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A Report of an Internship at Western Michigan University in the Office of Instructional Development and Project Excite

Leslie K. Scofield
Western Michigan University

A REPORT OF AN INTERNSHIP AT WESTERN MICHIGAN UNIVERSITY IN THE OFFICE OF INSTRUCTIONAL DEVELOPMENT AND PROJECT EXCITE

by

Leslie K. Scofield

A Specialist Project
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A REPORT OF AN INTERNSHIP AT WESTERN MICHIGAN UNIVERSITY IN THE OFFICE OF INSTRUCTIONAL DEVELOPMENT AND PROJECT EXCITE

Leslie K. Scofield, Ed.S.

Western Michigan University, 1985

The objective of this internship was to develop instructional development skills with microcomputers. The Office of Instructional Development at Western Michigan University agreed to provide the following opportunities: teach inservice Project EXCITE (EXpanding with Computers and Information TEchnology) Computer Literacy workshops; develop new course materials for the Continuing Education Computer Literacy workshops; develop a computerized bulletin board, and an interactive (video and microcomputer) training program demo.

The intern worked as a teaching assistant during four inservice workshops, as the sole instructor during a fifth; developed new course materials for computer literacy workshops; reviewed computer bulletin boards that operate on an Apple IIe microcomputer system and set-up one of them for the Office of Instructional Development; helped to design, develop and produce a short inter-active video training program to be used as a model for future projects; and acquired expertise on the design, operation and maintenance of a microcomputer learning center.

ACKNOWLEDGEMENTS

I would like to especially express my thanks to my father, Colonel Winthrop Scofield (USAR, Ret'd), without whose financial support I could not have completed my degree program nor had the opportunity to participate in this worthwhile endeavor.

I would also like to express my appreciation to the many fine staff personnel in the Office of Instructional Development at Western Michigan University who helped me through this learning experience. Especially to Dr. Howard Poole, Jr. who allowed me to undertake this project in his office.

Many others in the Division of Academic Services lent me the benefit of their wisdom and experience and helped make this a very beneficial internship, in addition to providing me with various employment opportunities which enabled me to complete this project.

I would also like to thank Dr. Thomas Ryan, my advisor, and department chair during most of my internship experience, who approved my undertaking this internship experience.

Leslie K. Scofield

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CHAPTER I

INTRODUCTION

The purpose of this internship was to gain experience which could further the intern's goals. If the site and activities were well chosen the field experience could prove very valuable. The primary objectives of the internship were to provide an exposure to areas and activities with which the intern had little contact and to provide opportunities to apply knowledge gained to academic settings which could just as easily be adapted to industrial and governmental settings in the future. One of the main objectives was also to gain teaching experience before small groups of college staff and faculty.

In future employment situations the intern hopes to work either in industry and/or in the government as a director of training development using microcomputers as one of many possible presentation technologies.

Therefore the internship was structured to provide exposure to the career goals of the intern and included both microcomputers and training development activities.

The selection of the site was limited to the Kalamazoo, Michigan area due to financial and personal reasons. It was also limited due to the number of organizations that present microcomputer training in the Kalamazoo area at both the academic and non-academic level.

The Office of Instructional Development and Project EXCITE at Western Michigan University (W.M.U.) was chosen as the site because it touched on all the required elements above.

Project EXCITE (EXpanding with Computers and Information TEchnology) operates and develops the microcomputer lab in Sangren Hall at Western Michigan University. Project EXCITE also provides the instructors for the EXCITE inservice computer workshops for the staff and faculty at W.M.U. and for the Continuing Education Division's non-academic computer classes for the general public.

The internship was scheduled to include the 1984 spring and summer sessions at W.M.U.

Before making final arrangements for the internship, the intern presented a formal proposal to the proposed site supervisor that was designed to identify the experiences and knowledge which were to be acquired during the internship. A summary of the proposal follows. Comments regarding the degree to which the proposed activities were experienced are included in the body of this report.

Prospectus - Internship Proposal

SPONSORING ORGANIZATION: Office of Instructional Development and Project EXCITE
Western Michigan University
Kalamazoo, Michigan 49008

FIELD SUPERVISOR: Dr. Howard Poole, Head, Office of Instructional Development and Project EXCITE

FACULTY SUPERVISOR: Dr. Thomas Ryan, Chairman
Dept. of Educational Leadership
Western Michigan University

ADVISOR: Dr. Thomas Ryan
Dept. of Educational Leadership
Western Michigan University

DURATION: 240 hours, commencing April 30, 1984

MAJOR FOCUS OF EXPERIENCE: Developing instructional development skills with microcomputers and will include the following experiences:

A. EXCITE Computer Literacy Classes

The student intern will assist in four (4), 12-hour Project EXCITE inservice classes offered mornings between May 20 and June 22, 1984. The intern will assist the instructors teaching participants introductory computer literacy skills such as word processing, data bases, electronic mail, etc.

As a final skill the student intern will instruct a fifth computer literacy class in July. (Approx time = 60 hours)

B. Continuing Education Classes in Computer Literacy

The student intern will assist in the supervision of computer literacy classes that are part of a non-credit curriculum for adults and for school age children. The intern will oversee printing of course materials, laboratory equipment, and course evaluations. (Approximate time = 60 hours)

C. Microcomputer Services Computer Bulletin Board

The student intern will assist the Manager of Microcomputer Services in establishing a computer bulletin board service that will include information on the University's Microcomputer Purchase Plan, services offered by Microcomputer Services, area meetings of microcomputer user groups, and other items of information that would be of interest to microcomputer users.

(Approximate time = 60 hours)

D. Interactive Television Pilot

The intern will assist the Head of the Office of Instructional Development in the production of a pilot interactive (i.e., computer and videotape) television training program as part of a proposal being developed by the Division of Academic Services. The intern will master the Apple SupperPILOT authoring system, Apple IIe Computer system Whitney Video Command Module interface card, and Panisonic

NV-8200 videotape player. In cooperation with the Head, the intern will design and then produce a brief pilot interactive demonstration program. (Approximate time = 60 hours)

In summary, the student intern will gain practical instructional development skills in teaching inservice classes, supervisory non-credit continuing education classes, and developing computerized bulletin boards and interactive video training programs.

CHAPTER II

THE INTERNSHIP EXPERIENCE

Introduction

The intern worked in the Office of Instructional Development and Project EXCITE (EXpanding with Computers and Information TEchnology) at Western Michigan University in Kalamazoo, Michigan from May to December 1984 for a period of 240 hours.

Dr. Howard Poole was the internship supervisor and the Head of the organization.

Mr. Jon VanderMeer was the manager of Microcomputer Services in charge of the equipment and laboratories.

The microcomputer teaching lab was located in Sangren Hall until September when the intern helped to move it to the organization's new facilities in Maybee Hall.

Projects

The intern acted as a teaching assistant during four (4) staff and faculty inservice workshops on the "Introduction to Computer Literacy" presented by the organization. The intern presented two (2) workshops on the same subject to subsequent groups of summer session students. The workshop covered word processing, database management, telecommunications, electronic mail, on-line research, spreadsheets, graphics and programming.

The intern prepared some new course materials for the "Intro to Computer Literacy" workshops used by both the staff, faculty and the Continuing Education Division students.

The intern developed a computer bulletin board system for the organization that would operate on an Apple IIe microcomputer system.

The intern produced a sample pilot program on "interactive video" to demonstrate the potential of using a microcomputer to control a videotape player for instructional purposes. An Apple IIe microcomputer, Whitney Video Command Module interface card, Panisonic NV-8200 videotape player and the Apple SuperPILOT authoring system were used for the demonstration.

Conclusion

The intern's overall experiences were very helpful at gaining insights into the microcomputer field, especially its educational applications.

The interning organization was a good place to work with very cooperative individuals willing to help train the intern as he progressed from start to finish.

The interning organization is a leader among educational institutions in the nation using microcomputers for education. The entire field of microcomputers is constantly changing and improving, yet the interning organization managed to keep its operation upto date and on the cutting edge of the new technology.

CHAPTER III

ANALYSIS OF INTERNSHIP EXPERIENCE

Introduction

The purpose of this internship was to give the intern an overall view of the problems and potential associated with the educational use of microcomputers.

Conceptual Objectives

The objectives here were to learn about the best ways to establish, maintain and operate a microcomputer learning lab, how educational programming might be used in the classroom, and study the possible applications of microcomputer bulletin boards.

Human Objectives

Here the intern learned how to work with individuals as an educational microcomputer consultant. Working with professional staff and also adult learners gave the intern the chance to relate on a one-to-one and also on a small group basis to individuals with a broad range of experience both with microcomputers and with education in general.

Technical Objectives

The intern learned how to prepare printed educational materials

for workshops and also instructional microcomputer programs for self-paced instructional settings. The intern also studied in detail and established a microcomputer based bulletin board system for the department which operates on an Apple IIe system. The intern also developed a pilot program example of what interactive video can accomplish in the classroom.

Conclusions

The intern accomplished a great deal considering the limited amount time available for the internship. All parts of the internship were mastered with the intern being offered a part-time position at the end of the program. Any one area of the internship could easily be expanded into an internship by itself for future study by other students.

CHAPTER IV

CONCLUSIONS

The internship experience was the single most important part of the intern's entire educational program for the Specialist in Education (Ed.S.) degree.

It brought together in one setting all the knowledges and skills learned in the intern's coursework and also opened up a whole new field of education and training for the intern to pursue in the future. The ever expanding field of microcomputer applications, especially where they apply to education and training was shown and explained to the intern in such a way that it seemed to re-excite the intern's interests in educational and training applications.

It also made the intern realize that sound education and training was still based upon the basics of good needs analysis, planning, implementation and revision. The elements that make any educational approach work well will apply to individual learners using a microcomputer, just as good as if they were a group of students receiving a lecture instead.

Some things never change, only the technology gets better to let us try new and different approaches to old or new problems.

APPENDIX - (Internship Log)

Monday April 30, 1984

1100-1200 hrs: met with Dr. Howard Poole, Head of the Office of Instructional Development and Project EXCITE, Western Michigan University, to discuss proposed activities for my internship experience.

Tuesday May 1, 1984

0900-1100 hrs: read over and considered the internship proposal that Dr. Poole had given me to study.

Wednesday May 2, 1984

0900-1100 hrs: prepared for a meeting with Dr. Poole for Thursday May 3, 1984. Went over the materials so as to be ready to start planning how the internship would proceed.

Thursday May 3, 1984

1000-1130 hrs: attended a meeting with Dr. Poole and Jon VanderMeer (Manager of Micro Computer Services) to plan the overview procedures that would operate during the internship experience.

Friday May 4, 1984

0830-1030 hrs: reviewed course materials from the CS-502 course

(Intro to Microcomputers) and prepared a course outline (draft) for the EXCITE Workshop on Computer Literacy.

Friday May 4, 1984

1930-2300 hrs: started reading instructions on the operation of the Apple SuperPILOT programming language for use in the interactive TV project.

Saturday May 5, 1984

0830-0930 and 1400-1500 hrs: continued reading instructions for Apple SuperPILOT.

Sunday May 6, 1984

1800-1900 hrs: continued reading instructions for Apple SuperPILOT.

Monday May 7, 1984

0900-1100 hrs: continued experiments with Apple SuperPILOT.

Monday May 7, 1984

1500-1700 hrs: went through project files in the EXCITE lab to determine the available handouts already on file. Had a meeting with Dr. Poole and Jon VanderMeer to plan the course of presentation for the EXCITE workshops during the spring session at W.M.U .

Tuesday May 8, 1984

0900-1100 hrs: copied Pfs:File data file of the available software in the department and started to plan an exercise for the EXCITE workshop students on Pfs:File.

Tuesday May 8, 1984

1730-1930 hrs: attended a meeting of the Continuing Education instructors who would be teaching some of the microcomputer courses during the spring and summer sessions.

Thursday May 10, 1984

0900-1200 hrs: developed a workshop exercise to demonstrate how to search data bases using Pfs:File as an example.

Thursday May 10, 1984

1900-2000 hrs: continued experimenting with Pfs:File in order to be totally familiar with it and be able to answer student questions during the workshop.

Saturday May 12, 1984

1900-2200 hrs: started learning how to use the Bank Street Writer word processing program.

Sunday May 13, 1984

0930-1130 hrs: prepared a Bank Street Writer data disk with the "Goldilocks" editing exercise (a sample editing exercise).

Monday May 14, 1984

0930-1130 hrs: continued studying Pfs:Write and Pfs:File in order to be able to answer student questions when the EXCITE workshops began.

Monday May 14, 1984

1530-1700 hrs: attended a meeting with Dr. Poole and Jon VanderMeer to prepare for the start of the EXCITE workshops.

Monday May 14, 1984

2200-2300 hrs: started reading the instructions on the new computer bulletin board system.

Friday May 18, 1984

0900-1230 hrs: developed workshop exercises to teach the use of Pfs:FILE (How to design forms, add data to forms and how to print forms from files).

Monday May 21, 1984

0800-1230 hrs: served as a teaching assistant during two EXCITE

workshop sessions.

Monday May 21, 1984

1600-1630 hrs: attended a meeting with Dr. Poole and Jon VanderMeer to plan future strategies.

Wednesday May 23, 1984

0800-1230 hrs: served as a teaching assistant during two EXCITE workshop sessions.

Saturday May 26, 1984

0900-1200, 1300-1700 and 1800-2000 hrs: worked on the new computerized bulletin board service for Project EXCITE and Micro Computer Services.

Sunday May 27, 1984

1000-1130 and 1300-1600 hrs: continued work on the computerized bulletin board service.

Monday May 28, 1984

0900-1200, 1300-1600 and 1700-1900 hrs: continued work on designing the computerized bulletin board service.

Tuesday May 29, 1984

1600-1630 hrs: attended a meeting to plan EXCITE workshops,

with Dr. Poole and Jon VanderMeer.

Wednesday May 30, 1984

0800-1230 hrs: served as a teaching assistant in two Project EXCITE workshop sessions.

Friday June 1, 1984

0800-1230 hrs: served as a teaching assistant in two Project EXCITE workshop sessions.

Monday June 4, 1984

0800-1230 hrs: served as a teaching assistant in two Project EXCITE workshop sessions.

Monday June 4, 1984

1600-1630 hrs: attended a Project EXCITE planning session with Dr. Poole and Jon VanderMeer.

Wednesday June 6, 1984

0800-1230 hrs: served as a teaching assistant in two Project EXCITE workshop sessions.

Thursday June 7, 1984

0900-1100 hrs: researched information on computer bulletin board systems.

Saturday June 9, 1984

1300-1700 hrs: developed a self-paced exercise to demonstrate the basic programming language ability of the Apple IIe computer.

Sunday June 10, 1984

1800-2200 hrs: prepared for the start of the next two EXCITE workshop classes by looking over the course materials.

Monday June 11, 1984

0800-1230 hrs: served as a teaching assistant during two Project EXCITE workshop sessions.

Monday June 11, 1984

1600-1630 hrs: attended a planning session with Dr. Poole and Jon VanderMeer.

Wednesday June 13, 1984

0800-1230 hrs: served as a teaching assistant during two Project EXCITE workshop sessions.

Wednesday June 13, 1984

1330-1700 hrs: helped assist Dr. Poole and Jon VanderMeer to present a computer demonstration to a group of visiting teachers.

Thursday June 14, 1984

1630-1900 hrs: attended a meeting with the Continuing Education microcomputer instructors and advisory group.

Friday June 15, 1984

0800-1230 hrs: served as a teaching assistant during two Project EXCITE workshop sessions.

Saturday June 16, 1984

2000-2300 hrs: worked on the preparation of my internship paper.

Sunday June 17, 1984

0900-1200 hrs: continued working on ideas to print my internship report using my Apple IIe microcomputer.

Monday June 18, 1984

0900-1230 hrs: served as a teaching assistant during two Project EXCITE workshop sessions.

Tuesday June 19, 1984

1000-1200 hrs: worked on developing the word processing input for the abstract and title page for my internship report.

Wednesday June 20, 1984

0800-1230 hrs: served as a teaching assistant during two Project EXCITE workshops.

Thursday June 21, 1984

0900-1130 hrs: worked on the preparation of the internship report.

Friday June 22, 1984

0800-1230 hrs: served as a teaching assistant during two Project EXCITE workshops.

Saturday June 23, 1984

0900-1200 and 1900-2200 hrs: worked on the preparation of the internship report and on the computer bulletin board.

Sunday June 24, 1984

1300-1600 hrs: worked on the computer bulletin board system.

Monday June 25, 1984

1000-1200 hrs: worked on the preparation of the internship report.

Tuesday June 26, 1984

0900-1100 hrs: worked on the computer bulletin board system.

Wednesday June 27, 1984

1300-1600 hrs: met with Dr. Poole and worked on the computer bulletin board.

Thursday June 28, 1984

0900-1200 hrs: worked on the computer bulletin board using Apple Writer II to create new files required for the EXCITE version of the bulletin board.

Monday July 9, 1984

0800-1130 hrs: taught the first session of the final EXCITE workshop.

Wednesday July 11, 1984

0800-1130 hrs: taught the second session of the final EXCITE workshop.

Friday July 13, 1984

0800-1130 hrs: taught the third session of the final EXCITE workshop.

Monday July 16, 1984

0800-1130 hrs: taught the fourth session of the final EXCITE workshop.

Wednesday July 18, 1984

0800-1130 hrs: taught the fifth session of the final EXCITE workshop.

Friday July 20, 1984

0800-1130 hrs: taught the sixth and final session of the final EXCITE workshop.

Saturday July 28, 1984

1400-1700 hrs: prepared files for the computer bulletin board system.

Sunday July 29, 1984

1300-1600 hrs: continued preparation of files on the EXCITE Project for the computer bulletin board system.

Monday July 30, 1984

1300-1500 hrs: continued developing files for the computer bulletin board.

Tuesday July 31, 1984

1300-1500 hrs: continued developing and testing the computer bulletin board system.

Wednesday August 1, 1984

1600-1700 hrs: continued testing and modifying the software program for the bulletin board system.

Thursday August 2, 1984

1500-1700 hrs: continued modifying the bulletin board software.

Monday August 6, 1984

1500-1700 hrs: continued modifying the bulletin board software and obtaining information on local area computer user groups.

Wednesday August 8, 1984

1300-1500 hrs: completed developing the initial bulletin board software program and prepared to set-up the hardware system.

Friday August 10, 1984

1400-1500 hrs: delivered the completed bulletin board system software program to Dr. Poole's office for his review upon his return from vacation.

Thursday August 16, 1984

0900-1400 hrs: met with several individuals at the U.S. Army Intelligence Center and School, Fort Huachuca, Arizona as part of my Army Reserve annual training duty. Viewed the Computer Based Education Center and discussed how they used interactive computer video for training purposes. The interactive video concept is a requirement for the last part of the internship experience.

Monday August 20, 1984

0900-1400 hrs: met with several individuals at the U.S. Army Signal Center and Fort Gordon, Fort Gordon, Georgia as part of my Army Reserve duty. Viewed and discussed applications of their microcomputers and potential future applications based on my internship experiences.

Thursday November 8, 1984

1300-1400 hrs: discussed the interactive (computer-videotape) demonstration project with Dr. Poole and set-up a time to go over the equipment hook-up with personnel in the department's Technical Services branch.

Friday November 9, 1984

1330-1430 hrs: met with Mr. James Kirklin and Mr. Ed Ryba of Academic Services, Technical Services branch. They helped me

determine where all the various cables should go for the specific equipment I would be using for my demonstration project. The particular computer video-interface card which I would be using can be hooked upto a variety of videotape and/or videodisc players. But each specific hook-up uses different cables and the manufacturer of the interface card provided cables for many different types of video players.

Saturday November 10, 1984

1300-1500 hrs: studied the Apple SuperPILOT computer language which is the one that is used to develop lessons and control the video player from the Apple IIe microcomputer.

Sunday November 11, 1984

1400-1600 hrs: continued learning how to use the SuperPILOT computer language with the Whitney interface card. Whitney is the name of the video control card and is manufactured by Whitney Educational Services, 1777 Borel Place, Suite 416, San Mateo, CA 94402.

Monday November 12, 1984

1000-1600 hrs: set up the equipment for the interactive video segment of my internship. Used a Panasonic NV-6800 video tape player, an Apple IIe microcomputer with two disk drives, a color

video monitor and the Whitney video control module.

Two disk drives are required in order to develop lessons using Apple SuperPILOT.

Whitney supplies a sepecial SuperPILOT video command disk that adds seven video commands to SuperPILOT in order to control the video tape player from the computer via the Whitney video control module. These extra commands are simply added to the original SuperPILOT commands on the Master Authoring disk. Then you use this modified SuperPILOT Authoring disk whenever developing lessons using the Whitney video command module.

Tuesday November 13, 1984

0900-1200 hrs: started experimenting with the operation of the interactive video equipment. Taught myself how to get the system running. First had to record a special timecode on the second channel of the audio track so the computer will always know the exact location of the videotape.

Wednesday November 14, 1984

1000-1200 hrs: continued experimenting with the interactive video equipment. Started trying to write a simple demo lesson using a sample video tape obtained from Technical Services.

Thursday November 15, 1984

0900-1130 hrs: determined that there should be an easier method to write software lessons using the Whitney video command module. Because of the time requirement to have a sample demo lesson ready by November 21st I decided it best to phone the manufacturer of the video command module for assistance. Because of the time zone differences between the EXCITE office location in the Eastern time zone and Whitney Educational Services, manufacturer of the interface device, in the Pacific time zone, I decided to wait until the next afternoon.

Friday November 16, 1984

1200-1400 hrs: telephoned Mr. Bob Whitney at Whitney Educational Services to seek advice and assistance on programming their video command module. During our conversation it was discovered that the EXCITE office never received one page of the video command module instructions. Left out of the package were two subroutines, one for a show and one for play. The one for "show" enables the programmer to write this subroutine once and thereafter to write only three lines of a program in the main body of the program that will enable the video tape to start from the point at which it stopped during the lesson while the "show" subroutine allows it to branch to any segment desired. By using these two subroutines the programmer needs only write a few lines vs. writing a complete

video control sequence for every different video sequence in the lesson. The programmer now only needs to write three new lines for ever new video segment in the lesson. This saves a lot of programming work and makes it much easier to develop a lesson.

Mr. Whitney told me that he would send me a new copy of the video commands, which include the subroutines mentioned above. Just to be sure that I understood them I had Mr. Whitney explain them to me over the telephone so I could start trying them as soon as possible.

Sunday November 18, 1984

0900-1000 hrs: developed portions of a sample demo SuperPILOT lesson for the interactive video project.

Monday November 19, 1984

1000-1400 hrs: continued to test and modify portions of the demo program on interactive video.

Tuesday November 20, 1984

0900-1200 hrs: finished the preparation of the demonstration program for interactive video.

Wednesday November 21, 1984

0900-1200 hrs: moved the interactive video equipment to the

classroom where the intern demonstrated and discussed the capabilities of the interactive video concept.

This concluded the final portion of the internship experience.

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