Apathetic students, illiterate graduates, incompetent teaching, impersonal campuses -- so rolls the drumfire of criticism of higher education. More than two years of reports have spelled out the problems. States have been quick to respond by holding out carrots and beating with sticks.

There are neither enough carrots nor enough sticks to improve undergraduate education without the commitment and action of students and faculty members. They are the precious resources on whom the improvement of undergraduate education depends.

But how can students and faculty members improve undergraduate education? Many campuses around the country are asking this question. To provide a focus for their work, we offer seven principles based on research on good teaching and learning in colleges and universities.

Good practice in undergraduate education:

1. encourages contact between students and faculty,
2. develops reciprocity and cooperation among students,
3. encourages active learning,
4. gives prompt feedback,
5. emphasizes time on task,
6. communicates high expectations, and
7. respects diverse talents and ways of learning.

We can do it ourselves - with a little bit of help...

These seven principles are not ten commandments shrunk to a 20th century attention span. They are intended as guidelines for faculty members, students, and administrators -- with support from state agencies and trustees -- to improve teaching and learning. These principles seem like good common sense, and they are -- because many teachers and students have experienced them and because research supports them. They rest on 50 years of research on the way teachers teach and students learn, how students work and play with one another, and how students and faculty talk to each other.

While each practice can stand alone on its own, when all are present their effects multiply. Together they employ six powerful forces in education:

- activity,
- expectations,
- cooperation,
- interaction,
• diversity, and
• responsibility.

Good practices hold as much meaning for professional programs as for the liberal arts. They work for many different kinds of students -- white, black, Hispanic, Asian, rich, poor, older, younger, male, female, well-prepared, underprepared.

But the ways different institutions implement good practice depend very much on their students and their circumstances. In what follows, we describe several different approaches to good practice that have been used in different kinds of settings in the last few years. In addition, the powerful implications of these principles for the way states fund and govern higher education and for the way institutions are run are discussed briefly at the end.

As faculty members, academic administrators, and student personnel staff, we have spent most of our working lives trying to understand our students, our colleagues, our institutions and ourselves. We have conducted research on higher education with dedicated colleagues in a wide range of schools in this country. With the implications of this research for practice, we hope to help us all do better.

We address the teacher's how, not the subject-matter what, of good practice in undergraduate education. We recognize that content and pedagogy interact in complex ways. We are also aware that there is much healthy ferment within and among the disciplines. What is taught, after all, is at least as important as how it is taught. In contrast to the long history of research in teaching and learning, there is little research on the college curriculum. We cannot, therefore, make responsible recommendations about the content of good undergraduate education. That work is yet to be done. This much we can say: An undergraduate education should prepare students to understand and deal intelligently with modern life. What better place to start but in the classroom and on our campuses? What better time than now?

Seven Principles of Good Practice.

1. Encourages Contact Between Students and Faculty
   Frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement. Faculty concern helps students get through rough times and keep on working. Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans.

2. Develops Reciprocity and Cooperation Among Students
   Learning is enhanced when it is more like a team effort that a solo race. Good learning, like good work, is collaborative and social, not competitive and isolated. Working with others often increases involvement in learning. Sharing one's own ideas and responding to others' reactions sharpens thinking and deepens understanding.

3. Encourages Active Learning
   Learning is not a spectator sport. Students do not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences and apply it to their daily lives. They must make what they learn part of themselves.
4. Gives Prompt Feedback
Knowing what you know and don't know focuses learning. Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence. In classes, students need frequent opportunities to perform and receive suggestions for improvement. At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves.

5. Emphasizes Time on Task
Time plus energy equals learning. There is no substitute for time on task. Learning to use one's time well is critical for students and professionals alike. Students need help in learning effective time management. Allocating realistic amounts of time means effective learning for students and effective teaching for faculty. How an institution defines time expectations for students, faculty, administrators, and other professional staff can establish the basis of high performance for all.

6. Communicates High Expectations
Expect more and you will get more. High expectations are important for everyone -- for the poorly prepared, for those unwilling to exert themselves, and for the bright and well motivated. Expecting students to perform well becomes a self-fulfilling prophecy when teachers and institutions hold high expectations for themselves and make extra efforts.

7. Respects Diverse Talents and Ways of Learning
There are many roads to learning. People bring different talents and styles of learning to college. Brilliant students in the seminar room may be all thumbs in the lab or art studio. Students rich in hands-on experience may not do so well with theory. Students need the opportunity to show their talents and learn in ways that work for them. Then they can be pushed to learn in new ways that do not come so easily.

Teachers and students hold the main responsibility for improving undergraduate education. But they need a lot of help. College and university leaders, state and federal officials, and accrediting associations have the power to shape an environment that is favorable to good practice in higher education.

What qualities must this environment have?

- A strong sense of shared purposes.
- Concrete support from administrators and faculty leaders for those purposes.
- Adequate funding appropriate for the purposes.
- Policies and procedures consistent with the purposes.
- Continuing examination of how well the purposes are being achieved.

There is good evidence that such an environment can be created. When this happens, faculty members and administrators think of themselves as educators. Adequate resources are put into creating opportunities for faculty members, administrators, and students to celebrate and reflect on their shared purposes. Faculty members receive support and release time for appropriate professional development activities. Criteria for hiring and promoting faculty members, administrators, and staff support the institution's purposes. Advising is considered important.
Departments, programs, and classes are small enough to allow faculty members and students to have a sense of community, to experience the value of their contributions, and to confront the consequences of their failures.

States, the federal government and accrediting associations affect the kind of environment that can develop on campuses in a variety of ways. The most important is through the allocation of financial support. States also influence good practice by encouraging sound planning, setting priorities, mandating standards, and reviewing and approving programs. Regional and professional accrediting associations require self-study and peer review in making judgments about programs and institutions.

These sources of support and influence can encourage environments for good practice in undergraduate education by:

- setting policies that are consistent with good practice in undergraduate education,
- holding high expectations for institutional performance,
- keeping bureaucratic regulations to a minimum that is compatible with public accountability,
- allocating adequate funds for new undergraduate programs and the professional development of faculty members, administrators, and staff,
- encouraging employment of under-represented groups among administrators, faculty members, and student services professionals, and
- providing the support for programs, facilities, and financial aid necessary for good practice in undergraduate education.