The knowledge and skills needed by managers are considered, as well as the relationship between undergraduate study and continuing management education. Because of industry's dissatisfaction with the general preparation provided by colleges, business and industry managers were surveyed about the learning goals of the management-training programs they provide for employees. A total of 116 training directors, personnel managers, and executives at 98 firms rated the importance of learning goals for in-house management education programs. The human resource managers in industry valued interpersonal and affective abilities far above the acquisition of cognitive skills and broad knowledge in subject areas considered fundamental to a liberal education. They suggest that many of higher education's objectives are of little use in preparing graduates to be effective managers. (A second study of 51 executives had similar findings.) Personal choices of managers when they participate in education and training programs were also determined. Based on a federal 1981 Survey of Participation in Adult Education, a subset of managers who were part-time students was also analyzed to determine the types of courses they pursued. Recommendations for colleges include providing students more active learning and opportunities for oral communication. (SW)
What do managers need to know?

The authors approached this question by looking at the actual behavior of firms and managers as represented in two new data sets. We asked— and here answer— three questions:

• First, what skills and abilities do corporations desire in their managers, as demonstrated in the programs they offer themselves through in-house training?

• Second, what do managers themselves value, as demonstrated by the choices they make when they participate in education and training programs?

• Finally, what are the implications of these findings for colleges and universities concerned about liberal education?

These questions are crucial for colleges and universities under pressures from students seeking education leading to jobs and from businesses seeking graduates prepared to be successful managers. Advocates of liberal education assert that they provide a strong foundation for students entering the world of action, not only are such graduates broadly educated individuals, but they have skills and values compatible with the competencies required for success in management.

The results of our research suggest that attitudes on campus and opinions in business do not always coincide. Corporate in-house training programs are often seen as compensation for deficiencies in undergraduate education. Because such training programs address affective rather than cognitive objectives, the educational goals are quite different from those of colleges and universities. The investigation of the behavior of managers seeking further education finds that job-related reasons for learning predominate, for most adult students, courses in traditional liberal arts subjects do not meet career goals.

Our conclusions, however, are not completely pessimistic. The challenge of these findings is to develop a new way of thinking about liberal education and management that reaffirms the enduring values of liberal education while recognizing and meeting professional aspirations.

General Learning Goals

Robert Hahn surveyed representatives of business and industry about the general learning goals of management-training programs provided by corporations for their employees. The impetus was the recurring theme of industry's dissatisfaction with the general preparation provided by colleges and universities. Seymour Lusterman noted in his pioneering study, Education in Industry, that "an important element of business' quarrel with liberal arts colleges is not that colleges lack a vocational cur-

<table>
<thead>
<tr>
<th>GOALS OF CORPORATE MANAGEMENT TRAINING PROGRAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High importance</strong></td>
</tr>
<tr>
<td>• problem solving and decision making</td>
</tr>
<tr>
<td>• understand the managerial role</td>
</tr>
<tr>
<td>• oral communication</td>
</tr>
<tr>
<td>• interpersonal skills</td>
</tr>
<tr>
<td>• effective listening</td>
</tr>
<tr>
<td>• manage organizational change</td>
</tr>
<tr>
<td>• negotiation and conflict resolution</td>
</tr>
<tr>
<td>• assume responsibility</td>
</tr>
<tr>
<td>• delegate responsibility</td>
</tr>
<tr>
<td>• understand leadership styles</td>
</tr>
<tr>
<td>• self confidence</td>
</tr>
<tr>
<td>• self evaluation</td>
</tr>
</tbody>
</table>

**Medium importance**

• give and take advice and criticism

• motivate others

• tolerance and trust

• organize and summarize

• creative thinking

• time management

• self awareness

Robert Hahn surveyed representatives of business and industry about the general learning goals of management-training programs provided by corporations for their employees. The impetus was the recurring theme of industry's dissatisfaction with the general preparation provided by colleges and universities. Seymour Lusterman noted in his pioneering study, Education in Industry, that "an important element of business' quarrel with liberal arts colleges is not that colleges lack a vocational cur-
Robert Hahn is academic dean at Trinity College in Burlington, Vermont.

riculum but that they perform poorly what they themselves hold to be their most basic function, developing competence and skills in the use of languages and intellect. It was not about specific technical skills that business executives complained, but rather about unsatisfactory intellectual and conceptual abilities and general work competencies. These findings have been confirmed by subsequent researchers, including, most recently, Nell Eurich.

In light of these findings, Hahn asked whether in-house management education programs might be seen at least in part as mechanisms to provide needed skills that managers had not developed in college. To test this hypothesis, he began his inquiry by examining the relevance of collegiate learning goals to education programs in industry. He adapted a set of twenty general outcome goals found in Peterson and Uhl's Institutional Goals Inventory and asked a pilot group of training directors to rate the importance of each goal for education programs offered by the respondents' firms. He also asked these human resource managers to contribute goals of their own programs that did not appear on the inventory; nine goals were added in this fashion. Hahn then studied literature about management education programs in eight Fortune 500 companies and discovered another nine goals that he added to the inventory. The resulting list of 38 educational goals was balanced between learning goals derived from higher education and from business and industry.

This 38-item inventory was sent to another sample of training di-

rectors, personnel managers, and similar executives, with responses from 116 individuals in 98 firms. The businesses represented in this group were insurance, banking, and finance (30%); high-tech manufacturing (20%); heavy industry, mining, and construction (20%); retail sales (10%); utilities (10%); transportation (5%); and publishing (5%). Respondents ranked each goal on a scale of 1 to 5, reflecting its importance for the firm's management education programs. (See Box).

Several clear patterns emerge from this rank ordering. The most important goals of in-house management education programs emphasize oral communications, listening skills, problem solving, decision making, and general management abilities, they focus on personal qualities and interpersonal skills. These are the goals judged to be of greater than medium importance (rated 4 or 5 on a scale of 5) The middle-ranking of goals (ranked 3 out of 5) judged to be of medium importance at best, begins to display some of the traditional purposes of general and liberal education, such as the abilities to organize and summarize, to generalize and synthesize. Imaginative and creative thinking ranks twentieth in the inventory.

The generic competencies that industry seeks in its managers, and that management education emphasizes as learning outcomes of its own programs, are clearly distinguishable from the traditional general learning goals of collegiate education. In the pilot-test results, those goals ranked as above medium importance are affective. They focus on process. They emphasize active and interactive abilities. They value speaking and listening skills, not written communication. They stress generic management skills in action rather than specific types of knowledge or any type of knowledge at all.

An essential competency of general education—effective writing—appears near the bottom of the list. Other qualities judged as unimportant, both relatively and absolutely, are the goals that most educators would place at the heart of general learning and liberal education. These include understanding of ethical issues, knowl-

edge in the humanities and social sciences, understanding of the interface between business and government, and—dead last—understanding of the formation of values in society. Those objectives on which academics often place greatest emphasis and in which they take special pride are here found huddled in the lowest ranks.

These goals, judged as being of less than medium importance (below 3 on the scale), are much different from the abilities at the top of the list. In general, they are cognitive rather than affective, they emphasize knowledge of specific topics and content areas. Their focus is on reflective thinking, broad understanding, and understanding of values—traditional goals of liberal education.

If the results of this pilot study were to be broadly corroborated, we might conclude that in-house management education is seen as compensation for the failures of colleges and universities to develop the skills young professionals need on the job. Such training seeks to develop general learning outcomes quite different from those of the standard undergraduate curriculum. The rankings of the study suggest that human resource managers in industry value interpersonal and affective abilities far above the acquisition of cognitive skills and broad knowledge in subject areas considered fundamental to a liberal education. They suggest that many of higher education's objectives are of little use in preparing graduates to be effective managers.

The results of the pilot study are reinforced by a second and slightly modified inventory administered.
to 51 executives of the Chesapeake and Potomac Telephone Company. Among the top 15 items in the C&P study were the same concerns for process, personal interaction, conflict resolution, and generic management skills. Traditional collegiate general learning goals appeared no higher than the middle rankings and most frequently at the bottom of the list.

At best, these results suggest a significant dichotomy between the goals of colleges and universities and the needs of business. At worst, the study can be read as an indictment of collegiate education.

Characteristics of Adult Students

The second perspective on what managers need to know looks at the actual behavior of the managers themselves. Kathryn Mohrman analyzed the 1981 Survey of Participation in Adult Education, data collected by the National Center for Education Statistics in conjunction with information used to calculate unemployment statistics for May 1981. More than 120,000 Americans were asked a set of questions about personal and family characteristics. 13% of the sample reported that they had participated in some form of organized instruction in the previous twelve months.

Of these part-time adult students age 25 and older, 9.5% reported their occupations as manager or administrator. It is this managerial subset—and the 2553 courses they took—that forms the basis of the information reported here.

Basic demographic characteristics of the respondents are shown on Table 1. In general, these managers were more likely than the average American to be white, male, affluent, college educated, and between the ages of 25 and 44 years. They worked in such industries as finance (15%), manufacturing (14%), retailing (14%), public administration (12%), education (8%), and medicine (6%), with other categories contributing small proportions to the group. While all the adult students in this sample were managers, only 60% were managers in businesses comparable to the industries included in the Hahn survey.

Most managers took the time to go to class because they wanted to improve or enhance their current jobs; 75% of all adult students reported job-related reasons for participation in adult education. Another 20% said they had personal and social motivations, and the remainder had a wide range of other reasons for enrolling. It is not surprising that the most popular courses were such business subjects as accounting, finance, real estate, management, and business law, representing 42% of all courses taken by managers. The second area of interest was computing and engineering study, at 11%; third was continuing medical and health education (Table 2).

Only 15% of all the courses taken by managers were traditional college subjects in arts and humanities and social and natural sciences. Of course, many of these adult students already had college degrees and therefore might be less likely to enroll for further liberal education. Of those managers who took college subjects, however, the proportion studying for job-related reasons remained high. Almost 80% of all science courses and 63% of the social science courses had occupational purposes; more than half of the humanities offerings were taken for job-related reasons. Managers as adult students clearly have career-oriented goals.

Approximately 20% of the managers in Mohrman's study might have been participants in programs of the type analyzed in Hahn's study—managers in businesses who enrolled in courses provided by their employers. The others were employed by hospitals, schools, government, and other non-business organizations, or they took courses from other providers of adult instruction. The single most popular source of part-time instruction was higher education, with about one-third of all managers studying at two- or four-year colleges and universities. The other two-thirds of the sample looked to a variety of providers for their courses, to labor and professional organizations, government agencies, community groups, and to private-sector industries.

Regardless of the factors in the course, most managers in the sample received a subsidy for their studies. The largest proportion of these courses (41%) was supported by business and industry, while only a third of the students paid out of their own pockets for their courses.

The information on adult students' choices does not address the goals of Hahn's study; we cannot tell much about the actual educational objectives of the courses these managers took. It is probably safe to assume, however, that the most academic courses were

![Table 1](https://example.com/table1.png)

**Table 1**

**Participants in Adult Education, 1981**

<table>
<thead>
<tr>
<th>Age 25-44 years</th>
<th>Male</th>
<th>Non-minority</th>
<th>College degree</th>
<th>Family income $25,000 and up</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>20</td>
<td>30</td>
<td>60</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

primarily cognitive rather than affective in orientation. The business courses were probably much more diverse, ranging from technical topics such as accounting to development of interpersonal understanding.

One clear implication of this brief survey of managers’ participation in continuing education is that executives view education and training as an investment that will be rewarded in the near future. Many educators speak hopefully of growing interest in liberal education through part-time study by well-educated adults. But we found that among older students in general, enrollments in liberal arts subjects declined as educational attainment increased; among managers involved in education and training, enrollments in traditional college subjects were small for students at all educational levels. There is little indication of interest in learning for learning’s sake, since even liberal arts subjects were studied predominantly for job-related reasons.

Such findings do not necessarily suggest that adults are hostile to the liberal arts, but the inference can be made that most managers do not see traditional academic subjects as relevant to their personal and career objectives. Whether the employer or the employee pays for the course, part-time study is an investment with prospects for returns in the current job.

Analyzing the Data
What do these data tell us about what managers need to know? What do they say about the relationship between undergraduate study and continuing management education?

One view—the bad news—is that collegiate education does not develop the skills necessary for success in business. Academics assert that the general learning goals of liberal education will translate broadly into the generic competencies needed for management, that liberal education at its best is “liberating education” that prepares young people for anything and everything. But if the claims we make for liberal education were completely true, industry’s complaints would vanish. College graduates would succeed as managers and corporations would not invest so heavily in their own education and training programs. Two implications can be drawn from this “bad news” view, both related to a short-term view of education. Collegiate education and on-the-job training are viewed by employers and employees alike as substantial as investments with immediate payoffs in the current job. Liberal education, education for a lifetime, is not valued when attention is being paid to quarterly profits or next year’s raise.

But a college education should be more than mere job training. In particular, liberal education is education for citizenship, for taking responsibility in the larger world beyond an immediate job. Public officials and educators alike are expressing concern that today’s students are not meeting this ideal. The evidence from Hahn’s study suggests that attention to civic responsibilities will not come from corporate education, nor will management education develop an understanding of the forces and contradictions that shape human culture. That burden remains with higher education. Colleges and universities alone must accept responsibility for liberal education in its fullest sense—a broad-based concern for the values on which society depends.

A more optimistic view—the good news—looks at in-house training less as remedial and more as supplemental. This approach states that manpower training is not the only purpose of college, nor even the primary purpose. Certainly the baccalaureate degree cannot provide all the skills and knowledge needed for 40 years of work in management. Therefore in-house education is normal continuing education that builds naturally upon the academic skills developed in college, the process skills emphasized by the respondents to Hahn’s survey depend upon the knowledge and content of traditional academic study. In this view, liberal education is an investment for the long term, managers do need skills of analysis and synthesis as they rise to positions of responsibility.

Nell Euriich’s study of corporate education suggests that the reality is a mixture of good and bad news. She finds, consistent with Lusterman, that some corporate programs are teaching knowledge and skills that are the domain of colleges and universities—often for compensatory purposes. But she also suggests that the missions of higher education and the corporation are different. Colleges and universities have obligations to maintain a cultural heritage and to add to the body of knowledge, while businesses focus more on the customer and on the application of theory to practical problems.
Euriich challenges higher education to learn from the experiences of corporate education.

Colleges and universities—without violating their purpose—can give more multidisciplinary consideration to real issues, provide more practical applications to theoretical studies, and add teamwork approaches to teaching and learning methods. A focus exclusively on individual development can lessen a person's ability to contribute cooperatively and work effectively with others.

Some of the same comments have been directed at business schools as well. The Business-Higher Education Forum recently published *America's Business Schools: Priorities for Change*, it recommends greater experimentation with the content and methods of management courses, more interdisciplinary teaching, and stronger emphasis on communications skills. The Forum also calls for joint ventures between the business school and other divisions of the university, as well as with the corporate community. Overall, the focus is on innovation, practical issues, and human interaction.

Similar themes appear in recent reports on excellence in higher education. The study from the National Institute of Education, *Involvement in Learning: Realizing the Potential of American Higher Education*, conveys with the title itself a focus on the process as well as the content of undergraduate education. Among the recommendations for reform put forward in the NIE report are 1) faculty should make greater use of active modes of teaching and require that students take greater responsibility for their learning, 2) administrators should support co-curricular programs and activities that maximize student involvement and 3) liberal education requirements should assure that curricula address not only subject matter but also capacities for analysis, problem solving, communications, and synthesis.

The Association of American Colleges, in *Integrity in the College Curriculum*, puts forward nine essential experiences for a coherent baccalaureate degree: inquiry, abstract logical thinking, critical analysis, literacy: writing, reading, speaking, listening, understanding numerical data, historical consciousness, understanding science, values, art, international and multicultural experiences, and study in depth. The elaboration on these topics emphasizes analysis, methods, and judgment; the objective is not the collection of a set of facts or a series of courses but the creation of an educational program that will enable Americans "to live responsibly and joyfully, fulfilling their promise as individual humans and their obligations as democratic citizens."

These recommendations are consistent with priorities of the corporations surveyed by Hahn. The reports share with management-training programs a concern for process as well as content, for affective as well as cognitive learning. If undergraduates received a college education that provided more active learning, more opportunities for oral communication, and so forth, they would be stronger candidates for management success. They would have the skills that firms indicate they need, and they would not require expensive remedial in-house training.

In sum, the characteristics of an undergraduate curriculum that current reports are now recommending for educational renewal are the very characteristics that are most likely to improve graduates' performance on the job. This convergence suggests that colleges and universities might be able to accomplish, through the same set of reforms, significant improvements in liberal education at the same time that they respond to the real career concerns of students.

The ideal synthesis may call for rethinking liberal arts curricula in terms of what competent practitioners do. As Donald Schön writes in *The Reflective Practitioner*, when practicing managers display artistry, they reveal their capacity to construct models of unique and changing situations, to design and execute on-the-spot experiments. They also reveal a capacity to reflect on the meanings of situations and the goals of action. A more comprehensive, useful, and reflective management science could be built by extending and elaborating on what skillful managers actually do. Practitioners might then become not only the users but the developers of management science.

By assuming responsibility for the affective as well as the cognitive, for process as well as content, for interactive and other workplace skills, colleges and universities may be able to develop curricula that are "more comprehensive, useful, and reflective," and that link more closely what liberal arts graduates need to know with what skillful managers actually do.

**READINGS AND REFERENCES**


Kathryn Mohrman, *Adult Students and the Humanities* (Association of American Colleges 1983)