

The Accounting Education Change Commission Grant Experience: A Summary

Chapter 12 UNIVERSITY OF NOTRE DAME Project Discovery Accountancy Curriculum Project

Type, Size and Mission of Accounting Program

The Department of Accountancy at Notre Dame seeks to advance accounting education by providing outstanding educational experiences and programs for its students, by encouraging and rewarding meaningful scholarship of its faculty, and through extensive interaction with and service to its alumni, the Notre Dame community, the accounting profession, and society.

Accountancy has been an important major at Notre Dame since the 1960s. Notre Dame graduates about 1,900 undergraduates each year, and typically, about 200 graduates are accountancy majors. As a result, alumni of the program now number 6,000 and a large number of graduates are partners with Big Six firms or financial executives with industrial firms.

All Notre Dame freshmen spend their first year in the Freshman Studies Program. They then choose their college as Sophomores and their major as Juniors. Usually, about 500 Notre Dame students enroll in the College of Business Administration each year and about forty percent of them become accountancy majors. However, presently College of Business Administration enrollment is at an all-time high, with the total Sophomore, Junior, and Senior enrollment at 1,700 students. There are no restrictions placed on students' choices of majors at Notre Dame.

The academic preparation of students admitted to Notre Dame is strong. For example, the average SAT score for the 1995-96 Freshman class is 1,240. Accountancy major scores are consistent with the university average. As a result, we have tried to design an accountancy curriculum that challenges students, and takes advantage of their capabilities.

A strategic advantage is that Notre Dame is truly a national university with students drawn from all 50 states. Given the high quality of the students and the fact that Big Six firms can recruit students for all of their major U.S. offices, placement of students in public accounting is strong, with about two-thirds of the Accountancy graduates accepting positions with Big Six firms each year.

Another strategic advantage is that Notre Dame has excellent teaching facilities. The university opened a new 75 room classroom building in 1992 that includes state-of-the-art technology. In the summer of 1996, the College of Business Administration moved into a new \$25 million, 156,000 square foot building, located next to the classroom building. The two facilities combine to provide outstanding delivery capabilities.

Characteristics of Program Before the Grant

As is the case for many of the grant schools, Notre Dame accountancy majors were well-received in the market prior to the curriculum grant. The program was operating in a steady-state environment and content was heavily textbook driven. The mode of delivery was primarily lecture. A good portion of the class time was devoted to solving textbook problems. Most student assignments were individual as opposed to group-based, and a high percentage of the course grade was based on individual performance. The computer and other forms of technology were not heavily used for teaching and learning. As is the case with many steady state programs, little consideration was given to program maintenance, the need for change, and program assessment. The quality of the instruction was perceived to be high, demand for entry level hires was strong and graduates were getting jobs.

Forces That Motivated Change

A variety of forces came together in the late 1980s to create what some called a "crisis" in education which motivated a new approach to education in general and for specific disciplines, including accounting. The crisis was explained most vividly by the National Commission on Excellence in Education in *A Nation at Risk: The Imperative for Educational Reform* (Washington, D.C., Government Printing Office, 1983), as follows:

"Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and a people."

A Nation at Risk may have focused national attention on education like no other major event since Sputnik.

Within business education, the changing environment resulted in the AACSB reengineering its accreditation processes and standards. The new standards were mission driven, focused on processes for continuous improvement, and were more intentional about performance measurement (assessment). At about the same time, The Carnegie Foundation for the Advancement of Teaching (1990), published its *Scholarship Reconsidered: Priorities of the Professoriate*, by Ernest Boyer. The report supported a broader definition of scholarship to include the scholarship of teaching. The report caused many business educators to rethink their definitions of high quality scholarship and to focus attention on the relation between research and teaching.

For accounting educators, additional forces were at work. The American Accounting Association's Committee on the Future Structure, Content, and Scope of Accounting Education (The Bedford Committee, 1986) issued its report which called for an expanded view of accounting education. Shortly thereafter, the (then) Big Eight firms issued their own report: *Capabilities for Success in the Accounting Profession*. The report was followed by funding of \$4 million that enabled the establishment of the Accounting Education Change Commission and provided the resources for change.

At Notre Dame, the time was also ripe for change. The College of Business Administration hired a new dean in 1989 and a new Department of Accountancy chairman in 1990. Also, the university was investing heavily in technology and new teaching facilities were on the horizon. Within the Department of Accountancy, retirements and other factors resulted in great change in the composition of the faculty. New people brought with them new ideas and the enthusiasm to support change.

Key Means of Accomplishing Grant Objectives

The AECC grant was for **Project Discovery**, a joint project of the University of Notre Dame and the University of Illinois at Urbana-Champaign. The primary objective of **Project Discovery** is to produce an innovative curriculum prototype that can be implemented at many universities around the country. In working to achieve this objective, we:

- *Developed and implemented a new two-semester foundation course in accounting and accountancy.

- *Developed and implemented a complete accountancy curriculum for junior and senior accountancy majors.

- *Are producing dissemination documents that we call "Course Studies" to facilitate implementation of **Project Discovery** at other universities.

- *Are engaged in a variety of assessment activities.

Some two years before the development of the Project Discovery proposal, a group of accountancy

faculty members at the University of Illinois began meeting to consider developing a new curriculum along the lines of the Bedford Committee recommendations. Later, the Illinois team traveled to the University of Texas at Austin and engaged in similar discussions with a small group from that accounting faculty. Based on all of these discussions, the concept of the **Project Discovery** curriculum emerged. Eventually, a proposal was written, submitted to the AECC, and partial funding for the project was approved.

In June, 1991, some 50 educators from Notre Dame, Illinois, and area colleges participated in a conference on teaching and learning, held in South Bend. Sponsored by the Arthur Andersen Foundation, the conference featured presentations by leading educators on topics such as the environment of teaching and business education, critical thinking, active learning, and technology. Articles from the conference have been compiled in *Critical Thinking, Interactive Learning, and Technology: Reaching for Excellence in Business Education*, edited by Thomas J. Frecka (Arthur Andersen & Co., 1992).

Unlike the other AECC projects, **Project Discovery** is a combined endeavor of the University of Illinois and the University of Notre Dame. Both schools set up faculty committee structures to oversee the project. Project directors were named, teams of faculty members were assigned responsibility for developing individual courses, and subcommittees were assigned to other project tasks, such as the development of assessment plans.

Major Changes form Pre-Grant Conditions

In designing the new curriculum, we were guided by the following beliefs:

- *Students must become critical thinkers and take a more active role in the learning process. They must develop the self-initiated skills of discovery that enable a lifetime of continuous learning and growth as a professional. To do so, the curriculum needs to place greater emphasis on methods and skills of analysis, judgment, and decision making.

- *General education requirements, and the skills developed therein, should be better integrated through extension and reinforcement in the major field.

- *The accounting curriculum should be integrated, using a conceptual framework that cuts across accounting subspecializations and that stresses its information production and dissemination role in society.

- *The foundation course of the accounting curriculum, which serves both as a broad introduction to accounting (the system of organizing, evaluating, and disseminating information) and accountancy (the professional activities of the accountant), should be more conceptual and less technical. It should produce an understanding of the relations among accounting, business, and society.

- *The frontier knowledge gained through research must be effectively incorporated into the learning process of accounting students.

- *A closer working partnership must be forged between the academic and practicing communities to develop a learning environment that is more representative of the technological and discovery features of the practice environment and to create richer materials for classroom use.

The first **Project Discovery** course was offered to a group of 150 students at the University of Illinois in fall, 1992. As planned, Notre Dame has lagged Illinois in implementing the curriculum by one year. The first Project Discovery course was offered to all College of Business Administration students (550) at Notre Dame in fall, 1993.

The Contracting Theme

An explicit objective was to consider contracting notions throughout the curriculum. We believe that a broad-based contracting perspective provides considerable scope for discussing accounting issues,

measurement and disclosure considerations, standard setting, and other dimensions of the role of accounting in society. In addition, the contracting view facilitates learning the interrelationships among many aspects of business activity and, in turn, facilitates learning of accounting.

The Planned Project Discovery Curriculum

The intent of Project Discovery was to design and implement a complete sequence of accounting coursework to take the place of the then existing accounting curriculum.

The following framework for the accounting core was proposed:

Introductory Component:

Accounting and Accountancy I and II: A two-course Sophomore sequence designed to (1) provide an introduction to business concepts and business practice; (2) provide a comprehensive overview of the uses of accounting information and the role of accountants in society; and (3) provide the conceptual foundation for in-depth study of the entire accounting sequence.

Accounting Concepts Component:

The intent was to develop five courses that would provide an in depth understanding of the pertinent aspects of accounting. The five courses are:

Decision Processes and Accountancy: A course focusing on the science of individual and group decision making.

Accounting Measurement and Disclosure: A course intended to develop concepts of measurement and information disclosure required for decision making and contracting.

Accounting Institutions and Regulation: An examination of the institutional, regulatory and legal environment in which accounting information is used.

Accounting Control Systems: An examination of systems for facilitating and monitoring the set of explicit and implicit contracts that control the activities of organizations.

Attestation: An examination of the independent public accountant's attest function.

Skills Development Component:

The intent was to develop a series of one-credit hour workshops that would focus on the development of relevant interpersonal and communication skills.

Comprehensive Integration Component:

The intent was to develop an Accountancy Practicum course as a means of comprehensively integrating all of the skills and knowledge gained in the rest of the Project Discovery coursework.

The Actual Project Discovery Curriculum at Notre Dame

For a variety of reasons, the actual *Project Discovery* curriculum at Notre Dame is somewhat different than the proposed curriculum. First, in developing the proposal, it was envisioned that additional accounting coursework dealing with professional standards would have to be provided. Also, a separate taxation course was not developed as part of the project. As part of the actual development, we incorporated additional coursework into the project. Second, at the same time Notre Dame was implementing *Project Discovery*, it was planning to start a masters degree program in accountancy. As part of this planning process, it was determined that a course like the Accountancy Practicum was better positioned as a fifth-year course. Third, resource constraints prevented us from fully developing the skills workshops. Further, we felt that many of the oral and written communication skills, team building skills, and lifetime learning skills were being developed in the other *Project Discovery* courses or business communication courses already offered by our business

school. Later, we were pleased to receive a grant from the Ernst & Young LLP Foundation to support the development of Communication and Leadership course work. Pilot coursework was offered for the first time in the spring, 1996 semester. Finally, course developers at Notre Dame proceeded somewhat independently of their Illinois counterparts. By lagging Illinois in implementing *Project Discovery* courses by one year, they had the benefit of the Illinois experience as their knowledge of what made most sense for Notre Dame.

Today, the actual Notre Dame accountancy curriculum (required courses for accountancy majors) consists of the following (3 credit-hour) courses:

Sophomore Courses (Required for Business Majors)

Accounting and Accountancy I

Accounting and Accountancy II

Junior Courses (Required for Accountancy Majors)

Accounting for Decision-Making and Control

Accounting Measurement and Disclosure

Decision Processes in Accounting

Accounting Institutions and Regulation

Senior Courses (Required for Accountancy Majors)

Accounting Information Systems

Advanced Accounting Measurement and Disclosure

Federal Taxation

Attestation

No problems arose as we sought support for the project at the college level. Discussions were held with the college's Undergraduate Curriculum Committee. The project's objectives were viewed as consistent with the educational objectives of the college. Since the project would not involve a shift in resources between departments, other departments would not be harmed. One benefit of the discussions was the development of a greater awareness of the content of the principles of accounting and introductory finance courses. As a result of the discussions, some overlap of material between the courses was eliminated.

Faculty members, the dean, and members of the accounting profession were invited to visit the first *Project Discovery* classes. This helped to develop additional buy-in. Supportive comments from members of the profession and feedback they provided to students about the importance of the skills we were trying to develop were additional motivating factors.

Notre Dame was one of the few major accounting programs that did not have an advisory board. Shortly after the project commenced, we were able to form an advisory board. Meeting with the board, including sessions with students, provided another means of communication.

Our approach for enlisting student support was to not promote *Project Discovery* as a revolutionary change, but instead, we treated it as evolutionary progress in achieving our mission of providing outstanding educational experiences for our students. The chair had already established a student advisory group and periodically met with that group. Small

groups of students were invited to meet with individual course instructors as another means of communication.

Status of Project

As planned, we started implementing the new curriculum in the Fall semester, 1993. Two *Project Discovery* courses, Accounting Institutions and Regulation, and Attestation, were taught to large groups of students for the first time in 1995-96. The first class of *Project Discovery* students graduated in May, 1996. Readers should keep in mind the "in process" status of the project in evaluating its effectiveness.

Documentation and Dissemination

The faculty approved a documentation and dissemination plan that is in the process of being implemented. A committee was formed to develop the documentation plan and to oversee its completion.

Documentation consists of the following:

- 1. Course studies:** Documents we call "Course Studies" are our primary dissemination tool. An individual course study includes a course summary, statement of learning objectives, syllabus, sample exams, and sample course materials. Included in all course studies is a matrix that links assignment material to both accounting content objectives and to skill development objectives. Course studies are being distributed free of charge to interested parties.
- 2. Teaching plans:** Individual class session teaching plans have also been developed. These plans are linked to the matrix and course summaries provided in the course studies.
- 3. Teaching notes:** More detailed guidance concerning individual assignments is provided in teaching notes. The teaching notes include suggested solutions for the cases and problems developed for the project.

Type (2) and (3) documentation are available for a small fee to help defray copying and mailing costs.

As an additional means of dissemination, a *Project Discovery* conference was held in the fall 1996. Representatives from about forty universities attended the conference where the content of the Illinois and Notre Dame curricula was presented.

Assessment

Assessment involves the systematic collection, interpretation, and use of information on student characteristics, the learning environment, and learning outcomes to improve student learning. An Assessment Committee was formed to develop our assessment plan and to monitor its implementation.

Prior to *Project Discovery*, elements of systematic assessment were already in place for the Department of Accountancy. Multiple groups — students, individual faculty members, an elected faculty committee called the Committee on Promotions and Tenure, and the department chair — are asked to assess the effectiveness of individual courses and faculty. At the end of each course, students also provide "Teacher/Course Evaluations" using a university designed instrument.

Accountancy majors also complete a Senior Survey during their last semester. Our recent response rate has been one hundred percent. The survey documents placement experience and also includes questions evaluating the quality of accounting education at Notre Dame, including both positive and negative aspects of the student's experience.

The faculty assesses learning outcomes through exams, homework, research papers, classroom presentations, class participation, etc. At the end each course, faculty members also complete two reports. The first report, called the Instructor's Course Evaluation Summary, provides open-ended responses concerning: (1) major features and innovations used in the course; (2) evaluation of the success of the course; and (3) planned changes for the next time the course is taught. The second report, called the Skills Development Summary, asks the faculty member to identify course objectives and the procedures used to accomplish them. This is the "matrix" referred to earlier under "Course studies." To the extent a given course has multiple sections and instructors, the teams meet to develop a common matrix.

Program/curriculum assessment builds on and complements these assessment efforts within individual courses. In-class assessment techniques allow the teacher to monitor teaching effectiveness and make mid-course corrections. Such intra-course measurements enhance learning by actively involving students in assessing their own learning. They also encourage faculty to experiment with and vary their teaching techniques. Commonly used tools include informal discussions with students and short, mid-term open-ended requests for feedback. More formal tools are increasingly coming into use including classroom assessment quality circles, self-diagnostic learning logs, one-minute papers, and directed paraphrasing.

Our planned Curriculum Assessment Program is summarized in [Appendix 1](#). Note that the program identifies specific cognitive, behavioral, and affective goals and specific learning objectives related to these goals. Specific assessment measures and the timing of the measures are also identified. In assessing *Project Discovery* at Notre Dame, again it is important to point out that the project remains in process and that we are just beginning to implement our assessment program.

What We Have Learned and Future Challenges

Almost overnight, the Notre Dame accountancy program went from a steady-state environment to an environment of great change. In addition to the AECC curriculum project, other changes included the hiring of fourteen new faculty members over a five-year period, the establishment of two chaired professorships, greater expectations for faculty scholarship, an AACSB accreditation review, new teaching facilities, faculty approval to begin a masters degree program in accounting, and discussions about starting a doctoral program.

In an academic environment of great change, success depends greatly on maintaining faculty morale. We believe that morale will remain high if the faculty believes it is doing important work and if it is rewarded for that work. One reason *Project Discovery* is succeeding at Notre Dame is because that faculty believes it is important. Undergraduate education at Notre Dame always has been and always will be extremely important. The Accountancy Department knew that if it wished to maintain its leadership position in accounting education, change was necessary. It, therefore, supported the original concept of *Project Discovery* and modified that concept to make it fit at Notre Dame.

During this time period, we also improved our system for evaluating faculty performance, primarily by asking the faculty to provide more documentation. For example, in the past, teaching was evaluated based primarily on the Teaching/course Evaluation input provided by students. Now faculty document their development activities and provide a great deal of detail about their courses.

During this time we have been able to increase faculty summer support for research and for curriculum development activities. Faculty Fellow appointments have been established with each of the Big Six firms. Several faculty members have received prizes in recognition of outstanding teaching. In cases where senior professors are no longer active researchers but remain outstanding teachers, we have been able to increase their teaching loads and provide them with greater rewards for their teaching. Assistant professors receive a semester release from teaching after their initial three-year contracts are renewed. Although Notre Dame does not offer sabbaticals, we do have some flexibility in course load assignments, and it has been possible to provide some faculty members with reduced teaching loads while they are involved in heavy coursework development activities. Finally, the university has remained fiscally sound and has provided a competitive level of faculty compensation. All of these factors are part of the reward structure that impacts faculty morale.

We have **learned** the following as a result of *Project Discovery*:

1. Textbooks have become more like reference books as faculty members write more of their own materials and utilize materials from a variety of sources. At the same time, there is a greater tendency to tailor instructor-developed material to specific textbooks so that a change in textbook requires more work than in the past.
2. Coordination between classes and courses is a key to success. We have designated a faculty coordinator for each *Project Discovery* class. The instructors for multiple-section courses meet on a regular basis. We also have periodic meetings with the entire faculty to communicate progress on the project. Five years ago, the faculty would have spent little time on such activities. Today, and in the future, curriculum coordination will remain a time consuming faculty activity.
3. Teaching takes more time. It takes much more up-front planning and more day-to-day planning. In addition, there is more grading that needs to be done and assignments have to be more creative. Some graded assignments can be used only once or twice before extensive modification is needed.
4. Research findings can be used to greatly enrich accounting education at the undergraduate level. For example, research related to the contracting and

informational roles of accounting provides structure for much of our financial and managerial accounting coursework.

5. Documentation has a great deal of value, but it also takes a great deal of time. Too many documentation requirements can create disincentives.
6. Student group projects raise honest issues that weren't present in the past. For example, instructors need to be very explicit about what is acceptable communication between groups. They also need to be explicit about expectations concerning the individual's participation as a full member of the team. In this regard, it is important to use peer evaluations. The form that seems to work best for us is one that asks group members to state explicitly what work they did on the project.
7. Students are much more computer literate than they were in the past. Spreadsheets, databases, presentation software, and e-mail are commonly used tools. It has not been necessary to spend much time teaching basic knowledge of these tools in upper level courses.
8. Students ask broader questions in class. They seem to have a better understanding about how accounting relates to business.
9. There is much more student participation in class. This makes it more difficult to plan how long it will take to cover material, especially the first time a new course or a new assignment is covered.
10. While the scholarly reputation of the faculty as a whole has improved greatly during the *Project Discovery* timeframe, primarily as a result of new faculty hires, the research productivity of course developers went down during the developments stage.
11. Working with the faculty of another university presents some difficulties. Distance, different mindsets, different environments, and moral hazard problems make coordination and the sharing of information difficult. Having said this, it is clear that the joint Illinois/Notre Dame curriculum project benefited both faculties. *Project Discovery* is a large project and it required many resources. It would have been difficult for one university to complete the project on its own.

Our **future challenges** include the following:

1. There is a need to "institutionalize" the realization that the approach to accounting education at Notre Dame has changed drastically, and that the new approach, rather than the old approach, is the approach of the future. The new approach is much more labor intensive and it treats teaching as a scholarly activity. While competition, accreditation standard, and other factors may encourage continuous improvement, there is a danger that *Project Discovery* will be viewed as a one shot activity. As the department experiences leadership changes, as the factuality faces renewed pressure for research productivity, will the process of accounting education improvement continue?
2. A related challenge is to find the resources for continuous updating and modification

of the curriculum. Course materials have a much shorter shelf-life than traditional textbook materials. Finding the necessary time and resources is a challenge. One solution may be better communication, documentation, and sharing materials among "change" schools.

3. In general, we need to learn how to implement change more efficiently. While it is clear that the faculty is spending more time on teaching, research expectations have not decreased. The need for balancing and integrating teaching and research activities remains a difficult challenge.
4. Since *Project Discovery* is still in the process of being implemented at Notre Dame, one of our remaining challenges is to complete the assessment task.

Conclusion

We believe that *Project Discovery* has been a great success at Notre Dame. The first *Project Discovery* class graduated in May, 1996. The students are doing well in the job market and they seem pleased with the quality of their accounting education. Another indicator of success is that our Junior class of 240 accounting majors is near an all-time high. Further evaluation and assessment will continue as we complete the project.

But as always, the final test of success will be a market test. Will future Notre Dame accountancy graduates be among the best and brightest? Will Notre Dame continue to be recognized as a leader in accounting education? We see no slackening of effort as we continue to pursue our mission and we welcome the market's assessment of our results.

Appendix 1 CURRICULUM ASSESSMENT PROGRAM

| GOAL | | OBJECTIVE: Students will: | ASSESSMENT MEASURES | TIME FRAME | USE OF RESULTS |
|-----------|--------------------------------|---|--|---------------------------------------|-------------------|
| COGNITIVE | Knowledge and Comprehension | Have high verbal and math aptitudes | SAT scores; G.P.A. | Start of junior year | |
| | | Be able to apply accounting concepts and principles in a variety of contexts | Portfolio <u>Analysis</u> ¹ | Senior year | |
| | | | Alumni Surveys | Senior year and two years later | |
| | Recruiter Surveys | Every three years | | | |
| | Critical Thinking Skills | Use correct inference and deduction, recognize assumptions, interpret | Diagnostic Critical Thinking Skills Test | Sophomore and senior years | |

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|------------|--|--|--|---|--|
| | | evidence, and evaluate arguments | | | |
| BEHAVIORAL | Develop Global Adaptability | Work effectively in teams with diverse individuals | Alumni Surveys | Senior year and two years later | Compile holistic results for each class; review for trends; implement improvements as needed |
| | | | Recruiter Surveys | Every three years | |
| | Enhance Communication Skills | Speak and write effectively on accounting topics | Portfolio Analysis (writing) | Senior year | |
| | | | Standardized Measurement of Oral Presentations | Annual review of faculty evaluations of a sample of student presentations | |
| | Develop Technological Aptitude | Be able to effectively use computers to solve accounting problems | Alumni Surveys | Senior year and two years later | |
| | | | Recruiter Surveys | Every three years | |
| AFFECTIVE | Develop Ethical Awareness | Accept ambiguity in business decision making | Tolerance for Ambiguity Instrument | Start of junior year and end of senior year | |
| | | | Faculty Ratings of Students' Ethical Awareness, Analysis and Decision Making in Live Simulations and Class Discussions | Senior year | |
| | Satisfaction with Learning Environment | Be satisfied with their accountancy program and suggest improvements based on changing needs in the profession | Alumni Surveys | Last semester; two and five years after graduation | |

¹Faculty judgements of students' use of accounting knowledge based on portfolio of major assignments.