

TACTICS FOR CHANGE

By Robert L. Halfman, M. L. A. MacVicar, W. T. Martin,
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FOREWORD

It is difficult to report on some kinds of knowledge. For example, how do you summarize in useful form the wealth of lore and insight that has come from many recent attempts to install educational innovations in colleges and universities? In practice, innovation is more an art than a science, and the academic innovator must be at least as much a politician as a scholar. Persons initially opposed to the birth of a new program are often unmoved by logical argument and studied rationality. How then can passage to final acceptance be described as a logically rational process? We have concluded that it cannot.

In the first of these papers we describe the process of educational innovation in a “how-to-do-it” format similar to that of guides for the home handyman. However, the hoped-for result is insight rather than prescribed action. After our paper was completed, Dr. Laura Bornholdt of the Danforth Foundation referred us to a classic treatment of a similar theme by F.M. Cornford. We were delighted to discover that this accomplished Cambridge don had also adopted the “handbook” format for his description of British academic politics at the turn of the century. Like us, he counted on amusement to promote the acceptance of difficult truths. With the kind permission of his publisher we have included Mr. Cornford’s handbook with our own.*

Edwin F. Taylor
April, 1972

And it ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain of success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new. This coolness arises partly from fear of the opponents, who have the laws on their side, and partly from the incredulity of men, who do not readily believe in new things until they have had a long experience with them. Thus it happens that whenever those who are hostile have the opportunity to attack they do it like partisans, whilst the others defend lukewarmly....

Machiavelli (1513)

* “Microcosmographia Academica – Being A Guide for the Young Academic Politician” by F. M. Cornford (Bowes & Bowes, Cambridge, originally published in 1908. Online in html form at <http://www.cs.kent.ac.uk/people/staff/iau/cornford/cornford.html> and in pdf form (150 KB) at <http://tcode.auckland.ac.nz/~mark/microcosmographia.pdf> .

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INTRODUCTION

“Probably more worthless nonsense is written about education than about any other subject except religion.”¹ Therefore when talking about education (or religion) be brief. If there is nothing in what you say, the reader can absorb nothing with economy of effort. If you are profound, the perceptive reader will recognize germinating truth and transplant it to his own experience. *A sower went forth to sow. . . . He who has ears to hear, let him hear!*

Here are two checklists: (1) difficulties encountered by education innovations and (2) tactics that faculty (and in some cases administrators) may use to aid establishment, survival, and dissemination of education change in the face of difficulties. Neither list is sufficient alone: enumerating difficulties can lead to impotence and cynicism; tactics by themselves do not aid in recognizing the particular human, professional, and institutional arena in which the game is played out.

We assume in this article that the innovation you are pushing is worthy of adoption and survival, so that objections to it are largely defensive. Most changes, in fact, are not worthy; one success in five experiments is a good long-term survival rate for education changes. We are as perplexed as everyone else about how to evaluate innovations in order to select those that deserve to live. Most existing methods of evaluation enforce the presumptions of the *status quo* (“How well do students do on the old examinations?”), or assume the result, or ignore the social context, or embody a transient fad, or serve as a vehicle for the world view of the critic. For the present we struggle along with whatever evaluation methods we can find while working hard (as many others are doing) on further and better ways to build effective evaluation into education experiments. At present we do not know enough to attempt a (third) checklist in this crucial area.

The assumption here that the proposed innovation is a good one misrepresents the actual process of invention and adoption, in which an initial bright idea is progressively developed and modified as it spreads from the originator through adjacent sympathetic groups into the world of indifference and opposition. At every stage both hostility and sympathetic attention cause continuous metamorphosis in the form of the innovation and in the justification for its adoption and expansion. Thus, in practice, each criticism of a proposed program must be looked at carefully to see in what way the substance may be used to improve the proposal or the method of presenting it. Do not wait for an *innovation expert* to tell you what to do—there aren’t any—but make sure people you regard as reasonable agree that you have a good thing.

The items on these checklists summarize the experience of numerous people who have worked on education reform at MIT and at other institutions. Our collective experience with state-supported universities is limited, so that such difficulties as *line-item budgeting* (which can abort change through the rigidities of administration review and legislative approval) will not appear. We welcome additions to the lists that can redress the imbalance.

It will be obvious that the authors of this piece are committed to working within institutions to change them. None of the suggested tactics are designed to destroy or circumvent due process, although many do encourage a reinterpretation of which process owns our allegiance. The goal is to skew the system toward greater humanity, quality, efficiency, and style.

What use can one make of these lists? As in the case of summary statements in religion, uncritical adoption can be more dangerous than rejection. Inventing and installing an innovation is like carrying a double bed mattress up a narrow staircase. In the midst of our own struggles we have often been helped by an outsider who said, in effect, "Have you thought about this?". The new idea or insight has sometimes served to unblock the way by giving us a new handle on the mattress or a wider stairway. The items on these lists are presented to you for a similar purpose: you may recognize a universal obstacle in the particular local difficulty you face or find a range of tactics suitable to your situation.

So, assuming that a worthy innovation exists, what narrow turnings keep it blocked and how may they be navigated?

DIFFICULTIES OF CHANGE

1. **THE ENTREPRENEUR EFFECT:** Education innovations are often due to the initiative of one person or a very few individuals. As long as that individual or group keeps working on it, the innovation survives. When they stop, it dies.
2. **THE ISOLATION-OF-INFECTION EFFECT:** Related to the entrepreneur effect, this reflects the view of the people in the community about the innovation. By calling it *Joe's new program*, one is excused from becoming involved and may go about one's regular business without seriously considering the innovation.
3. **THE "STANDARDS" STANDARD:** An innovation encounters opposition at exactly that level of the hierarchy (whether traveling upward or downward) at which mention is first made of *maintaining standards*. Blessed are the formula pietists, for they are untroubled by questions of goodness, virtue, or worth.
4. **THE NIH (NOT INVENTED HERE) SYNDROME:** If we have not invented the innovation we cannot claim credit for it and thus fail to gain the prestige that accompanies something new. This pride is a terribly effective block to change, since, as most observers agree, "in most cases the initiation for change in an educational system appears to come from outside."²
5. **THE THREATENED-DEPARTMENT EFFECT:** Many changes possible within a department are suddenly not possible if cooperation with other departments is necessary or if partial surrender of autonomy, certification power, or professionalization is implied.
6. **THE OTHER-DISCIPLINE EFFECT:** Again and again those proposing change hear, "That would be fine in department X, but not in ours."
7. **THE NARROWER THE NEEDLE THE MORE AQUILINE THE NOSE:** The more specialized and abstract my discipline, the more I look down my nose at others:

Theoretical mathematicians look down on applied mathematicians.
All mathematicians look down on all physicists.
Theoretical physicists look down on experimental physicists.
All physicists look down on all chemists.

Theoretical chemists look down on experimental chemists.
All chemists look down on all biologists.
Microbiologists look down on descriptive biologists.
All physical and life scientists look down on all social scientists.
All social scientists look down on all humanists.

- In such a structure, how can a simple change be made simply for the good of humanity?
8. THE TYRANNY OF THE RUBRIC: Any discussion of education must take place in the education department; psychologists are more interested in implanting electrodes than in examining the results of education change; mathematicians own mathematics; and no nonphysicist (defined in terms of degrees earned) may teach physics.
 9. THE PRIMA FACIE AFFRONT: Whereas I have spent a significant fraction of my professional life perfecting my lectures and otherwise investing conscientiously in the *status quo*, therefore to suggest an alternative is, by definition, to attack me.
 10. THE PRIMA DONNA AFFECT (SIC): The crucial features of a new format of teaching, necessary for its success, must be modified for my use because my methods and viewpoint are unique, my students are special, and, generally, no one can tell me how to teach my course.
 11. THE EVIL-OTHER DISTEMPER: “Personally I’m all for what you propose, but *they* will never allow it. The department/ the faculty/ the accrediting association/ the professional society/ the legislature/ the alumni will not stand for it.”
 12. “WE TRIED IT AND IT DIDN’T WORK”: Ten years ago, twenty years ago, thirty years ago, when the world was different, somebody tried something not really the same. The confusion between “we didn’t do it” and “it can’t be done” has deep Freudian significance. Let no man admit to impotence; it is un-American.
 13. “WE ARE ALREADY DOING IT”: Our present program has features to which one can apply terms similar to those describing the proposed innovation. (On closer inspection our present program has none of the key attributes of the proposal.)
 14. “IT COSTS TOO MUCH IN FACULTY TIME”: Any change must cross a threshold of planning and initial dislocation. A happy later life is not visible because attention is riveted on the trauma of birth.
 15. “IT’S FINE BUT IT ISN’T ACADEMIC”: Some changes alter the meaning of intellectuality, so are excluded by definition.
 16. “LOOK WHAT IT WILL COST US IF WE ARE SUCCESSFUL!”: The students may be able to leave in three years instead of four—possibly even in two and a half—alive and well and living in Paris. Then what happens to the justification for my *full-time equivalent* faculty that allowed the increase in department size?
 17. THE MISSIONARY SYNDROME: Every innovation is justified in part by saying that it will be an example for others to follow. In fact, change rarely occurs merely because of the presence of an example.
 18. THE PRESUMPTION OF GUILT: “All who raise objection to or suggest modification of my proposal are thereby proved to be against all change and have betrayed my goodwill and that of the Almighty.” This is only one of many ways that an innovator can be offensive; here is another:
 19. IF YOU SPEAK ENGLISH LOUDLY ENOUGH, ANY FOREIGNER CAN UNDERSTAND: Professionals talk jargon to one another, and meaning is carried in a

- wealth of specialized terms. When colleagues do not understand my proposal, I take it as an objection and state my case again in the same way, only louder.
20. **THE FLOOR-AND-CEILING EFFECT:** In an institution that sees itself as among the best, all faculty members are assumed to meet minimum standards of competence (the floor). In these cases it is possible to allow considerable individual freedom to experiment, leading occasionally to outstanding results (the high ceiling). In less confident institutions where the floor is kept high by regulation or prescription of procedures, the ceiling for possible individual experiment is often kept confiningly low, even for persons who are outstanding.
 21. **NOTHING CAN BE DONE FOR THE FIRST TIME:** The uncertainties of change are too scary for some institutions, leading to a demand for proof of the excellence of a proposed innovation before installation. “What are the (exhaustively detailed, please) statistics on that experiment at other schools?” (What, pray, would such professors say if it were suggested that their own research output should be guaranteed by prior confirmation of other workers? Can ultimate danger really reside in 30 students and some competent, attentive faculty members organizing themselves in a new way in which they are deeply engrossed?)
 22. **THE PRESIDENTIAL PRIMARY GAUNTLET:** The proposal must pass exhaustingly through six levels of committees and boards, successfully at each stage, before the innovators can turn attention to the real job they have set themselves.
 23. **THE MUSCLE-BOUND FACULTY:** The faculty as a whole has all of the brakes and none of the engines. There will be a clear majority against anything you can mention.
 24. **THE TALL TREE ATTRACTS LIGHTNING:** Influential professors often feel an obligation to have doubts for the rest of the faculty. A resulting fire that spreads to the underbrush may prove impossible to smother.
 25. **THE OVERLOADED BANDWAGON:** “Since it is good, let’s all do it together.” The opposition rides the brakes while the innovators goad the horses.
 26. **THE SPECIAL COMMISSION PLOY:** Really a variation of the isolation-of-infection effect in which all those desiring change are segregated into a group to “study the entire situation thoroughly,” thus ridding the institution temporarily of change-desiring misfits, placing a *misfit* label on the proposed programs, reducing the number of proposals due to in-fighting in the commission, and packaging the result for the back end of the file.
 27. **THE CONQUEROR-OF-CHINA FACTOR:** For centuries China was able to assimilate one set of invaders after another. Academic institutions can swallow innovations, particularly textbooks and curricular materials without a trace. Innovations that survive do so by taking on the rigidities of the host institution.
 28. **THE ANTI-LOGIC EFFECT:** “... educational innovations are almost never installed on their merits.”²

TACTICS FOR CHANGE

So much for some difficulties faced by an education innovation. What tactics can be used to help changes occur and survive? Some of the tactics on the following list are obvious. Others run exactly counter to conventional wisdom on the subject—a fact that recommends these to us, since conventional wisdom has proved barren for so long. They come from our own experience and from close observation of those near us who are educational prime movers on the local, national, and international scenes. Do not be disturbed by the semi-cynical Machiavellian cast of some of the

suggestions; it is due partly to our incurable flippancy and partly to the realities of the cold cruel world.

- A. WHEEL IN A TROJAN MOUSE: Sometimes you have to change everything in order to change anything. More often you can install a small “experiment” that you know will work and use it as a point of student and faculty infection. The Trojan mouse is not a passive example to be ignored but a rallying point and base of operations for a bunch of Greek commandos. A small initial project is easier to staff than a big one, cannot fail loudly, attracts those students with whom it is most likely to succeed, allows entrenched alternatives to die quietly as students vote with their feet, and develops a shadow cabinet of expertise that can install a successful program on a larger scale with minimum fuss later on.
- B. SEDUCE CO-CONSPIRATORS: Success of an innovation requires the hard work of first-rate men and women. Never ask for a commitment, particularly in advance. Invite a person to consult with others on the design and installation of the innovation. His commitment will automatically follow his contribution to the (now his) program.
- C. SUPPRESS SURPRISE: Never cease checking, checking, checking with all whose acquiescence is necessary to the future growth of an innovation. Bring them up to date while asking advice on the latest developments. When some other staff member complains about you, his superior or colleague must feel on the inside, in the know, and must not be surprised.
- D. DON'T ASK PERMISSION: If a permission-giver is good, include him in the project or on the committee that plans or supervises it. Otherwise appear before all committees and officials as information-purveyor and advice-seeker only. When permission is absolutely necessary, there are usually alternative sources for that permission: choose your friends. A more subtle but equally important point: A college professor, even of junior rank, has a good deal of autonomy and prerogative that he doesn't use, and in a real sense these powers do not exist except when he is exploring their boundaries. What keeps you from DOING IT yourself while checking with (*not* asking permission of) those indirectly affected?
- E. ASSUME UNIVERSAL VIRTUE: You never know who your friends are until the crunch. In the meantime (and in spite of the pessimistic cast of our checklist of difficulties) elicit help by presuming cooperativeness and good heart on the part of everyone.
- F. TAKE THE COLLEGE PURPOSE SERIOUSLY: Always a disturbing tactic, but sure to elicit change if pursued vigorously. How can the traditional purpose be put to work in the obviously new circumstance?
- G. PLAY A POSITIVE SUM GAME: It is often possible for every participant in a game to gain by mutual accommodation. Even when resources are scarce and the size of the total pie appears fixed, close examination may reveal that some slices represent nonconsumables that may be shared by two or many participants. If you organize the game, look carefully at what each player perceives (or should perceive) to be a winning score and see that nobody loses.
- H. PRY WITH THE POWER OF A PITTANCE: The threshold for change is sometimes surprisingly low. A little money for a student desk in a laboratory, for an easy chair in the lounge, or for some Xerox of student papers shows your good faith and can get the innovation moving quickly. No matter that everyone recognizes a later expansion will require departmental funds: the chairman is so relieved to have one person enter his office who does not want money right now that he will let tomorrow's worries take care of themselves. *Never* allot a limited fund to faculty salaries.
- I. MANUFACTURE A MNEAT MNEMONIC: Academic man, like Everyman, lives by labels. As the commercial world knows, finding the best name is often the single most difficult

creative part of introducing a new product. A good label is absolutely essential if funds are to be raised.

- J. BE SPECIFIC BUT DON'T GET CAUGHT IN THE BRIARS: People will accept in practice a proposal they would reject in principle. Often by suggesting procedures one can say more and be less threatening than by discussing generalities. On the other hand, label *all* written statements DRAFT, even the final version. In this way each examiner can feel he influences details and little time is lost wrangling about the wording.
- K. RECAST THE RECOLLECTION: "Do you remember that suggestion you made two years ago?", you say to department head or administrator. "Well, I didn't understand it then; now I do. Here is what you meant. . ." followed by a description of the new innovation.
- L. BE A WOLF IN SHEEPSKIN: Identify an already-established program, title, department, bureau, committee, council, or standing procedure with which the innovation can clothe itself. The exhausting procedure of approval is already completed for the covering activity, requiring further enabling concurrence of only a few key people. Your assumption of the label will, of course, be a fulfillment of its meaning that the originators saw only vaguely.
- M. REMAIN AN ETERNAL EXPERIMENT: Most faculties are open to temporary experiments, limited in scope and duration. Obtain approval for an experimental program that then becomes an organic part of the university.
- N. MOVE THE MIDDLE: In missionary work the preferred first convert is the chief. But the thoughtful middle is indispensable for acceptance and especially for spread and survival of an innovation. Data and conclusions from the experience of others using similar programs elsewhere may actually be useful. Did you know, for example, that there is a national association for the 4-1-4 academic schedule, a plan that releases students and faculty for the one month of January for creative learning and experimental teaching?
- O. ESTABLISH CATEGORIES OF EVALUATION YOURSELF: The alleged virtues of any proposed program carry an implicit statement of the grounds on which the innovation will be evaluated. By making the evaluation categories explicit you can make clear what you propose and also preempt the high ground from which its progress will be surveyed.
- P. KEEP HOUSE: The registrar is often driven bonkers by the mismatch between loosely stated conditions of a new program and the rules within which he is constrained to operate. He is not always wrong. Whether you are a villain or a savior may depend on an hour spent in his office at the right time. Similar attention to the room schedules office and the buildings and grounds department may help.
- Q. SEND STUDENTS TO THE TOP: "Is the next course going to be taught this way too?" Go ask the department chairman—don't tell him I sent you. "Why can't all four years be organized the way this year is?" Ask the Dean that question.
- R. SURVIVE LIKE THE SPECIES (OR CLUSTER THE CLUSTERS): Disseminate like mad in your own locality and leap-frog to distant germination points where colleagues do the same. If three people follow your example—and supply their own driving power as inventors, not copyists—and if three people follow each of *them*, then the growth rate is exponential. Only in this way can a new species survive against competition.
- S. SPREAD BY SUBCULTURES: Student contacts extend their grass-roots between institutions far and wide. Presidents, deans, and professors spread more informal information at cocktail parties than anywhere else.
- T. INVOKE THE MAJESTY OF THE NAME: We make judicious use of the sonorous title "Massachusetts Institute of Technology" to hop over thresholds elsewhere.

Even though this may cause resentment, the name can be used by local advocates on their colleagues, often for a net gain. All sorts of names carry conviction: “The president wants. . .” and “The legislature has committed itself. . .” and “The Danforth Foundation has funded . . .” are all symbolic statements of great conviction.

- U. **CHERISH DIVERSITY:** No one thing is good for all students or for a given student all of the time. Failure to recognize this is the rock on which more innovations have foundered than any other. Conventional education (lectures, problem sets, hour exams, and all that) is exactly right for some students at some stage of their development. Total conversion, like prolonged total immersion, can be suffocating for innovation and innovatee alike.
- V. **LET THE USER ADD THE EGGS:** Cake mixes that require only water to be added do not sell so well as those to which the customer adds the eggs. Best of all is for the customer to be in on inventing the innovation. Second best is to have clear in your own mind which features of an innovation are central to its success and to encourage personalized modifications of all other qualities. Anyway, this will return the most new information to you about the process of dissemination.
- W. **PLAY THE CONFERENCE GAME:** There are at least a thousand kinds and lengths of conferences, and the conference game is well worth learning to play. A first-rate conference flatters the attenders, gets their undivided attention by removing distractions, enables first class leadership to be assembled on a short-term basis, permits considerable influence, and gives legitimacy to any project back on the participant’s home campus. Conferences are often easier to fund from outside sources than the programs they are designed to disseminate. Investigators of education change feel that temporary structures such as conferences can be more creative than more permanent organizations, such as colleges.²
- X. **RAISE THE BUDGET, CUT THE BUDGET, OR GO BANKRUPT:** Antioch College originated the work-study program for its students when it nearly went broke. Radical cuts may be necessary for radical inventions, which often result in doing something else (once in a while something better) for less. Build incentives by making sure that savings are put at the disposal of those doing more for less, not used to wash out the carelessness of others.
- Y. **IF ALL ELSE FAILS, RESIGN:** You may be the problem.

AN OVERVIEW OF CHANGE

(Table on following pages)

The fundamental difficulty of establishing an innovation is that all problems of survival must be solved simultaneously. “The operation was a great success, but the patient died.” The right question to ask about what to do next depends both on the stage of development of an innovation and also on every constituency with which it comes in contact. We conclude with a grid of representative questions that may be asked at each stage of development of an innovation with respect to each constituency in the college or university. These questions are illustrative only: to attempt to be comprehensive would be both fraudulent and boring. We have omitted from the column of constituencies such interested outside parties as trustees, regents, legislators, and governors. The omission results mostly from simple ignorance on our part but also from the pathetic belief that a well-developed innovation with proven results and proper backing will be accepted, even paid for, by reasonable men.

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QUESTIONS TO ASK AT DIFFERENT STAGES OF INNOVATION (FIRST HALF)

Stage of Innovation	INVENTION	ESTABLISHING	FINANCING
People			
Inventor-driver	Can process of invention be encouraged by training, atmosphere, insight or policy?	What personal and political qualities help release “faculty brakes”?	Is national stature and “foundation charisma” required in an innovator?
Participating faculty	By what means can the initial idea be modified and expressed to fit the local situation and appeal to key administrators and faculty and the “thoughtful middle” of the community?	What professional risks are involved in participating in an unproved educational enterprise?	What fraction of faculty time is spent writing proposals?
Participating staff		Is new staff required? Who pays? What is the long-term commitment of the Institution to them?	
Participating students		Are they vulnerable (requirements, grades, prerequisites)? Where do they get advice?	Is fellowship money available (if it is a graduate program)?
Students as a whole	What student demands or assumed needs shape the new program?	Are participating students seen as “sharp guys” or “odd-balls”?	Does the student body offer special opportunities to funding agency (poor, blacks, engineers, pre-med)?
Faculty as a whole	Are there academic rewards for academic inventiveness?	What is the “characteristic time” for faculty review and acceptance?	Does the new program compete with departmental funding?
Administration	Is invention encouraged?	Is administrative interest of help in obtaining faculty approval of new program?	Can <i>inside</i> seed money be found?
Administrative services	How are innovative plans shaped by the mechanics of grades, schedules, credit, space needs, etc.?	Are there extra burdens due to new program? Does this create resistance?	Can successful experiments be funded permanently?
Other colleges and universities	Can an “innovative consortium” straddle institutions?	Must experiment be organized first in one location?	How can one avoid What happens when
Funding agencies	Can (and should) funding agencies initiate reform?	How important is <i>outside</i> seed money?	

QUESTIONS TO ASK AT DIFFERENT STAGES OF INNOVATION (SECOND HALF)

EVALUATION	DISSEMINATION	SURVIVAL	Stage of Innovation
			People
Does the innovator plan for evaluation or resent it?	By this time is the innovator turning his attention to other projects?		Inventor-driver
Is evaluation built into the program from the beginning, including funds for evaluation? What is the process of internal revision based on trial? Must new programs be judged by new criteria? How can faculty organize a coherent review of an innovation? How can students be involved? Does the administration stimulate review and execute judgment? Who should terminate an innovation that has failed?	How important is missionary work within discipline?	Are participants lastingly changed by the experience? Is the innovation seen as serving a professional or life-style goal? What new structure or vested interest can continue to reward participation? Do faculty or students inside and outside the program see it as “a cheap way to get a degree?”	Participating faculty
	Who does the staff work in schools where there is less supporting staff?		Participating staff
	How important is informal conversation among students in encouraging new applicants and in spreading innovation to other schools?		Participating students
	How can innovations be spread to regular teaching?		Students as a whole
	Why are distinctive school styles not emulated (Antioch, Bennington, Sarah Lawrence, St. John’s)?		Faculty as a whole
How is the cost-effectiveness of an innovation to be judged and communicated?			Administration
the “not-invented-here” syndrome? Can a funding agency act as a dissemination agent? the innovation money runs out? Do fads in financing threaten a successful innovation?			Administrative services
			Other colleges and universities
			Funding agencies