
Big Problems Demand Small Solutions

Toward a General Strategy for Excellence in Education

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Abstract

Excellence in education can be approached or avoided in a wide variety of systemic contexts. Big, system level solutions tend to keep people busy, divert attention and placate political constituents rather than amounting to real change that improves educational quality. Small, doable solutions that are created, endorsed, and carried out all by the same people are an effective alternative. By avoiding frontal attacks on the system, and concentrating instead on small, potentially very visible areas where noticeable improvements can be made with minimal resources, reformers can make real headway rather than merely getting credit for having tried.

We suggest that the use of small solutions by individuals throughout our colleges, from student to college president, is the way to actually achieve excellence in American higher education.

Introduction¹

When a problem achieves the distinction of being a "big problem", *big* people get called in to provide solutions and it is usually big solutions that they propose. These big solutions tend to be seen as panaceas; they are popular among the "masses" and convenient for the folks in charge. But more often than not, big solutions are too big to be successfully implemented. After much scurrying about and hullabaloo nothing has improved, and everyone becomes convinced that the problem was even bigger than they had thought, and then the process starts all over again.

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This cycle has a special relevance to the field of education where the problems are acute and where the solutions become grander all the time. Following the myriad sobering reports which have appeared in the last several years, one hears continual reference to suggestions such as lengthening the high school day, raising the number of credits required for a diploma, across the board increases in college course requirements, and varieties of general curriculum reform (yes or no to core curricula, more classical liberal arts courses, or more practical job oriented courses, *ad infinitum*). What most of these proposals share is their scope and impersonality. As if blackmailed by the notion that the problem lies in the system itself, they refuse to name names or suggest that anyone (in particular) must change his or her behavior in order to solve the problem at hand. Typical reform proposals overlook the fact that education is a process built up from the individual actions of individual actors - administrators, support staff, students, teachers, parents. To improve the quality of higher education, then, one must improve the contribution of each of these "team members" to the overall project of education. Big, system- or program-sized solutions divorced from the behavior of individuals within an organization have little hope of significant success. This is not to deny systemic problems, but only to say that "the system" is made up of real people. Longer school days, stepped-up requirements, writing centers, or extra deans won't help if the people who make up the organization continue to do many of the little, everyday things wrong.

The thesis of this paper is that significant improvements in the quality of education in the U.S. can be achieved by attacking our big problems with small solutions.

Recognizing Big Solutions

Defining what makes "big" or "small" solutions isn't always easy. Big solutions are glamorous, and they make good press. And because of this, when most people say, "solution," they usually mean, in fact, what we would call big solutions. Our first task, then, is to make room for the big solution/small solution distinction. How does one spot a "big solution"?

1) *Big solutions purport to solve big problems.* They are, first and foremost, characterized by the magnitude of the problem they are supposed to solve. People love big solutions for their messianic promise. One's antennae should begin to buzz as soon as a measure is announced which will "improve service throughout this institution...," or "solve, once and for all, a long standing problem..."

- **To deal with the declining quality of students' writing, the college forms a committee, the committee writes a report, the report is debated by the faculty, the faculty votes, and the dean announces (in the alumni magazine) that, "after considerable faculty attention to the problem a new program which confronts head-on the problem that ... " or "more stress will be put on writing," or "standards of written work will be raised," or "more writing will be required of all students ... "**

A well known phenomenon: fine phrases, grand promises, no results.

2) *Big solutions are proposed by people whose work is separated from the locus of the problem.* Big solutions tend to deal with the problem the bureaucracy sees rather than the actual educational problem. The problem is displaced from its educational and pedagogical origins into its administrative implications and the solution has a correspondingly wide scope.

- **At a small, innovative school which functioned for years with flexible official deadlines, a cohort of young faculty who couldn't enforce their own standards caused a backlog in the records office. Soon the college recorder had cajoled the faculty into instituting no fewer than 20 new deadlines and rules concerning incomplete work. The result? A more rigid system in which as much administrative time was spent dealing with exceptions to the rules as had ever been spent dealing with excessive paperwork.**

3) *A big solution's bark is usually worse than its bite.* Big solutions sound impressive and look good at a distance, but day-to-day problems are usually out of their reach. Thus, their birth is usually the high point of their lives, but it's downhill from there. They are generally legitimized by the status of the office which emits them; their impracticality is excused because of this and because of the immensity of the windmill they're tilting with. Solutions which can only be implemented by creating a new rule or policy are almost always big solutions.

- **Student affairs problems often provide good examples of this. To deal with minority students' problems the president appoints a new assistant dean for minority student affairs. To solve alcohol-related problems a committee is set up to recommend a new campus alcohol policy. We hear all about the 'solutions' but not about the effects they do or do not have on the problems they are meant to solve.**

We are critical of large solutions, then, because they usually function as smoke screens, concealing the true natures and causes of the problems they are supposed to solve. They allow us to believe that we are (or at least someone is) doing something while we continue to do things the way we always have and the problems themselves continue to thrive. **Educational quality will only improve when the behavior of individuals within the organization changes.** Since typical big solutions do not qualitatively change the ways in which people do things, only very limited improvements can be expected.

Small Solutions are an Alternative

Even if we know from experience how little real change big solutions offer, most of us slip into "big solution thinking" as soon as we start considering what to do about a problem, and this habit leads us to propose the undoable and overlook the doable. Many problems are the result of things not being done well on the everyday level and this is exactly where small solutions are most effective. But how are small solutions different?

1) *Small solutions are doable.* They require resources that one already controls and authority that one already commands; more often than not they simply involve the application of common sense and creativity to doing one's job. Small solutions are things that one *does* rather than things that one tells someone else to do. Small solutions typically become known only after they have had their effect.

- **The college bookstore is a mug and t-shirt shop. The extent of its contribution to the educational mission of the college is textbook delivery. Rather than form a committee, make a motion, undertake a study, or write a report, a group of three or four faculty can, with a little effort, convince the bookstore to make a commitment to stocking 100 or 200 of the "great books"², permanently. Just being exposed to the titles is good for students, and the bookstore can say, "We always have these in stock," and publicize it as a commitment to the college's educational mission.**

2) *Small solutions are those created, endorsed, and carried out all by the same people.* Their implementation involves a minimal amount of vertical movement within the organization. Wielders of small solutions never form a committee and rarely consult a supervisor unless it is to inform him or her of what is being done.

- **Want a core curriculum? Find three or four good professors who are willing just to do it, without committees or reports or grants. Each one teaches one class using a set of agreed upon books. The proposal isn't brought up for discussion in the faculty, they just set out and do it. And, if they do a decent job of it, people will talk about it; students will want to get into the courses; other professors will want to get involved; and presto: Core Curriculum. If it bombs, nothing is lost since it was "just a silly little idea a few of us had."**

3) *People who employ small solutions are more interested in accomplishing something than in receiving credit for having tried.* Defining a problem as a big problem and attacking it with ineffective big solutions is a common way to get credit for doing nothing. Small solutions result from seeing problems in such a way that the answer to the question, "What can I do?" is always clear.

- **If students' writing is a problem, a big solution would be to raise money for a writing center. It may never happen but it sounds like a great idea. A small solution might be always to assign books and articles that are examples of especially good writing. Never require a poorly written text book. Students' writing will be no better than that of what they are forced to read.**

Traditional wisdom has long recommended small solutions:

- **"Don't bite off more than you can chew."**
- **"Every journey begins with a single step."**
- **"You have to start somewhere."**

The institution in which everyone lives by these rules is well on the way to becoming excellent.

Problems as Opportunities

In his writings on management, Drucker (1966, 1977) consistently urges executives to learn how to see problems as opportunities; this is also a valuable skill for small solutions guerrillas. One must always be on the lookout for little things one can do to produce big

² But they don't waste time arguing over just what are the great books. That's an issue, but for later. The point here is to do something where before there was nothing.

effects. Most of us are surrounded by nagging little problems that can readily become opportunities for small, effective and inexpensive victories over the forces of mediocrity.

The first step in developing such an intuition is to get out of the "peer institution (or department, teacher, student, employee)" mentality. When it comes to making a decision, too many of us ask, "How is everyone else doing this?" If, instead, we take the stance of doing things just a bit **better** than the next person, using the performance of others not as the end goal but as the beginning baseline, then little problems present themselves as opportunities to surge ahead of the competition.

- **Dismayed at the poor quality of the orientation materials the graduate school provided new students (the problem), one professor and one student in the sociology department sit down with a word processor and put together a packet of really practical information (when to register to avoid lines, where to go first, how to expedite certain kinds of paper work, where to park on the first day, useful phone extensions, etc.) that is sent to incoming people. It turns out to be useful; compared to the usual information provided by the dean's office, it stands out. The next year several other departments ask to use the information; in the third year the grad school sends the information to everyone. With barely an afternoon's work, two people (like Tom Sawyer) change the way people do things without ever asking anyone to change anything.**

Big Solutions : What's wrong with them.

1) *Most people aren't in the position to carry out major changes, and they know it.* Defining a problem as so big that the only way to solve it is to "change the whole system" is a sure way to dissuade real reformers; they get discouraged by the very idea, saying, "This is too much for us." Of course, many people are fond of big solutions. They're exciting to talk about, useful for prying money from elderly tycoons, and continually inspiring to the inhabitants of organizational non-reality. But most people don't spend their days in the presidential suite, and big solutions tend to demoralize and de-energize people on the micro level, where the Sallys and the Freds actually do live and work.

2) *Whole-system solutions suggest that reform happens elsewhere, and that improvements somehow trickle down, up or across to us.* The "little people" continue doing things as they always have, confident that what needs doing is being done by someone else. When big solutions do involve little people, it is often only for the sake of legitimacy -- "We have consulted with people on the ground level" -- and it only exacerbates their sense of powerlessness.

3) *Big solutions become the common enemy of otherwise scattered interest groups, uniting them in opposition.*³ They become symbolic rallying points for each group, forcing otherwise

³ Sometimes opponents will turn a small solution into a big solution by "attaching" other "important" ideas to it, thereby increasing its visibility and attracting other opponents. Redman (1973) discusses how legislators can sink a bill by attaching a "poisonous" amendment. Similar tactics can be employed to stir up such a dust storm that after much ado about nothing everyone goes back to business as usual before anything has actually been accomplished

disinterested parties to take sides. Such issues are things about which people have to have an opinion and that opinion comes to count in the wider social context, that is, sides are taken according to who is already on whose side, whose toes are going to be stepped on by what allegiance, etc. Decisions become more statements of loyalty and group membership than efforts to get something done.

4) *Big solutions take forever to get off the ground.* Because they attract attention, it is impossible to get any movement without years of committee work, discussions, referenda, and reports. Big issues, by requiring lots of mobilization and by affecting lots of different people, are innately slow in getting off the ground. By the time anything gets done interest and enthusiasm have waned and attention has been turned to newer big solution ideas.

- **Many "new" curriculum innovations are the "old" curriculum ideas by the time they reach the classroom.**

5) *Big solutions often create a constituency for the very problem they aim to solve.* Discovering new problems is a favorite tactic by which deans get new lines for assistant deans, but these new staff members have a vested interest in the continued existence of the problem they are hired to "solve." Big solutions direct budgets to problems instead of toward institutional goals.

6) *Big solutions make failure costly.* Most people don't take too seriously big solutions' chances for success, but failure still embarrasses active supporters and provides a rallying point for active opponents. The failure of a big solution discredits the many of the good ideas associated with it and often policy makers can't take credit even where it is due.

- **When a two year movement to institute a core curriculum ends in a narrow defeat in a faculty meeting due to inept political maneuvering history will record the event as "faculty rejects core curriculum idea" and all associated ideas will be stigmatized by the rejection.**

7) *Typical big solutions rarely make a qualitative change in how things work.* This happens in part because just getting them approved requires so much compromise that the final product doesn't look at all like the original idea;⁴ and in part because, again, sweeping solutions evoke widespread debate and opposition. More often than not, big solutions offer more of the same, even if much more. Longer school days and years, more years, higher salaries, larger support staffs, increased requirements, and longer papers all fall in the category of "more, not better," so while a lot is being done, little is being done differently, and the organization's underlying direction remains the same. In effect, it seems that the wider the range of a solution, the less likely it is to effect any qualitative change. It's very hard to change the direction of a big ship.

⁴ Redman (1973) discusses this point with respect to legislation.

Some Typical "Big Solutions" that Fail

Redesigning the curriculum

When a professional educator, policy maker or other commentator gets an inkling that something isn't going quite right in American higher education one of his or her most natural instincts seems to be to say, "We're doing it all wrong!" And one of the most common responses to this seems to be to redesign the curriculum.

But full-scale curriculum reform takes nearly forever, in no small part because everyone has his or her own ideas about it. If you're lucky some new theory is hot; otherwise, you wind up with a shopping list of "what students should learn" (as well as a hundred hows) representing the various power interests within the faculty. And even after being hacked up by a committee it sounds so radical that many reasons can be found not to do it. Besides, does it really matter?

Spend Lots of Money

Pick up any college catalog or alumni magazine and you will find the proud story of the college's latest addition: an endowed chair, a new language program, a new art building, new programs, or new centers for writing, public policy, women's studies. Accompanying such announcements will be a statement by the president that this new acquisition will allow the institution to greatly improve this, that or the other thing. But is this anything other than giving more gas to a speeding car? Is there really a change in where resources are going, or are we just increasing the power in the same direction? Few problems are due merely to a lack of material resources; no real educational problem will be solved solely by throwing money at it.

Like most big solutions, an expensive material acquisition (library, computer center, student union) gets lots of attention when announced, raises hopes throughout the institution, and then gradually slips heels down into the taken-for-granted horizon against which students and teachers experience the day-to-day problems of the college. Increased resources are not bad, but the only problem more resources ever solve is the problem of lack of resources. Large acquisitions distract attention from everyday problems, give the impression that only those who can attract million dollar gifts have any influence, and make large statements about how unimportant routine problems are to those in charge. Usually, the problem isn't money, it's how the money is used.

Change the president

A favorite outlet for general frustration is the call for the removal of the person at the top. Letter-writing campaigns are undertaken with the goal of driving the rascal out; votes of "no confidence" are taken; but when all is said and done, and the new president installed, the Board of Trustees still remains the same old bunch. Indeed, they might well bring in a tough guy to clamp down on the "anarchy." People expect all their problems to go away, but the new president works under the same conditions as the old one.

Individual administrators are never the sole cause of problems. A new president can't do it all, but depends ultimately on the little people to do the little things right. Much of the damage that bad administrators do has been, so to speak, burnt in. It needs to be actively undone; just getting rid of the perpetrator doesn't usually change much. It's a symbolic victory but you still have a crummy bookstore.

**S m a l l S o l u t i o n s W o r k
E s p e c i a l l y W e l l I f
C h a n g e I s O p p o s e d**

In academia, as elsewhere, solving a problem often means making a change, and change is always opposed by someone. Internal politics cannot be ignored by would-be improvers of educational quality. Just having a good idea is not enough; one only gets credit when something is done about it, but doing something often amounts to overcoming the opposition.

A military metaphor is useful here. When it comes down to us versus them, it is wise strategy and good tactics that win out. When change is opposed, small solutions offer several advantages over big solution approaches.

1) *Small solutions mean that you can attack where the opposition is the weakest and defeat in detail.* This means that you can pick targets that are relatively indefensible: the failure to support star quality, the lousy food in the dining halls, the dishonesty of some administrator. By making your initial moves where no one will stand up publicly to oppose you, you build momentum and disarm the opposition.

2) *With small solutions, your attacks can be surprising.* Try to attack where the opposition cannot anticipate your move.

- **A grad student who wanted to start a departmental newsletter just went ahead and did it. When the first edition appeared, the folks who would have argued, "It's too much work," "We don't have enough money," "Nobody will support it," were saying, "Hey, this is great, do you need any help on the next issue?" and faculty responded with offers of funding assistance.**

Often your change can be achieved before the bureaucrats even know what's happened.

3) *Small solutions have low profiles.* Big solutions tend to be the scenes of so much bureaucratic smoke and dust that offensive operations become difficult if not impossible. If you pick small targets, the opposition won't be able to gather allies, marshal support, or justify a drawn-out defense. And, best of all, they sometimes won't even see you coming.

This general strategy allows the innovator to retain the initiative. Announcing big solutions, on the other hand, puts the innovator in the position of fighting a defensive war. With small solutions, you begin to set the agenda, force discussion of issues you pick, stir interest in what you're accomplishing. People become energized because they are working

on their own projects, not dealing with problems raised by someone else. Attention is focused where you want, and everyone else looks for your next move.

Why Small Solutions Work

In addition to their tactical value (defeat in detail, maintain the initiative), small solutions work to create psychological advantages. Much of Karl Weick's (1984) analysis of "small wins" applies to small solutions, and we here borrow freely from his article.

In an environment of small solutions, anyone can solve problems. You don't need permission, or committees, or handbooks. You don't have to be the Dean, or the President, or a tenured professor, or even a faculty member, for that matter. Small solutions outflank the bureaucracy; they can be achieved by officially powerless people. Small solutions are empowering.

Big solutions, on the other hand, are psychologically overwhelming. As Weick points out, "people often can't solve problems unless they think they aren't problems."⁵ Small solutions are psychologically manageable. People who think in terms of small solutions, breaking a large issue into graspable problems, are more likely to be convinced that something can be done; they won't be afraid of trying. Small solutions aren't intimidating.

- **A "eight point program for improving departmental Gemeinschaft" could put off any busy academic, but the chairperson can always manage to have lunch with students once a week.**

Psychological resistance to big solutions may come from the feeling that the resources just aren't available for such a frontal assault on the status quo. Small solutions, being cheap and easy, avoid out of hand dismissal as "beyond our means." They allow the first step to be taken in what might otherwise be seen as a very large project.

- **Faced with the problem of building up a well stocked academic book store, a book shop manager solved it this way. When processing special orders, he sometimes ordered an extra copy or two. After a few years the shelves were peppered with hard to find titles and the shop became an attraction because of the books that were to be stumbled across in browsing. A massive buying program would have been too daunting but this method achieved exactly what was wanted with a minimum of effort.**

Because they are manageable and can be done by people throughout the ranks, small solutions raise morale and build confidence. People only give their best if they believe they have something to contribute. The task of a college is too important and too complex and the organization too loosely coupled to be run like an army with commands and decisions always coming down from the top.

Finally, small solutions are important symbols. Small solutions involve more doing, less talking, more attention to detail and fewer wild generalizations. In an age of rhetorical disattention to concrete detail, people notice when little things are done well. In the long

⁵ Weick (1984) p. 40.

run, more is said with a small solution, unheralded but adeptly pulled off, than with a big solution, grandly announced but clumsily implemented. Big solutions that are doomed to failure say that the institution's true priorities do not include improving the quality of education; small solutions that produce concrete improvements (even if only small ones) demonstrate that one can put one's money where one's mouth is.

- **Make a point of writing one note a week to someone who does a really good job. It could be a student who gave a good presentation, a secretary who's extraordinarily on top of things, an administrator who meets an important deadline, or a teacher who's given a fantastic lecture. Make a production of it. You will become a campus guru; if you only give to the really deserving, people will start to seek your approval, and the ideal of quality that you represent becomes a part of the way things are done.**⁶

Some examples of Small Solutions

Institutions cannot "adopt" small solutions. That would make them just another big solution. The "small solutions approach" is an attitude, an approach to performing in an organization, that individuals (anyone at all) can develop. The main ingredients are initiative, imagination, and an active commitment to quality improvement. Small solutions guerrillas refuse to be sidetracked by the thoughts like "the problem lies in the system itself." They aren't paralyzed by the notion that a good idea is only worthwhile if it can be applied everywhere at once. And they realize, that while there *may* be a limit to what any one individual can do, it's a rare person who is in danger of reaching that limit.

We present here some examples of small solutions as a springboard for the reader's own development of a "small solutions mentality."

* * *

Improving the quality of our teaching is high on most people's lists, but in the search for the one big solution that will make us *great* teachers we often overlook a hundred ways to become *better* teachers. Some examples:

- **A professor can improve students' experience of a class simply by learning their names. This small investment of time can be very important to students and it helps discussions run more smoothly. Sounds trivial, but it works.**
- **Start classes on time. Why show disrespect for those who made the effort to show up on time by making them wait for the stragglers? Pretty soon all but the most recalcitrant will be punctual.**
- **Hang around after class. Always leave yourself 30-45 minutes after a class. Make a point of loitering at the front of the classroom. This is some of your most valuable contact time. Don't be in a hurry to hide away from your students.**

* * *

⁶ Senator Proxmire's Golden Fleece Awards are an example of this technique in reverse.

Students' writing is a big problem these days but typical big solutions (writing centers, programs, etc.) simply transfer responsibility for the problem to a third party. The issue is publicly addressed and students may actually write more but the role that writing plays in the student's educational experience doesn't change. There are many things that individual teachers can do. For instance:

- **Run your own "writing intensive courses." Tell students that papers can get at best a C on first submission, a B on the second and an A only on the third. It's a bit more work but the people who get A's will have actually learned something about writing.**
- **Improve student writing by being an involved audience. Show by your comments that you actually read for ideas when you read a student paper. Make stylistic marks and comments in red but address the student's ideas in another color, preferably in a well written response at the end of the paper (in addition to "yesses" and "uh-hus" in the margins). One reason for poor writing is that students are not using it as a means for communicating ideas. Writing centers do not help here -- here as elsewhere, little interest is paid to what a student has to say, only to how it is said.**

* * *

Educators are constantly coming up with good ideas -- for example, how to make the evaluation and grading system pedagogically more valuable -- but when they think of the difficulty of instituting a system-wide change they are understandably dissuaded from doing anything; it's just not worth the effort. But often it is within one's power and authority to make a change *locally*, without engaging the rest of the system in head on battle. If it's a good idea, the success speaks for itself; if not, you try something else.

- **Supplement your grades with narrative evaluations (rather than trying to get the entire college to do this). It's easy with your word processor: start a file for each student and enter in comments after grading exams or papers or after a discussion with a student outside of class. At the end of semester a day's worth of editing yields a very impressive and stack of pedagogically useful evaluations to return with finals.**

The students get a whole different perspective on what the grade at the end of a course means, you have a summary of their performance at your finger tips, and your colleagues are amazed at your dedication to teaching.

* * *

And finally, perhaps the smallest but most powerful small solution of all: ask a simple (but often embarrassing) question. We favor something like: "Does this help or hinder our good students -- the ones who really want to learn?" Or another, especially apt for administrators and other makers of college policy: "What institutional goal or priority does this move clearly support or further?"

Anyone can ask such questions and they're powerful in a wide variety of situations, from policy deliberations to personnel decisions, from the board of trustees' deciding what to do with a new gift to a faculty member's planning a course. Forcefully posed and honestly answered, these questions usually bring the discussion back down to earth and rapidly reveal the correct choice to make.

* * *

In each case above we find the recognition of an opportunity to do something and the clarity of vision to see how it could be done rapidly, with the resources at hand, and without the unnecessary involvement of other levels of the system. These actions are small enough that failure will hardly be noticed, but significant enough that success cannot be overlooked.

Conclusion

Excellence in education can be achieved or lost in a wide variety of system environments. System level solutions do not hold the key to improving educational quality. While the experts produce extravagant new solutions to age old problems at the drop of a grant, the same old stifling practices and missed opportunities continue to proliferate all through the ranks. It is not the details which will take care of themselves if the big things are attempted; instead, we argue that the big problems will go away if the details which support and enact them, day by day, are changed. In the final analysis then, the little things are the only things.

The "small solutions" method is as useful to the enlightened president of a small college who wants to make his or her college great as to the subversive junior faculty member who wants to improve things without forming a new committee. Our basic message is: **avoid frontal attacks on the system** -- it's bigger than you are and it'll fight back. Instead, look for small, potentially very visible areas where rapid improvements can be made with minimal resources. It's not quite guerrilla warfare but it's close. Think **leverage**: where can a few people make a noticeable difference quickly?

Small solutions depend on a commitment to action and not just words. The decision to be excellent -- even in the apparently minor daily decisions -- is non-trivial, and it is a prerequisite to all quality improvement. Institutions choose their own level, and in the name of fairness, objectivity, non-elitism and other red herrings, mediocrity is often the level of choice. People are scared to death of excellence and of the changes it will bring. That fear of excellence can be overcome not by adopting sweeping programs of excellence but by engaging oneself in step-by-step improvements on the day-to-day level of doing things. Thereby one demonstrates and confirms one's own commitment to excellence in concretely valuable and symbolically important ways. Thinking about small solutions, therefore, is the better part of wisdom.

But in the end, **you** must **do** something.

BIBLIOGRAPHY AND REFERENCES

- Becker, H. S. (1986). *Writing for Social Scientists*. Chicago: Univ. Chicago Press.
- Drucker, P. (1967). *The Effective Executive*. New York: Harper & Row.
- Drucker, P. (1977). *management*. London: Pan Books Ltd.
- Perrow, C. (1984). *Normal Accidents*. New York: Basic Books, Inc.
- Redman, E. (1973). *The Dance of Legislation*. New York: Simon & Schuster.

Townsend, R. (1970). *Up the Organization*. Greenwich, Ct: Fawcett Publications, Inc.

Weick, K. (1984). "Small Wins: Redefining the Scale of Social Problems. *American Psychologist*, 39, 40-49.