

Teaching Tip

Using Collaboration to Provide Students with an Internship Experience in an Information Systems Course

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ABSTRACT

This paper describes an instructional technique in an Information Systems course that provides students with actual work experience as part of an internship and/or apprenticeship assignment while completing additional course requirements. The course, Information Resource Management, provides students with a comprehensive overview of Information Systems and computer user support. Students are introduced to the spectrum of services provided to computer users and receive hands-on work experience at the college's Help Desk. Students complete either a six-week internship or apprenticeship through a collaborative effort of faculty and personnel employed by the college. Students gain valuable work experience while the college utilizes student employees to assist with their scheduling gaps. Students benefit by using skills gained in the course and on the job to enhance their employment credentials.

Keywords: Computer User Support, Collaboration, Apprenticeship, Work Experience, Internships, Information Systems, Information Resource Management.

1. INTRODUCTION

According to the United States Department of Labor Statistics, computer support specialists are ranked as the second fastest-growing occupation in the country through the year 2010. (Hecker, 2001) In fact, user support specialist positions are skyrocketing due to the explosion of computers in the workplace and the continuing demand for assistance in solving everyday computer-related problems. In the last decade, computers have become an integral part of our lives—both at home and at work. And, according to the U.S. Department of Labor, almost every computer user eventually encounters a problem that needs to be solved. Thus, computer support specialists provide the necessary technical, support, and advice that computers users seek. These troubleshooters typically answer questions related to hardware, software, networks, and communication devices.

College students can take steps during their college years to optimize their chances of obtaining attractive employment when they graduate. In particular, internships are cited as a key way for students to accumulate relevant work experience while a college student. According to the National Society for Experiential Education, an internship is any carefully monitored work experience in which a student has intentional goals and reflects actively on what he or she is learning throughout the experience. (www.nsee.org)

In their 2005 Job Outlook Survey, The National Association of Colleges and Employers (NACE) noted that

the benefits of internships are many. In fact, the NACE survey states that 25% percent of employers surveyed indicated that their new college hires come from within the organization's internship program. In addition, NACE found that 55% of responding employers indicate that new college hires have internship experience. In addition, the NACE survey revealed that 64% of the employers say they pay new, permanent, full-time hires with internship experience an average of 9 percent more than their inexperienced counterparts. Clearly, internships have been found to offer important benefits for prospective college graduates.

Finally, Money magazine's article titled, "The Best Jobs in America," ranks computer/IT analyst in their top ten list and includes in this category a specific reference to desktop support personnel. In particular, the article states that "it seems that the entire world is at the mercy of information technology folks, thanks to the rapid spread of computers and the swell of the Internet. And all of these jobs pay well, from desktop support technician to webmaster to database work." (Money, 2006)

2. METHODOLOGY

2.1 Internship Description

Two sections of students in Information Resource Management were required to participate in either a six-week internship or apprenticeship program. This realistic work experience project was the result of a joint effort by the

author, a faculty member in Information Systems, and the Information Technology Help Desk Department at the College. At the initial meeting of the semester, the class is introduced to the internship/apprenticeship through a series of presentations made by college personnel that work at the Help Desk facility. Following the initial class meeting, students are randomly divided into two groups and assigned to complete their internship/apprenticeship during either the first six weeks (Group 1) or the second six weeks (Group 2) of the semester. This arrangement enables the Help Desk personnel to work with smaller groups of student employees and gives the students a concentrated period of time to complete their internship assignment.

Students begin their internship experience by attending training sessions over a two-week period that acquaints them with the Help Desk software, Magic. In addition to learning the Magic software, student employees are asked to complete a work schedule indicating what hours they are available to complete their internship assignment. Following the two-week training period, students are then assigned to work alongside a Help Desk Operator in an apprenticeship approach to learning how to deal with live calls from the campus community. Following a successful work session with a Help Desk Operator, students report to work over the next four weeks to complete their required internship Help Desk hours.

2.2 Course Description

Information Resource Management (IRM) is an upper-level course that is part of the Information Systems program area in the AACSB School of Business that is described in this paper. The course provides a comprehensive overview of the field of computer user support by supplying students with both in-class and out-of-class realistic work assignments. In addition, students enrolled in the course were exposed to the interpersonal, communications, and problem-solving skills required in Information Systems positions.

2.3 Apprenticeship Description

Due to the difficulty of scheduling more than one entire class of students to work at the college's Help Desk, an alternate work experience project was devised for semesters when multiple sections of Information Resource Management are offered. This alternate experience can best be described as the apprenticeship model. Again, the class is divided into two groups and assigned to work either during the first six weeks or the last six weeks of the semester. Rather than being assigned to work at the Help Desk, students are apprenticed to computer support specialists during their six-week work experience project. Thus, students "shadow" technical support personnel of the college and "learn by doing" various computer-related tasks as they occur under the direct guidance of a competent Information Technology employee. Typical student apprenticeship assignments include basic networking, basic troubleshooting, and Information Technology customer service assignments.

2.4 Apprenticeship Evaluation

Student employees received a grade from their internship or apprenticeship experience based on feedback from their immediate supervisor in the Information Technology

Department. The grade is communicated to the professor and counted as a component of their final course grade. Therefore, the internship/apprenticeship grade typically counts as the equivalent of one test grade or midterm exam.

Students are evaluated based on their work performance, punctuality, and attendance. At the initial orientation session, student employees are advised of their responsibilities to be punctual and to communicate promptly any absences to their immediate supervisor. At the conclusion of the work experience, a completed evaluation form is forwarded to the professor. In addition, students and supervisors have an evaluation session in which they review the student's performance during the six-week work experience.

2.5 Learner Satisfaction

To assess student satisfaction with the Internship/Apprenticeship experience, a 10-item evaluation form was constructed by the author/researcher to obtain feedback. The Evaluation Form consisted of 10 questions. Students were instructed to answer the questions by completing an opscan answer sheet that was provided using a scale of 5 (strongly agree) to 1 (strongly disagree). The questions were structured to determine the degree of satisfaction or dissatisfaction with the course.

Overall satisfaction with the internship/apprenticeship learning experience course was high as reported by 75 percent of the students completing that experience. In particular, male students reported even higher levels of satisfaction (87 percent) than female students (82 percent).

Additionally, one student in the Information Systems Internship/Apprenticeship class, Derek Fong, wrote an award-winning essay in 2001 about his Help Desk internship experience in this course; he won a Help Desk Scholarship from Course Technology, a Thomson Learning Publishing Company. In his essay, Fong writes that the knowledge gained from participating in this internship was a key factor in his obtaining a position as a Technical Support Intern. He further states that the opportunity to work alongside technical support professionals was invaluable and that he gained relevant technical knowledge that enhanced the course learning experience. (Fong, 2001)

3. CONCLUSION

Using collaboration to provide students with an internship experience in an information systems course is an effective instructional technique. Overall satisfaction with the internship/apprenticeship learning experience in the Information Systems course was high as reported by over three-fourths of the students completing the internship.

Most importantly, students gained valuable work experience while the college utilized student employees to assist with their scheduling gaps. Students benefited by using skills gained in the course and on the job to enhance their employment credentials. The opportunity to gain relevant work experience while completing college coursework optimizes students' employment prospects. Thus, the findings of this study reinforce those of the NACE survey that internships are valuable and unique learning experiences.

4. ACKNOWLEDGEMENTS

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5. REFERENCES

- Daniel Hecker. *Monthly Labor Review*, November, 2001. "Occupational Employment Projections to 2010" Office of Occupational Statistics and Employment Projections, Bureau of Labor Statistics.
- Derek Fong. Help Desk Essay. Course Technology Help Desk Scholarship Contest. August, 2001.
- Money. The Best Jobs in America, April, 2006. Retrieved April 12, 2006 from <http://money.cnn.com/magazines/moneymag/bestjobs/>
- National Association of Colleges & Employers. Job Outlook Survey, 2005. Retrieved November 19, 2005 from www.naceweb.org
- National Society for Experiential Education. Retrieved March, 2005, from www.nsee.org

6. AUTHOR BIOGRAPHY

Patricia Wallace teaches courses in the School of Business at The College of New Jersey (TCNJ). She earned her doctorate from Temple University and completed post-doctoral study in Management Science and Information Systems at The Penn State University.



APPENDICES

The College of New Jersey Student Performance Assessment Review

Student Name:

Rating Period:

Assignment: School of Business Student Helpdesk Technician

Department: User Support Services

Section 1 - Job Description

Major Job Responsibilities
Responsible for following the operating procedures, as defined in the help desk operations manual.
A. Responsible for first-level technical support via voice mail, email and walk-in users.
B. Must be knowledgeable in the general operations of the hardware and software. This includes the network operating system.
C. Responsible for the daily operation of the help desk. <ol style="list-style-type: none">1. Respond to voice, email and walk-in service requests.2. Provide first level technical support for the campus community.3. Generate trouble tickets for first and second level problem requests. Assign trouble tickets to the appropriate second-level technical support as required.4. Follow-up on open and closed first and second level technical calls to ensure adequate response or attention has been given.
F. Participates in all computer technology training and development opportunities offered for students working in Information Management during the semester. Failure to participate in these training sessions will result in the termination of employment.
G. Serves as a general information and resource person for campus community.
H. Performs other duties as assigned by the Help Desk Coordinator.

Student Name: _____ Assignment: School of Business Student Helpdesk Technician	Rating Period: _____ Department: User Support Services
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Section 2 - Performance Factors

Please rate the student employee using the scales listed below. The behaviors listed under each characteristic are examples of the worst and best behavior that could occur in that category. The scale ranges from 1 to 5, 1 being the worst and 5 the best.

1. Conscientiousness **Rating:**

1	2	3	4	5
Unsatisfactory	Average		Excellent	

Expressed little desire to participate. No Motivation to do well. "This is not a real job" Not aggressive in learning new skills.	Displays a high level of effort and commitment toward performing work. Demonstrates responsible behavior. Willingness to enhance their own work skills.
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2. Customer Service Skills **Rating:**

1	2	3	4	5
Unsatisfactory	Average		Excellent	

Not attentive and inquisitive when dealing with customer problems. Lacked consistency in meeting customer needs. Unprofessional.	Provided a high level of customer service by listening to customer needs. Used active problem solving techniques. Provided some type of solution.
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3. Job Knowledge Skills **Rating:**

1	2	3	4	5
Unsatisfactory	Average		Excellent	

Failed to demonstrate any technical knowledge or skills for problem solving.	Understands job and applies necessary technical knowledge and skills. Navigated the call tracking system successfully. Used reference information with
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4. Written Communication **Rating:**

1	2	3	4	5
Unsatisfactory	Average		Excellent	

Written communication was poorly structured and difficult to read due to poor grammar and structure.	Effective expression of problem descriptions and /or actions taken toward resolutions entered into the problem tracking system. Problem descriptions and resolutions were well organized.
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5. Attendance/Promptness **Rating:**

1	2	3	4	5
Unsatisfactory	Average		Excellent	

Frequently late. Did not call if unable to attend shift. Failed attempts to make up time.	Seldom/never late or missed shift. Called if unable to make shift. Made an active effort to make up time.
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STATEMENT OF PEER REVIEW INTEGRITY

All papers published in the Journal of Information Systems Education have undergone rigorous peer review. This includes an initial editor screening and double-blind refereeing by three or more expert referees.

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