, the results are presented to entire client system for consideration to refine, reject or accept. This type of involvement encourages self improvement.

Systematically, the change agent may canvass the field to see what techniques have been used in other client systems to solve similar problems, and may find it feasible to transplant a successful technique to an involved client system. Whatever techniques or course of action is taken, it is the change agent's responsibility to mobilize the acumen, personnel and whatever else is needed to do the job. The success of
a change agent is measured by the way in which its plans and intentions are transformed into actual achievements.

An important aspect of managed change is the permanency of changes caused by such a system. Many times changes, introduced after much effort, cease to exist after the change agent has been removed. Therefore, it becomes imperative that the managed change process stabilizes whatever changes occur after the termination of change agent relationship. Many times this can be done if the changes are sufficiently publicized and others see the need to adopt them in their client systems. For example, if a school system found others adopting an innovative approach it tried to improve the reading skills of its students, this will encourage the continuation of the practice in the innovating client system.

J. Floyd Trump in his article entitled "Rx Ingredients of Change" prescribed ten specific elements required in a carefully planned change in an educational client system. Of these, six dealt with public relations, such as preparing and distributing brochures, making speeches by knowledgeable people, giving demonstrations by teachers and students using mass media, issuing summary report of changes, and keeping staff members informed.

Whenever possible, all planned changes should be evaluated in terms of the results sought and attained. If a change was initiated to improve the efficiency of something, then some system of evaluation should be included in the plan to see if this happened. Suppose a programmed learning course was initiated to prepare persons for careers in plumbing which was designed to relieve the shortage of qualified plumbers. Products of this system should be required to take licensing examinations to see if they possess the skills of qualified plumbers, and the number
of persons produced by the system should be compared with other training programs in plumbing. If the results of this kind of evaluation are positive, they will stabilize the change and insure its permanency.

**Terminal Relationship**

After the change agent has diagnosed, caused, evaluated and stabilized the desired change in client system, it must have a technique of departing which will not interrupt effected change. It is desirable that the change agent not allow the client system to rely totally upon it during the change process. It should attempt to build into the permanent structure of client system a substitute for change agent which will continue the work of change agent after its departure. However, this does not mean no relationship should ever exists between the two after the termination of active change efforts. This would depend upon how well the internal substitute had developed and the need of client system for continued external support. Sometimes this support may be dispensed through occasional consultation or examination.

**AN ANALYSIS OF A MANAGED CHANGE IN AN EDUCATIONAL SETTING**

An excellent example of a planned change in the educational arena was cited in the June 15, 1971 issue of *Look* Magazine. This situation is analyzed below, according to characteristics of planned change previously discussed in this paper.

**Client System**

Banneker Elementary School  
Gary, Indiana  
Student Population 800

**Change Agent**

Behavioral Research Laboratories, Inc.  
Palo Alto, California
Relationship Between Change Agent and Client System

BRL, a professional-commercial cooperation that was a pioneer in producing programmed textbooks, has been contracted by the school board to run an entire elementary school for a period of three years. BRL pays the salaries of all teachers, custodians, and secretaries, and is also responsible for the cost of insurance premiums, laundry, utilities and educational supplies. It will receive $2400 for each pupil if the experiment is successful, but it must refund the school board all funds if project proves unsuccessful.

Recognition of Need for Change

Traditional public education has failed in the inner-city Banneker Elementary School. Questions such as "Why hasn't this school done a better job?" and "Why do its students go backward rather than forward with every additional year in school?" have been posed. These queries warrant answers and they can only be found in change.

Characteristics of Client System

1. The school ranks 31st among the city's 33 elementary schools in reading and mathematics achievement.
2. Fourth graders scored 3.1 on IQ and basic-skills national tests.
3. Sixth graders scored 4.75 on IQ and basic-skills national tests.

Driving Forces

1. Dr. Gordon L. McAndrew, Superintendent of Schools, wants to try innovative techniques to find solutions to problems in the schools.
2. BRL's performance oriented contract.
3. Students enjoy the program.
4. Parents are very much interested in program.
Restraining Forces

Gary Teachers Union Complains About

1. The teacher-pupil ratio
2. The use of neighborhood women as aids in place of teachers.

Additional complaints centered around the State Superintendent's cutting off aid to the school and the dehumanizing aspects of the program.

Working Toward Change

To make a change in the client system the change agent is breaking from traditional educational methodology. Changes initiated by the change agent to effectuate changes in the achievement of learners in client system are as follows:

1. The school is considered a curriculum center.
2. Instead of teachers, the staff consists of curriculum managers with advanced degrees, assistant curriculum managers who are certified teachers and neighborhood mothers who serve as learning supervisors.
3. There are no grades or classes in traditional sense.
4. Children are tested in mathematics and reading ability and then grouped in class-size units that change regularly according to student's need and ability.
5. Students are constantly reshuffled and each has an individualized schedule.
6. Programmed teaching materials constitute the heart of the curriculum.

Evaluation

Students are tested continuously to measure their achievement and programmed materials are revised as need arises.

Terminal Relationship of Change Agent

Under terms of its contract BRL must turn over operation of program to Gary if it proves successful.
Stabilization

The program is discussed in a national, weekly periodical which gives it wide circulation. Probably because of this publicity other school systems with similar problems will adopt system, and by so doing this will help to stabilize the process flourishing in the Gary School System.

AREAS OF NEEDED EDUCATIONAL CHANGE

Edmund W. Gordon makes some very potent statements concerning educational reform in an article entitled "Decentralization and Educational Reform." Gordon asserts that decentralization and educational reform can be effective only when four pivotal conditions are met. The conditions are the following:

1. The schools must become accountable to the families and the communities served for the extent to which all children achieve specified educational goals.

2. A shift must be made in the assignment of responsibility for success or failure in learning from total weight on the shoulders of the learner to the majority of the weight on the teacher and the school.

3. The educational experience must be made more intellectually, emotionally and socially relevant to the main currents of the child's life.

4. There must be some measure of economic, ethnic, racial and social integration.

Gordon concludes that a central condition for meaningful educational reform in urban public education is that power be established to hold the schools accountable for what they do or fail to do for the children.

In addition to relevancy, accountability, racial integration, and the guaranteed performance mentioned by Gordon, I would like to mention two other aspects of educational reform. They are as follows:
1. There must be an outreach recruiting system for individual students who lack self-initiative. When one is trying to reach persons who do not possess self-motivation which is coupled with anti-establishment behavior, other techniques must be employed.

2. Persons who possess desired performance-based credentials and who work in educational programs for the disadvantaged should receive more pay, e.g. "combat pay," for their services than those doing similar work in advantaged suburban situations.

There exists a need for change in the scheme of the educational enterprise in America. It is evident that institutions of higher learning can play pivotal roles in the enactment of such change. However, if they are to be harbingers of change, they must reflect the spirit of the times. They must, at the outset, consider all members of the community at-large human beings of equal standing. They must revolutionize their curricula and they must become more selective about the type of personnel they channel into teacher training programs. It is the responsibility of institutions of higher learning to instill in prospective teachers the idea that there is merit in being a flexible individual when one considers the serious business of teaching as a life's profession.

There is a concomitant relationship between an institution of higher learning and the system it serves. This relationship can be a positive one when the institution is sincere in helping to raise the lot of its client community. Once there has been a synthesis of opinion on the part of both change agent and the client community, good things will result. Thus, there will be a moving force that is distinguishable and, as a result, cognitive mobility will be beneficial and binding to all parties concerned. Moreover, the change process will stabilize itself and will become frozen, enabling the client community to become
SUMMARY

In explicating the stated topic, I have defined, cited reasons for, given random illustrations, and posed several frameworks which might be utilized to bring about change in American education. It is logical to assert that each practitioner envisions his own pattern which he might use to bring about legislated or managed change. However, it must be noted that one has to have a crystal-clear knowledge of the functions of both the change agent and the client system it serves. Moreover, one must be aware of the stages that make up the spectrum of planned change. He must also be able to recognize a need for change, as well as possess the leadership that can spur the legislation of such a process.

Before one can offer either a proposition of fact or policy concerning managed change, he must study the whole gamut of educational and managerial policies, pilot studies, case studies, salient points, successes and failures that relate to such an undertaking. He must not want to be a pioneer just for the sake of being an innovator; he must be mindful that such action should bring about an educational posture that will be unique and applicable in a given context. One who has hopes of legislating change must read and synthesize the findings of the noted practitioners in this new field. After serious inquiry and cogitation, he must then draw definitive analogies and inject his own point of view in a positive and documented manner.

Qualitatively and quantitatively, one must think of the process of legislating change as a science of the first order, which has immeasurable relevance in this advanced age of cybernetics. In
considering quality, the practitioner must be mindful that he should make a presentation that has empirical and long-range results. On the other hand, quantity refers to the wide range of forces that would be reached as a result of legislated change.

I think the following excerpt from Edward Joseph Shohen, Jr.'s "Education in Megalopolis" fittingly gives an encompassing view of the legislating of change:

...if education is to prepare children for responsible adulthood in a world of change, for a tomorrow that has less and less in common with yesterday---in short, for the megalopolis---then it cannot simply transmit to a new generation the traditional culture. It is by no means true that the traditional culture has entirely lost its viability and worth. But it is profoundly true that the conditions have radically altered that once made the passing on of our cultural heritage the fundament of effective schooling.

SELECTED BIBLIOGRAPHY


