The instructional system which emerged from the Pennsylvania State University three-year project was a seminar practicum for Hotel and Food Service paraprofessional workers which provides work experience, a set of self-instructional modules, subject matter, a weekly seminar discussion, and encourages minority/lower income students. A summary of two test programs has indicated that students and faculty consider the practicum an eminently successful means of delivering hospitality education. The report presents a detailed view of the conceptualization of the seminar process, difficulties, and models employed in developing the self-instructional materials; a report from a year's experience in teaching the seminar practicum; objective measurements of student performance; and a summary of student/faculty/employer views of seminar practicum effectiveness. Also presented are a summary of the Dietary Technician program and an outline of remaining work on external degree and upper division program development. Material that was reviewed in the process of conceptualizing the paraprofessional role is presented to clarify Hotel and Food Service/Dietary Technician programs as fundamentally paraprofessional from a functional standpoint. The concluding section presents a brief discussion of some of the policy issues raised by this and other paraprofessional education system design projects. (Author/EA)
THE SEMINAR PRACTICUM:
A COMMUNITY BASED INSTRUCTIONAL SYSTEM
FOR PARAPROFESSIONAL EDUCATION

FOOD SERVICE AND HOUSING ADMINISTRATION

THE PENNSYLVANIA STATE UNIVERSITY
THE SEMINAR PRACTICUM:
A COMMUNITY BASED INSTRUCTIONAL SYSTEM
FOR PARAPROFESSIONAL EDUCATION

A Report

by

Thomas F. Powers, Ph.D.,
Professor in Charge,
and the
Faculty
of the
Food Service and Housing Administration Program

THE PENNSYLVANIA STATE UNIVERSITY
University Park, Pennsylvania
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Thomas F. Powers

University Park, Pennsylvania

June, 1974
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INTRODUCTION:

DEVELOPMENT OF A VALIDATED INSTRUCTIONAL SYSTEM
FOR HOSPITALITY EDUCATION

by

Thomas F. Powers

In early 1971, a proposal to validate an instructional system for hospitality education was submitted to the Research Coordinating Unit of the Department of Education of the Commonwealth of Pennsylvania. The particular emphasis in the instructional system was on the development of a controlled field experience as a substitute for traditional laboratory and class experiences. The reasons for undertaking this project were several.

First of all, while a great deal of research undoubtedly had been done by individual hospitality management programs, this research typically resulted in the establishment of or the modification of a single institution's program. Local research was not generalized and resulted only in the development of a specific curriculum at a specific institution rather than a prototype which might be used by others. Moreover, whatever work was done had results which were institutional in form and did not manifest themselves in the form of publications which could form a basis for planning—or comparison. The demonstration program specified that not only would a program be developed and validated but the results would also be disseminated in the widest possible fashion.
The second problem perceived was that the expensive form which "foods" laboratory courses take require facilities that are expensive both to equip and to operate. Moreover, it was felt that these laboratories were essentially an artificial setting to teach subject matter that could perhaps be taught as well in an industry setting. Thus a research goal of this program was to determine whether the substitution of a controlled field experience for traditional curriculum elements could take place without a reduction in the quality of learning on the part of the student.

The project was justified not only on the basis of a need for research in this area and in operating problems relating to the laboratory foods course but also in terms of industrial and social need. Service industries were seen as fast growing fields in which management personnel specifically prepared to operate in the industry were not being supplied in anywhere near sufficient numbers, as documented by interviews with industry education leaders. Finally, the hotel and food service fields were recognized as fields in which minority groups were often employed. The position was advanced that the development of an associate degree offering which (because it emphasized a required, paid, work experience) would have recruiting advantages in lower income areas, would be particularly responsive to challenges to our society.

Objectives

The objectives of the project were (1) to design an instructional system, supporting instructional materials, and evaluative measures to substitute for traditional laboratory and classroom experiences; (2) to implement the instructional system; (3) to investigate the influence of
the instructional system on the level of achievement, vocational performance, vocational commitment, and career prospects for students; and (4) to study the effectiveness of the instructional system in attracting and retaining students from lower income and minority groups.

Project Operations

During the first year of the program, an existing associate degree program was transferred from the University's University Park Campus to its Berks Campus in the area of Reading, Pennsylvania (hereafter, "the Berks Program"). First year courses that used the traditional classroom method of instruction were offered at the Reading Campus and, in the meantime, a team at University Park undertook the preparation of the self-instructional modules to accompany the controlled field experience classes which were planned for offering in the second year of the student's program of studies.

The Seminar Practicum

The instructional system which emerged from the early planning was christened "The Seminar Practicum." This instructional system proposed to rely on a triad of learning resources. The first of these was the experience in the work place. The second was a set of self-instructional modules which focused the student's attention in the work place on appropriate subject matter on a week-by-week basis, supplementing the learning available to the student in the work place, and establishing standards which might be more rigorous than those encountered in some work places. The third was the Seminar: a weekly meeting in which the students used their experience as the basis of discussion and were guided by their professor.
During the second year the seminar practicum was offered in a test mode and the student performance was evaluated. On the basis of this test year, the instructional modules were revised and these modules were again tested in the third year of operation. During that third year, on the basis of two years teaching experience, instructors' manuals were prepared to provide assistance to new instructors in adapting this instructional system to their own particular style of teaching.

Related Developments

In 1971 a proposal was submitted to the Public Health Service to develop the same associate degree program utilizing the seminar practicum, for Dietary Technicians rather than for students interested in commercial hotel and food service management. This proposal was a direct result of the project funded by the Research Coordinating Unit.

The Public Health Service funded the development of the parallel program, which began offering courses in the Fall of 1972 at the York Campus (hereafter: "the York Program"). During 1972 the first year courses were offered while the self-instructional modules for that curriculum were written on the basis of those developed and tested during the previous years at the Berks Program. During the second year of the York Program, those modules were tested and evaluated in the classroom. During that year, also, the Public Health Service, in a second grant, funded the development of this degree for delivery by an external mode, using correspondence and other media.

A Report on Results

In 1973, a series of four papers were presented to the American
Home Economics Association summarizing the first year of the Berks program. Three of these papers are reproduced in later portions of this report. In November, 1973, two papers were presented to the American Dietetic Association outlining the conceptualization and early results of the Dietary Technician Program at York. One of these papers is reproduced later in this report. Finally, in June, 1974, two papers were presented giving a final report on the development of the Berks Program, and these two papers are also reproduced here.

Summarizing the results of the operation of the operation of the two test programs (Berks and York), one would have to say that the seminar practicum has been judged by students and faculty to be an eminently successful means of delivering hospitality education. The Berks Program, which has been subject to evaluative study, appears to offer a high quality educational program. Personal interviews with recent graduates indicate, in general, enthusiastic and overwhelming support for the seminar practicum, and interviews with cooperating employers support this conclusion.

The balance of this report presents a detailed view of the conceptualization of the seminar process, difficulties, and models employed in developing the self-instructional materials; a report from a year's experience in teaching the seminar practicum; objective measurements of student performance; and finally, a summary of views of students, faculty and involved employers of the effectiveness of the seminar practicum. Because the dietary technician program grew out of the work accomplished in the Berks Program, as did the development of the external mode of that degree, a summary of the dietary technician program is also presented. Work which remains to be done related to
the development of an external degree and upper division programs is outlined.

In the course of a project of the nature and duration of this one, a good deal occurs that was not originally planned; this is certainly true in the case of the redesign of the Hotel and Food Service curriculum. In the next section, material that our faculty members have reviewed in the process of conceptualizing the paraprofessional role is presented to show why it is useful to think of the Hotel and Food Service program (and the Dietary Technician program) as fundamentally paraprofessional from a functional standpoint.

The last section of this report presents a brief discussion of some of the policy issues raised by the work undertaken in this and other paraprofessional education system design projects. Although some of the material presented in this report is not part of the output originally specified by the project, the report would simply be incomplete without these additional considerations. The sections describing what has been accomplished as a direct—and indirect—result of this program are unquestionably the minimum that might be included in this report.

The section that attempts to lay a basis structure for thinking about "knowledge workers" or paraprofessionals and the educational goals of programs related to students preparing for these roles; the section on "Work Undone"; and the final section that reprises the basic issues our society faces as education focuses increasingly on relating specifically to emerging manpower needs rather than on General Education reflect the indirect outcomes of this project. Since these lay the groundwork for future study and work, they are, in some
ways, the most important chapters in this report.

The instructional manuals that accompany HFS 850, 860, and 870 have not been included as parts of this report. Instead they have been printed separately as University instructional materials and are available through the Food Service and Housing Administration Program, Human Development Building, The Pennsylvania State University, University Park, Pennsylvania, 16802.
I
PARAPROFESSIONAL: WHAT'S IN A NAME?
by
Thomas F. Powers, Ph.D.
PARAPROFESSIONAL: WHAT'S IN A NAME?

by

Thomas F. Powers, Ph.D.

Introduction

In an increasingly complex society, the nature of work is evolving, and we need new models for thinking of work and education for that work. With a new model must come a new vocabulary, and the word "paraprofessional" is a convenient shorthand term for a complex development which must shape the evolution of curricula in Hospitality Education.

Our society's increasing complexity is accepted as a commonplace. Various scholars view the effects of growing complexity on manpower needs in different lights. Zbigniew Brzezinski, for example, coined the term, "Technetronic Society" to describe a central force in this evolution: technology and particularly electronic technology. While Brzezinski sees technology as the central issue, Daniel Bell views the emergence of scientific knowledge as the major development, and he documents the increasing importance of technical and scientific manpower roles.

Peter Drucker sees "the systematic and purposeful acquisition of information and its systematic application, rather than 'science' or 'technology'--as the new foundation for work."

The trend toward knowledge as a central productive resource of our society is a pervasive one and, as Drucker points out, it is the key to increasing productivity in our age--much as the machine was during the Industrial Revolution. At the center of this development is the emergence
of a new work role Drucker calls the "Knowledge Worker." If workers and managers in the Hospitality Industry are to enjoy the increased incomes based on the increased productivity of "knowledge workers," conscious curricular strategies must be devised to replace a craft oriented mentality in Hospitality curricula with a compulsion to identify and develop an appropriate knowledge base.

What's in a Name?

There are a number of arguments against applying the title "para-professional" to students in the commercial emphasis of the Hotel and Food Service Associate Degree Program which is the subject of this report (the Berks Program). At least one study, however, based on a survey of 194 colleges and reporting 1006 human service paraprofessional programs, classified two out of the 12 general fields identified clearly within the occupational objectives of the Berks Program ("Hotel, Motel, and Food Service" and "Institutional Services.").

The objections to the use of the term "paraprofessional" to denote graduates of the Berks program, while theoretical in nature, are undoubtedly valid. First of all, there seems to be a consensus among most writers in this field that the paraprofessional partakes in large measure of the ideal of the disinterested professional who renders service on the basis of the client's need rather than his own self interest. Since Berks students are preparing for work in the commercial sector of the economy this disinterestedness is not generally a part of their work. Moreover, almost all paraprofessional roles described in the literature are those in which the paraprofessional works directly with and generally under the close supervision of someone designated as a professional. (Many of
these professionals, however, are referred to by Etzioni as "semi-professionals." 7

Where an educational paraprofessional augments and expands educational services of a "professional" teacher (by working closely with the professional) and a medical paraprofessional augments and expands the services of a doctor, the typical graduate of the Berks program may be expected to be a manager of a unit (a department, a firm, or a franchise operation). He will not typically be in a supportive role relative to some professional: in fact, the hospitality firm is not a "professional" organization.

While these theoretical arguments have unquestioned merit, viewing the matter in a broader context of a general type of manpower demand--for "intermediate managerial personnel"--may offer theoretical justification for the paraprofessional designation. In a sense, the Berks graduate, rather than supplementing and supporting a professional, plays a role of supplementing management in a system of diverse Hospitality services. As a paraprofessional, he supplements the entrepreneurial and managerial skills that are central to the system in which he works by providing an intermediate level of supervision and administration in a service network.

In any case, these theoretical arguments are not central to the selection of the term "paraprofessional" to describe Berks graduates. The term is employed to serve as a basis for considering a new curriculum model of two-year Hospitality Programs.

A Critique of Hospitality Curricula

The hospitality industries, like most American institutions, have
their roots in European versions of those industries. The hotel and restaurant work roles were originally derived from European craft and artisan roles. Even the hotel and restaurant manager derived originally from the European role of hotelier which is, itself, much more of an artisan than a managerial role. At the heart of the artisan role is an unchanging tradition.

The European artisan tradition dominated the hospitality industry until very recently, and Hospitality industries are still characterized by a small firm size. It appears that the "Americanization" of work, which accompanied the introduction of scientific Management by Taylor and others and was backed by the substantial resources of the large firms in manufacturing, came later to the Hospitality industries than to the manufacturing industries. In a time of Ronald McDonald, computerized reservation services, and a swimming pool in every courtyard, it can hardly be argued that Americanization has yet to take place in the Hospitality industries. As is often the case, however, educators lag behind industry and, as a group, we are still struggling in the morass of traditionalism which our industries began leaving in the late 40's and early 50's.

While no "scientific" data is available to sanctify the observation, the writer's conversations with hospitality educators (and the errors contained in his own work in curriculum design) suggest that the concepts of the field are shaped, to a very large degree, by more or less standard curriculum "pieces" fitted together in a limited variety of traditional ways.

Perhaps the best example of this practice is the problem of "foods courses." Debate focuses, first of all, on whether or not there should
be "hands on" foods lab courses in a hotel and restaurant curriculum. Those who argue for inclusion of these courses generally have in mind an almost ritual observance of a pattern of "working all stations" and a very limited amount of role playing as manager.

On the other hand, those who oppose offering these courses argue that "we're not training cooks!" The first position typically ignores the evolution—indeed, revolution—in food processing and focuses, instead, on a purist "preparation from scratch" strategy. The lab's opponents assert that "you don't have to be able to cook to run a restaurant," but they have yet to make a case that ignorance of cooking is any advantage in that occupation. To suggest briefly the impact of a knowledge based strategy: The Seminar Practicum recognizes that familiarity with cooking skills (thus, field experience with cooks) is an important part of a manager's background in an industry where senior operating executives are rarely more than one or two echelons above the production worker. At the same time, the learning modules developed for the Berks program do make a useful start toward presenting (1) cognitive learning experiences related to the scientific basis of the process of food preparation, (2) the dynamics of the supplier industries, and (3) the need for certain basic "how to" managerial skills related to planning and performance evaluation (payroll and food cost control techniques, in particular) in food service operations.

The term "paraprofessional," then, is introduced to focus attention on the knowledge-based curricula developed for paraprofessionals in other fields. Such a shift, the writer hopes, will result in the development of curricula for more productive, higher paid knowledge workers in the hospitality field.
Defining "Paraprofessional"

The balance of this paper will develop a definition of "paraprofessional" by identifying the paraprofession's social and economic functions. No discussion of paraprofessionalism could be complete without a brief discussion of the work done under the rubric of "New Careers." Following this discussion, attention will focus on a spectrum of professionalism suggested by Etzioni and will contrast the developmental stage of the paraprofessional with what Etzioni calls the "semi-professional." Finally, drawing on somewhat fragmentary evidence, the author will make an attempt to move toward a work-centered definition of paraprofessional roles as contrasted with an essentially social purpose definition advanced by the New Careers advocates.

New careers. The basic apologia for New Careers is Pearl and Reissman's New Careers for the Poor, which puts forward the notion that the problem of poverty must be solved by developing employment opportunities for the poor. The goals for new careers specified in New Careers for the Poor include

1. A sufficient number of jobs for all persons without work.

2. Jobs so defined and distributed that placements exist for the unskilled.

3. Jobs that are permanent and provide opportunity for lifelong careers.

4. An opportunity for the motivated and talented poor to advance from low-skill entry jobs to any station available to the more favored members of society.

5. The Work that contributes to the well-being of society.

The redesign of work proposed is intended to break down established skilled and professional work into segments which can be done by "the
unskilled, inexperienced and relatively untrained worker."\(^{11}\) in a manner such as to circumvent arbitrary requirements (as perceived by the authors).\(^ {12}\) The goal is operationalized in the phrase, "Obtain service from the poor in the place of providing service to the poor."\(^ {13}\)

The need is seen to develop work roles that are not dead end, but rather articulated within the now widely discussed career ladder concept. Since this work is to be accomplished in the public sector and carried out under the close direction of professionals, the term "paraprofessional" was adopted to describe the new careerist.\(^ {14}\) (A number of other titles including "new professionals," "non-professionals," "new careerists," "indigenous workers," and "aides" are also used.)

In a progress report on New Careers, Gartner notes that the use of paraprofessionals antedates the New Deal but was given impetus by the Roosevelt Administration. A "continuing concern for meeting manpower shortages characterized the program of the 1950's and early 60's." The Economic Opportunity act of 1964 provided the base impetus to New Careers program by providing funding and calling for the development of employment opportunities.\(^ {15}\) Within one year, 46,000 workers in Head Start and 25,000 in Community Action had been designated "paraprofessionals." In 1969, a survey of OEO paraprofessionals found 78 percent black, 80 percent female, and 48 percent who were not high school graduates.\(^ {16}\)

Four factors characterized early New Careers programs: (1) development of entry-level employment opportunities; (2) assurance of maximum prospects for advancement and continued employment; (3) provision of a broad range of supportive services; and (4) inclusion of educational and training assistance.
A discussion of the New Careers programs is essential to this paper because it has had a profound impact on one widely used meaning of the term "paraprofessional." Thus, in 1972 the U.S. Department of Health, Education and Welfare issued a document summarizing "Paraprofessional Training in Colleges and Universities," which adopts the New Careers frame of reference to such an extent that other forces shaping the development of paraprofessionals are virtually ignored in the discussion of the data in the report. It is to those "other forces" that we now turn our attention.

Paraprofessionals as knowledge workers. As the discussion above suggests, the most clearly work-centered definition of "paraprofessional" is found in the field of health care. A recent set of articles in the Occupation Outlook Quarterly sets forth seven knowledge-based sets of paraprofessional roles.

The Journal of Allied Health is devoted to interdisciplinary studies related to health care professionals and paraprofessionals. A recent article in that journal suggests that the "New Careers scramble" may be inappropriate to this field. Another clearly emphasizes the importance of knowledge mastery as opposed to social need. And a third reports on the emerging codification of objective requirements for health care paraprofessionals.

Another field making wide use of paraprofessionals is education. In this field, the paraprofessional's work includes "assisting in the classroom, in the library, in the guidance office, in the home or wherever supportive services are needed to extend education." An Office of Education estimate put the number of paraprofessionals employed in education in 1979 at 225,000. The program of study to prepare
for a paraprofessional role in education appears to be an expression of a well-defined knowledge base.  

Parallel developments in supportive manpower development are reported in the legal profession in both social agency and commercial and industrial legal work in the developing role of the "para-legal." Paraprofessional roles have been identified in a number of other fields. "Job Safety and Health" is the subject of a two-year program of study being offered by seven community colleges. Boston College's "Center for Consumer Law" offers a program to prepare paraprofessional neighborhood consumer investigators, and H.E.W. is reported considering funding more courses. A large number of administrative paraprofessional roles are reported by the 1970-71 HEW study referred to earlier.

It is instructive to contrast the paraprofessional with that group of workers Etzioni has called the "semi-professionals," principally teachers, nurses, social workers, and librarians. The semi-professionals are seen as aspiring to full professional status and thus challenging the status quo to demand more of the three valuables society offers for work: prestige, power, and income.

While the semi-professionals aspire toward upward mobility, the paraprofessional has, in effect, been put forward by others. Thus, the legal profession develops para-legals to take on routine research and administrative chores, saving the more expensive attorney's time—and it is the law firm that develops the training tool to deliver this new skill. The case of the Dietary Technician offers an even clearer example of a role being put forward where no such role heretofore existed. The "Dietary Technician" is a term invented by the American Dietetic Association and given limited sanction by that body to solve emerging
food service and nutrition care problems in hospitals and extended care facilities.

These work-based definitions of the paraprofessional have in common the fact that they all reflect market demand for services rather than social policy concerns. The economic function of the paraprofessional role—actually, an economizing function—is to save the time of the more expensive professional. The demands for the professional's time are expanding and, at the same time, the professional encounters greater demands that require a greater investment of both his time and effort for professional qualification. To compensate for this added demand, the professional is allowed to increase the cost of his services. As the professional's time becomes more expensive, the need for intermediate skill assistance becomes economically feasible and, indeed, essential.

The social function fulfilled by paraprofessionals relates to the more complex service systems that characterize our society today. The mix of services offered by the typical franchise motor hotel is vastly greater than those of a hotel of a similar size of 25 years ago—and yet the skills and training of the manager of such a property may be significantly less than those of the preceding hotelier. This is true because the franchise system routinizes nearly all aspects of management, leaving the manager the task of selecting from a repertoire of standard operating procedures those that fit the task at hand. While a great deal of independent judgment is still called for, the routines for maintenance, food service planning, housekeeping, reservations procedures, and entertainment services (TV, pool) simply did not exist in the earlier hotel system. We would intend that the paraprofessional in hospitality management be qualified by experience subsequent to
graduation as well as by education to serve as an Innkeeper. This is one aspect of the New Careers thrust that appears to have applicability in the private sector hospitality firm: the notion of career progression based on continuing education. This idea gives rise, in a later section of this report, to the identification of a need for External Degree Programs leading not only to the associate degree but to a degree on the baccalaureate level, as well.

Conclusion

As the paraprofessional in Hospitality Education follows a work-based model, the task of curriculum design should not be that of constantly reworking "pieces" of the oral tradition of a craft into ever better renderings of an eternal truth—which has too often been the practice. Rather, our task is to identify and evolve consciously a knowledge base. Only this strategy can secure the productivity and income gains of the knowledge worker for the Hospitality industries. The seminar practicum and the Hotel and Food Service Curriculum discussed at length elsewhere in this report, are useful steps in this direction.
Notes


4. Ibid., pp. 264-69.


7. Etzioni as ed. of Goode, op. cit.

8. This observation is based in large part on the writer's participation in management training activities for European hotel managers undertaken by the Intercontinental Hotel Company. Extended conversations with Mr. Peter Balas of the Paris Intercontinental and Mr. Robert E. Kulka of the Beirut Intercontinental, both of whom mix European and American education and experience, were particularly helpful to the writer.


11. Ibid., p. 13.


13. Ibid., p. 22.


17. Ibid., p. 7.

18. Ibid., p. 8.


24. Ibid., p. 159.

25. See ibid., pp. 160-161, for a discussion of the rationale for new staffing positions and a description of a curriculum for training auxiliaries.


30. Alexander. op. cit.

II

THE SEMINAR-PRACTICUM: THE KNOWLEDGE WORKER AND THE KNOWLEDGE BASE

IN HOSPITALITY EDUCATION

by

Thomas F. Powers, Ph.D.
Introduction

Peter Drucker, in The Age of Discontinuity, points out that, "Thirty years ago, on the eve of World War II, semi-skilled--operators--were the center of the American work force. Today the center is the knowledge worker, the man or woman who applies to productive work ideas, concepts, and information rather than manual skill or brawn . . . . The productivity of knowledge has already become the key to productivity, competitive strength, and economic achievement." A more common term for the knowledge worker in educational circles today is para-professional.

The development of the role of the para-professional is responsive to at least three basic needs of a dynamic society. First of all, the para-professional role responds to a fundamental change in the nature of work in our society. As Drucker points out, "The systematic and purposeful acquisition of information and its systematic application, rather than "science" or "technology" are emerging as the new foundation.
for work, productivity, and effort throughout the world... We are using knowledge more and more to enable people to acquire skills of a very advanced kind fast and successfully... knowledge substitutes systematic learning for exposure to experience." Very clearly, then, the education of the para-professional must be designed to secure an appropriate knowledge base; the para-professional is a knowledge worker.

A second need of a Democratic society is the demand for a "piece of the action" presented by those who have been disadvantaged, principally "interior immigrants." displaced from our country's vanishing traditional agricultural society. Para-professional educational programs, too, may accomplish better than average results, both from the point of view of the student's life chances and from the productivity increment society may expect to derive from individually more productive lives, among those students Jencks and Reisman speak of as offering the most promise as recruiting targets: the less than brightest yet able student" from the bottom half of the social ladder." Demands for upward mobility have often been met by applied fields of education. Education shaped for these needs should relate to roles where opportunity for advancement is a reality.

3 Ibid, p. 266-68.

4 Philip M. Hauser, "Demographic Factors in the Integration of the Negro," Daedalus, Fall, 1965, p. 859.

Thirdly, para-professional education is a useful response to the changing cost benefit equation in four year education. For some students, post secondary education involves a cultural decision; they aspire to the company of educated men and women. For many students and their families, however, higher education is an economic decision intended to achieve specific economic goals related to level and security of income. The rapidly escalating cost of higher education has put four-year education beyond the reach of many students. For others, that cost when compared to the income benefits they may realistically expect suggests serious review of alternate options. One such option is a two-year program leading to a specific para-professional role. Para-professional education may usefully, therefore, attempt to minimize net cost to the student.

The field of Institution Administration has quite properly broadened its concerns to include the hospitality industries. This field is among the last to begin the development of the "knowledge worker" for their industries. It is an industry which has long been manned largely by the underprivileged. A need has been recognized in associate degree programs throughout the United States and abroad to prepare people to enter the supervisory and middle-management ranks of that industry. The exploding demand for supervisory and management personnel offers reasonable assurance of placement for qualified graduates and an opportunity for subsequent advancement.

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Much of the excellent work done in Hospitality Education Program Development, however, is localized in single programs and not generalized so that the benefit of experience in one place may be adapted to the needs of others.

A Controlled Field Learning Experience

The richness of field experience has always been an essential part of hospitality education. Traditionally, however, field experience has played a very unstructured role in which the behavioral objectives of the field experience were specified only in the most general and broad terms. Under these circumstances, field experiences have been typically either uncontrolled or controlled only in a limited way by the requirement of a brief report from the student at the end of such an experience.

Working under a grant from the Research Coordinating Unit of the Department of Education of the Commonwealth of Pennsylvania, an innovative instructional system has been developed making much more intensive use of the controlled field experience. This system has been named the Seminar-Practicum. The principal operating goal has been to develop an instructional system responsive to the needs of the associate degree program in Hotel and Food Service offered at Penn State. The system under development has, however, been viewed from the first as a system which might be generalized for other Hospitality Education Programs.

This new instructional system relies on a triad of learning opportunities presented to the student. First of all, the student is required to work as an employee on a part-time basis in an industry setting.
The second element of the instructional system consists of self-instructional modules which direct the student's attention in the workplace, on a week-by-week basis, to the subject matter areas to be addressed as the course progresses. The self-instructional modules not only provide a vehicle for controlling the focus of the student's attention but also for supplementing the student's learning in the workplace.

The final element in the instructional triad is a weekly seminar for some 3-1/2 hours length. The function of the seminar is principally one of clarification and integration of the week's learning experiences. While there is some information input (lectures, demonstrations, informal guidance, etc.) and evaluative activities are a part of each seminar (quizzes, homework, recitation, etc.), the principal focus is twofold. First of all, discussion of any learning problems the student may have experienced is necessary. Secondly, three kinds of comparisons are being made more or less continuously by students among themselves in and out of class and in student-faculty discussion.

a. The student compares the information in the module with the practice and problems experienced in his workplace.

b. Students compared work experiences with one another, discovering the variety of the world of work and contrasting that variety with the pedagogically "ideal" world.

c. Instructor and student discuss the issues raised by the contrasts found. The instructor's role is that of authoritative interpreter.
It may be useful, now, to visualize how the seminar-practicum operates for an individual student. The student is employed in a food service establishment approved by program faculty. Let us assume that the student has reached the point in this particular seminar-practicum where he is concerned with meat cookery. It is to be hoped that the student will be working at this point on the meat preparation station, but if he is not, a minimum constraint on the system is that he must have access to the meat station for observation and for questioning. The instructor in the most recent seminar will have prepared the student for the subject matter he is to attend to during the week. As the week progresses, the student reads the self-instructional module. That module begins with a stated set of behavioral objectives for the student, contains explanatory text written in straightforward prose, and workbook exercises which permit the student to determine whether he has completed the learning activity satisfactorily. If he is not satisfied with his work, he can seek help from his work supervisor or from other students and at the point that he is satisfied return to the next activity. In the event that he is unable to satisfy himself, he can turn to the instructor who will maintain office hours for the purpose of answering difficult questions.

To take one behavioral objective in a section on meat cookery, it is important for the student to know the accurate means of determining when a roast is cooked to a desired degree. This should be done with a meat thermometer. Accordingly the student must know what a meat thermometer is, how it is inserted, and how it operates. The student should observe the use of the meat thermometer, learn to insert it, and learn to read it. In this example, however, the role of the instructor
is unusually important because many food service operations, because of their traditional orientation, still do not use meat thermometers. Consequently, the student may call on the instructor not only to find out how to use the meat thermometer, since he cannot find one, but also to try to determine why it is that the practice in the field is different from the ideal practice presented in the text. The model of the instructor’s role here is clear.

A more straightforward example involves employee scheduling. The module introduces conventions for describing and analyzing employee scheduling. The student, after reading these materials, performs straightforward scheduling activities described in simplified textbook problems. Having mastered these problems, the student moves on to describing and critically analyzing the employee schedule of one or more departments in his workplace. The solution (and the errors!) encountered in his workplace are then available in well thought out detail for comparison in seminar with those found by other students.

At the end of the week’s work, the student submits his or her workbook exercises to the instructor. The instructor check at this point is on a “go-no go” basis. That is, the instructor simply satisfies himself that the student has or has not concluded the workbook assignment. At the beginning of the class, a class quiz determines whether the student has retained the material that he has worked on. If the student or the instructor is not satisfied with the student’s performance on the quiz, a number of optional behaviors are possible, such as relearning, reviewing the material, or obtaining peer help or a tutorial. Of course, one option with failure
is always to ignore the failure and this option, whether we like it or not, is also available. After the class quiz, class discussion occurs, and it should be noted that the class discussion is an evaluative device as well as a learning experience. Both the student and the instructor can evaluate the student’s ability to participate in the discussion and his or her level of understanding. Once again, optional behaviors are available in the event that comprehension is not satisfactory.

As each week progresses, the subject matter shifts and so at the end of a ten-lesson process the course is completed. These learning experiences are summarized in systemic fashion in Figure 1.

Curriculum Design

The curriculum designed for the Hotel and Food Service degree is planned to encompass the knowledge base of the supervisor and middle managers in the hospitality industry and consciously address the issues of preparing "knowledge workers" rather than "skilled workers." Skill learning is, in some cases, a part of that knowledge base but that skill learning is undertaken jointly with relevant cognitive learning objectives, in an integrative fashion.

As the design for the curriculum emerged, the freshman year reflected the traditional academic model of classroom instruction. The seminar-practicums occur in the second year. In the first term, the first of the seminar-practicums is offered. It concerns itself with food production, the knowledge base of the skilled worker whom the student will be working with, and some day supervising.
STUDENT Learning Activity

End of Week’s Work

Peer Help (includes classmates and employees of establishment)

Instructor Check (0-1)

Optional Behavior:
- relearn option
- peer help
- tutorial
- to hell with it

Increase Week No. by One

Grade Recorded

Class Quiz OK

Class Discussion OK

Model: DIAGRAM OF STUDENT BEHAVIOR PROCESS

FIGURE 1
The second course concerns itself with such high-level supervisory and management routines as purchasing, food cost control, payroll control, pre-costing, and scheduling.

The third seminar-practicum is an integrative experience intended to draw together all the professional courses in the curriculum. As such, it is a non-computer simulation of a food service establishment based on a series of inter-related decisions.\(^7\)

Figure 2 presents a conceptualization of the curriculum as it relates to specific competencies and the knowledge base. An outline of the curriculum and a typical student’s program are presented in Figures 3 and 4.

The Seminar-Practicum and the Problems of Hospitality Education

To this point, I have presented the neat and orderly process of the seminar-practicum. I need hardly tell experienced educators that this is not where we began and is, rather, a description of where we are at midpoint in the development and testing of the instructional system. The system was initially developed in response to needs for change which are typical of the expanding field of hospitality education. In responding to these needs for change, an instructional system has been developed that not only solved the problems initially perceived but also provided an improved vehicle of instruction in a number of areas. As evidence of the conviction that this is an improved system of instruction, I can say that we are in the process of adapting

## FIGURE 2

THE CURRICULUM AND THE IDENTIFIED KNOWLEDGE BASE.

<table>
<thead>
<tr>
<th>KNOWLEDGE BASE related to CONTENT</th>
<th>COURSE* NUMBERS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interpersonal Competence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written Communication</td>
<td>Eng 1, 3, or 800</td>
<td>6</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>Spch 200</td>
<td>3</td>
</tr>
<tr>
<td><strong>Behavioral Sciences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociology</td>
<td>Soc 1</td>
<td>3</td>
</tr>
<tr>
<td>Psychology</td>
<td>Psy 2</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>Econ. 14</td>
<td>3</td>
</tr>
<tr>
<td>Personnel Management</td>
<td>HFS 805</td>
<td>3</td>
</tr>
<tr>
<td><strong>Administrative Competence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to Management</td>
<td>FSHA 102</td>
<td>3</td>
</tr>
<tr>
<td><strong>Information Systems</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory Accounting</td>
<td>Acctg 102</td>
<td>3</td>
</tr>
<tr>
<td>Foods Service Cost Accounting</td>
<td>FSHA 225</td>
<td>3</td>
</tr>
<tr>
<td><strong>Environmental Control</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitality Industry Equipment &amp; Utilities</td>
<td>FSHA 320</td>
<td>3</td>
</tr>
<tr>
<td>Hospitality Industry Maintenance</td>
<td>FSHA 321</td>
<td>2</td>
</tr>
<tr>
<td><strong>Management Planning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Production Systems</td>
<td>HFS 860</td>
<td>4</td>
</tr>
<tr>
<td>Food &amp; Beverage Administration</td>
<td>HFS 870</td>
<td>4</td>
</tr>
<tr>
<td>Hotel &amp; Food Service Merchandising</td>
<td>HFS 804</td>
<td>3</td>
</tr>
<tr>
<td><strong>Comprehension of Physical Phenomena</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Production</td>
<td>HFS 850</td>
<td>4</td>
</tr>
<tr>
<td>Sanitation</td>
<td>HFS 802</td>
<td>3</td>
</tr>
<tr>
<td>Biological Science</td>
<td>Bi. Sci. 1</td>
<td>3</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Nutr. 150</td>
<td>2</td>
</tr>
<tr>
<td><strong>Elective and Miscellaneous</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>These courses represent an example for a typical student and not necessarily the precise set of courses for all students</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FIGURE 3

ASSOCIATE DEGREE IN HOTEL AND FOOD SERVICE

I. General Education Requirements

A. Communication Skills
   6 credits in English, Speech 200

B. Arts, Humanities, Social and Behavioral Sciences
   At least 3 credits in Economics

C. Physical Education

II. Requirements for the Major

A. General
   FSHA 50, 225;
   HFS 850, 860;
   3 credits in Acctg.

B. Specialization
   Students may select an emphasis in
   Hospitality Administration or
   Health Facilities Food Service Management
FIGURE 4

EMPHASIS IN HOSPITALITY ADMINISTRATION

1st Term
Engl 800 or Engl 1 3
Psy 2, Psychology 3
FSHA 102, Introduction to Food Service & Housing Administration 3
Nutr 150, Elementary Nutrition 2

2nd Term
Engl 1 or Engl 3 3
Spch 200, Effective Speech 3
HFS 805, Training and Supervision 3
Acctg 801, 16, or 101 3

3rd Term
Soc 1, Introductory Sociology 3
FSHA 225, Food and Labor Management and Control 3
Art H 100, Introduction to Art 3
HFS 802, Housekeeping and Sanitation 3

4th Term
Econ 14, Principles of Economics 3
HFS 850, Food Production Problems 4
FSHA 320, Hospitality Industry Equipment & Utilities 3

5th Term
FSHA 321, Hospitality Industry Maintenance 2
Bi Sc 1, Structure and Function of Organisms 3
HFS 860, Food Production Systems 4
Ph Ed 1 or 25, Health and Physical Education 1

6th Term
HFS 870 Food & Beverage Administration 4
HFS 804, Hotel and Food Service Merchandising 3
Free Elective 4
Ph Ed 1 or 25, Health and Physical Education 1

Summer
FSHA 50, 3 In-Service Training 1

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1This is an example for a typical student and is not the program for all students electing this emphasis.

2Seminar-Practicum

3Requires professional experience which may be gained on a full-time basis during the summer or as a part-time worker during the first three terms.
the system developed for the associate degree to a number of the courses presently taught in a more traditional fashion in our larger baccalaureate degree program.

The Hotel and Food Service program had traditionally been housed at the main campus of the University at University Park. The baccalaureate faculty all taught portions of the associate degree curriculum and the laboratory facilities were shared by both programs.

In a university with a system of 21 commonwealth campuses, it seemed obvious that there was a need to offer the associate degree on a number of campuses rather than on one rather remote campus in the center of the state, already overcrowded with baccalaureate and graduate students. The transfer of the associate degree program, however, created two major problems.

The first of these is a common problem experienced by most associate degree programs in hospitality education— that of faculty load. The hospitality education curriculum covers every broad spectrum of courses, and in an expanding field of education, there is a high degree of faculty turnover. Consequently new faculty are constantly being brought in, often with limited teaching experience and sometimes with preparation to teach that is heavy in one area, but somewhat thinner in other areas. This led to the recognition of the need for a substantial element of pre-design in all the courses.

A second problem is the cost of the traditional laboratory course. The laboratory in use at University Park has equipment valued at $85,000 and commits one whole floor of one wing of a large building to a single purpose use. A financial and resource commitment like this was clearly not possible on several additional campuses, and indeed,
the large capital investment required for a traditional foods laboratory poses problems to many community colleges who would like to establish a curriculum in hospitality education.

Teaching traditional foods labs is also time consuming in the extreme of faculty time, adding further to the load difficulties cited above. The teaching of a traditional foods lab generally includes all the problems of running a small scale restaurant along with all the problems of running a laboratory course.

**Skill Learning**

Project staff early on determined it would be necessary to separate the psychomotor learning particularly associated with the food production course from the cognitive learning of the modules if we wished to demand that certain skills be mastered. Accordingly, a list of 75 psychomotor skills was developed which the student was to master in the course of the 36-week period. Since the employer commits to move the student through a variety of stations, at some point during the course of the student's year in the field, it is expected that he will find the opportunity to master these skills. A "skills sign-off sheet" was developed. The student must indicate on that sheet which skills he feels he has learned and his supervisor on the job must likewise indicate that he is satisfied that the student has mastered that skill. In the case of particularly important skills, the student must demonstrate the skill to the instructor when the instructor visits his place of employment (or in a classroom setting) and the instructor also "signs off" on those skills. The student is required to master at least 25 skills each term until he has completed all 75 skills.
It should be noted that the Hotel and Food Service degree is principally intended to prepare knowledge workers for supervisory and middle management roles and not to prepare skilled workers for work in the kitchen, although the entry point for many students graduating from such a program could well be at the skilled level. Accordingly, it is intended that the student become familiar with and master as much as possible of the knowledge base of the skilled worker he will be working with but, the principal focus of the curriculum is not on psychomotor skills but rather on the knowledge base required of a manager.

Developmental Time Frame

A first and difficult parameter that was accepted in embarking on the design of this system was that of time. On the one hand, it was clear that we could not instantaneously create the desired system because the instructional materials did not exist in the desired form and in many cases (particularly in the supervisory and food service management subject matter domains) did not exist at all. We, therefore, accepted a three- to four-year time frame as our developmental universe but, at the same time, as soon as the commitment to testing the system was made, we accepted a series of very harsh deadlines. The University's decision to move the curriculum to a Commonwealth Campus meant that the instructional system had to be ready to deal with second-year students in seminar-practicums one year from the start of the new program. As the project got underway, the tactic of working with inflexible deadlines was developed. On September 1 of year two, a course would be taught and the materials for that course must be
ready. Similarly on January 1 and in early April, a second and third course were required. These constraints dictated an adherence to deadlines and forced us to accept first drafts which might have some weaknesses in them. We felt that these weaknesses in the learning experience for the test group of students would be more than balanced by the additional attention given to students in an experimental group; the fact that an outstanding faculty member was made available to work with them; and, that the total system design was flexible enough to permit the instructor to work around difficulties as they were encountered. By moving the materials quickly into a test year, we have been able to proceed to final revision of the self-instructional modules, based on detailed class testing.

It should be noted that an integral part of the project's long term commitment was to submit project results to professional evaluation. Accordingly, development, administration and evaluating of vocational commitment and achievement instruments were viewed as being of high priority. The feedback these tests have provided us have been useful in overall project evaluation and crucially important as we now enter the module revision stage of our work.

**Implications for Related Fields**

The implications the instructional system for related fields

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8 It should be noted that the deadlines accepted for module development would have been impossible of achievement had we not been able to build on earlier work done under an innovative Home Economist, Mattie Waymer, in Morris Brown College's Food Production Management Program.
immediately became clear. Working within the same curricular framework, an associate degree program was developed for dietary technicians and this program, also based on the seminar-practicum, was presented to the Bureau of Health Manpower Education of the Public Health Service and a proposal was funded to develop similar instructional materials and to offer an experimental associate degree program at the York Campus of The Pennsylvania State University for dietary technicians. (This program has just finished its second year, and the seminar-practicum, with self-instructional modules specially developed for health care food service supervisors and managers have been successfully tested.)

As self-instructional modules are developed for courses of this kind, the clear base for the development of an external degree was established. Once again, the Public Health Service responded and provided funds to redevelop the self-instructional modules for a multi-media delivery system and to develop the other, professionally oriented courses for multi-media delivery. By the end of the current calendar year, courses will be developed which will provide for the delivery of the technical courses for the first year of the dietary technician curriculum through independent study by correspondence.

Conclusion

The para-professional, the knowledge worker, responds to vital manpower needs. The seminar-practicum makes possible the wider offering of appropriate courses by reducing the cost of instruction while also improving the quality of that instruction. It is hoped, too, that the instructional system will appeal to students who might not otherwise be able to afford to study because the student in a seminar-practicum
is a paid employee as a part of his work experience.

The final point that needs to be made, however, is that this paid employment is not solely an economic vehicle for financing the student's employment—nor is it even principally an economic vehicle. Rather it is a cultural tool which brings the student into the world of work as a productive adult, socializing him or her to productive adult roles. At the same time that the knowledge base is secured through academic courses, the students are prepared for the transition from the world of the classroom to the world of work in which they expect to spend much of the rest of their lives. In many respects, the cultural learning is as important and in some cases even more important than the subject matter learning. Fortunately preliminary testing and the subjective evaluation of both students and faculty indicate that the seminar-practicum is effective not only in the area of student acculturation but also in the imparting of specific cognitive knowledge.
III

THE DEVELOPMENT OF SELF-INSTRUCTIONAL MODULES
FOR HOSPITALITY EDUCATION

by

Suellen Wayda, M.S.
THE DEVELOPMENT OF SELF-INSTRUCTIONAL MODULES
FOR HOSPITALITY EDUCATION

Suellen Wayda, M.S.
Research Assistant
Food Service and Housing Administration
The Pennsylvania State University

I intend to discuss my experience with the development of the self-instructional modules which now lead to The Pennsylvania State University's two-year associate degree in hospitality education. But I want to warn against any illusions of simplicity: During those times where I make myself sound unusually systematic, I was generally swamped the deepest in trial and error.

Most educators are thoroughly familiar with the traditional concept of the correspondence course. So I also intend, here at the beginning, to differentiate between instruction by correspondence and education through the self-instructional learning module.

The self-instructional module, as we have developed it in Penn State's Department of Food Service and Housing Administration, complements and reinforces those experiences our students gather within the seminar and the practicum phases of their curriculum. And so, by necessity, the self-instructional module not only looks different from the text of the traditional correspondence course, but it also operates in a different fashion.

1This article has been adapted from a paper delivered before the American Home Economics Association's 64th Annual Meeting, Atlantic City, New Jersey, June 27, 1973.
Four basic purposes have directed our production of the self-instructional learning modules:

**First,** we have designed them to communicate cognitive information—like a traditional text or correspondence course;

**Second,** we use them to encourage our students to evaluate those food service operations in which they find themselves employed according to standards posited by the cognitive material;

**Third,** we provide batteries of self-reinforcing questions, quizzes, and behavioral objectives so that our students may continually evaluate their own progress within the accompanying seminar context; and

**Fourth,** we see that the modules provide a realistic set of standards against which our students can measure the operation of their own food service establishment (their practicum setting) during those weekly class seminars.

In short, we try to build in a basis for fruitful seminar discussion as well as thorough and objective student evaluation.

From the moment that work began on the first food service self-instructional learning module at Penn State, it was apparent that the variety of information we wanted to include would absolutely preclude the use of a traditional textbook.

I also perceived that my educational background, primarily in the field of educational systems and theory, ill-equipped me to deal with the more specific and pragmatic knowledge base in hospitality education.
Thus I began to rely shamelessly—and continued to rely heavily—upon the expertise of my FSHA colleagues conversant with this knowledge base. I also sought out library resources and several obliging scholars in other departments across campus.

We began by identifying a reasonably complete array of behavioristic goals and learning objectives which we believed appropriate for student achievement with our module approach. Penn State’s laboratory courses in the food service department facilitated this initial step: They have operated for years with learning objectives oriented specifically toward the traditional laboratory approach.

The results of this preliminary study revealed that the behavioristic goals of our program could be categorized most conveniently into one of three goal levels:

1. the knowledge and skills required by food production workers;
2. the knowledge and skills required by supervisory personnel;
   and
3. the knowledge and skills required by the higher levels of food service management.

The lines of demarcation between the levels are not clearly identifiable. In fact, one can say that the food service knowledge base is more cumulative in nature than rigorously sequential. But this breakdown proved useful to us because each level lent itself to a convenient ten-week term, and taken altogether, the three categories represented a full year of academic work. Best of all, the courses are mutually reinforcing. ("Constructive redundancy" we sometimes call
it.) In the real life setting, they produce a manager who can step in at practically any echelon of an operation if the need arose.

Arranging the material according to these three levels or categories, solved many problems, but by no means all of them. We now had a general framework into which we could place those specific tasks we had tentatively determined that each learning module should produce. In a symbiotic relationship to the tasks that our students had to master, each respective knowledge base implied cognitive information which the modules had to provide.

The design of our learning modules, then, followed naturally from the specific concepts indigenous to each of the three levels we had already isolated. More specifically, for example, those tasks appropriate to the food production worker were listed as completely as possible at the outset. Using the government's Dictionary of Occupation Titles (DOT) job names and descriptions to identify all kitchen workers, a list of tasks for each job was prepared. The listing further indicated which tasks might be performed by more than one worker.

Subsequently, students, instructors, and researchers in our department performed a detailed task analysis for each activity on my list. From this collection of task analyses, a set of specific cognitive facts and psychomotor skills to accompany each task was composed.

At this point, my problems grew rather more complex. I discovered that it is one thing simply to rewrite or update existing textual materials in accordance with a cognitive base. But it is quite another thing to design a written pedagogical system that transmits both cognitive and psychomotor skill information.
I had grown accustomed to using the American Home Economics Association's Home Economics Learning Package (the acronym is HELP) developed by Drs. Twyla Shear and Elizabeth Ray. I went first to Dr. Shear, who serves as one of our project consultants. She suggested that due to the need to inculcate both skills and knowledge, we did indeed require an altogether new and different format. Dr. Shear advised that we replace the segment of existing reading materials which the HELP format utilizes with our own original written materials.

This change in format helped tremendously, but part of the problem remained: What kind of learning system would accommodate both the demands of the seminar and the necessity to integrate the practicum experience?

At this point, we contacted Dr. Robert Mager, another of our consultants and an expert in the field of instructional systems. He saw that our module-seminar-practicum format cried out for a self-instructional system that provided information on the how as well as the why tasks are performed. For example, in addition to learning why they must study fish cookery, our students should know by the end of their course work how to cook fish. Dr. Mager further suggested that we could treaty diminish the actual job of writing the self-instructional modules by disconnecting the cognitive from the psychomotor and dealing with each facet separately.

We decided that we would have to identify the substantive cognitive material and present it in a textual format. This material would be accompanied, in each module, by a section that required the student to learn and apply the psychomotor skills appropriate for that
module. But first, we saw that we would have to break those psychomotor skills into their component parts.

My detailed analysis of the tasks performed by food production workers, food supervisors, and higher level management personnel had revealed an inverse relationship between the job's inherent managerial responsibility and the number of psychomotor skills actually required by the job. I returned, then, to one of my original concerns: To quantify and arrange logically those psychomotor skills a student would have to perform to prove his competency at the first course level— as a food production worker.

Having collected that set of indispensible psychomotor skills, we established performance criteria for each skill, so that our students could evaluate their own proficiency.

The determination of these performance criteria proved to be both tedious and unusually difficult. It might seem logical to have decided which procedures would constitute a superior performance of any one skill by (first) observing a person who had obviously mastered the skill; (second) by noting his steps chronologically as he performed them; and (third) by setting boundaries on how much deviation would be acceptable or permissible.

But already there are problems attendant upon such a procedure: In a job as individualized (not to say idiosyncratic) as a chef's, for example, each expert masters a set of skills and then adds various personal touches. Some skills are functional, some are from habit, and some are pure showmanship. Additionally, numerous food production tasks can be carried out in a variety of efficient ways. It would
simply not be humanly possible to formulate performance criteria for all the acceptable variants on a single task.

Therefore, as I recorded performance criteria, I found it necessary to leave a great deal of leeway in some areas, to leave some filigree procedures of doubtful efficacy unwritten, and to exercise some arbitrariness in areas where a wide variety of acceptable procedures exist. An example might be the preparation of pasta products. Because of the variety of methods used by individuals even to determine the doneness of pasta, it was necessary for me to state the preferred methods but that other methods might be employed at the discretion of the cook. The result of this effort was a list of some seventy basic psychomotor skills (Appendix A) and descriptive criteria for each of them.

Now before I proceed any further with my explanation of Penn State's FSHA self-instructional learning module system, I want to pause briefly to review where I stood at this phase of the project:

First, our students would participate in a part-time work experience throughout each of three ten-week academic terms. During each term, the students would enroll in one of the three courses which would cover their work experience from the academic point of view and would ascend in their managerial expertise emphasis and descend in their food production worker skills emphasis. Each course would consist of a weekly seminar and a written text to accompany both the seminar and the work experience.
Second, during their first term of seminar-practicum our students would acquaint themselves with the food production worker's role. The second term would introduce them to the role of the food service supervisor. The third term would focus on the higher managerial tasks and decision-making responsibilities.

Third, to simplify the presentation of information for our students, we had decided to use a dual approach. We listed materials that required cognitive information separately from material demanding psychomotor skill performances. We had determined both the appropriate information and the skill requirements by conducting analyses of the jobs performed by persons employed at each of the three vocational levels.

Once we hit upon this general orientation of the seminar-practicum system, the objectives of the self-instructional modules within the three courses became clear. I would write a separate module for every week that our students had a seminar. Each of the three courses, then, would contain ten modules. During the week prior to his seminar, a student would read the module and complete whatever learning activities it prescribed. At the time of the seminar, he would be quizzed about the information presented in the module assigned for that week.

Now additional problems emerged as we attempted to divide the cognitive information and the psychomotor skills into meaningful
modules. Recognizing that Dr. Mager had been right to suggest that they be separated, we perceived the need to present both segments to our students systematically—and in such a way that both the cognitive information and the job skills would be reinforced by the practicum experience.

This problem was attacked with the kind of reasoning that follows: The practicum had been designed to provide on-the-job training and the sort of work experience that might not occur within our traditional Penn State food service laboratory setting. Also, the seminar had been designed to guide our students intellectually—to give them the opportunity to discuss the practices and problems they encountered at work and to learn from them. More specifically, the seminar period could be used to compare the theoretical information presented in the modules with the more practical applications of this information as they arose in the work setting. But the learning modules, in turn, had been designed to provide the student with theoretical information—the way "things should be done"—and the principal problem here, as I saw it, was that an entire week of potential intellectual learning seemed to be going by the boards. A meaningful comparison between theory and practice was getting deferred until a two-hour period buried at the end of every seven days.

Mulling over our learning objectives and the relationships among the three segments, we finally realized what was missing. The self-instructional modules were intended to act as vehicles for communicating information assembled by our task analyses, but no continual feedback mechanism (if you will) within those modules had...
been provided for the practicum experience! Without a way that related constantly the practicum experience to the theoretical information, the chances that our student would recognize the theoretical concepts within their practical, operational setting vastly diminished. Accordingly, the potential effectiveness of our entire instructional system was being limited.

Having identified the central problem, we had to redesign the self-instructional modules so as to establish an obvious, pedagogically fruitful nexus between the content of the modules and the practicum experience and then, somehow, to dramatize that nexus. The answer to this concern could be in the mechanics or in the mode of communication of the self-instructional modules.

The result of this concern was the formulation of a new learning system which I called, "The Ideal Pedagogical System" (referred to by its acronym, TIPS). The TIPS model provided that necessary connection between theory and practice. Let me digress for just a moment to describe it a little more carefully.

TIPS is an instructional system that encompasses all the steps I've already narrated: it lists behavioral objectives for our students; it provides cognitive information; it asks questions about the information; and it identifies and describes the skills a student must learn. Specifically for this project, it places all of these facets within a fictitious, ideally operated restaurant.

This "ideal restaurant" feature had been the missing link between theory and practice. Its incorporation provided a genuinely valuable, realistic method for dramatizing how theory looks
operationally within an actual food service setting.

The TIPS instructional model introduced a restaurant (we called it The Bar HFS) which in our opinion was sufficiently complex to cover most of the problems our students would encounter in their practicums and yet so well organized that its operations could easily be identified and analyzed.

The success of the TIPS concept relied upon a detailed description of the way The Bar HFS applied the cognitive information we presented our students in the module. If, for example, the module for the week dealt with vegetable cookery, the TIPS section described vegetable preparation at The Bar HFS. Meanwhile our students had been observing daily how their facilities prepared vegetables. Moreover, our TIPS section showed the layout of the vegetable station and the equipment involved; and it identified the various workers and their vegetable tasks from purchase to peelings. This approach provided our students with a frame of reference for analyzing the operations in their places of employment, and it provided in turn a great deal of ammunition for the weekly seminar discussions. In fact, the tension between the ideal and the actual seems to have stimulated the learning process particularly well.

One additional advantage the TIPS concept offered was that it helped me identify even more easily the specific material to include in each module. Since The Bar HFS restaurant provided a model against food production course station by station—one module would deal with salad-making, another with desserts, a third with vegetable cookery, and so forth until I had traced all the food production stations
through the kitchen. With some alternations and adaptations, this same approach also proved useful in the supervisory and even the middle-management courses that followed.

I have expressed personal pride in the TIPS concept and have emphasized my own role in its development. However, the full panoply of services were made available to me by my department. I remained in constant contact with department personnel, colleagues, consultants, and friends too numerous to credit individually. I was, after all, only a home economics education graduate verging then on a Masters Degree, and I could not have contributed the TIPS model without guidance and input provided by our department's experts in hotel food service, hospital food service, dietetics, marketing, and all other operational phases of industry not to mention the assistance of other researchers and technical writers.

While I don't contend that the TIPS concept, or even our general approach to self-instructional module learning at Penn State, could supplant all the traditional forms of instruction, I do think our system could facilitate the teaching of a wide variety of home economics subject matter conducive to the seminar-practicum format.

We have found that when our students can compare a pragmatic but ideal operation with their own workplace, they progress quicker and easier through the cognitive domain and arrive at a point where they not only understand food service but also evaluate it adroitly.

Rhetorical questions can be dangerous; nevertheless, I would ask, who knows of an instructional system better than one that provides on-the-job training, a lively academic context, and a genuine inducement for its students to develop the capacity to think critically?
Appendix

SKILL SIGN-OFF SHEET

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<tr>
<th>SKILL NAME</th>
<th>Student's Date</th>
<th>Supervisor's Completion</th>
<th>*Instructor's DATE</th>
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<td>1.A.* Setting up operating a dish machine</td>
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<td>1.B.* Cleaning and closing up a dish machine</td>
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<td>2. Cleaning a grill</td>
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<td>3. Cleaning a trunnion or steam kettle</td>
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<td>4. Cleaning broiler grids</td>
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<td>5.* Cleaning out a deep fat fryer</td>
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<td>6.* Setting up a deep fat fryer</td>
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<td>7.* Running a deep fat fryer</td>
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<td>8.* Straining fat in a deep fat fryer</td>
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<td>9. Peeling potatoes</td>
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<td>10.* Using a French knife (2 methods)</td>
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Before completing any skill, refer to the detailed description of these skills that accompanies the HFS 850 test.
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<td>13. Operating an automatic potato peeler</td>
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<td>14. Coring an apple (2) methods</td>
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<td>15. Removing core from head lettuce (2) methods</td>
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<td>16. Preparing fresh fruit salad from scratch</td>
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<td>17. Cleaning salad greens</td>
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<td>18. Storing salad ingredients</td>
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<td>19. Preparing tossed green salad</td>
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<td>20. Making salad bases</td>
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<td>21. Preparing a salad garnish</td>
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<td>22. Preparing and unmolding gelatin salads</td>
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<td>23. *Adjusting heat in trunnion or steam kettle to SIMMER contents</td>
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<td>24. Preparing hot cereal</td>
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<td>25. Preparing any food item that uses starch as a thickener</td>
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<td>26. Preparing a pasta product</td>
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<td>27. *Using a wire whip to stir and blend</td>
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<td>28. *Using a ladle</td>
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<td>29. Preparing a Hollandaise sauce</td>
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<td>30. Making a slurry</td>
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<td>31. Making a roux</td>
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<td>32. Thickening gravies or stews</td>
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<td>33. Whipping egg whites</td>
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<td>34. Preparing a custard</td>
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<td>35. Preparing a cooked fruit dessert</td>
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<td>36. Making a dessert</td>
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<td>37. Making a dessert topping or sauce</td>
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<td>38. *Slicing a pie</td>
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<td>39. Portioning a cake (2 methods)</td>
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<td>40. *Using a scoop</td>
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<td>41. Cracking an egg without breaking the yolk</td>
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<td>42. Separating an egg white from egg yolk</td>
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<td>43. Scrambling an egg</td>
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<td>44. Frying an egg</td>
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<td>45. Poaching an egg</td>
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<td>46. Making an omelet</td>
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<td>47. Making pancakes</td>
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<td>48. Treating a frying pan</td>
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<td>49. *Using automaticlicer</td>
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<td>50. Spreading butter or mayonnaise</td>
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<td>51. Grilling a sandwich</td>
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<td>52. Slicing a sandwich</td>
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<td>53. Using an automatic chopper-grinder</td>
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<td>54. Portioning solid sandwich fillings</td>
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<td>55. *Portioning salad-type sandwich fillings</td>
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<td>56. **Carving a rib roast</td>
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<td>57. **Carving a rolled roast</td>
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<td>58. *Sharpening knives with steel</td>
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<td>59. *Determining doneness of a roast using meat thermometer</td>
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<td>60. Skinning a tenderloin</td>
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<td>61. Boning a roast</td>
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<td>63. Cutting a pocket in a pork chop</td>
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<td>64. Turning meat on the broiler</td>
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<td>65. Scoring fat before broiling</td>
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<td>66. Adjusting the broiler</td>
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<td>67. Boning chicken breasts</td>
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<td>68. *Cutting whole chicken into parts</td>
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<td>69. Determining doneness of a turkey</td>
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<td>70. Testing doneness of fish</td>
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<td>71. *Portioning fish (raw or cooked)</td>
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<td>72. Cleaning a whole fish</td>
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<td>73. Cleaning shrimp</td>
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* These are CRITICAL skills that you may be called upon to perform for the University instructor in addition to the establishment supervisor.

** You are responsible for either SKILL #56 or SKILL #57; Note that these are CRITICAL.
APPLICATION OF A SELF-INSTRUCTIONAL SYSTEM FOR
PARA-PROFESSIONAL EDUCATION IN HOME ECONOMICS

by

James B. Hicks, M.S.
APPLICATION OF A SELF-INSTRUCTIONAL SYSTEM FOR PARA-PROFESSIONAL EDUCATION IN HOME ECONOMICS

James B. Hicks, M.S.
Assistant Professor
Hospitality Administration
The Pennsylvania State University

Introduction

Junior colleges, community colleges, and those institutions that have begun to offer the Associate Degree are coming into their own as powerful forces in higher education.¹ And part of their recent success lies in the fact they have been fashioning courses for the student Peter Drucker refers to as "the knowledge worker,"² the person we all once called "the middle-manager."

Dr. Sidney W. Brossman, Chancellor of the 96-member Community College System of California remarks that "our education system may finally be catching up with our students."³ What Dr. Brossman means is that colleges like the ones he directs have begun to provide their live-at-home, work-while-studying students with the knowledge base for specific careers. And for that "knowledge worker," this kind of education translates into an efficient, low cost means of achieving

¹This article has been adapted from an address before the American Home Economics Association's 64th annual meeting, Atlantic City, New Jersey, June 27, 1973.


upward mobility in the labor market.

At The Pennsylvania State University, the Department of Food Service and Housing Administration has spent three years developing an instructional system designed to meet both the specific needs of today's work-while-studying students and the general manpower needs of the hospitality industry. This instructional system is called a "seminar-practicum" because of its heavy reliance upon an innovative, controlled, field-learning experience.

Of course, field experiences, work-study programs, summer practicums, and simulation laboratories have long been recognized as valuable ways to let students glimpse practical applications of their pedagogical knowledge. Unfortunately, the traditional field experience is, as you know, relatively uncontrolled. As a result, while he may faithfully report what he saw or did, the student too often finds himself unable to reapply what he learned. In effect, he does not really know what he knows. He fails to reach what Schein and Bennis have called "meta-goals,"² that is the learning, in addition to content, about how to approach and solve problems outside the classroom. More simply put, field experience meta-goals involve learning how to learn from experience. In the traditional foods laboratory, for example, a student learns to use the instructor or text as his only source of information. In the seminar-practicum he learns to use his peers in the seminar sessions; he observes and interrogates fellow workers and supervisors on the job; and he employs his own resourcefulness to solve problems.

In an effort to improve the field experience, The Penn State Food Service and Housing Administration Department developed a three-part system to provide a variety of learning opportunities for our Associate Degree students. The first part of the system is the required work experience--15 hours per week in a hospitality operation. Second, the student's learning experiences on the job are directed through the use of self-instructional modules, which present information on a single topic each week, elicit information, and evaluations of the appropriate work experiences from the student, and test his knowledge. Third, the student is guided in conceptualizing and verbalizing problems encountered in the week's lessons in a 3 1/2-hour seminar held weekly. This seminar provides the instructor with an opportunity to clarify the information within the module. But more important, it provides a time (1) for an evaluative and comparative discussion of theory versus practice, "my operation" versus "your operation," and (2) for the recognition and resolution of conflicts that might not normally reveal themselves until after graduation--when an intellectual forum like ours would no longer be available.

In the Fall of 1971, Penn State's Department of Food Service and Housing Administration implemented its first seminar-practicum on the Berks County Campus. The Berks Campus is located in Reading, Pennsylvania, a city of 85,000 that lies 60 miles west of Philadelphia. The Reading area boasts a wide variety of hospitality operations linked by a strong local restaurant association.

The role of instruction within the system turned out to be rather more complicated than that of the traditional college teacher. It
required, in fact, elements of the public relations man, the encounter
group leader, the advisor and mentor, and the confidence builder.
Moreover, the instructor played these variegated roles both for the
students, on the one hand, and for their potential employers around
Reading, on the other. And at times it seemed, during the first year
of the program, that the organizational and public relations aspects
took precedence.

Year One

During this time, the involvement and cooperation of the owners,
operators, and administrators of local hospitality businesses and the
restaurant association was enlisted. The first step was to obtain the
support of a small group of influential operators in the area. Through
this group, meetings were arranged with other restaurant, hotel, motel,
school lunch, hospital and college feeding administrators to present
and describe the system, seek advice, and gain commitments to hire
students during the second (practicum) year.

It was not difficult to achieve industry acceptance and involve-
ment, though food service operators approved the program for different
reasons. Those who had formal educational backgrounds themselves were
more inclined to be interested in the program for its long range
benefits to the industry. They wanted to know the answers to such
questions as: How many students could the program handle? How many
students would come from this community? Where would they be finding
jobs? And what kind of work would they be qualified for when they
completed their program? This group also tended to show interest in
the course content, some helped evaluate the learning packets during
their development.

All operators and managers were interested in the short-run benefits of employing highly motivated, dependable student workers during their practicum year. The food service industry traditionally draws many of its entry level workers from that portion of the labor market made up of transient workers, part-time workers, and moonlighters. The thought that they could employ just one dependable and enthusiastic swing man or relief worker involved in the seminar-practicum had attractions they recognized immediately.

In addition to individual and small group meetings with food service operators, the instructor became an active member of the Local Restaurant Association. Several formal presentations were made to this group during the year to inform members of progress and new developments in the program. Informal contacts for students were also provided by taking one or two students to each of the monthly meetings. This not only helped give the operators a chance to meet possible employees for the following year, but also helped publicize the program further.

At the end of the first year, the instructor prepared a list of interested employers including all categories of hospitality operations, and offered it to the students during the Spring Term of their first year at The Berks Campus. The students took responsibility for contacting the employers, arranging interviews, and gaining the best wages, hours, and working conditions they could. From the very beginning, in other words, our students faced personal responsibility, gained a little job hunting experience, and acquired a psychological "stake" in the program. All of this would stand them in good stead.
Year Two

It was not until the Fall of their second year that the students themselves really became involved in the innovative part of the program. Together, the students and the instructor arranged for the weekly seminar to meet for 2 1/2 hours at a time that would conflict with neither their regular courses (the students carried between six and eight additional credits while involved in the seminar-practicum), nor their work schedules.

During the first seminar meeting, the instructor distributed the collection of modules prepared by Penn State's Food Service Department for its food production course, and he explained the system as carefully—and with as much detail—as he could. He tried to emphasize the innovative, precedent-setting, futuristic nature of the instructional system—as well as the spirit of group exploration and camaraderie. He also stressed the need for group interaction, discussion, and critical thinking. Eschewing any authoritarian role, he deemphasized lectures and rote learning procedures.

The first seminar ended only after the instructor had made certain that each student understood what was expected of him in the first lesson or "module," and he had collected a record of each student's employer, immediate supervisor, and work schedule.

As part of his teaching duties, the instructor made weekly visits to the establishments employing students. Whenever possible, he visited an operation while the student was on duty. These visits provided an opportunity to check a student's activities and problems, confer with his supervisor, and perhaps check on the progress of his psychomotor skill development. The instructor devoted one day a week
to these visits, seeing each student or his supervisor at least three times in each ten-week term.

Reality

If all of the systems had worked exactly as planned, this would be the end of this introduction and one could simply follow this procedure outline. However, a number of problems arose, along with some serendipitous results that kept the implementation of the system exciting.

Getting the seminar practicum started. First, some of the students took easily to this kind of learning and some did not. After twelve years of the traditional passive-receptive model of education, most of the students experienced at least a little difficulty accepting an active role in their own educations. Generally, the students had expected a more traditional laboratory course in food preparation and were apprehensive and dismayed to find themselves suddenly thrust into the complex operational and social systems of a commercial kitchen. Only six of the twenty-two students had any more than one summer of experience in hospitality operations. Unsure of themselves, they were reluctant to engage in such appropriate meta-goal oriented behavior as asking questions of fellow workers and recognizing both their work environment and the "seminar sessions" as valid learning settings. At first when they came to the seminar, they did not participate freely and obtained had made only the most superficial observations of their operations.

Of course, some of these orientation problems were natural, but more of them appeared than had been expected. The response has been
to start preparation for the seminar-practicum experience during the freshman year. Class assignments during this year have been designed to require more independent study, more involvement with local operators, and more group participation projects. Moreover, these Instructor's Guides also suggest some human relations and group interaction exercises that can be performed at the beginning of the first few seminar meetings to break down the barriers among the students. Getting Acquainted Triads, to facilitate the involvement of individuals in a newly-formed group; and Listening Triads, to help students understand the necessity of listening to each other with comprehension as opposed to merely hearing words, are examples of the exercises suggested.  

Instructor Anxiety. Anxiety was by no means limited to the students. Deprived of the support of a batch of notes and a blackboard, the instructor was as uncomfortable as the students and, in the early "lean" days of discussion, had to fight strong impulses to revert to the comfortable old chalk-talk lecture. The depression and doubts about the system began to melt away, however, when the students began to adjust to their new learning experience. By the second term, most students were so comfortable with the system that spontaneously and unanimously they decided to extend the 2 1/2-hour sessions to 3 1/2 hours a week.

Class Size. Two other factors seemed to be important to the success of the seminar: session-class size, and the interpersonal

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5 Human relations exercises were taken from three volumes of A Handbook of Structured Experiences for Human Relations Training by J. William Pfeiffer and John E. Jones, University Associates Press, Iowa.
relationship between the students and the instructor.

For various reasons, some student attrition did occur. Two students transferred to the baccalaureate degree program, four withdrew for personal reasons, and three were dropped for academic reasons. The result was a class size in the last term of 13 students. But as the seminars grew smaller, discussion became more effective for all those who remained. The students fell naturally into a circular seating arrangement, and the seminars became livelier and livelier. Twelve to 15 students seems to be the optimum size for a single session, with perhaps two separate seminar meetings for large groups, if the resources permit.

**Interpersonal relations.** The instructor also discovered during the second term that visits to the students' workplace were more important to the student, than he had supposed. The students working in remote operations were not visited at work as often as others in more convenient locations, and the quality of their assignments and seminar participation began to fall off considerably.

Interviews with these students revealed two significant factors. First, the students were still somewhat uncomfortable with the instructional system, and the instructor's failure to visit them in their establishments left them feeling like disinherited children. They tended to interpret the instructor's failure to visit them as an indication that he had decided to offer less of himself to them and to the program. Second, there seemed to be a correlation between the instructor's appearances at the workplaces and his ability to draw students out during the seminar. If they had already met informally
with him once or twice, the bond of confidence was established. On the other hand, if he had failed to visit them, they felt "left out" and were therefore hesitant to participate in the seminars.

Job Switching. Job switching as a common phenomenon, was one of the serendipitous outcomes of the program—more valuable than problematic. It had many causes and resulted in only three of the students staying with the same employer throughout the entire program. Job switching has the ring of failure, and at first the instructor was disappointed to discover it until the reasons for job switching became evident.

One cause was the practice of a few employers to take advantage of an exceptional student. Although employers were informed and had agreed that they would not schedule a student for more than 15 hours a week unless the student willingly agreed, some had students working as many as forty hours a week. If the student was unwilling to risk his position by demanding relief, I had to remove the student from the job and place him in another establishment.

Other students switched jobs in order to do the kind of work they wanted—waiter, cook, bartender—and others switched for better wages or to sample a variety of operations, for example, a fine dining establishment one term, a family-style restaurant the next.

While I had been initially apprehensive about job switching and hoped that a student would stay with the same employer throughout the three-term program, I discovered that the variety of work experience the students gathered by switching jobs enriched the seminar discussions immeasurably. I did not, however, permit a dismissal to go unrecorded:
a student can get fired only once; the second time he is dropped from the program.

Finally, there occurred this one other bit of fortunate fallout: the acculturation from the world of the adolescent college student to the world of work.

**Acculturation.** In the process of administering "the seminar-practicum" Penn State found that the system serves an additional fundamental function, perhaps as valuable as the presentation of cognitive information. It acculturates the students. That is, it narrows the gap that ordinarily exists between the classroom and the world of work, and it allows the students to bridge that gap comfortably.

Roger Harrison and Richard L. Hopkins, writing in a recent issue of the Journal of Applied Behavioral Science, pointed rather forcefully to the inadequacies of the traditional university educational model in preparing students for cross-cultural experience. Their research dealt specifically with Peace Corps volunteers who expressed dissatisfaction with their training. The volunteers were dissatisfied not with its cognitive content, but rather with the sense they had that their training experience "however interesting or well-prepared it may have been, simply did not prepare them for the total life they had to lead overseas."  

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The analogy is apt. In a very real sense, the average college student must face a transition from his college environment to the world of work in much the same way those Peace Corps volunteers had to make the transition from Pittsburgh, Pennsylvania, to Thailand, or Columbia, or Ghana. And if anything, the problem is even more acute for Associate Degree students who are younger and often less mature at graduation than the baccalaureate student.

As a student progressed from employee skills and knowledge (in our 850 course) to supervisory knowledge and skills (our 860 course) through our managerial-level course (HFS 870), his ability to deal with the problems and pressures of a fast-paced, personally oriented industry like hospitality and food service improved demonstrably.

The achievement of "meta-goals" referred to earlier is part of this acculturation and occurred primarily in the second two terms of the seminar-practicum when students were studying Food Production Systems and Food Operations Systems. By this time, students had become more comfortable with the learning system, and much more information and critical analysis of their operation was required in weekly assignments.

As the terms went by, I found our students using their own resources to gather information more and more frequently; and I found them relying on their text materials and on me less and less. When I mentioned that they had begun to solve their own problems maturely in the forbidding "real world" setting, most of them would shrug it off as though maturity were the most natural thing in the world.
I am convinced, however, that our seminar-practicum students learning to bland emotions, values, and pragmatism in the highly complex human systems that exist within the hospitality and food service industries. I am convinced, in short, that our program succeeded.

**Student Reaction.** But how did the students themselves feel about the program? At the conclusion of the program I asked the students for their anonymous comments on the success of the Seminar-Practicum teaching method in reaching the specified objectives set forth in each lesson and the general goals and objectives which I had outlined to them at the beginning of the program. The students' own words tell the story:

"I feel that through these courses and the work experience that went along with them that all of the objectives have been achieved. The working end of it provided for the accomplishment of most of them."

"I feel that seeing the application and non-application of theory in the real world was most beneficial in this series."

"I feel that most of my objectives were reached through working in the field and learning by the mistakes made in the operation."

"Overall, I think I learned all the objectives that were defined throughout the course. I think the seminars were most beneficial in reaching these objectives."

"The OJT gave me more than any class did."
Conclusion

If the proof of the pudding is in the tasting, the proof of a new educational system is in its application.

I was fortunate to have a strong "supporting cast" of colleagues and an equally strong and enthusiastic industry organization to help get the "Seminar-Practicum" through its "shake-down cruise." I would not like to conclude, however, without noting the extraordinary effort on the part of the students themselves who had to endure the throes and uncertainty of such a radically new educational system. In spite of the many problems, they stuck with the program, contributed considerable feedback during impromptu "gripe" sessions from time to time, and made the system a success in spite of their anxieties.

For the students, there is considerably more to be learned from the seminar-practicum system than the cognitive knowledge and psychomotor skills outlined in the lesson objectives. These students and the classes to follow will be better prepared not only academically, but psychologically and socially for the work culture in which they will spend the rest of their lives.
V

A MODEL FOR EDUCATING SUPPORTIVE PERSONNEL:

THE DIETETIC TECHNICIAN

by

Sara J. Clemen, R.D.
A MODEL FOR EDUCATING SUPPORTIVE PERSONNEL:  
THE DIETETIC TECHNICIAN

Sara J. Clemen, R. D.  
Assistant Professor  
Food Service and Housing Administration  
The Pennsylvania State University

Education for supportive personnel in the field of dietetics has traditionally relied on in-house training, correspondence study, and conventional classroom instruction. These methods of instruction have merit and deserve continued support, but they have grown less responsive to economic considerations in dietetic education and to the multitude of changes presently occurring in the health care field. The modern dietetic technician must fill the recent demands for administrative sophistication, function as an effective member of the health care team, apply pragmatic problem-solving techniques and skills to the operation of the physical health care system, and learn to apply the skills of a dietetic professional in preventive health care.

These requirements assume a knowledge base that allows the dietetic technician to assist in assessing a patient's nutritional status; to implement and then to evaluate various nutritional care programs; and to be involved in employee supervision, menu planning, supply purchasing, and other activities related to cost control and

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1 This article appeared in the Journal of the American Dietetic Association for April, 1974, pp. 401-405. It has been adapted from a speech delivered at the ADA's annual meeting in Denver, October 23, 1973.
budget preparation.

To prepare dietetic technicians for delivery of effective nutrition care, the Food Service and Housing Administration Program, Pennsylvania State University, has designed an instructional system to meet the needs of the modern work-while-studying student on one hand and satisfy the educational requirements of the newly defined roles of the dietetic technician on the other. Such an educational system would achieve three major objectives.

Objectives

First, it would raise the dietetic technician to a competency level sufficient to allow her to function as a member of the health care team and to complement the dietitian effectively.

Second, it would provide a basis for close understanding and easy articulation among the three types of dietetic personnel—the dietetic assistant, the dietetic technician, and the dietitian—a situation that would encourage career accessibility and mobility.

Third, it would provide a realistic mechanism for applying the theoretical knowledge of the classroom and clinic within the problem-solving situations of the health care facility.

The formulation of an instructional system to meet these objectives required intensive preliminary planning and investigation. For example, the first objective—preparing competent dietetic supportive personnel—necessitated a careful identification of the knowledge of subject matter and the competency level needed for the technician to function effectively. To define the competencies the technician needs required, in turn, definition of the competencies of the dietetic assistant and
the dietitian. Then, the knowledge base identified was translated into a curriculum of specific courses planned to provide these competencies.

The second objective—providing the dietetic technician with a clearly identifiable and readily accessible career pathway—was easier to achieve than expected. Having identified in our preliminary planning stages the knowledge bases and the competency levels for each of the three dietetic professional roles, our principal task was to define the educational steps leading from the dietetic assistant level or dietetic technician level to that of the dietitian. To provide for career mobility, we realized that it was necessary to identify the areas of knowledge common to all three careers and then to expand or augment them to provide the competencies appropriate for advancing from one level to the next.

**Philosophy**

Career mobility and career education do not "just happen"; they must be carefully planned. Without careful planning, the paraprofessional may encounter a seriously diluted curriculum and subsequently become a seriously deficient practitioner.

Fortunately, we were able to identify the knowledge base we needed and built on that base as we designed a curriculum for the two paraprofessional roles. For example, the knowledge base for the dietetic assistant includes recognized, standard principles of quantity food preparation. The dietetic technician needs to know not only these principles but also how to interpret them in terms of menu writing, employee scheduling, equipment utilization, and so forth. The dietitian
requires the knowledge of both the assistant and the technician and, in addition, cognitive information on (for example) how to design the initial quantity food production system. Thus planned pathways for career mobility can be built into the respective curricula.

Various authors and educators interested in this instructional approach have recently discussed career mobility as a means of meeting manpower needs and societal problems occasioned, in part, by the current emphasis on leisure. Meanwhile, dietetic professionals are expressing and demonstrating greater interest in dynamic career education and mobility in order to match their professional growth with that of the other health professions.

Spradley, for instance, suggests that the goal for career education is "to enable every person to make informed choices as he develops his own career."

Parnell supports this view of career education by positing the theory that career education is the most logical mechanism for providing a student with the competencies that enable him "to cope successfully with life as a citizen, wage earner, and consumer...and to meet the basic human needs as defined by Maslow."

In other words, education must begin to concentrate on real-life career roles and on the competencies a student needs to cope with them.

Bailey has addressed himself to what he calls "lateral transfer"
(academic movement and credit exchange between two- and four-year programs). He suggests that we become more liberal in our treatment of the lateral transfer and that we should not, in his words, "shackle opportunity and personal growth." He goes on to declare that if we do not make the provisions he suggests, we will be ignoring three basic realities of our contemporary world: (a) the need for education to assist in overcoming societal pathologies; (b) the need to encourage people to overcome "the boredom of push-button affluence and TV passivity"; and (c) the need to "cultivate occupationally, professionally, and psychically adaptive persons who can learn and relearn with relative ease as society continues its knowledge explosion."

Seminar-Practicum Educational Model

Our objective in developing an innovative instructional system to prepare competent dietetic technicians was based on this philosophy. This objective required that we design and implement a model of the educational system itself and provide an actual educational environment in which creative learning and innovative thinking would thrive. This meant discarding certain inhibiting traditional emphases, such as a preoccupation with the mechanics of the teaching-learning process, a rigidity of approach that precludes relevant questions and exploration by the student, and lack of opportunity for individual experimentation with problem-solving.

Dietetics is a "people-oriented" profession, and if students are not provided with adequate opportunity to experience human relationships with clients, employees, other professionals, and community representatives,
we defer the achievement of perhaps the most important skill of our profession, the ability to work effectively with people. As academics, we too often provide our students with biased, unrealistic preparation for the real world. Our dietetic technicians must be able to perform creatively and productively against a practical, rather than a resolutely theoretical, background.

Keeping this fact in mind, our faculty began about three years ago to plan an instructional system that would allow the employed, part-time student to incorporate his employment experience into his academic experience and, at the same time, gradually fulfill the requirements of the newly identified dietetic paraprofessional roles. We call the curriculum and accompanying educational system that resulted a "seminar-practicum." As applied to the dietetic technician, it consists of three parts:

(a) A required work experience of 15 hr. a week in a quantity food service operation with at least some affiliation with a health care facility.

(b) Self-instructional modules which present cognitive information, a method for testing the student's knowledge, and a mechanism for directing the student's on-the-job experience.

(c) A 2 1/2 hr. weekly seminar to guide the student in evaluating both the theory and the practice of that theory as he has observed it in his employment experience.

The design of the instructional system during the first year of this associate degree program relies on classroom instruction to provide general education courses and professionally related prerequisite courses
required for implementation of our seminar-practicums. In the second year, students enroll in four courses specifically developed for the seminar-practicum format.

The seminar-practicum courses—"Quantity Food Production Problems," "Food Production Systems," "Hospital Food Operating Systems," and "Normal Diet Modifications"—were developed from the basic philosophy that none of our courses could be fruitfully taught apart from each other and that it was genuinely important to demonstrate how subject matter was interrelated and subsequently how it could be applied in the clinical facility where the student was employed.

The course in "Quantity Food Production Problems," for instance, provides students with basically the same cognitive information found in the typical quantity food production texts, such as production principles, food characteristics, recipe standardization, portion control, and production problems with convenience food items and special diet foods. The difference is that it was designed as a "systems course," i.e., that the information is related to an operating system.

In this and other seminar-practicum courses, "The Ideal Pedagogical System" (TIPS) approach discussed later in this article was used to achieve the necessary relationship to an operating system.

The same problem existed with the second course in the three-course sequence on management systems, "Food Production Systems." The course had to provide cognitive information delinieating the routine supervisory skills needed to manage the food production component of a food service operation, which includes precosting, purchasing policies and procedures, purchasing specifications, storage procedures,
receiving practices, payroll and scheduling guidelines, manpower requirements, and background material on historical food cost controls. This course also included a series of analysis projects designed to equip our students with the competencies needed to function in the third management course.

The third course in this sequence is entitled "Hospital Food Operating Systems." It provides less cognitive information than the first two, but it forces our students to sharpen their decision-making skills and to study the various ways in which the parts of an entire food service and nutrition care system interrelate and function. This course includes all the essential cognitive information not yet included in the other professionally oriented courses. Most crucial in this course are case studies which require the students to analyze and evaluate realistic managerial situations and, at the same time, to synthesize a hypothetical operating system.

Since we believed that everything taught in food service must center on the clients we serve, we included new information on identifying a target population and on layout and design conventions. The students are asked to evaluate an existing food service layout according to two criteria: whether the menu meets the needs of the client group and whether the layout reflects the requirements of that menu.

Our fourth seminar-practicum course, dealing with modifications of the normal diet, is designed so that directed learning experiences, correlated with the subject matter, can be included in the self-instructional modules. For example, to learn, in theory, what a
health care facility is and how it provides its clients with the spectrum of health care services, our students are equipped with certain cognitive information and are then required to work an 8-hr. shift with a nursing team leader who demonstrates and reinforces that information. As the student studies laboratory test diets, for instance, she is required to trace the x-ray procedure, beginning with the preparatory diet, through the other preparatory procedures, and finally into the x-ray department itself. In this way, she develops an appreciation of how a particular diet affects an important and complex diagnostic procedure. It also makes that student aware of the patient's feelings (which may reflect fear and despair) about his diet and the subsequent diagnostic procedure. This course includes such learning experiences for each of eighteen modules. In this course, also, the student studies dietary modifications required by specific diseases as the opportunities present themselves within the facility.

**Self-instructional Modules**

The self-instructional modules developed as integral parts of these four courses both direct and complement the seminar content and the clinical experiences of our students. More specifically, they serve these four basic purposes:\(5\): (a) they provide the students with cognitive information, i.e., with a text; (b) they encourage students to evaluate the food service operations in which they are employed according to the standards suggested in the text; (c) they provide self-reinforcing questions, quizzes, skill analyses, and behavioral objectives so that students can continually evaluate their own progress;

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and (d) they provide a realistic mechanism for comparing and applying
cognitive information to an actual food service system--the TIPS component.

We adapted the modules that accompany the four courses from those
developed by Shear and Ray of the College of Education, Pennsylvania
State University. The Shear-Ray modules are known as "Home Economics
Learning Packages," or by the acronym HELP.

A self-instructional package is a unique unit of information used
to inculcate one basic concept or idea at a time. With each package,
a learner may proceed at his own pace and in his own way by selecting
from among a variety of resource materials--all of which are essential
to the overall course content. Built into each package is a pretest,
a series of self-evaluation problems at the end of the lesson, and a
final post-test. In the "Food Production Systems" course, at the
suggestion of our consultants, skills sections were included which
concentrated on how tasks were performed. Cognitive information (the
"what's" and the "why's") was presented in text form, accompanied by
a section that would require students to learn and then apply the
psychomotor skills appropriate for that particular module. For
example, if a module explored the principles of salad preparation,
students would need to know not only what the standard salad ingredients
are (base, filler, garnish, and dressing) and why salad ingredients are
handled in a prescribed manner, but also how to use a French knife, how
to clean the various salad ingredients, and so forth. Thus, performance
criteria were identified for each skill.
The next step in developing the instructional system was to relate the cognitive information and the psychomotor skills in the self-instructional modules to the practicum or field experience. Our educational design research specialist, Suellen Wayda, formulated a new teaching strategy, called "The Ideal Pedagogical System" (TIPS) which established the necessary connection between theory and practice. The TIPS instructional model, a third component of our self-instructional module, introduced a fictitious health care facility to demonstrate how subject matter relates to the food service system. In our "Food Production Systems" course, for example, the TIPS model is called "Short-Stay General Hospital," and the section outlines the types of services "Short-Stay" provides and the production problems it typically faces. Each module includes a discussion of how the cognitive content relates to "Short-Stay General Hospital." If our students were studying salads, the TIPS component of the module would discuss (a) how "Short-Stay" prepares its salads; (b) why "Short-Stay" includes salad items on its menu; (c) how many salad workers it needs in view of the current patient population and what skills these workers require; (d) the type of equipment "Short-Stay" needs to prepare its salads; (e) which considerations regarding cost, purchasing, storage, and sanitation present themselves in connection with salad service at "Short-Stay"; and (f) what considerations about modified diets must be met at "Short-Stay" to supply the dietary requirements as efficiently as possible.

This TIPS approach provides our students with a realistic frame of reference for analyzing operations in their own places of employment; it has also generated lively and productive seminar discussions. The tension between reading about the "ideal" and living with the "actual" helps provide the creative learning environment essential to our system.

Thus we realized that as our interests extended beyond providing subject matter relevant to our students' potential roles, we became more confident of achieving our goals as educators of dietetic professionals.

Problems to be Met

The instructional system design used in the technician program has already been tested in our commercial food service associate degree program at the Berks County Campus near Reading. This test has helped to avoid many problems that might otherwise have slowed our progress. Nevertheless, our overall success has yet to be completely gauged. Our first seminar-practicum for the technician program is currently being tested. On the basis of our experience with the commercial program, we know that we will probably need to address ourselves to at least some of the following problems:

First, getting the commercial food service seminar-practicum under way in an educational system where students were accustomed to traditional classroom lectures occasioned some difficulty. Many students were vexed at first by adjusting to active participation in their own education. This problem will certainly not be as pronounced in our technician program where our students were introduced to seminar
techniques in their first term. By the second year of their education, we predict they will have become eager participants.

Second, on the Berks Campus, the physical arrangement of the classrooms encouraged the conventional student-instructor antithesis rather than the informal, seminar-discussion format. The transition from "teaching" to "facilitating the learning process" had to be made; it was not an easy task.

Third, locating and obtaining field experiences in which the students could function as paid employees involved a new set of problems, such as convincing employers that the students could make valuable contributions while at the same time learning the operational and social skills necessary to function as a practitioner. Another problem involved the legal constraints of such a program.

One further issue—finding faculty with the numerous competencies needed for implementing such a system—must also be met. Our faculty must be receptive to new instructional techniques and have a feeling for good interpersonal relations so that a creative learning environment can exist. This is probably the greatest hurdle in program implementation.

Conclusion

The instructional module used in the dietary technician program at The Pennsylvania State University is only one of many such programs and, like any model, is not to be considered the best. It does, we believe, achieve the objective of bringing together theory and practice within the professional environment. It makes use of a self-instructional
module that allows the student to progress at his/her own rate of speed in newly designed systems courses that emphasize relationships between operation and subject matter. It provides a mechanism for introducing management principles and skills into a curriculum that meets the competency level defined for the technician. Finally, it provides the mechanism needed to translate courses into an external degree mode.
VI

EVALUATION OF AN EXEMPLARY HOSPITALITY EDUCATION PROGRAM

by

Susan F. Weis, D. Ed.
EVALUATION OF AN EXEMPLARY HOSPITALITY EDUCATION PROGRAM

Dr. Susan F. Weis
Assistant Professor
Home Economics Education
The Pennsylvania State University

At the 1973 Annual Meeting of the American Home Economics Association, the preliminary report of the evaluation of a demonstration program for hospitality education was presented. This report dealt with initial data to answer four evaluative questions which would reflect the success of the Demonstration Program as a generalizable alternative to traditional instructional systems for hospitality education. These questions were:

1. Does the Demonstration Program prepare students for their careers as adequately as traditional programs?

2. Is the Demonstration Program successful in attracting and retaining economically disadvantaged students?

3. Are the students attracted to this program as academically qualified for postsecondary education as those attracted to comparable programs?

4. Has the Demonstration Program produced a difference in its students in terms of the attainment of measurable attitudes, skills and knowledge?

Procedures

The plans for evaluating the Demonstration Program involved three phases of evaluative activities. The initial phase concerned an assessment of the effectiveness of the first year of the program in educating its students as compared with other associate degree programs.

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1 This article is adapted from a speech delivered before the American Home Economics Association's 65th Annual Meeting, Los Angeles, June 25, 1974.
in hospitality education. Criteria for effectiveness included degree of vocational commitment, achievement of a knowledge base in food production and service; high school grade point average, first year college grade point average, and socio-economic level.

The second evaluation phase focused upon a comparative pre- and post-program analysis employing the criteria of vocational commitment, and the achievement of knowledge bases in food production and service and food production management.

The third evaluation phase concerned a comparative analysis with students in other programs using the criteria of vocational commitment, employers' rating of program graduates, and entry level salaries.

The basic hypotheses being tested in this project were (1) that students in the Demonstration Program will perform at a level equal to students enrolled in comparable programs with respect to indices of vocational commitment, achievement of basic knowledge, selected competencies in the hospitality industry and in job placement and job performance; (2) that students recruited to the Demonstration Program will not differ from students recruited to similar programs in terms of high school achievement; and (3) students enrolled to the Demonstration Program will represent the economic disadvantaged to a greater degree than students enrolled in comparable programs.

Instrumentation

The following instruments were developed and used in evaluating the instructional system: The Vocational Commitment Index; an

\[\textsuperscript{2}\]

\[\text{Weis, S. F. and Hubbard, C. F. The Vocational Commitment Index, Home Economics Research Journal, 1973, 2, 105-111.}\]
achievement test on food production and service\(^3\); an achievement test on food production management\(^4\); Hollingshead's Two Factor Index of Social Position\(^5\); an employer's rating form; and two information sheets.

**Evaluation: Phase One**

**Sample.** The sample for the first phase of the evaluation activities consisted of all available students beginning their second year of the Demonstration Program \((n=17)\) and all available students beginning their second year in associate degree programs in hospitality education at the University of Massachusetts \((n=39)\) and Paul Smith's College \((n=14)\).

**Data collection.** All data for the initial phase was collected during the first week of November, 1972. The data collection devices were administered to students in the three programs by project staff members.

**Data analysis.** To test the hypothesis, associate degree students enrolled in the Demonstration Program will not differ significantly from students enrolled in comparable programs with respect to indices of vocational commitment and achievement, a series of one-way analysis of variance tests were performed using scores on the Vocational Commitment Index, and scores on the Food


Production and Service Achievement Test of subjects grouped by programs. The F ratio resulting from the analysis of scores on the Vocational Commitment Index was .063 (nonsignificant, p < .05). The summary appears in Table 1; group means and standard deviations appear in Table 2. These results indicate that the degree of vocational commitment was not significantly different among the three groups.

Table 1. Analysis of Variance of Scores on Vocational Commitment Index of Students in Three Programs

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program</td>
<td>2</td>
<td>47.290</td>
<td>23.645</td>
<td>.063</td>
</tr>
<tr>
<td>Error</td>
<td>94</td>
<td>35481.824</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>35529.113</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Group Means and Standard Deviations on the Vocational Commitment Index.

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>221.824</td>
<td>15.109</td>
</tr>
<tr>
<td>41</td>
<td>219.902</td>
<td>19.469</td>
</tr>
<tr>
<td>39</td>
<td>220.821</td>
<td>20.943</td>
</tr>
</tbody>
</table>
The results of the analysis of variance tests computed on the Food Production and Service Achievement Test mean scores of the three groups are presented in Table 3. A significant \( (p < .01) \) F ratio of 7.706 emerged in this analysis. Group means and standard deviations appear in Table 4. These results indicate that the performance of the three groups differed significantly: the Demonstration Program subjects scored a lower mean performance on achievement than subjects in the two comparable programs. Therefore, the hypothesis is partially supported: Demonstration Program students perform at a similar level to students in comparable programs with regard to the criterion variable of vocational commitment. However, Demonstration Program students perform at a similar level to students in one comparable program and at a significantly lower level students in another comparable program on an achievement test of food production and service.

Table 3. Analysis of Variance of Scores on the Food Production Service Achievement Test of Students in Three Programs

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program</td>
<td>2</td>
<td>973.409</td>
<td>486.704</td>
<td>7.706*</td>
</tr>
<tr>
<td>Error</td>
<td>94</td>
<td>5936.921</td>
<td>63.159</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>6910.330</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* significant, \( p < .01 \)
Table 4. Group Means and Standard Deviations on the Food Production and Service Achievement Test

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>38.059</td>
<td>7.075</td>
</tr>
<tr>
<td>41</td>
<td>38.122</td>
<td>7.991</td>
</tr>
<tr>
<td>39</td>
<td>44.564</td>
<td>8.242</td>
</tr>
</tbody>
</table>

To compare the performance of Demonstration Program students with the students in comparable programs grouped together, two t tests were performed using scores on the Vocational Commitment Index and on the Food Production and Service Achievement Test for the 17 Demonstration Program students and the 80 comparable students. Table 5 presents the results of these analyses. The t value for vocational commitment was -.343 (nonsignificant and the t value for achievement was 1.625 (nonsignificant).

Table 5. Means, Standard Errors Squared and t Values of Two Groups of Subjects on the Vocational Commitment Index and Food Production and Service Achievement Test.

<table>
<thead>
<tr>
<th>Vocational Commitment Index</th>
<th>Demonstration Program Students</th>
<th>Students From Other Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>221.82 (13.43)</td>
<td>Mean (5.04)</td>
</tr>
<tr>
<td>t Ratio</td>
<td>-.343</td>
<td>1.625</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Food Production and Service Achievement Test</th>
<th>Demonstration Program Students</th>
<th>Students From Other Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>38.06 (2.95)</td>
<td>Mean (41.26)</td>
</tr>
<tr>
<td>t Ratio</td>
<td>1.625</td>
<td>1.625</td>
</tr>
</tbody>
</table>


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These findings suggest that Demonstration Program students can perform at a level similar to the average performance of students in comparable programs on the criterion variables of commitment to the vocation and achievement of basic knowledge in this field when the differences between the two comparable programs are not taken into consideration.

A second hypothesis predicting no significant differences between Demonstration Program students and students enrolled in two comparable programs when the criteria are high school grade point average and first year college grade point average was tested using a series of one-way analysis of variance tests. The results of the analysis of variance on the high school grade point average, presented in Table 6, yielded a nonsignificant F ratio of .131 (p .05). Group means and standard deviations are presented in Table 7. These results indicate that high school grade point averages were not significantly different among the three groups of students. These results were supported by the emergence of a nonsignificant T ratio of -.678 secured from a t test computed between Demonstration Program students and all other students grouped together, as illustrated in Table 8. These findings indicate that students in the Demonstration Program are similar to students in the two comparable programs with respect to academic performance in high school.
Table 6. Analysis of Variance of High School Grade Point Average of Students in Three Programs

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program</td>
<td>2</td>
<td>.213</td>
<td>.107</td>
<td>.131</td>
</tr>
<tr>
<td>Error</td>
<td>94</td>
<td>76.763</td>
<td>.817</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>76.976</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7. Group Means and Standard Deviations on High School Grade Point Average

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>2.581</td>
<td>.452</td>
</tr>
<tr>
<td>41</td>
<td>2.450</td>
<td>.937</td>
</tr>
<tr>
<td>39</td>
<td>2.505</td>
<td>1.005</td>
</tr>
</tbody>
</table>

Table 8. Means, Standard Errors Squared and t Values of Two Groups of Subjects on High School and College Grade Point Averages

<table>
<thead>
<tr>
<th>Demonstration Program Students</th>
<th>Students From Other Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>St'd Error²</td>
</tr>
<tr>
<td>High School G.P.A.</td>
<td>2.58</td>
</tr>
<tr>
<td>First Year College G.P.A.</td>
<td>2.45</td>
</tr>
</tbody>
</table>

*significant, p .01
A significant F ratio of 7.069 (p .01) emerged on the analysis of first year college grade point average between the three groups of students. Results of this analysis are presented in Table 9 and group means and standard deviations are presented in Table 10. These results indicate that the first year academic performance of students in the three programs differed significantly with Demonstration Program students averaging the lowest grade point average of the three groups. A t test performed between Demonstration Program students and all other subjects grouped together yielded a significant t value of 4.848 (p .01). The results of the t test are presented in Table 8. The findings indicate that the academic performance of students in comparable programs was significantly higher than that of the students enrolled in the Demonstration Program for the first year of college.

Table 9. Analysis of Variance of First Year College Grade Point Average of Students in Three Programs

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program</td>
<td>2</td>
<td>4.127</td>
<td>2.063</td>
<td>7.069*</td>
</tr>
<tr>
<td>Error</td>
<td>94</td>
<td>27.437</td>
<td>.292</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>31.564</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* significant, p .01
Table 10. Group Means and Standard Deviations on First Year College Grade Point Average

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>2.446</td>
<td>.328</td>
</tr>
<tr>
<td>41</td>
<td>3.032</td>
<td>.481</td>
</tr>
<tr>
<td>39</td>
<td>2.850</td>
<td>.658</td>
</tr>
</tbody>
</table>

These findings partially support the second hypothesis regarding the academic competence of students recruited to the Demonstration Program as compared to that of students in similar programs. Demonstration Program students appear to be academically as qualified as students in other programs when recruited to the program. But, Demonstration Program students do not maintain academic equality with their peers during the first year of college.

A third hypothesis, predicting that students in the Demonstration Program will represent a significantly different socioeconomic status from those students in two comparable programs, was tested using a one-way analysis of variance on group means from Hollingshead's Two Factor Index of Social Position. The resulting F ratio, presented in Table 11, was 1.662 (nonsignificant, p. .05). Descriptive data on the group means and standard deviations are presented in Table 12. When Demonstration Program students were compared with all other students in a t-test computed on group means on Hollingshead's socioeconomic status index, a nonsignificant t value of -1.072 emerged.
t test results are presented in Table 13. The findings from these analyses indicate that Demonstration Program students do not differ from their peers in other programs with regard to socioeconomic status. Therefore, the three programs recruit students from similar socioeconomic levels. Hypothesis 3 is rejected.

Table 11. Analysis of Variance on Socioeconomic Status of Students in Three Programs

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program</td>
<td>2</td>
<td>5.037</td>
<td>2.518</td>
<td>1.662</td>
</tr>
<tr>
<td>Error</td>
<td>94</td>
<td>142.468</td>
<td>1.516</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>147.505</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12. Group Means and Standard Deviations on Socioeconomic Status

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>2.941</td>
<td>1.560</td>
</tr>
<tr>
<td>41</td>
<td>2.341</td>
<td>1.217</td>
</tr>
<tr>
<td>39</td>
<td>2.692</td>
<td>1.080</td>
</tr>
</tbody>
</table>
Table 13. Means, Standard Errors Squared and t Ratio of Two Groups of Students on Socioeconomic Status

<table>
<thead>
<tr>
<th></th>
<th>Demonstration Students</th>
<th>Students From Other Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.94</td>
<td>2.51</td>
</tr>
<tr>
<td>Standard Error $^2$</td>
<td>.14</td>
<td>.02</td>
</tr>
<tr>
<td>t Ratio</td>
<td>-1.072</td>
<td></td>
</tr>
</tbody>
</table>

Discussion of Findings From Initial Evaluation

The results of the analysis of data for the initial phase of program evaluation suggest the following conclusions:

1. Students entering the Demonstration Program are academically equal to students enrolled in comparable programs in terms of evidence of high school achievement. Therefore, the program can be considered as providing educational experiences for students who have similar academic backgrounds to those participating in other programs for hospitality education.

2. Students enrolled in the Demonstration Program achieve a significantly lower grade point average for the first year of their college experience than do students in other programs. Therefore, a more thorough analysis of student course load, study time, and other factors influencing the academic performance of students is warranted.

3. Demonstration Program students perform at a level similar to those in comparable programs on a measure of vocational commitment. Therefore, the Demonstration Program can be considered successful in inspiring its students toward assuming positions as vocationally committed employees in the hospitality industry. As prospective mid-management personnel, their commitment is viewed as a necessary attitudinal component for occupational success.

4. Evidence of student achievement of knowledge of food production and service as provided by scores on an achievement
test suggest that Demonstration Program students have not achieved this knowledge base at a level comparable to that of students in other hospitality education programs. Therefore, a reassessment of the Demonstration Program is warranted to strengthen and reinforce student achievement of basic knowledge in food production and service.

5. To date, the Demonstration Program has not succeeded in enrolling students from economically disadvantaged families to a greater extent than comparable programs. Therefore, efforts to publicize the program among people of lower economic statuses need to be increased.

Evaluation: Phase Two

The second phase of evaluation focused upon a pre- and post-program analysis. Criteria for this analysis include vocational commitment and the achievement of knowledge bases in food production and service in food production management.

Sample. The sample for the second phase of evaluation comprised all students who began their second year of the Demonstration Program in Fall 1973 (n=39) and all students who ended their second year of this program in the Spring of 1974.

Data collection. Data was collected from 30 subjects beginning their second year of the program in September, 1973, and in May, 1974, as these same subjects ended their second year of the Demonstration Program. This data included the Vocational Commitment Index, the Food Production and Service Achievement Test, and the Food Production Management Achievement Test.

Data analysis. A hypothesis predicting no difference between subjects beginning the second year and subjects ending the Demonstration Program with respect to indices of vocational commitment and the achievement of knowledge of food production and service and food production management was tested with a series of independent, non-
correlated t tests.

Results of the t tests performed appear in Table 14. These results indicate that the performance of students ending the program does not differ significantly from their performance as beginning second-year students with respect to vocational commitment. However, significant differences (p < .01) are evident between the performances of these subjects as beginning and ending students on the two achievement tests. Subjects ending the program achieved significantly higher scores on the tests for Food Production and Service and Food Production Management than they achieved as beginning second-year students. These findings indicate partial rejection of the hypothesis of no difference between pre- and post-program data.

Discussion of Findings From Second Evaluation Phase

Results of the analyses for the second phase of evaluation indicate the following conclusions.

1. The second year of the program appears to enhance student achievement of a knowledge base in the areas of food production and service and of food production management as evidenced by significant differences between performance on the Food Production and Service Achievement Test and the Food Production Management Achievement Test of students beginning and ending their second year of study.

2. No significant difference appeared between the beginning and ending performance of students on the measure of vocational commitment although the mean score on this device was higher for the students when they started their second year than when they ended this year. The slight drop in the mean score may reflect the modification of vocational commitment from an idealistic to a realistic level as students gain greater knowledge about their career field or may represent a reduction in the level of commitment due to the second year of the Demonstration Program.
Table 14. Means, Standard Deviations and t Values of Differences Between Students Beginning and Ending the Second Year of the Demonstration Program on Three Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Beginning Students</th>
<th>Ending Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30$^1$</td>
<td>31$^2$</td>
</tr>
<tr>
<td><strong>Vocational Commitment Index</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>229.97</td>
<td>218.18</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>22.14</td>
<td>24.70</td>
</tr>
<tr>
<td>t value</td>
<td>1.909 n.s.</td>
<td></td>
</tr>
<tr>
<td><strong>Food Production and Service Achievement Test</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>30.73</td>
<td>38.33</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>6.46</td>
<td>8.19</td>
</tr>
<tr>
<td>t value</td>
<td>3.859*</td>
<td></td>
</tr>
<tr>
<td><strong>Food Production Management Achievement Test</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>27.75</td>
<td>36.81</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>5.61</td>
<td>5.94</td>
</tr>
<tr>
<td>t value</td>
<td>6.022*</td>
<td></td>
</tr>
</tbody>
</table>

$^1$Data from two subjects was unavailable on the Food Production Management Achievement Test.

$^2$Data from 4 subjects was unavailable on the Vocational Commitment Index and Food Production and Service Achievement Test.

n.s. - nonsignificant

* - significant, p. <.01
Evaluation: Phase Three

This final phase of evaluation compared graduates of the Demonstration Program with graduates of two comparable programs using the criteria of vocational commitment, employer's rating of employee performance, and entry level salary.

The major hypothesis being tested was that graduates of the Demonstration Program do not differ from graduates of comparable programs with regard to indices of vocational commitment, job placement, salary, and job performance.

Sample. Subjects for this evaluation were recruited from the graduates of the Demonstration Program (n=12), and graduates of two similar programs (n=125).

Data collection. The data collection was conducted in February and March, 1974. Letters enclosing an information form, the Vocational Commitment Index, and a return envelop were sent to 137 prospective subjects, soliciting their participation in the final phase of program evaluation. As these materials were completed and returned by participating subjects, returns were processed. A letter and an Employer Rating Form were sent with a return envelop to all employers of subjects.

This data collection effort has been less satisfactory than anticipated. Thirty-six (or 26 percent) of the 137 persons solicited responded after 2 1/2 months and efforts to follow-up Demonstration Program graduates via telephone, to secure a greater proportion of returns were unsuccessful.

Only 5 of the 12 Demonstration Program graduates responded to the
solicitation for data. This figure represents 42 percent of the graduate class. Eighteen of the 83 graduates of Program I responded; a figure which represents 22 percent of this class. Thirteen, or 31 percent of the 42 Program II graduates responded to the data solicitation. The low proportions of subjects representing each group of graduates is cause to question the validity of these data.

Of the Demonstration Program graduates responding, 3 had secured jobs in their career field, and 2 of the 3 graduates were still employed in these jobs and had received salary increases. Two of these graduates had enrolled in a four-year college program and were majoring in a hospitality program.

Data from the 18 Program I graduates responding indicated that 3 were continuing their education in hospitality programs, and 13 graduates were employed in jobs in the hospitality field while 2 had jobs in unrelated fields. Ten of the 13 were still in these jobs and 9 had received raises in salary.

Four of the Program II graduates were continuing their education in career related programs and 10 had secured jobs in the hospitality industry. Of these 10, 7 were still employed in their jobs although 8 had received salary increases. This data is summarized in Table 15.
Table 15. Post Graduation Status of Subjects from Three Programs

<table>
<thead>
<tr>
<th>Status</th>
<th>Demonstration Program Graduates (n=12)</th>
<th>Program I Graduates (n=83)</th>
<th>Program II Graduates (n=42)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Responding to data solicitation</td>
<td>5</td>
<td>.42</td>
<td>18</td>
</tr>
<tr>
<td>Continuing education</td>
<td>2</td>
<td>.40</td>
<td>3</td>
</tr>
<tr>
<td>Job in hospitality industry</td>
<td>3</td>
<td>.60</td>
<td>13</td>
</tr>
<tr>
<td>Job in other field</td>
<td>0</td>
<td>0.00</td>
<td>2</td>
</tr>
<tr>
<td>Still employed on job ²</td>
<td>2</td>
<td>.67</td>
<td>10</td>
</tr>
<tr>
<td>Received salary raise ²</td>
<td>2</td>
<td>.67</td>
<td>9</td>
</tr>
</tbody>
</table>

1 one subject held a fulltime job while enrolled as a student in a four-year college program
2 percentages based on number of subjects with job in hospitality industry from each program

Data analysis. A hypothesis predicting no difference between Demonstration Program graduates and graduates of two comparable programs with respect to indices of vocational commitment, job placement, salary and job performance was tested with a series of one-way analysis of variance tests.

Results of the analysis of variance computed on Vocational Commitment Index scores of the three groups are presented in Table 16. Group means and standard deviations are summarized for the three criterion variables in Table 17. This analysis yielded a nonsignificant
F ratio of .493 indicating that graduates of the three programs do not differ in vocational commitment.

Table 16. Analysis of Variance of Scores on Vocational Commitment Index of Graduates From Three Programs

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program</td>
<td>2</td>
<td>482.6</td>
<td>241.3</td>
<td>.493</td>
</tr>
<tr>
<td>Error</td>
<td>25</td>
<td>12243.5</td>
<td>489.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>12726.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 17. Group Means and Standard Deviations on Three Variables of Graduates From Three Programs

<table>
<thead>
<tr>
<th>Vocational Commitment Index</th>
<th>Program Graduates</th>
<th>Program I Graduates</th>
<th>Program II Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>3</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Mean</td>
<td>242.33</td>
<td>228.36</td>
<td>230.82</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>29.36</td>
<td>20.91</td>
<td>21.98</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Salary Level</th>
<th>Program Graduates</th>
<th>Program I Graduates</th>
<th>Program II Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>3</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Mean</td>
<td>3.33</td>
<td>3.14</td>
<td>3.00</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.15</td>
<td>.66</td>
<td>.89</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employer's Rating Scale</th>
<th>Program Graduates</th>
<th>Program I Graduates</th>
<th>Program II Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>3</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Mean</td>
<td>30.67</td>
<td>33.25</td>
<td>30.70</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>3.21</td>
<td>6.13</td>
<td>5.12</td>
</tr>
</tbody>
</table>
Coded values were used to represent 7 levels of salary from under $5000, $5000 to $6999, $7000 to $8999, $9000 to $10999, $11000 to $12999, $13000 to $14999, and over $15000. No subjects indicated salaries above $12999 so the last two categories were unnecessary. The coded values were analyzed using an analysis of variance test. The analysis yielded a nonsignificant F value of .227 indicating no significant differences between the salaries earned by graduates from the three programs. Each group of graduates earns an average salary of from $7000 to $8999.

The F ratio resulting from the analysis of variance computed on scores from the Employer's Rating Scale was .560 (nonsignificant). This finding indicates no difference between graduates in three programs in the employers' assessments of the performances of these graduates.

The findings from these analyses support the hypothesis of no difference between Demonstration Program graduates and graduates of two comparable programs. Individuals graduating from the Demonstration Program demonstrate similar vocational commitment and job performance and similar salaries to persons graduating from two other programs.

Discussion of Findings From the Third Evaluation Phase

The third evaluation phase yielded results which suggest that the Demonstration Program produces graduates who compete for jobs in the hospitality industry equally with their counterparts from other programs. More specifically, the graduates of the Demonstration program appear to secure jobs in a comparable proportion to those from other programs, retain this employment and earn merit salary increases in similar proportions to those in other programs, receive similar performance...
ratings from their employers, receive similar salaries, and demonstrate similar levels of vocational commitment. From 16 to 40 percent of the graduates seek baccalaureate degrees in hospitality programs. Although the data reflects a favorable evaluation of the Demonstration Program, these optimistic results should be received with caution since the findings are based on data obtained from only 26 percent of the graduates of the three programs.

Summary

The results of the evaluation efforts have been used to provide feedback over the several years of the Demonstration Program. Modifications in student recruitment, course content, and instructor roles have occurred as the project staff adjusted to and shaped the emerging prototype program.

Self-instructional textbooks have been developed and refined for use in associate-degree hospitality education. These materials have employed the concept of a theoretically ideal food service operation in order to provide a basis of student interpretation of the realities encountered in their work experience in practicums situated in actual operations. Seminar sessions afforded an arena for student discussion of the knowledge and skills gained from both the textbooks and the practicums. Evaluation devices developed during the project served the twin purposes of student assessment and program assessment.

The final verdict on the program's effectiveness in producing qualified middle management personnel for the hospitality industry appears tentatively to rest on the minimally representative favorable data discussed in this paper. The program is, in any case, an emerging
possible alternative to the traditional laboratory-oriented associate degree programs for hospitality education.

Additional References


VII

THE SEMINAR PRACTICUM:

A COMMUNITY BASED INSTRUCTIONAL SYSTEM

FOR PARAPROFESSIONAL EDUCATION

by

Thomas F. Powers, Ph.D.
Introduction

In the course of the past four years a program to redesign the Hotel and Food Service associate degree at The Pennsylvania State University has been undertaken, with support from the Research Coordinating Unit of The Pennsylvania Department of Education, with three basic purposes in view.* First of all, the redesign proposed to develop a curriculum responsive to the needs of "knowledge workers" as that concept has been put forward by Drucker and others. Knowledge workers establish an initial competency within a knowledge base and must then evolve with that knowledge base. The knowledge worker can be contrasted to the skilled worker who masters a skill perceived as static through experience, and focuses on how to perform a skilled set of operations. The knowledge worker uses a knowledge base--and skills acquired subsequent to his education--to perform services which are

*This article is adapted from a speech delivered at the annual meeting of the American Home Economics Association; Los Angeles, June 25, 1974.
essentially problem solving rather than performance oriented.

Secondly, the curriculum was planned to develop a controlled field experience. Thirdly, the curriculum addressed certain logistical problems confronted by the University as it made the decision to move the Hotel and Food Service Associate Degree Program from the central University Park Campus to one or more of its 21 Commonwealth Campuses which cover the state of Pennsylvania.

The seminar practicum has been described as

A new instructional system [that] relies on a triad of learning opportunities presented to the student. First of all, the student is required to work as an employee, on a part-time basis, in an industry setting.

The second element of the instructional system consists of self-instructional modules which direct the student's attention in the workplace, on a week by week basis, to the subject matter area to be addressed as the course progresses. The self-instructional modules not only provide a vehicle for controlling the focus of the student's attention but also for supplementing the student's learning in the workplace.

The final element in the instructional triad is a weekly seminar of some 2-1/2 hours length. The function of the seminar is principally one of clarification and integration of the week's learning experiences.

Early in the design stage of this project, it became clear that the extensive reliance of the seminar practicum on field experiences required that the system developed be community based rather than, as in traditional educational programs, a campus based program. (This is not to say that the campus was secondary, but rather that the extensive reliance on industry for field settings made industry support absolutely
essential, rather than marginally important.) Early work by Hicks in administering the system taught us that an important benefit of the instructional system, whose importance had initially not been recognized, was that of the acculturation of the student to the world of work and to adult responsibilities. The model we adopted was that suggested by Harrison and Hopkins who pointed to the inadequacies of the traditional university educational model in preparing students for real world experience (in their case, work in the Peace Corps). Volunteers who were trained in the program which Harrison and Hopkins studied were not dissatisfied with the cognitive content of the educational program but rather with the sense that their training experience, however interesting or well-prepared it may have been simply did not equip them for the real world challenges that they were required to confront on completion of the program of study. The conscious discovery of the acculturative role of post-secondary education programs became an important element in the evolving concept of the seminar practicum.

The importance of field experience in the hotel, restaurant, and institutional (HRI) management curriculum has been established in a recent study by Koppel. His work indicates that over three quarters of the Hotel, Restaurant and Institutional Management programs studied required field experiences. Of the 37 respondents in that study who felt that some change in their program of field experience would be appropriate, 36 felt that it should be extended in length, and only one felt that it should be reduced in length. Clearly, the seminar practicum incorporates an important element in any HRI practicum, that of first-hand experience of the complex system that is the hospitality
An earlier report on the seminar practicum, as a developing system, noted the difficulty of severe time constraints in the development of the seminar practicum and accompanying instructional materials. That report was offered only a few weeks after the conclusion of the first year of offering the seminar practicum. The present study has the advantage of a second year's experience in a less time-bound context with the operation of the three terms of seminar practicum on a campus in which the curriculum emphasizes Commercial Hotel and Food Service Operations and on a second campus in which the curriculum has been shaped to meet the needs of the Dietary Technician.

After discussing further the importance of the field experience in HRI programs, this paper compares the seminar practicum with traditional field experiences and reports on interviews with students, faculty, and employers who have been involved in the seminar practicum at two campuses of this University. In reporting this interview data, an attempt is made to assess the impact of the seminar practicum as a tool for effecting the acculturation of the student to the world of work; to report on the positive and negative aspects of the perceived success in addressing the knowledge base of the hospitality paraprofessional; and to suggest the degree of community acceptance achieved by the program. Finally, the logistical advantages of the system are discussed.

The Field Experience in HRI

The widely recognized importance of field experience in HRI curricula has been documented by Koppel's recent study, using responses
from 87 two and four year HRI program chairmen. As noted earlier, 78 percent of the respondents required a field experience. Table 1 summarizes the proportion of respondents ranking various areas of their curriculum as "very important." For both two- and four-year programs, courses from the major are rated as the most important with approximately 80 percent of the respondents ranking this element as "very important". The second most important element according to these responses was the professionally related field experience which far outweighed any component of the curriculum, other than courses from the major, in importance in the view of the respondents. It is possible, however, to find in Koppel's data reasonable empirical justification for the assertion that the typical HRI field experience is an unstructured one. While very few institutions would accept non-HRI industry jobs for the field experience, the vast majority would accept nearly any employment at all that was within the field. It may be useful here to note that the student's job and employment site in the seminar practicum must be approved by the instructor and are subject to his continuous re-evaluation.

Half the four-year programs responding and nearly all the two-year programs responding assigned a grade to field experiences, but the reported basis for evaluating that field experience as well as of supervising it strongly support the presumption of an unstructured practicum. Only 14 percent and 28 percent, respectively, of the two- and four-year programs indicate that evaluation of the field experience is conducted by institution faculty alone. Fourteen and 22 percent, respectively, of these institutions reported that the employer or his representative--clearly not college or university supervision--was responsible for evaluating the field experience, while 72 and 50 percent, respectively,
# TABLE 1

Proportion Ranking Curricular Areas as "Very Important"

<table>
<thead>
<tr>
<th>Curricular Area</th>
<th>Proportion Indicating Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two Year Programs (N=47)</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Courses from the HRI major</td>
<td>.81</td>
</tr>
<tr>
<td>Professionally related field experiences</td>
<td>.61</td>
</tr>
<tr>
<td>Liberal Arts courses</td>
<td>.19</td>
</tr>
<tr>
<td>Other non-technical courses</td>
<td>.11</td>
</tr>
</tbody>
</table>

Source: Koppel, Practices in Required Field Experiences in HRI.
reported "both" faculty and the employer of his representative were responsible for this evaluation. Responsibility for the supervision of the field experience is attributed to program faculty by 8 percent of the two-year and 11 percent of the four-year programs while 8 and 28 percent, respectively, attribute this responsibility to the employer or his representative. Eighty-four percent of the two-year programs and 61 percent from the four-year programs attributed responsibility for the supervision of the field experience to both program faculty and the employer or his representative.

Perhaps the most significant set of responses is the 50 to 85 percent response indicating both faculty and employer are "responsible" for supervision and evaluation of the field experience. Anyone experienced with the practicum, either as an operator in industry or as an academic concerned with the administration and evaluation of field experiences, will recognize that the strong "both" set of responses probably means "none" or very little. The logistical difficulties of closely coordinating the evaluative inputs of two such disparate sources as well as the very limited value of the unidimensional "student rating form" normally in use, together with the potential for inaccuracy, bias, and lack of detailed knowledge on the part of the employer about the student's activities all militate against supervision and evaluation being carried out in any meaningful way by "both" employer and faculty.

The typical two-year program (75 percent of the respondents) requires 500 or less hours, while the typical four-year program (77 percent) requires 700 or less hours of practicum experience. The hotel and food service associate degree at Penn State requires a 400-hour summer practicum which is essentially unsupervised and an additional
540 hours of field experience in conjunction with the seminar practicum which is offered in the three terms of the student's second year.
The Seminar Practicum: A Preliminary Evaluation

The conclusions in the balance of this paper are based on a series of telephone interviews with the two faculty members in charge of the University's Berks Campus program (commercial hotel and food service) and the York Campus program (dietary technician emphasis); with over half of the twenty-seven students completing seminar practicums at Berks and five out of seven of the students completing those three courses at York; and, finally, with 12 out of 21 employers who accounted for 64 percent of the student practicum sites. The interviews were unstructured in the sense that a questionnaire was not followed but a check list of points to be covered was available in order to attempt to draw each respondent over all the relevant points of concern. Student responses for both programs are summarized in Table 2, while Table 3 summarizes Berks' student responses, and Table 4 the responses of the students at York. Interviews took place after the end of the term.

Student Reaction

The interviews indicated several rather narrowly focused areas of negative evaluation on the part of the students as well as a more substantial consensus of approval of the instructional system. Before turning to a detailed evaluation of the responses, however, it is useful to report the students' response to an opening, very general question seeking their reaction to the system and any suggestions for improvement. Only one student out of 19 interviewed expressed an overall negative evaluation of the instructional system. Some typical
<table>
<thead>
<tr>
<th>Question</th>
<th>Proportion*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Favorable</td>
</tr>
<tr>
<td>Overall Reaction</td>
<td>.95</td>
</tr>
<tr>
<td>Self-perception of Maturation</td>
<td>.90</td>
</tr>
<tr>
<td>Reaction to Vocation</td>
<td>.90</td>
</tr>
<tr>
<td>Anticipation of Success</td>
<td>.84</td>
</tr>
<tr>
<td>Knowledge Base Coverage</td>
<td>.32</td>
</tr>
<tr>
<td>Understanding of Food Service</td>
<td>.42</td>
</tr>
<tr>
<td>World of Work</td>
<td></td>
</tr>
<tr>
<td>Food Production Knowledge</td>
<td>.26</td>
</tr>
</tbody>
</table>

*N = 19 students out of a total Seminar Practicum enrollment at Berks and York of 34 or 56% of the Seminar Practicum students.
TABLE 3
Student Reaction to the Seminar Practicum

<table>
<thead>
<tr>
<th>Question</th>
<th>Favorable</th>
<th>Neutral or No Response</th>
<th>Unfavorable</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Reaction</td>
<td>.93</td>
<td></td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Self-perception of Maturation</td>
<td>.93</td>
<td></td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Reaction to Vocation</td>
<td>.86</td>
<td>.07</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Anticipation of Success</td>
<td>.79</td>
<td>.07</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>Knowledge Base Coverage</td>
<td>.14</td>
<td>.36</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>Understanding of Food Service</td>
<td>.29</td>
<td>.64</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>World of Work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Production Knowledge</td>
<td>.14</td>
<td>.57</td>
<td>.29</td>
<td></td>
</tr>
</tbody>
</table>

*N = 14 students out of a total Seminar Practicum enrollment at Berks of 27 students or 52% of the Seminar Practicum students at Berks.
TABLE 4
Student Reaction to the Seminar Practicum

York Students

<table>
<thead>
<tr>
<th>Question</th>
<th>Favorable</th>
<th>Neutral or No Response</th>
<th>Unfavorable</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Reaction</td>
<td>1.00</td>
<td>0</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Self-perception of Maturation</td>
<td>0.80</td>
<td>0</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Reaction to Vocation</td>
<td>1.00</td>
<td>0</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Anticipation of Success</td>
<td>1.00</td>
<td>0</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Knowledge Base Coverage</td>
<td>0.80</td>
<td>0</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Understanding of Food Service World of Work</td>
<td>0.80</td>
<td>0</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Food Production Knowledge</td>
<td>0.60</td>
<td>0</td>
<td>0.40</td>
<td></td>
</tr>
</tbody>
</table>

* N = 5 students out of a total seminar practicum enrollment at York of 7 students or 70% of the Seminar Practicum students at York.
Comments volunteered by students indicated that the seminar practicum experience helped them in approaching potential employers, that it helped them gain confidence in dealing with people, and that it was useful to combine real world experiences with the theory in the classroom. A number of students commented that they were able to learn from observing the mistakes of the managers under whom they worked by contrasting course content with observed field reality. One student of mature years in the York program commented that she would not have thought of seeking the kind of job she was now in (i.e., food service manager) had it not been for this educational experience.

The placement experience of the two programs supports this generally favorable set of responses. Five of the respondents from Berks were employed in food service managerial or supervisory capacities while four of the respondents from York were so employed for a total of nine. An additional three students from Berks were employed in non-management food service occupations while an additional student from Berks was seeking employment in the food service field. Three more students from Berks planned to continue their education in the HRI field. Only two students (Berks) reported no particular plans following graduation and only one more additional student (York) was employed outside the field. (This last student was employed in a clerical position in order to earn money to pay for her forthcoming wedding. She planned to return to food service work as soon as that goal had been attained.) If a commitment to continue to work in the field can be taken as confirming the notion that the program has enlisted the support of the students, then the results reported above of half the students in the food service managerial positions with only two out of 19 without definite plans for a
career in the hospitality industry is encouraging support indeed.

These overall results support the notion that the incorporation of a controlled field experience into an HRI curriculum will meet with student acceptance and perceptions on the part of students of those experiences as valuable learning.

Acculturation to the World of Work

Ninety percent of the students reported positive views of their own maturation. It should be noted that the discussion related to this topic involved a relative judgment. ("Do you think you matured more than you would have done otherwise?") Ninety percent of the student respondents also reacted favorably to their vocational choice and 84 percent anticipated a successful career. Student comments (as well as employer comments, which will be discussed below) indicated that the student's motivation to learn in class was enhanced by his field experience and that motivation in the field was enhanced by classroom and learning module focus.

Knowledge Base Coverage

Not all student responses, however, were so highly favorable. As this program intends to prepare knowledge workers, a first important criterion for success is the adequacy of the knowledge based coverage. In a program intending to prepare students as knowledge workers for specific occupational roles, a perceived understanding of the food service world of work constitutes a second important element for evaluation. Finally, because students and faculty expressed, both during the design and the early implementation stages, serious reservations about the ability of the system to impart food production knowledge, questions
were asked with regard to that subject.

Only 32 percent of the students replied with an unqualified favorable reaction to the questions regarding the adequacy of the knowledge base coverage ("Are there any points you think ought to be covered in the curriculum which aren't?") and at the Berks Campus only 14 percent of the students reacted with unqualified favorable expressions with respect to knowledge base coverage. (Note: Any reaction which expressed any negative content with respect to knowledge base coverage was counted as a negative response.)

As Table 5 demonstrates, criticisms on this score, however, were narrowly focused. Students mentioned four areas specifically as lacking in coverage. Five students mentioned the lack of Hotel/Motel content, which is interpreted to be specifically front office or front desk operations since hotel engineering is covered at considerable length in the curriculum. (This interpretation is further supported by a subjective recollection of the student's comments.) Omission of front office considerations from the curriculum was a deliberate choice on the part of the faculty who reasoned that if a desk clerk can be trained to entry level competence in three working days and to independent, unsupervised competence in two weeks (a fairly common industry standard) then only a limited purpose is served by using university resources to teach this subject matter.

Two students indicated, without being asked, that there was a lack of food production instruction and one additional respondent cited the lack of front of the house (and specifically waiter/waitress training) as being a limitation of knowledge base coverage. Finally, one student from the York Campus (Dietary Technician emphasis) indicated
<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Berks</td>
</tr>
<tr>
<td>Lack of Content Regarding:</td>
<td></td>
</tr>
<tr>
<td>Hotel/Motel</td>
<td>5*</td>
</tr>
<tr>
<td>Food Production</td>
<td>2*</td>
</tr>
<tr>
<td>Front of the House (Restaurant)</td>
<td>1</td>
</tr>
<tr>
<td>Special Diet</td>
<td></td>
</tr>
</tbody>
</table>

*Total responding exceeds total students evaluating knowledge base coverage unfavorably because one student indicated lack in both the hotel/motel and food production area.
that she would have preferred to have had more special diet information in the curriculum. The eight negative responses to knowledge base coverage are thus seen as focused on areas which have been deliberately omitted from the curriculum as a result of conscious faculty decision.

Nearly half of the students felt that their general familiarity with the food service world of work (as opposed to specific knowledge related to management and operations) was adequate (42 percent) while another 48 percent had a neutral response or did not respond at all to this subject. The neutral response or lack of response was the predominant mode at the Berks Campus, but 30 percent of those students felt that they lacked understanding of the environment that they were about to go out into.

The perceived ignorance in the area of food production knowledge was especially noticeable at Berks where nearly 30 percent of the students had an unfavorable response to a specific question related to food production knowledge while only 14 percent had a favorable response in regard to that subject. This may, in part, be due to the process of development of the Berks program. The students in the previous class (who were second-year students when this year's graduating class were first-year students) were initially admitted to the University Park Campus where a formal food service laboratory was and is in operation. These students were subsequently offered the choice of withdrawing from the University or enrolling at the Berks Campus at Reading, Pennsylvania. Not surprisingly, a number of those students expressed negative evaluation of this decision on the University's part and there was considerable expressed feeling on their part that one of the serious aspects of this change was the absence of a food service lab at the Berks Campus like
the one at University Park. At least some of the response noted in Table 2 may be attributable to the "feedback" of last year's senior students to the then freshman class. The reaction at York, however, has a substantial (40 percent) negative response, suggesting that there are, indeed, grounds for the student's negative evaluation on this score.

Student discussion suggests that this lack of food production knowledge is principally in the area of manipulative skills. In this connection, it may be appropriate to question the degree to which a student working in the traditional laboratory simulation of a kitchen, covering each station on two occasions in a twelve-week term can, in reality, be expected to master the manipulative skills in question here. Since only 14 percent of all employers' reactions (see below) were negative with respect to food production knowledge, it seems possible that the students' reaction overvalues the degree of this deficiency. It is, however, clearly a deficiency perceived as important by the students. I would note, here, that one of the two instructors involved in the current year indicated that students who lack maturity or motivation experience difficulty in developing their skills. This is generally in accord with the reaction of employers, several of whom noted that the motivated student did very well but, in general, that students who lacked motivation did not engender as much interest on the part of the employer in teaching them.

A negative finding with regard to the ability to teach students food production skills is probably supported, particularly in the area of manipulative skills. While faculty did not judge these to be outside the realm of the knowledge base to be addressed, they do assess
them as of secondary importance in a program intended to develop managers. Nevertheless, this must be cited as the single most serious deficiency in the instructional system.

A Community Based System: Community Acceptance

Twelve out of a total of 21 employers who employed 64 percent of the seminar practicum students on the two campuses were contacted by phone for an interview. Employer interview data are summarized in Tables 6, 7, and 8. They offered a strong positive reaction (83 percent) to a first unstructured question seeking their evaluations and suggestions for improvement. This initial reaction is born out by strong positive employer evaluation of the students' commitment to a food service career as well as the students' chances for a successful career in food service. The two employers who had a neutral response to the students' chances of success based that response on their limited knowledge of the student in a managerial capacity while all respondents who reported unfavorably on students' chances for success commented that this was due to the students' lack of motivation or interest.

The high rating of the knowledge base coverage on the part of the employer may reflect as much their lack of specific knowledge with regard to the curriculum as any informed positive judgment. The vast majority of employers felt the students had an adequate understanding of the general world of food service with only one respondent indicating a neutral or negative response on this score. (The 42 percent "not applicable" response reflects the institutional setting of the Dietary Technician trainee employers of the York program, for whom this question did not have the kind of referent it did for the Reading employers.)
<table>
<thead>
<tr>
<th>Question</th>
<th>Proportion*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Employers</td>
<td></td>
</tr>
<tr>
<td>Overall Reaction</td>
<td>.83</td>
</tr>
<tr>
<td>Perception of Student Maturation</td>
<td>.66</td>
</tr>
<tr>
<td>Evaluation of Student's Commitment to Food Service</td>
<td>.75</td>
</tr>
<tr>
<td>Evaluation of Student's Chances of Success</td>
<td>.58</td>
</tr>
<tr>
<td>Knowledge Base Coverage</td>
<td>.83</td>
</tr>
<tr>
<td>Student's Understanding of the Food Service World of Work</td>
<td>.50</td>
</tr>
<tr>
<td>Student's Food Production Knowledge</td>
<td>.58</td>
</tr>
</tbody>
</table>

*N = 12 (out of a total of 21) employers who employed 64% of the students completing the Seminar Practicum in 1974 at both campuses.
<table>
<thead>
<tr>
<th>Question</th>
<th>Favorable</th>
<th>Neutral or No Response</th>
<th>Unfavorable</th>
<th>Not Applicable</th>
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</thead>
<tbody>
<tr>
<td>Overall Reaction</td>
<td>.71</td>
<td>.14</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>Perception of Student Maturation</td>
<td>.57</td>
<td>.28</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>Evaluation of Student's Commitment To Food Service</td>
<td>.71</td>
<td>.14</td>
<td></td>
<td>.29</td>
</tr>
<tr>
<td>Evaluation of Student's Chances of Success</td>
<td>.57</td>
<td>.14</td>
<td>.29</td>
<td></td>
</tr>
<tr>
<td>Knowledge Base Coverage</td>
<td>.86</td>
<td></td>
<td></td>
<td>.14</td>
</tr>
<tr>
<td>Student's Understanding of the Food Service World of Work</td>
<td>.86</td>
<td>.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student's Food Production Knowledge</td>
<td>.57</td>
<td>.29</td>
<td>.14</td>
<td></td>
</tr>
</tbody>
</table>

* N = 7 employers (out of a total of 14) who employed 60% of the students completing the Seminar Practicum in 1974 at the Berks Campus.
## Employer Reaction to Seminar Practicum

### York Employers

<table>
<thead>
<tr>
<th>Question</th>
<th>Favorable</th>
<th>Neutral or No Response</th>
<th>Unfavorable</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Reaction</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perception of Student Maturation</td>
<td>80</td>
<td></td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Evaluation of Student's Commitment</td>
<td>80</td>
<td></td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>To Food Service</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation of Student's Chances Of Success</td>
<td>60</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Knowledge Base Coverage</td>
<td>80</td>
<td></td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Student's Understanding of the Food Service World of Work</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Student's Food Production Knowledge</td>
<td>60</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

* N = 4 out of 5 employers at York who enrolled 70% of the Seminar Practicum students at York.
As noted earlier, only two employers had negative perceptions with regard to the students' food production knowledge while three were neutral or had no response. Over half responded with an unqualified favorable response on this score.

While the positive response of the employers listed above give strong support to a judgment of adequacy with respect to the instructional system and to the curriculum designed, these responses are even more important as an indicator of industry support for the continuation of this community-based instructional system. The employers' overwhelming approval of the program and their completely unanimous willingness to employ students from the program in the future indicate that industry support can be sought and gained for an instructional system that uses industry as a laboratory.

The Instructors' Reaction to the Instructional System

The two instructors connected with the seminar practicum during the current year (as well as the instructor who introduced it in the previous year\(^8\)) expressed strong support for the seminar practicum as an instructional system. Both the previous instructor and the current instructor at Reading expressed concern, however, regarding student employee turnover. Some support for this concern was expressed by several students who indicated that while the turnover was not a problem for them, they thought it might have been for other students. One student referred to "job ducking," a process in which a student would take a job to satisfy the instructor, quit and remain unemployed until the instructor discovered it, and then take another job for a few weeks, holding that job only until he thought he could safely quit again. While
this process was unquestionably the exception rather than the rule, it does suggest the kind of problem that faces an instructor attempting to supervise the seminar practicum employment experience. One firm rule is that student employment for the required 15 hours will not be permitted at sites close to the student's home but too far from the campus for convenient supervision by the instructor (which occurred in the past year in one case, that of a student who did not successfully complete the program).

Another important lesson offered by instructors' reactions is the absolute need in the seminar practicum for homework assignments that test the students' self-instructional work and for quizzes at the start of class that reinforce that self-testing.

All three instructors, while generally favorable on the subject, expressed concern about the degree to which relatively loose standards in industry experience could be offset by the standards suggested in the self-instructional modules and reinforced in the classroom. The function of the classroom and modules of showing the student that there is such a thing as a world that "works right" was found to be one which could be reinforced by field trips showing all students where management techniques advocated in the modules and class were actually in practice—even if not in all of the practicum sites.

Instructors found it difficult to assess the employer's evaluation of the student for its meaning and accuracy because of relatively infrequent (one every two or three weeks) and fleeting contact with employers and supervisors. Thus, a go-no go basis (if employed, okay; if not employed, not okay) turns out to be the operating and somewhat unselective criterion for assessing employer evaluation.
Difficulties encountered with employers principally related to their tendency to add hours to students' schedules if the student did not resist. Some operations proved to have standards of operation which simply proved unacceptable. In these cases, student employee turnover was seen as positive rather than negative in all cases.

In some cases, instructors' conversation with employers had an awkward element because the employer was not using the techniques (particularly in the area of pre-costing, payroll control, scheduling, and food cost post control) that the student was studying. The absence of such controls from the employment place also posed a problem in the classroom and the strategy which has been adopted by the faculty has been to point out quite candidly to the students, both in their first year and very forcefully at the beginning of the seminar practicum in their second year, that the industry in which they are employed is a highly traditionalist industry. Without wishing to demean the industry or the employer, instructors will diplomatically make the point that on some scores, many managers are backward in the use of objective management techniques. This presents a problem of diplomacy for both student and instructor—that is, to note what is being done without offending an employer who is, on balance, undoubtedly successful. The point that the instructor must make is that in some cases, an employer may be successful in spite of rather than because of the techniques the student observes. This contrast with the world of the successful entrepreneur is an especially difficult element in the commercial emphasis in which the "backward" manager drives to and from work in a Cadillac.

Candor compels the conclusion that this is a limitation, although not a serious one, of the seminar practicum. It can be contrasted with a
traditional classroom curriculum in which the student does not find out what industry standards are until graduation, at which point many graduates report their complete disillusionament with all they have been taught in a college or university setting.

Learning from the Student

In the early design stage of the development of the system, one of the greatest concerns of the faculty was the reliance of the system on self-instructional devices. The reactions to the questions discussed earlier do not suggest that this concern was particularly important. Moreover, students at the Berks Campus were asked specifically about a course which had been completely self-instructionalized (Sanitation and Housekeeping) and in which no formal class sessions were held (although the instructor maintained office hours to answer questions). Students completed assignments according to a printed set of instructions very much in the manner of a correspondence course except that a special grader was employed to assure very rapid (generally less than a week) turnaround on all student assignments. A surprising 12 out of 14 students expressed general approval of this course. Although eight commented that they would have preferred a classroom setting, the high degree of acceptance of a course taught in this manner, including four students who expressed a preference for the correspondence mode for this particular subject, was surprising. One student expressed indifference and only one student expressed an overall unfavorable response to this particular course.

The Matter of Logistics

In assessing the seminar practicum, it may also be useful to set
the system developed in the context of the logistical problems that confront all institutions wishing to establish an HRI program: problems of faculty load; the cost of equipping a food service laboratory; and the cost of operating food service laboratory courses.

The typical small two-year program (and indeed many four-year programs) operates with only one faculty member teaching all the courses in the major. This requires a heavy teaching load as well as a heavy advising load which impinges either on the instructor's time for class preparation (or on his or her ability to get a good night's sleep). Not only is there a substantial teaching load with respect to the number of class contact hours and courses taught, but there is also the problem of the very wide variety of courses an instructor is expected to be competent to teach.

As an approach to this set of problems, the seminar practicum offers a high degree of predesign. Instructors' manuals will shortly be available which, when taken with the modules, present the instructor with a course on which elaboration becomes possible as time permits but in which a basic strategy is provided until such time as the instructor wishes to improve on it. Since workbook exercises, complete with answers for the instructor, are available, as well as quizzes and exams, a substantial work reduction in these courses becomes possible for the busy instructor. Moreover, granting of credit for learning experiences directed by self-instructional modules and the seminar (as opposed to just the number of class or lab contact hours) reduces somewhat the instructor's class contact as well as class preparation load, although this reduction is somewhat offset by the need to maintain field supervision. The seminar practicum can probably be handled adequately in two and a half contact
hours per week and, at Penn State, is offered for four credits. A second difficulty with the adoption of an HRI curriculum at an institution not presently equipped for such a curriculum is the need to provide a substantial space allocation for what is generally a single-purpose laboratory as well as the considerable capital investment in equipment. (At Penn State, the equipment, alone, in use in the food service laboratory has an estimated value of $80,000.) While the seminar practicum in a managerially oriented curriculum is seen as having weaknesses in delivering the food production and manipulative skill learning, a "skills signoff sheet" developed by Wayda lists 72 skills to be mastered by the student and requires both student and employer to initial each skill mastered. This insures, as a minimum, that the student will have identified all of the important skills of the food production worker. The fact that both the student and employer indicate acceptable accomplishment in this area encourages one to believe that the motivated student will, indeed, achieve an acceptable level of mastery. Moreover, this mastery is accomplished without lab facilities.

Any weakness in the skills teaching area is inherent in the curricular emphasis in the Hotel and Food Service program at Penn State rather than in the instructional system itself. The addition of a small amount of laboratory space and equipment would permit demonstrations, and limited introductory experience could be gained by the student as well. A greater emphasis on testing the student by the instructor for the achievement of skills and a greater amount of time spent on food production (for instance, two or three terms rather than the one term in the Penn State curriculum) is also a possible strategy, should a
faculty determine that that is the area they wish to stress. The difficulty discussed above, the contrast between the standards of the world of work and the standards the faculty wish to impart, can be offset in a program stressing culinary arts by a greater selectivity in the operation approved for employment and, resources permitting, concomitant closer instructor-employer contact, supplemented by an expanded skills signoff sheet. Indeed, a logical next step in the development of the seminar practicum in hospitality education is its introduction in a culinary arts associate degree curriculum in a large city that offers an adequate number of practicum sites in which culinary standards are high enough to support instruction in that field.

A final logistical difficulty the system addresses is the cost of operating a food service laboratory (as opposed to equipping it). Two sections of an introductory course at Penn State’s University Park Campus (four credits) account for all of one faculty member’s teaching load. Moreover, the kind of instructor who is competent in food production and, at the same time, has adequate academic preparation and a grasp of the managerial system is, indeed, rare. The employment of a substantial portion of faculty resources to teach a food production course where resources are severely limited may represent a misallocation of scarce resources which the seminar practicum can, in part, overcome by shifting the time consuming skill learning to a field setting. In the case of a culinary program, food production skill standards could quickly be tightened, but it would still be possible for the person coordinating the course to be substantially more productive in terms of student learning outcomes should that person make use of practicum sites acceptable from a culinary arts standpoint.
In an evaluation of logistics, one ought not to exclude a consideration of the students' logistics. Because a student is employed, he or she should expect to earn something on the order of a thousand dollars during the three terms of the second year, (in addition to any summer employment income or first-year part-time employment) assuming a minimum of two dollars per hours. While many college students today do not have to be concerned with the cost of education, a rising number are expressing just such concern and wondering whether continuing their education is economically worthwhile. Reduction in the cost of education occasioned by the seminar practicum may thus be a consideration of some importance to many students. Moreover, in a time when our society has developed a considerable concern for the economically disadvantaged, the reduction in the net cost of education which results from a student income as an integral part of the educational experience deserves note.
Conclusions

The field experience is clearly an important part of any HRI curriculum. The seminar practicum appears to structure the field experience in a way that results in acculturation of the student to the world of work and significant maturation of the student. Those elements of weakness in the knowledge base coverage cited by students were the result of deliberate choice in curricular emphasis rather than an effect of the instructional system. The system is community based and has succeeded in gaining a very high degree of industry support. The logistical advantages of greater faculty productivity as well as reduced investment and operating costs for HRI programs are important advantages of the system. Finally, the seminar practicum offers the student some part-time income at the same time he or she is gaining a high quality educational experience.

For purpose of orientation, I have included Figure 1, "Educational Options, Old and New" on the following page.
EDUCATIONAL OPTIONS, OLD AND NEW

High School Graduation

Further Education
- Behavior: Further Search
- Question: Who Am I?
- Liberal Arts Associate Degree

Goal Oriented Professional Education
- Behavior: Goal Oriented
- Statement: I am a professional

Direct to Labor Market

Liberal Arts Bachelors Degree
- (thence to work or graduate school)

Traditional Professional Educational Programs
- (engineering, dietetics, business, etc. thence to work or graduate school)

Paraprofessional Education

Issues Addressed:
- Behavior: Master Knowledge Base
- Question: Who am I? What do I do?

Diversions and Probable Causes

Diverted from labor market to paraprofessional education because:
- Desire for higher (paraprofessional) status
- Desire for higher wages
- (Implicitly) greater competition for better paying jobs requires more education

Diverted from traditional educational patterns because:
- High cost of 4 year education
- Desire for job related "relevant education"
- Increased academic competition
Notes


7. The discussion which follows is based on Koppel, *op. cit.*

8. Hicks, *op. cit.*

VIII

THE HOSPITALITY PARAPROFESSIONAL AND THE EXTERNAL DEGREE: WORK IN PROGRESS AND WORK UNDONE

by

Thomas F. Powers, Ph.D.
THE HOSPITALITY PARAPROFESSIONAL AND THE EXTERNAL DEGREE: WORK IN PROGRESS AND WORK UNDONE

Thomas F. Powers, Ph.D.

Introduction
A relatively recent development on the educational scene is the external degree, often called the "University Without Walls." This essay will briefly describe the external degree conceptually and then describe its applicability to hospitality education. Next, the author will discuss an external degree program now being developed at Penn State for health care food service paraprofessionals which is a direct outgrowth of The Pennsylvania State University's Berks Program and serves as a model for non-traditional education programs (i.e., external degree) for Hospitality Education. The essay will conclude with a discussion of the need for an external Associate Degree for hotel and commercial food service paraprofessionals and an upper division external degree for transfer students from all Hospitality Associate Degree programs.

What Is The External Degree?
Several dynamic factors in the American social fabric have led to increasing emphasis on non-traditional study. Principal among these are (1) the high and still escalating costs of education, with traditional education often beyond
the reach of large numbers of students; (2) a desire on the part of adults to improve their level of educational certification, thus increasing their economic or social status or both; and (3) the evolution of the nature of work in our society characterized by Drucker as a shift "from manual to knowledge work." 1

To serve this need, a number of non-traditional modes of study have been adopted, the best known of which is probably the external degree. As a recent Study Committee Report at The Pennsylvania State University put it,

The history of education abounds with statements of the needs of adults to continue their education throughout their lives. Society, for the most part has, to date, provided institutionalized educational benefits for children and youth. . . . The only significant difference between external degree programs and their historical precedents is the growing acceptance of continued education for adults and an apparent willingness on the part of society to make a commitment to it. 2

The Carnegie Commission on Higher Education, in a recent study, recommended that "alternative avenues by which students can earn degrees or complete a major portion of their work for a degree be expanded to increase accessibility of higher education for those to whom it is now unavailable because of work schedules, geographic location,

or responsibilities in the home."³ The University of Oklahoma, Syracuse University, Goddard College, the University of South Florida, and others have already implemented external degree programs.⁴ Since the Fall of 1971, The State University of New York has concentrated its non-traditional studies in a single institution, The Empire State College.⁵ A recent study conducted by the California State Colleges identified ten different models for the external degree ranging from "A program of examination and certification: Instruction not offered" through various kinds of independent study and group and independent study to "The Weekend and/or Evening College."⁶

An external degree has been defined, very broadly, at Penn State as "any degree conferred by the University on persons who do not follow totally the traditional, residential college experience. The degrees would be conferred

⁴Ibid., p. 43.
⁶Various Models for External Degree Programs," The Commission on External Degree Programs, The California State Colleges, mimeo., n.d.
in recognition of satisfactory completion of a prescribed program of learning." The concept of making possible the completion of some or all of a degree program will, effectively, bring the college to the student in those cases where the student cannot, because of geography or family or work commitments, get to a college campus. The experience of the Empire State College of S.U.N.Y. suggests that the clientele of non-traditional study is, indeed, different from the clientele of the traditional college. The average age of Empire State students is 33, two-thirds are married, and only 15 percent are less than 21 years old. Most are employed.

The External Degree and Hospitality Paraprofessionals

The growth of external degree programs has initially been concentrated in the area of the Liberal Arts. Only very recently has this concept been used in the field of applied education. The State University of New York, for instance, is now in the process of developing an external degree in Business Administration. Given that the vast

majority of persons filling the paraprofessional roles (i.e., supervisory and middle management) in the hospitality field at this time are committed, by their income and family circumstances, to fulltime employment, it seems clear that they cannot be expected to participate in courses to enhance their professional development through fulltime study. While those fortunate enough to be located near universities and colleges offering professional studies may be able to enroll part time in courses that suit their needs, their ability to do so is conditioned both on geographic proximity and their ability to fit the class meeting hours into their work and family schedules. Accordingly, it seems reasonably clear that opportunities for self improvement and economic and social advancement for those mature persons who are capable of professional growth can best be provided by an independent study vehicle.

The serious shortage of health care food service managers and supervisors led the Food Service and Housing Administration Program to explore the possibility of elaborating its Hotel and Food Service Degree (Health Care Food Service Emphasis) for delivery by non-traditional means, and the Public Health Service made the funds available in a grant under which work was begun in January, 1973.
Penn State has offered a non-credit course, (INA 900) "Hospital Food Service," since 1957-58 through the correspondence division of the University. In its first year, 1957, this course enrolled 16 students. In 1972, 222 active students were enrolled and 438 students had successfully completed the course. Enrollment continued strong in spite of the fact that the course's text was out of print and, rather than promoting enrollment in the course, the University had discouraged enrollment until such time as it was able to revise its correspondence offerings. In fact, it was, in part, out of the deliberations regarding the revision of INA 900 that ideas for the external degree for Dietary Technicians arose. A review of the single "Hospital Food Service" course revealed the need to gear the study toward the complicated needs of the contemporary environment. It became clear that it was no longer possible to talk about normal diet modifications, personnel management, food production management, and so forth in one "Hospital Food Service Supervisor's Course."
Qualitative Manpower Demand

The potential paraprofessional dietary service supervisors in the existing health facility range from the food production manager, the cafeteria manager, the diet office supervisor, and the patient food service supervisor in large health care establishments to the food service manager in smaller establishments. Generally speaking, persons filling these roles have advanced from positions as cooks and dietary aides or even lower ranks. While such persons often have great ability, they commonly lack academic preparation, which in turn, limits their ability to develop fully the supervisory and middle management roles they fill.

The need was seen for supervisors who could develop their roles so as to become middle managers responsible for patient contact personnel below the dietitian level. Certainly, such persons need an understanding of the principles of normal nutrition and dietary modifications as well as a sound theoretical background in the principles and practices of sanitation. Moreover, it would be most helpful if supervisors were aware of the concept of cost and revenue centers and capable of dealing effectively with the pertinent accounting documents that permit the evaluation of the performance of a cost or revenue center. Such a supervisor would be a more valuable participant in budget planning and in performance review. Similarly, food production planning and supervision can no longer be viewed as some high-level extension of the cooking skill. The
food production work force today must operate within increasingly stringent cost, legal, and social parameters.

The growth in the size and number of health facilities in recent years has substantially raised the demand for administrative sophistication at all levels of management, as have the increasingly complicated financial reporting requirements. This suggests not only a need for more talented persons to do the work of the supervisor, but also a need for the paraprofessional to relieve the dietitian of as many duties as possible so she can assume greater responsibility in the Health Care Delivery System.

The need for college credit courses is suggested by a recent occupational analysis of hospital food service departments conducted by the University of California, Los Angeles. This study indicated that 77 percent of the food production supervisors and 55 percent of the food service supervisors in a representative national sample have not gone beyond the high school level.¹⁰

The Curriculum

The curriculum developed is basically similar to that described in earlier sections of this report relating to the Berks program, although substantially more biological

and nutrition science courses are required. All the instructional materials developed for this external program, however, have been specially prepared with the interests and needs of the health care food service paraprofessional in mind. Consequently, they make very extensive use of hospital and nursing home examples. The curriculum is summarized in Figure 1.

**Instructional System Elements**

The instructional system, as it will be arrayed when fully completed, is expected to offer great flexibility in order to make possible maximum participation by hospital dietary department staff. Any one or a combination of the courses in the curriculum can be taken for credit toward the Associate Degree. Courses can be taken solely by correspondence. Correspondence study materials would include not only written media, but, in many cases, audio-tape cassettes and film strips.

Present plans call for the correspondence study to be further supplemented by two or more intensive eight-hour classes per course to be held at a time convenient to students as well as by telephone contact between instructor and student. Class sessions and provision for telephone contact would initially be limited to the Commonwealth of Pennsylvania, but provision is made to broaden the area served to include, in time, any portion of the United States in which a significant demand exists for instruction through
arrangements with other accredited academic institutions. Ultimately, we hope to develop extensive video tape cassette support for the system. The availability of intensive classroom sessions and video tape cassettes as well as audio tape cassettes, film strips, and telephone tutorial to supplement the correspondence component of the system will eventually provide a true multi-media instructional system.

Principal Variations Possible Under the Instructional System

Figure 2 indicates the full range of options available to the student wishing to earn the Associate Degree. Such a student may take courses by correspondence; may enroll in courses taught by the enriched multi-media mode; may transfer courses from other colleges and universities; or may earn credit by examination in order to complete the requirements for the Associate Degree.

Options available to the student. Correspondence courses have been offered for academic credit by The Pennsylvania State University since the turn of the century. The correspondence mode of instruction accommodates students whose work and family commitments do not permit them to follow the typical term schedule of the University. Such a student might take several months to complete a course normally offered in a twelve-week term. The same student, during a vacation or some other period of free time, might
complete a course in a single month. The correspondence mode, moreover, is available to students regardless of their geographical location. Some audio-visual support for this type of instruction is possible.

It should be noted that the "correspondence-only" mode of study is intended, ultimately, to be the exceptional student choice, principally intended for students in geographically isolated locations. In the early years of the program, until the full multi-media mode of instruction is available, it will be an important service to students outside the reach of The Pennsylvania State University's Commonwealth Campus System.

Intensive classroom sessions. An additional way in which courses might be offered would make use of The Pennsylvania State University's twenty-two campuses to supplement correspondence materials with two or more intensive (6- to 8-hour) classes. This mode would offer the student the structure of a regular term with examinations and other deadlines. Moreover, the periodic intensive use of the classroom for demonstrations, case discussions, explanations, and so forth, would constitute a substantial enrichment of the student's learning environment. This mode of instruction is not expected to be available in the near future because of current University personnel limitations.
Use of telephone. As a further means of enriching the instructional system, students and instructors will be encouraged to make appointments with each other for periodic conferences to clarify complex points or otherwise deal with problems students are encountering with course materials. Such contact may well include student group conferences made possible by the use of "speaker phones." This service, however, will initially be limited to students within The Pennsylvania State University's statewide telephone network.

Credit by examination. Each course will, in time, be reviewed to determine if credit by examination may be routinely allowed for that course. When a course is considered appropriate for credit by examination, an appropriate examination will be prepared, successful completion of which would give the student credit for that course toward a degree. Credit by examination, a long established medium of earning college credit at Penn State and many other universities, is one means of giving credit for life experiences outside the normal curriculum which also insures maintenance of the educational standards of the degree program.

Transfer of credits. Credits earned in other accredited institutions of higher education will be applied toward the degree in accordance with the applicable rules of The Pennsylvania State University.
Use of Instructional Vehicle by Other Institutions of Higher Education

While the mixed media and telephone contact will initially be limited to persons within the Commonwealth of Pennsylvania, it is hoped that the program will eventually be made widely available for adoption by institutions in other states.

At least three levels of adoption are presently foreseen:

(a) An institution which grants external degrees may choose to adopt the curriculum, instructional materials and methods developed by The Pennsylvania State University.

(b) In a state where the appropriate external degree program is not offered and significant demand for multi-media instruction is found to exist, The Pennsylvania State University may offer the correspondence component of the instructional system and contract with the Continuing Education Division of one or more institutions in that state to provide the requisite intensive classroom experiences and student-instructor contact by telephone. In this case, Penn State would grant both credit for completion of the course and the Associate Degree for completing the approved program of study. Faculty from such institutions would be invited to participate in workshops and seminars to prepare them for their instructional roles.
(c) An institution which presently grants external degrees may adopt part of the materials whose development is here proposed; adapt other parts; or, develop other courses which more conveniently fit that institution's needs.

The Program to Date

Five courses will be ready for delivery during Fall term, 1974. The courses being prepared and their preparation status are summarized in Figure 3. These courses constitute a basic component of the Associate Degree, but they can also be used to satisfy recently mandated educational standards for extended care facility managers.

The "Dietary Assistant"\textsuperscript{11}

An initial "90-hour" (clock hours of instruction) certificate (Level 1) is now required for food service managers in extended care facilities. A second level, involving a "one-year certificate" (Level II), is also recognized by the regulations, and the time seems not far off when this will be the minimum requirement. An excellent

\textsuperscript{11}The discussion of the proposed Dietary Assistant role follows closely Thomas F. Powers, "The Dietary Technician: Paraprofessional as Knowledge Worker," Journal of the American Dietetic Association (August, 1974).
Figure 1

Associate Degree Curriculum

I. General Education Requirements

A. Communication Skills
   6 credits in English and including 3 in Speech 200

B. Arts, Humanities, Social and Behavioral Sciences
   With at least 3 credits in Economics

C. Physical Education
   2
   23

II. Requirements for the Major

A. General
   Summer Field Experience (1 cr.), Food and Labor Management and Control (3 cr.), Food Production Problems (4 cr.), Food Production Systems (4 cr.) and 3 credits in accounting.

B. Specialization
   Students may select an emphasis in Hospitality Administration or Health Facilities Food Service Management
   68
POSSIBLE COMPONENTS OF A PROGRAM OF STUDY LEADING TO AN ASSOCIATE DEGREE

- COURSES TAKEN IN RESIDENCE
- TRANSFER COURSES
- CREDIT BY EXAM

- INDEPENDENT STUDY THROUGH CORRESPONDENCE
- CORRESPONDENCE SUPPLEMENTED BY MULTI-MEDIA INSTRUCTION SYSTEM

ASSOCIATE DEGREE
Courses to be Prepared for Correspondence

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSHA 50</td>
<td>In-Serving Training</td>
</tr>
<tr>
<td>FSHA 103</td>
<td>Introduction to Hospital Food Services</td>
</tr>
<tr>
<td>FSHA 225</td>
<td>Food and Labor Management and Control</td>
</tr>
<tr>
<td>FSHA 320</td>
<td>Hospitality Industry Equipment and Utilities</td>
</tr>
<tr>
<td>HFS 802</td>
<td>Sanitation and Housekeeping</td>
</tr>
<tr>
<td>HFS 805</td>
<td>Training and Supervision</td>
</tr>
<tr>
<td>HFS 850</td>
<td>Food Delivery Systems</td>
</tr>
<tr>
<td>HFS 860</td>
<td>Food Service Supervision</td>
</tr>
<tr>
<td>HFS 875</td>
<td>Hospital Food Operating Systems</td>
</tr>
<tr>
<td>HPA 101</td>
<td>Introduction to Medical Care Organization</td>
</tr>
<tr>
<td>NUTR 800</td>
<td>Normal Diet Modification</td>
</tr>
<tr>
<td>NUTR 801</td>
<td>Nutrition and Health</td>
</tr>
</tbody>
</table>

* Expected to be ready Fall term, 1974.
** Expected completion in 1975.
*** Expected completion in 1976.
way to meet these requirements is through the external or non-traditional educational delivery system. This model of response to these requirements permits educators to follow a strategy of articulation in the courses that are offered to fill these requirements; that is, to develop programs which have value in and of themselves but which also "fit" into the next higher level of educational attainment. Thus, we would recommend the "90-hour certificate" concentrate on the "nuts and bolts" of food service management—food production, food products, purchasing, pre-costing, portion control, historical food cost control, employee scheduling, and payroll control. The "one-year certificate" might then incorporate those courses and go on to address the issues of managing people as well as the general and specialized issues in the field of nutrition and nutrition care. All but one of these courses will be available this fall through correspondence. The relationship of these courses to the complete curriculum is summarized in Figure 4 while the relationship of the courses to the knowledge base is summarized in Figure 5.

By leaving general education courses until later, we concentrate on work-related studies—and recognize the student's improved work qualifications by conferring a certificate. At the point of earning the "one-year certificate," ideally the students will be motivated enough to undertake what such students often perceive as "useless" general education courses as well as advanced professional
### Career Progression Through Articulation:
#### Levels of Paraprofessional Development

<table>
<thead>
<tr>
<th>Technician</th>
<th>9 credits</th>
<th>18 credits</th>
</tr>
</thead>
</table>
| Communication Skills | English, Speech | Behavioral Sciences | 9 credits *
| Sociology, Psychology | Economics | Advanced Administrative Courses | 6 credits *
| Medical Care Organization, Accounting, Maintenance, Food Service Systems and Food Merchandising | Applied Physical Science | Psychiology, Sanitation |
| Elective & Miscellaneous | *In addition to courses already completed in this general subject matter area (See Levels I & II). |

### Level II -

| Managing People | HFS 805 |
| Nutrition - General | NUTR 801 *, 150, or 351 |
| Nutrition - Specialized | NUTR 800 |

*Nutrition 801 is expected to be available early in 1975.

### Level I -

| Food Production Problems | HFS 850 |
| Food Production Management | HFS 860 |
| Introduction to Health Care | FSRA 103 |

11 credits

**Note:** The time ordering of the curriculum has been altered, in the external model presented here, to offer HFS 850 and 860 first rather than in the latter stages to accommodate the needs of external students who are seen as mature, employed individuals in need of immediately functional learning experiences rather than, as in resident education, young students needing a heavy dose of introductory experience.
### Segments of the Knowledge Base Addressed

<table>
<thead>
<tr>
<th>Subject Matter</th>
<th>Course Number</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Production</td>
<td>HFS 850</td>
<td>90 Hour Certificate</td>
</tr>
<tr>
<td>Orientation to Management and the Profession</td>
<td>HFS 860</td>
<td>1-Year Certificate</td>
</tr>
<tr>
<td>Nutrition</td>
<td>NTHR 800</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Nutrition - General</td>
<td>NTHR 351</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Nutrition and Menu Planning</td>
<td>NTHR 801</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Training and Supervisory Management</td>
<td>HPS 805</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Community Nutrition</td>
<td>NTHR 800</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Child Nutrition</td>
<td>NTHR 150</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Preventative Nutrition</td>
<td>NTHR 351</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Nutrition of the Family</td>
<td>NTHR 801</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Pediatric Nutrition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutritional Management</td>
<td>HPS 805</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Normal Diet Modification</td>
<td>NTHR 800</td>
<td>18-19 Credits</td>
</tr>
<tr>
<td>Child Nutrition</td>
<td>NTHR 800</td>
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<tr>
<td>Community Nutrition</td>
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<td>HPS 805</td>
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</tr>
</tbody>
</table>

**Note:**
- This course is not offered nor expected to be ready by early 1975.
- Nutrition 801 is expected to be ready by early 1975.
- Nutrition--Specialized
- Includes all above.

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*In less-than-technical education, offerings are less specific than the knowledge base addressed.*

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*Figure 5*
courses to complete the Associate Degree. The point of this model is that the proposed certificate is given for completion of the technical-professional content of a first year of study rather than for all credits required for a year's academic work.

**Articulation of paraprofessional curricula.** Considering the motivational importance of the strategy of articulation which offers a student who completes one level of work full credit for that work as a part of moving toward the next level of certification, the time may now have come to reconsider the qualifications of the Dietary Assistant, a supervisory title presently connoting a rather minimal educational achievement. As now constituted, the requirements for this certification are completion of one-credit correspondence course and membership in the Hospital, Institutional and Educational Food Service Society (H.I.E.F.S.S.) At the time the Dietary Assistant title was first offered, it constituted a significant step forward, and Penn State is proud of the part that its non-credit "Hospital Food Service Administration" (INA 900) played in this development. But we know, too, that we have had a great number of requests from students for further courses and that the students express interest in the articulation of their studies with a higher, multi-course level of achievement.
It seems appropriate therefore to consider a reassessment of the qualifications of the Dietary Assistant. Should not this paraprofessional designation be reserved for a significant educational achievement that is articulated with the technician? An appropriate possibility might be the title Dietary Assistant in place of what was earlier referred to as a "90-hour certificate" (Level I). In turn, the "One-Year Certificate" (Level II) might be titled "Dietary Supervisor" (or some other appropriate title). Thus the Dietary Assistant would be a significant step in and of itself, and at the same time, it would be a "half-way mark" toward the higher "Dietary Supervisor" status. Thus, each level is at once an achievement and an inducement to further study, self development, and achievement.

The model of articulation with maximum flexibility in its delivery not only offers advantages to the developing worker but also the hope of an adequate supply of knowledge workers to staff the challenging positions opening in an evolving health care food service system.

Work Undone

The development of the Dietary Technician program is clearly only a beginning of the work that must be done which, however, may be usefully viewed as a working model for a part of that work. There is a need to adapt the work done on the Associate Degree for Dietary Technicians to a hotel and commercial food service context, providing a series
of articulated steps to the Associate Degree. A pressing need exists within the Commonwealth and the nation at large to accommodate transfer students from a wide variety of hospitality education Associate Degree programs who wish to earn a Bachelor's Degree.

An External Associate Degree for Industry

It is at once the strength and weakness of the correspondence courses developed or under development for health care food service that they have been written to interest a special body of students and are full of highly specialized examples. Because the instructional objectives have been determined and are, for the most part, generalizable, the preparation of the Hotel and Food Service degree for external careers should not require nearly as much funding (approximately $117,000 direct costs for correspondence media development only) or time (three years for preparation of correspondence media only).

There is clearly a demand for correspondence study in this area on the part of employees of all levels of the hotel and food service industries. The American Hotel/Motel Educational Institute developed a series of correspondence courses several years ago. These courses are offered by that Institute and have also been licensed to be offered by the LaSalle Extension University, a commercial correspondence school. A recent communication from LaSalle listed 21
individual courses. The long established Lewis Hotel School also offers correspondence study in hotel management. Some four years ago, the National Institute for the Food Service Industry began preparation of courses and has recently begin offering courses by correspondence. In addition to these programs, there are a number of commercial programs in hotel-motel management advertised in the trade press which are reported to be quite expensive (and often of indifferent quality).

While there will always be a need for non-credit correspondence courses, it should be emphasized that none of the courses offer college credit. Moreover, the most prestigious of the correspondence courses are prepared and administered by employer-sponsored organizations that may, quite legitimately, have an interest in training within rather narrow career aims. Such programs undoubtedly have great merit as employee and management development programs, but the best--and from the employee's (student's) point of view, the most portable--"certification" in today's society is a recognized degree from an accredited institution. Thus, an external degree may best suit the needs of many students, as differentiated from the interests of employers.

That there is a specific demand for degree-oriented correspondence study is clearly indicated by a communication recently received from the LaSalle Extension University which said, regarding their hotel-motel courses, in part,
we have been receiving requests from students and graduates who wish to receive academic credit for LaSalle's course and enter a two- or four-year degree granting college or university where they can major in hotel and restaurant administration."12

Clearly, there is an advantage to a program of study which is flexible enough to offer the student possibilities for articulation as his own professional development progresses.

Articulation: The Need for an Upper Division Degree

There can be no question of the demand for an upper division degree within the Commonwealth of Pennsylvania.

A Pennsylvania view. The Food Service and Housing Administration Program at this University has received numerous requests in recent years from both institutions and individuals for information on transfer to its baccalaureate program, and in April, 1973, a statewide meeting of Hospitality Educators was held, with nine two-year program chairmen from the Commonwealth in attendance, for the specific purpose of discussing, "What state and advanced institutions need for transferability."13 Unfortunately the question of transfer raises several problems.


First of all, many two-year programs are designated as terminal programs by their own institution. Quite understandably, the Academic Senate of this University has directed that the University's admissions office view as acceptable transfer programs only those that are so viewed by their own institution. Since Penn State is the only accredited four-year institution in the state that offers a program of study for students interested in commercial food service and hotel administration, students with that interest must go to institutions in other states, suffering transportation costs, paying out of state tuition, and encouraging potential management people needed in this state to set down roots elsewhere.

An upper division degree. A number of four-year institutions accept transfers from accredited two-year Hotel and Restaurant Programs regardless of the transfer or non-transfer designation of the associate degree. One such program, at Florida International University, offers only an upper division degree for transfer students. From the point of view of Pennsylvania students, however, these programs have the disadvantage of high, out of state (or private school) tuition. More fundamentally, they speak only to the interests of those students—generally young and usually unencumbered by family responsibilities—who can afford enrollment in a fulltime, resident program of studies. Many two-year program students enter the work
force, achieve responsible positions, accept family responsibilities, and then find themselves at once interested in further study and unable to afford either a move to a four-year institution or a leave from their full-time employment. While no empirical data is available on the number of such potential enrollees, this writer's personal experience, including inquiries from people in the trade, leads him to conclude that the demand would be significant.

In addition to the advantage of service to both students and the industry, the development of an upper division degree offers two further potential advantages: First of all, one problem for transfer programs is the heterogeneity of two-year hospitality curricula. While diversity encourages a student to take advantage of special faculty talents and local needs, the development of an upper division degree with some limited but definite standards of admission might reduce curricular chaos in the field to reasonable order within the boundaries of respect for each institution's academic integrity.

**Upper division degree: an external format.** Second, and perhaps more important, the development of an external upper division degree, which must be accomplished in concert with interested two-year faculty, would present both a curriculum pattern and instructional media which could also be adopted by one or more Pennsylvania four-year institutions for delivery by resident instruction. This tactic would
meet the needs of many younger Pennsylvania residents for a campus setting in which to complete a desired four-year degree. Given the shortage of qualified faculty and of resources to mount programs, it seems desirable to concentrate the developmental effort at one institution with subsequent delivery having flexibility in terms of sites and continuing development.

Any upper division degree should meet the needs not only of students with a commercial interest but also the needs of students interested in health care settings.

Conclusion

The external degree meets the needs of students of mature years with family and job responsibilities, facilitating personal and professional growth on a flexible time scale. A promising beginning is being made in the health care food service field with an external degree developed for the Dietary Technician. Much remains to be done, however, to meet the needs both of potential students with commercial interests at the two-year level and all graduates of two-year programs in a curriculum designed for upper division students.
IX

POLICY ISSUES IN PARAPROFESSIONAL EDUCATION

by

Thomas F. Powers, Ph.D.
POLICY ISSUES IN PARAPROFESSIONAL EDUCATION

by

Thomas F. Powers, Ph.D.

[F]rom the bottom half of the social ladder less than half the men and a third of the women in the second ability quintile went to college in 1960.... It is among these students that there is currently most room for missionary work, assuming anyone can be interested in such unglamorous potential converts.

The Academic Revolution
Jencks and Reisman, p. 131

Introduction

In an earlier time, the lot of the less than brilliant offspring of humble circumstances was determined by a labor market which valued skills and by social institutions structured to impart skills--apprentice programs, vocational training offered in educational institutions and, indeed, the school of hard knocks. Whatever the process, the usable output was defined by traditional roles: butcher, baker, candlestick maker--not to say plumber, draftsman, or chef. These occupations are still very much with us but, as Peter Drucker has pointed out, the most important element in work has gradually shifted from skill to knowledge. Knowledge attaches itself to new roles, organizing them and defining new realities. As educators perceive shifting demands in the market place, curricula tailored to the needs of new work roles spring up to prepare and "qualify" new entrants.

As educators respond to the immediacies of their own circumstances,
designing the educational "machinery" to produce the needed "product," they concern themselves with soundness of curricular strategies, the content of courses, the media or instructional technique most appropriate to the task, and the like. Without consciously recognizing it, however, such educators are today—probably to a greater degree than at any time in history—shaping the contingencies and values of tomorrow's labor markets and, indeed, tomorrow's world. Beyond the horizons of each one's discipline, profession, or problem area lie the issues of a system design for a society that is implicitly shaped by seemingly independent curricular and professional certification decisions which are responding to some common need for what Drucker called "Knowledge Workers." The appropriate response of educators and of educational institutions calls for a creative response to the long range welfare of society as well as to the immediacies of their own or their profession's situation. All too often, it seems, the response is merely adaptive, focusing on immediate problems, narrowly perceived, because the more fundamental, societal questions have not been examined.

What, for instance are the implications for a democratic society of an educated work force whose competencies have been narrowly defined and who have been told that "What goes on outside the lab (or whatever professional confine) is none of your business"? What, on the other hand, are the potential cultural effects of the growth of a class of "ancillary people"? Where will their children look to find the horizon, the frontier, the meaning of life and hope? Educators must accept the fact that historians of a future time may trace the answer to these and similar questions to the system design implicit in the way education evolves to meet the needs—perceived and otherwise—of our times.
Members of a "Working Caste"

Certainly, there are less global, more specific issues to be addressed as well. A first issue was raised by a colleague who, looking at an early draft of a proposal to shape a paraprofessional educational program (at the point at which the proposal spoke of career paths for graduates) asked: "Are you making Betas and Deltas?" Huxley's world—never too far from the reality of our own—is one in which people are "manufactured" for specific roles. Certainly the caste implications of curriculum design can be exaggerated but in more than one proposal, one sees the "need" for a paraprofessional role described in terms of the needs of the professional with whom they are to work. The professional's personal role mobility, it may be said, is stymied by a lack of qualified supportive personnel. The prescription—development of a paraprofessional role—consigns (or could) one group of workers to support the advancement of another. The effects of widespread adoption of an exploitive model of manpower development in a competitive—some would say greedy—society ought, perhaps, to be viewed as an augury of a developing caste system rather than as a strategy of manpower development. In an earlier time, Dickens described a single purpose people—"the hands" in an English factory town.

[The multitude of Coketown, generically called "the Hands" [were] a race who would have found more favour with some people if Providence had seen fit to make them only hands, or, like the lower creatures of the seashore, only hands and stomachs.

_Hard Times_ Chapter X

The same issue may be approached from a positive view. When one
looks at subordinated roles in the service industries in the commercial sector—and here the writer reports his own impressions—the subordination is commonly viewed by the role occupant as a part of an invidious system. Thus a bartender, though often very well paid, views his lot with some bitterness: he is "held down." On the other hand, analogous positions in the work force of a hospital seem to partake of a more positive content. By their very uniforms, health care paraprofessionals are clearly subordinated to others in the system and yet seem to accept their role-designation with pride. It may well be that man wants (needs?) an ordered social structure which has both positive and negative social and cultural parameters and reinforcers. In this context, the development of the paraprofessional may be thought of as the beginning, not of a caste system, but the resurrection of a more flexible guild system in which role identification contains a healthy dose of positive content: "This is who I am" (by function) rather than "Those are they than whom I am less."

Paraprofessionalism and Minority Advancement

In any case, the meaning of paraprofessional roles offers grounds for other speculations on social effect. To what degree can or should paraprofessional educational programs be useful, conscious tools for the advancement of members of disadvantaged and minority groups in their search to find a place in the "credentials society." Certainly the potential for an important, positive contribution is there, but when one views the prejudice against occupationally oriented education programs in many Black Colleges, the problem of acceptance of such programs as a part of higher education becomes poignantly clear.
The curricular models of paraprofessional development which are adopted have some basic social implications. Should the knowledge base be defined as separated by its end use? Thus, for instance, the concerns of nurse and doctor have much in common. Should curricula be designed to "ensure" non-transferability so that the nurses, in order to progress to the doctors' level of certification must begin the professional educational process virtually at the beginning? A less dramatic or extreme example presents itself today in the field of dietetics. Government requirements are about to be established which specify a minimum educational requirement (90 hours) for food service managers in extended care facilities. A number of programs are being designed to take care of this educational requirement as an end in itself—in spite of the fact that this requirement will almost certainly be doubled, and very probably re-doubled, within five years. An articulated strategy is clearly called for, and the implications of "dead end training" are hidden beneath the immediacy of today's requirements, created by government fiat.

Economic Implications of Paraprofessionalism

Certainly, the economic issues in paraprofessional education cannot be ignored. On the one hand, the new "knowledge worker," paraprofessional or whatever, is needed to permit the economy to move on to some better ground (whether toward greater output or toward "improved output" in the sense of less despoiling technologies is another issue). Nuclear energy brings not only nuclear physicists but nuclear engineers and, in due time, nuclear engineering technologists. The delivery of the benefit of new knowledge is dependent upon people who can use the knowledge to
make things go. If educational institutions don't supply such manpower, that work will be left to industry. But since there is a demand for the output, this educational work will be done.

**Paraprofessionalism and Changing Work Roles**

On the other hand, what of the technician in a time of change? When the "Watzits Technologist" finds "Whatzits" replaced by an evolution to "Whozits" and his employment threatened by "Whozits Technologists" (for a real world example talk to an older dietician about the now emerging role of the dietary technician), there are three possible courses of action. Society can accommodate change, in the case of growth, simply by adding new people. In the more complex case of change in work role content, however, society must choose between substitution of people—newly trained entrants to the workforce displacing those whose skills have become outmoded—or retraining of people. Models of continuing education have emerged to keep professionals current, but we may be faced with the need for complete "re-tooling" of paraprofessionals as the development of their fields change. As a bare minimum, our curricula should contain the means for frequent warnings of this possible future need for continued education. More fundamentally, perhaps the tidiness of paraprofessional curricula time spans of a year or two—which certainly help in "marketing" them—should be done away with in the interests of an honest recognition that the reality is probably two (\( \pm \)) years plus X hours per year every year beginning three (\( \pm \)) years after graduation. Such a recognition would perhaps make explicit the need for curriculum design extending after graduation. This could make the planning of those "X hours" less a
matter of counting and more a matter of directing.

The Educator's Responsibilities

Finally, and more fundamentally, what are the responsibilities of educators to the student as a person in this process of "manpower development"? In the industrial model, at least, the issues are clear: We, the company, will train you for this job because we need somebody who can do this work for the company to make a profit. What, however, of the educator who becomes, in some respects, a surrogate for industry, offering education conditioned by market demand. Some may see this as an unacceptable role; others will accept such a role as one which only educational institutions can discharge responsibly. Certainly the student's interest must be seen as separate from—and superior to—the needs of industry. That this "student first" attitude is predominant now is open to question; in fact, one may wonder to what degree it is a conscious issue for some engaged in paraprofessional education.

Conclusion

What is intended here is not a laundry list of the problems of a new and still developing field, but a suggestion of areas that need conscious exploration. No one has ever been able to "study away" a moral or social dilemma. On the other hand, present practice leads educators to face such dilemmas alone, in the light of their own experience and professional interests. The issues for social change implicit in occupational education ought to be made explicit. The consequences of "growing like Topsy" are all around us. The development of at least a definition of the policy issues constitutes an important first step. Development of the outlines of argument on the
issues delineated and the presentation of consensus and discensus to colleagues for examination, further study and, hopefully, positive further thought should follow logically.

The development of the knowledge worker, the paraprofessional (or if you prefer Galbraith's term, the "semi-professional") is, happily, a process which has only just begun. The educational models developing may follow exploitive models appropriate to educational colonialism. Dead end training for "supportive roles" follow the plantation paradigm: the dilemma of the slave was that there was no way off the plantation. Recognition of the long-term effect of curricula supporting closed systems may constitute the strongest single argument for a strategy of articulation and more careful thought to the base for growth provided in paraprofessional curriculum design. Certainly, the only institutions in our society that are likely to address these issues--and be able to act to effect their outcome--with a view to the more general considerations of the common good are those of education. It remains only for the issues to obtain a hearing which will earn a place for them on the agenda of the higher education community.