The objectives of the study were twofold: (1) to determine if correspondence study is a viable approach for offering vocational education to residents of Wisconsin who want and need a vocational education program, (2) to design a correspondence study model for vocational, technical, and adult education (VTAE). To carry out these broad objectives: (1) inquiries were made into the amount of correspondence study presently available to Wisconsin residents; (2) existing correspondence study programs were studied to determine their effectiveness and suitability for vocational education; (3) consideration was given to the type of courses most appropriate for correspondence study within the Wisconsin VTAE system; (4) four models were developed to indicate ways in which correspondence instruction could be implemented with the VTAE system. The report describes the methodology and presents the conclusions and recommendations. Descriptions of the program models developed by the project are contained in appendixes. (Author/NJ)
Final Report

Model for Offering Correspondence Courses Through the VTAE System

Project No. 06-083-151-225

Report Prepared By:
Gerald S. Brenden

Gateway Technical Institute
Kenosha, Wisconsin

June, 1975

The research reported herein was performed pursuant to a grant or contract with the Wisconsin Board of Vocational, Technical and Adult Education, partially reimbursed from an allocation of Federal funds from the U. S. Office of Education, U. S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official State Board or U. S. Office of Education position or policy.
# Table of Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abstract</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Methodology</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Findings and Analysis</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Conclusions and Recommendations</td>
<td>10</td>
</tr>
</tbody>
</table>

## Appendix

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Program Models for Independent Study</td>
</tr>
<tr>
<td>B</td>
<td>Resource People in Independent Study</td>
</tr>
</tbody>
</table>

Bibliography
CHAPTER I

Model for Offering Correspondence Courses
Through the VTAE System

Objectives of Study

The objectives of this study were twofold: 1) to determine if correspondence study is a viable approach for offering vocational education to residents of Wisconsin who want and need a vocational education program, 2) to design a correspondence study model for Vocational, Technical and Adult Education.

To carry out these broad objectives: 1) Inquiries were made into the amount of correspondence study presently available to Wisconsin residents (particularly in Vocational, Technical, and Adult Education); 2) Existing correspondence study programs were studied to determine their effectiveness and suitability for vocational education; 3) Consideration was given to which type of courses would be most appropriate for correspondence study within the VTAE system; 4) Four models were developed to indicate ways in which correspondence instruction could be implemented with the VTAE system.

Abstract

Initial library research and inquiries made into the area of correspondence study indicate that the demand for this type of delivery system goes well beyond the state and local levels and in fact indicates international demand for and recognition of quality independent study programs. At the present time, the most significant input of vocational independent study courses for Wisconsin residents is coming from proprietary schools who have long been involved in the area of vocational education. The only Wisconsin tax supported school significantly committed to correspondence instruction is the University of Wisconsin. Of the 400 courses presently offered through the university, only three could be classified as vocational in nature.

Contacts and inquiries with industry indicate that not only is this type of delivery system in demand, but that lacking available materials, industry is turning to the development of their own independent study programs.

Some high schools are using commercial and university correspondence schools to supply their students with enrichment and remedial materials. Others are using correspondence instruction materials to provide a
high school education to students for whom resident instruction is not feasible. When we consider Gateway's pioneering efforts in the area of adult high school education, independent study is a means of offering still another alternative for completion of a high school education.

Gateway's interest and ability to implement independent study programs did not begin with this study. We have a history of involvement in this area. Our newest delivery system the FM radio station, will be completed this fall. Coupling this with the state educational radio network for programming of state wide interest, we have the capability of reaching district and state residents with educational programming. It is hoped that cooperative arrangements with the University of Wisconsin will allow joint use of their educational telephone network. This would make two-way communications possible during the course of a lesson. The University of Wisconsin's leadership in independent study could also be a resource for consultation and training as Gateway's program develops.

Teaching vocational skills by means of independent study involves unique but certainly not insoluble problems. In addition to using current independent study techniques, it will be necessary for Gateway to innovate in a number of areas. Since vocational instruction in many areas involves hands-on experience, it would seem desirable, for example, to couple independent study with short-term resident instruction, perhaps in remote training sites or in on-the-job training. It is quite clear, however, that each course would have to be investigated to discover the best technique and media for delivering it to the vocational student.

The recommendations of this study are outlined in detail in Chapter 4. Basically they involve development of a liaison between the University of Wisconsin, The Division of Apprenticeship and Training, other VTA districts, personnel at the state level, and the Gateway district for the purpose of consultation, education, and program development. Appendix A of the report details four models for independent study programs. It is recommended that Gateway establish the organizational structure and support system necessary to develop and test these models.
CHAPTER II
Feasibility Study/Methodology

This feasibility study was begun with a review of the literature dealing with correspondence instruction and independent study. Following the appendices is a bibliography of the materials used in preparing this report. If the reader should desire more references, the book entitled, Correspondence Study, A Summary Review of the Research and Development Literature, by David Mathison, should be consulted. This book contains an extensive annotated bibliography concerned with many phases of correspondence study.

In order to determine the availability of commercially prepared materials, and the quality of delivery systems, visits were made to the American School in Chicago and the International Correspondence School (ICS) in Scranton, Pennsylvania. The tour of their facilities and the ensuing discussions indicated availability of a wide range of quality vocational and high school program materials and a willingness to participate in both the contract for services model and the purchases of shelf materials model described later in this report.

One of the proposed models in this report involved custom development of independent instruction materials. To determine the quality and availability of this kind of service, a visit was made to the Ken Cook firm in Milwaukee. Specialists in the field of planning and creating educational and technical materials for government and industry as well as education, they have the capability for audio and film development as well as layout, writing, illustrating, editing, assembling and printing independent study materials.

A visit to the Jacobsen factory in Racine, Wisconsin, was initiated to follow-up an earlier inquiry from this company regarding the availability of correspondence instruction materials. Jacobsen had developed their own materials at this time for use by their dealers. The function of this program is to instruct their dealers in the repair and maintenance techniques required for Jacobsen equipment. They find that independent study methods offer them the advantage of reaching all dealers who are interested in such a program without the necessity of coming to Racine. In addition, these course materials serve as excellent references.

Personal contact was made with the Briggs and Stratton Company in Milwaukee to determine their interest in conducting training by means of independent study. Some interest was shown in using this method in conjunction with their yearly training programs.
Telephone contacts were made with key United States Armed Forces Institute and Defense Activity for Non-Traditional Education Support personnel to determine past and present military involvement in independent study.

Two visits were made to the University of Wisconsin, Madison, to discuss independent study program development with Professor Charles Wedemeyer, internationally recognized authority in independent study. He provided a wealth of information and ideas on program development implementation and evaluation.

Contact was made with Wisconsin's Director of Correspondence Instruction, Dr. Don Kaiser, to discuss cooperative arrangements in correspondence instruction as well as to see the University's programs in action.

Dr. Loren Parker from the instructional communications services was also visited for the purpose of observing and discussing this phase of the University's independent study program.

A visit was made to the University of Nebraska extension division to observe their operation and to discuss the problems involved in offering high school vocational and career oriented courses.

In mid June, following planning meetings with Gateway staff, a workshop was held with two representatives of the state VTAE board to discuss this study and to obtain their recommendations and suggestions. At that time, a draft of the study summary was distributed.

In Appendix B is a listing of the personnel contacted in the process of conducting this feasibility study together with other resource persons in independent study.
CHAPTER III

Findings and Analysis

The Need for Vocational Independent Study Programs

Throughout this report you will see repeated references to independent study and correspondence instruction.

Correspondence instruction can be defined as a method of instruction in which correspondence is the means of communication between student and teacher. Independent study incorporates correspondence instruction as one means of instruction but broadens the communication base to include not only correspondence, but also radio, T.V., cassette tapes, film strips, etc.

Independent study as a method of learning has certain characteristics that differentiate it from other methods of instruction:

1. The remoteness of student from teacher or teaching institution (distance teaching as differentiated from other methods involving contiguous teaching);
2. The two-way communication which is always involved;
3. The autonomy of the learner who studies independently and who makes some of the decision concerning his education on his own.

The traditional and still most used method of correspondence instruction almost exclusively employs written communication as the means for imparting information and evaluating learning. At the opposite end of the spectrum, completely automated teaching systems utilizing multi-track tapes present information visually and audibly. Provisions are made for immediate student response to test questions together with the ability to reinforce or correct his answer. This system includes all equipment and tools required to carry on the learning unit at hand whether it be a course for marine engine technicians or basic reading skills for adults. The automated teaching system method illustrates the technology available for, and currently little used in, independent study.

Administration of correspondence instruction also varies from evaluation of low comprehension level test questions scored by clerks using templates to graduate student or teacher written evaluation of essay-type questions and project-type activities together with suggestions for improvement and encouragement for work well done.


2 Williams, Robert L., Correspondence Education: Its Potential for Adults, (Canadian Training Methods, Vo, n. 1), p. 20-21.
Evaluation methods vary from one test at the end of the course to a series of tests evaluated as the course progresses.

Looking at current knowledge about correspondence instruction, a number of ideas emerge:

(1) The phrase correspondence instruction seems to have undesirable associations for many people. Terms such as extension instruction or independent study would not only remove this objection, but also would allow for the broader, multi-media aspect of this form of instruction.

(2) Correspondence instruction, as currently practiced, places an emphasis on personal motivation and discipline on the part of the learner. Those characteristics are normally associated with adults rather than children. If children or adults with below average levels of personal discipline are to be involved in correspondence instruction, it would be advisable to have them work under supervision even though the supervisor is not technically competent in the area of study.

(3) Correspondence instruction compares favorably to other methods of instruction in terms of the results produced in the learner according to a study made by Dr. Gayle Childs.³

Dr. Charles Wedemeyer states that, "Since the mid-nineteenth century, independent learning programs have been studied relentlessly to see whether they compare favorably with conventional, group-based instruction..." In 50 years of such studies, no evidence has been found which indicates that independent learning is inferior to learning by other methods. In fact, there is a consistent thread throughout many studies that the independent learner does at least as well as, and often better than, learners in conventional classes.⁴

(4) Correspondence instruction has been used effectively as a means for educating peoples of emerging nations. The program, developed in Venezuela by INCE (a governmentally established agency), is an example of how correspondence instruction materials can be developed and implemented by such nations.⁵ A survey of African Correspondence Schools summarizes the present state and scope of correspondence instruction in Africa and how it is used.⁶


⁵ Ibid., p. 77-79.

⁶ Ibid., p. 103-157.
(5) While developmental cost of programs may be high initially, they are offset by minimal requirements for physical facilities and the reusability of course materials. The requirement of only one central facility to administer independent study has an additional advantage of avoiding course duplication. It is possible, and in many cases desirable, to use existing correspondence instruction courses rather than duplicating successful existing courses.

(6) Once course materials have been developed, they can be used to serve students in areas normally having low enrollments. The class that cannot develop in a resident institution because of insufficient enrollment becomes feasible when the student enrollment base expands to include the entire state (or nation).

(7) The biggest problem involved in independent study is student retention which ranges from 20 percent up to a high of 80 percent of enrollees.

During the past year we have received many indications that there is a demand and a need for vocational offerings in the independent study area. The following listing gives some indication of the need and scope of inquiries and indications of interest.

(A) Racine Telecable - a cable service to 15,000 area homes that has been in operation for approximately 3 years, has requested that we work with them in educational programming.

(B) With minimal advertising, our first offering on the T.V. College of the Air, drew 150 enrollees.

(C) By October, 1975, Gateway will be operating its own FM radio station. It is expected that hundreds of students will enroll via this media.

(D) Gateway received three inquiries from national governmental offices indicating a need to develop occupational programs via the independent study method.

(E) The Wisconsin-Upper Michigan Florists Association has requested that we assist them in developing and presenting a two-year horticultural program by means of independent study.

(F) Gateway's present experience with outreach centers in this district and by other districts throughout the state has been very successful.

(G) Our adult high school program, pioneered in the state by Gateway, has been very successful. This area lends itself very well to use of independent study materials.
(H) It is difficult in some areas of the state for apprentices to obtain related instruction because of lack of proximity to resident institutions offering the related instruction. Independent study programs developed in cooperation with the Division of Apprenticeship and Training could ease this problem for indentured apprentices.

(I) The increase in part-time student enrollment over full-time students in itself presents a need for delivery systems that will be able to reach the student where he is, rather than insisting that education be exclusively available at residential institutions.

(J) Recent interest on the part of American Motors in providing associate degree and diploma training for their personnel will require an ability on our part to provide the educational flexibility offered by independent study programs.

In considering the feasibility of independent study as an alternative for Vocational, Technical, and Adult Education, it is noteworthy that Wisconsin, through the efforts of the University of Wisconsin system, has long been a pioneer in the area of correspondence instruction and more recently independent study. Currently, the UW system has internationally recognized faculty, developmental and operational experience with two (telephone link and FM multiplex) sophisticated media systems and is the only tax supported institution in Wisconsin conducting an extensive independent study program. Hopefully this leadership, technological development and experience will be accessible to the VTAE system in developing an independent study program in the vocational-technical area.

Independent study has been with us for a long time, but the pressure for educational opportunity created by situations throughout the world is finally forcing it to the front. The Open University in England is using independent study as a means of bringing higher education (and college degrees) to tens of thousands of individuals formerly unable to break into the British University system. A non-profit correspondence school (American School) has, for the first time, been accredited by the North Central Association, thus making further progress in the quest for recognition of the quality of a high school education obtained by this means. Early in 1975, a commercial correspondence school (ICS) was given authority for the granting of associate degrees in the State of Pennsylvania.

Outside of the military, proprietary schools would appear to be the largest source of supply for correspondence instruction materials. Proprietary schools have representatives in and advertise their offerings extensively throughout the nation, but little significant information is available on their enrollments or effectiveness of their programming.
In discussing student attitudes about proprietary schools with Professor Wedemeyer from UWM, he indicated that since 1972, approximately half the college enrollments have been part-time students. Since that time, Professor Wedemeyer pointed out, the part-time students are on the increase and the full-time students have been decreasing.
CHAPTER IV
Conclusions and Recommendations

As this study is concluded, it seems clear that in addition to a state need, there is an international demand for and recognition of quality independent study programs. Students located in remote areas of Wisconsin have the same problems as nationals in developing countries; namely, that in many cases, both are remote from residential educational institutions.

Old attitudes of independent study being inferior to residential instruction are being reexamined in the light of studies indicating no significant differences between the two methods of instruction.

The recently established Defense Activity for Non-Traditional Educational Support (DANTES) is indicating its interest in independent study programs by developing a handbook for military personnel describing external degree programs, mailable self-study programs, and other non-traditional programs. This represents a change in approach rather than philosophy in regard to independent study. Rather than using programs developed by the military United States Armed Forces Institute (USAFI), civilian independent study programs are being cataloged for easy accessibility by military personnel.

The availability of post secondary instruction in vocational areas through tax supported institutions is quite limited. Most of the independent study materials and programs offered in this area have been developed and are being carried out by proprietary schools. Their offerings are extensive and touch on a wide range of vocational choices. Because of the expense involved in developing these materials, the recommendations include provisions for investigating the suitability and quality of these already developed materials for inclusion in our independent study offerings.

In order to develop a quality correspondence instruction program, it is recommended that highly qualified experienced leadership be obtained to aid in the development and implementation of such a program.

In order to identify problem areas, improve program quality and facilitate study and research in the area of independent study, it is further recommended that program development in independent study have built in evaluation criteria and that registration and course materials be designed to facilitate evaluation. It is also recommended that, wherever possible, existing VTAE schools be used as part of the independent study network and that consideration be given to teaching skills and obtaining equipment operational experience through these centers. With the need, feasibility, and these recommendations in mind, the following three-year pilot program for independent study is recommended:
I. Development of a liaison between the University of Wisconsin system and Gateway for the following purposes:

1. Consultation on independent study program development.
2. Investigation of possible joint use of existing communication facilities.
3. Cooperative development of in-service training programs for independent study teachers.

II. Development of a liaison between The Division of Apprenticeship and Training and Gateway for the following purposes:

1. Joint consideration of means by which independent study could be used to facilitate related apprentice training within the state.
2. To determine the solutions to problems involved in offering apprentice training through independent study. Areas of concern would include student selection, method of evaluation and union-management contractual requirements.

III. Development of a liaison between Gateway and other VTAE districts for the purpose of establishing training sites for vocational skills not effectively taught through independent study.

IV. Development of a state VTAE steering committee for independent study to provide direction and assistance in state level problem solution.

V. Establishment of the organizational structure and design of the support system necessary to carry on an independent study program.

The four models to be investigated under this system would be:

I. The Contract for Services Model
II. Purchase of Shelf Materials Model
III. Custom Development Model
IV. GTI Development Model.

These models are described in more detail in Appendix A.
Appendix A

Program Models for Independent Study

I. Contract for Services Model

Using this method, we would broaden the scope of current GTI offerings by a selective inclusion of existing correspondence instruction courses in catalog listings. Students interested in taking these courses would register with Gateway, and Gateway would request that materials be mailed to the student from the institution which prepared the materials.

(A) That institution would then take over the instruction of the student, furnishing the student with its services such as grading, motivation, recording scores, answering inquiries, etc.

Gateway's commitment of facilities and manpower in this approach would be the initial and subsequent evaluation of courses for inclusion in the catalog, registration and matriculation costs for students who enroll and complete these courses and maintaining student records.

(B) Since this arrangement is a contractual one, Gateway could establish proctored exams, use of school facilities for laboratory work, preparation of independent study catalog, contact with Gateway personnel for counseling and academic assistance together with other parameters designed to increase the quality of this type of delivery system.

II. Purchase of Shelf Materials Model

This model involves purchase for Gateway use, existing correspondence instruction materials and inclusion of these offerings in our catalog. In addition to the institutional commitment involved in Model I, Gateway would then be involved in the administration of the course itself. This
would involve additional activities such as recruitment and initial correspondence with the student, mailing materials, receiving and evaluation examinations, encouraging and counseling students who are not progressing well, preparing, maintaining and storing student records, and answering student questions relative to this program.

III. Custom Development Model

Using this approach, Gateway would purchase custom developed courses suitable for use in independent study. In addition to those activities involved in I and II, this would entail communication of desired curriculum objectives and possible content to the developer and continued communication between GTI and the developer as the program is being developed.

IV. GTI Development Model

To move in this direction would mean development of Gateway's own course materials. This would add, in addition to I and II, the involvement of our faculty and staff in developing, writing, revising and proofing of course materials together with the typing and printing activities. (An operational structure description is included to outline structure and scope of this model.)
Independent Study

Program

Operational Structure
Organizational Chart for
Independent Study Program

Program Direction

Course Development
Student Services
Office Services
Course Implementation Supervision and Evaluation
Production and Shipping
Program direction for an independent study program in vocational education is going to involve a pioneering effort since very few tax supported schools offer any significant number of vocational courses by this means and complete independent study programs from these schools are non-existent. Because of the rapid technological changes taking place in communications, it will be important that the person responsible for this program be in constant touch with other institutions involved in producing (or consuming) independent study materials to be aware of innovative programs (and demands for them) as they develop. The following is an abbreviated job description of this leadership function:

1. Provide overall direction to on-going independent study program.

2. Maintain communication between other educational institutions involved in independent study.

3. Maintain communication between GTI and industrial and military consumers of independent study programs.

4. Consult with independent study experts and furnish direction to GTI for new areas of involvement.

5. Obtain qualified personnel to implement and develop new programs.

6. Supervise program costs to maintain a cost-benefit ratio consistent with VTAE policy.

There is a wide diversity in areas suitable for independent study. The individual responsible for course development should be able to recognize areas for which independent study would be a good delivery system, recognize and obtain personnel to carry out the developmental process. His duties would include:

1. Investigate desirable course offering areas and recommend new areas for inclusion in curriculum.

2. Develop a syllabus of instruction for new courses.

3. Recommend employment of qualified personnel for writing and editing.

4. Recommend the appropriate media for delivering information to the student.

5. Supervise the writing, editing, graphics and other media involved in preparing course materials for reproduction/delivery to student.
6. Initiate or act on outside recommendations to revise and update course materials as necessary.

7. Prepare budget requests for course development.

The student services function consists of:

1. Inform prospective students about offerings available at GTI.

2. Counsel with students and prospective students about their programs.

3. Answer student inquiries and when necessary refer students to the teacher for technical assistance.

4. Assist students in transition to independent study methods and work with students as necessary to develop their own method of independent study.

5. Maintain communication between student and school.

6. Prepare budget requests for student services.

Office services as they relate to independent study are:

1. Develop, maintain, and revise an information storage and retrieval system.

2. Train and supervise office personnel.

3. Process student mail.

4. Register students.

5. Maintain student records.

6. Collect student fees.

7. Maintain accounts and pay bills.

8. Prepare budget requests for office services.

In order to implement an independent study program, the supervisor must be able to train and assist his teachers in independent study techniques. He must recognize the characteristics and needs of independent study students and insure that these needs are being met. His responsibilities would also include:
1. Review course materials in use to maintain quality and validity.

2. Supervise the work of teachers to maintain quality of instruction.

3. Supervise the academic progress of students.

4. Maintain an on-going evaluation of the independent study program in the preceding areas.

5. When requested, furnish studies of independent study students.

6. Prepare budget requests for course implementation, supervision and evaluation.

Production and shipping involve three major areas of responsibility:

1. Reproduce materials in various media for delivery to student.

2. Ship materials to students.

3. Prepare budget requests for production and shipping.

The preceding organizational functions are not intended to be comprehensive, but rather to furnish guidelines for the development of an independent study program.
Appendix B
Resource People in Independent Study

Anschuetz, Harold F.
Vice President, Marketing
Ken Cook Company
9929 West Silver Spring Drive
Milwaukee, WI 53225
(414) 466-6060

Berge, Paul
(608) 274-0732
Former USAFI director of student testing

Brittain, Dr. Clay V.
Chief, Research and Analysis Division
Enlisted Evaluation Center
U. S. Army
7859 Scarbrough Boulevard S. Drive
Indianapolis, IN 46256

Estabrooke, Dr. Edward
American School
850 East 58 Street
Chicago, IL 60637
(314) 643-4700

Gager, Dr. Bill, Director
DANTES
Ellyson Center
Pensacola, FL 32509
(904) 452-1320

Kaiser, Dr. Don
Director of Correspondence Instruction
University of Wisconsin, Madison
Extension Division
(608) 262-2011

McKeown, Mrs. Mary
Principal
American School
1469 North Sheridan
Kenosha, WI 53140
551-9281

McMann, Monty E.
Head, Independent Study
University Extension Division
University of Nebraska
Lincoln, NB 68508
(402) 472-2171

National Home Study Council
1601 - 18 Street, NW
Washington, DC 20009
(202) 234-5100

Robinson, W. L. (Lou)
ICS Industrial Division
Scranton, PA 18515
(717) 342-7701

Sims, Dr. Ripley
(608) 249-7761

Wedemeyer, Professor Charles A.
University of Wisconsin Extension
Lowell Hall
610 Langton Street
Madison, WI 53706
(608) 262-2469
Mr. Wielund
Moody Bible Institute
Correspondence Program
820 North LaSalle
Chicago, IL
(312) 329-4000

Parker, Dr. Loren
Instructional Communications Systems
UWM
(608) 262-4342

Norton, Paul
Deputy Director
Educational Communications Board
(608) 266-7804

Jansen, Ralph
Director of Training Systems
Technical Publishing Company
Barrington, IL
(312) 381-1840
Sources for Information About Operating Correspondence Instruction Programs With Purchased Materials

Mr. Steve Lail
Individualized Prescribed Instructional Center
1330 North Military Highway
Norfolk, VA 23418

Mr. Ray Gustafson
Grand Rapids Community Schools
Coit Elementary School
617 Coit Avenue
Grand Rapids, MI 49503

Mr. Robert Doherty
Leyden Evening School
Easy Leyden High School
3400 Rose
Franklin Park, IL 60031
Bibliography


Mathison, David, Correspondence Study: A Summary Review of the Research and Development Literature.


Wedemeyer, Charles, A., New Perspectives in University Correspondence Study, Center for the Study of Liberal Education for Adults, 1961.
