

OSH Internships

*One program's perspective on benefits
for students, employers and universities*

By David L. Fender and Lauren E. Watson

INTERNSHIP PROGRAMS can be a valuable experience for students, businesses and universities. This form of experiential learning allows students to apply their academic training to real-world problems and situations, and frequently makes the classroom material become real instead of just more information that an instructor wants students to learn.

Experiential learning is especially important in technical fields where there is no substitute for hands-on experience in the actual working environment. Businesses can also benefit from having motivated, well-prepared interns work with them and provide valuable assistance to their safety and health programs.

The Applied Science Accreditation Commission (ASAC) of Accreditation Board for Engineering and Technology (ABET) requires that graduates of

accredited programs have the opportunity to "apply principles of safety and health in a nonacademic setting through an intern, cooperative or supervised experience" (ABET). For the sake of students, universities and the companies involved, it is essential that appropriate learning occur, that companies get value for their efforts and expense, and that the opportunity is maximized for all involved.

Research on the effectiveness of occupational safety and health internships—in particular that of Ferguson, Kraemer and McGlothlin—has highlighted attributes that make internships most useful to all stakeholders. The most recent study (performed by McGlothlin) surveyed occupational safety and health graduates about their intern experience and what is/is not important about the experience. This

article shares results of a study that built on McGlothlin's and Kraemer's previous research and looks further into the intern experience.

Internship Objectives

This study was conducted in the Dept. of Occupational Safety and Health at Murray State University (MSU). To receive either a bachelor's or master's degree through this department, a student must complete an internship that lasts at least one semester. To guide the intern experience, the department has developed several objectives and expected outcomes. In this study, the information gathered and analysis were wrapped around these goals and objectives:

- Provide academic experience relevant to the world of work.
- Provide exploration of career interests.
- Provide experiences with different cultures and industry standards.
- Develop knowledge of the scope of responsibilities and duties for the safety and health professional.
- Develop an understanding and appreciation of the role of occupational safety and health in the work environment.
- Increase understanding of personal/career goals.
- Gain the ability to function as part of a multi-disciplinary team in a competitive setting.
- Apply safety and health principles and concepts in a workplace setting.
- Enhance job prospects after graduation.

Purpose & Methods

This study was designed to gather qualitative data that could be used to develop a greater understanding of the most significant positive and negative elements of the internship experience and those that contribute most to student learning. The researchers believe that such data, added to the

David L. Fender, Ed.D., CSP, is an assistant professor in the Dept. of Occupational Safety and Health at Murray State University (MSU). He is a professional member of ASSE's Purchase Area Chapter, a past president of its Wiregrass Chapter, and advisor to ASSE's MSU Student Section. Fender is also a member of the National Safety Management Society. He holds a B.S. from Central Missouri State University, an M.S. from University of Southern California and an Ed.D. from Vanderbilt University.

Lauren E. Watson is a graduate student in MSU's Dept. of Occupational Safety and Health. She holds a B.S. in Chemistry from MSU and is a former student member of ASSE's MSU Student Section.

quantitative data from previous research, would provide a more in-depth understanding of the intern experience. In addition, information from this study was compared to previously collected written intern evaluations to validate those evaluations.

Focus groups were used to gather information from 20 undergraduate and graduate students enrolled in MSU's occupational safety and health program who interned during summer 2003 and were willing to participate in the focus groups that were held in October and November 2003. Seven participants were female and 13 were male. Participants interned in various industries in several different states. Six were in manufacturing; three each at a university and petrochemical plants; two in metal foundries; and the remainder were spread across textiles, family entertainment, transportation, consulting and insurance.

A standard format of questions was developed based on a review of previous research; questions were reviewed by research faculty familiar with intern programs. The standard format was used in each focus group to guide discussion.

Participants were allowed to attend one of four focus groups that best fit their schedule. Each session lasted approximately one hour and was audiotaped. The recordings were then transcribed and comments from each were combined and analyzed for common themes and trends.

Results & Discussion

General

When asked what they enjoyed most about the intern experience, participants most frequently cited the opportunity to gain real-world experience, see how safety is applied in the work setting and have a high level of responsibility. This corresponds to McGlothlin's finding that "the internship was a satisfying experience when the intern was involved with management, staff and employees while performing career-related, challenging work assignments" (46). Participants also noted that they appreciated the opportunity to decide whether this was a field they enjoyed working in and that they believed the particular internship in which they participated was worthwhile.

Focus group participants were also asked what they liked least about the internship experience. Common responses included "not having enough to do," "doing repetitive clerical work that no one else wanted to do" and "company wasn't prepared for my arrival." The biggest problems involved the companies or supervisors either not understanding how to best employ an intern, being unprepared for the intern or not properly guiding/supervising the intern.

Preparing for & Completing the Internship

When asked what they would do differently with respect to their internships, participants noted the need to establish a solid contact within the company, gain an understanding of company expectations, then prepare to meet those expectations (such as by reviewing applicable regulations and gathering use-

ful information). According to participants, this problem was at times their fault—they did not ask questions and take the initiative; other times, the company did not have a clear idea of its needs or did not share this information with the intern before his/her arrival. In other cases, no clear point of contact was established or this person did not communicate information well. Some participants also noted the need to move to the location in adequate time to get settled before the internship started. In addition, participants highlighted the need to be better organized; be appropriately assertive; be willing to seek more responsibility or ask for help; and keep an open mind.

For most participants, their internships were the first time they had worked in management-related positions; as a result, they may not have fully understood the pressures and requirements involved. Furthermore, due to their age and inexperience, they may not have understood the accepted bounds of what can or should be done, and may have been reluctant to ask for help or advice. Additionally, they may not have fully understood accepted protocol or even social issues such as gossip and the damage it can do.

Participants were also asked what they would recommend to someone preparing for an internship. The answers were quite telling. Comments included take more classes; get to know the workers; remember you are there to learn; ask questions; have a positive attitude; act professionally; and be ready for anything.

Students had mixed views on whether they were prepared academically for the internship. Although most said they were, a few felt they were not. Further questioning revealed that those who felt unprepared usually did not fully realize what the company expected of them or were working with a company that expected them to perform fairly technical or industry-specific functions.

Lack of communication between the intern and the company supervisor and unfamiliarity with a new job and location were cited as the biggest problems. Supervisors must realize that an intern may not know his/her way around and has not worked at that location before. Therefore, some "hand-holding" will likely be needed. Participants also noted that they did not anticipate communication problems within the company. This corresponds to McGlothlin's finding that "the internship experience was valuable in providing an opportunity to apply classroom learning to real situations; developing basic communications and people skills; determining career direction and employment opportunities; learning new technical skills; and building resume-quality experience" (46).

With respect to an internship's effect on the student's educational or professional plans, participants overwhelmingly indicated that the internship did just that. Most said that it confirmed and strengthened their intentions to become an occupational SH&E professional. The internship also helped them identify the type of industry in which they wished to work. This was both positive and negative—positive

Abstract: *Experiential learning through internships can be valuable, especially for students in technical fields where there is no substitute for hands-on experience in the actual work environment. This article shares results of a study involving 20 students from one academic program interning over one summer. The specific objectives were to identify and quantify the most significant positive and negative elements of the internship experience and those that contribute most to student learning. In addition, information from this study was compared to previously collected written intern evaluations to help validate those evaluations.*

Intern's Experience

Following are excerpts from student, company and university comments based on one intern's experience while working at a manufacturing facility.

Student

- "Supervisor really tried to explain everything."
- "I got to see what a safety professional does and has to deal with every day."
- "Writing training programs in class really helped when I had to write them here."
- "I learned a lot about myself."
- "I gain responsibility!"
- "I didn't like being at work at 6:30 am."
- "Initial communication was not good, the first day they didn't tell me what to wear."
- "Safety is what I went to school for and this is what I want to do."
- "I liked the responsibility I'm given with safety, there's always a challenge."

Employer

- "Always on time and well-prepared."
- "Completes work on-time."
- "Needs to be more of a self-starter."
- "Needs to be more outgoing with people."
- "I enjoyed watching her learn the difficulties involved and how different the 'real world' is from what she might have learned in books."
- "Helped me work on projects that there had not been time for in the past."
- "Assisted me with my daily task, giving me more free time to work on larger projects."

University

- Student does tend to be quiet; needs to open up more.
- Both the student and company met our expectations.
- The internship met intern learning objectives and student grew as a result of the experience.

from the viewpoint of liking the industry in which they interned, negative from the viewpoint of deciding that a particular industry (e.g., manufacturing, chemical) was not a good fit. Neither result is bad as it is better to learn this information early.

Comparison to Other Evaluations

As noted, a goal of this study was to compare the focus group results to previously collected written intern evaluations to see whether those evaluations reflected similar or different results. Similar results would produce a higher degree of confidence in those evaluations, which are much easier to use to gather data than are verbal methods such as those used in this study.

The instrument (depicted in Figure 1) was originally developed by Kraemer and has been used and refined for several years at MSU. The instrument is completed by the student at the end of the internship. It consists of seven open-ended questions and 15 questions that use a 1 to 5 Likert scale, with 5 being the

highest rating. Space is also provided for additional comments. Forty written evaluations covering the same time period that included participants in this study were compiled and compared to the focus group results.

Analysis indicated that written evaluations were comparable to focus group results. In the Likert-scaled items, the lowest rating was a 4.10 average in the area of "relationship of academic assignments to work," with the next-lowest rating a 4.15 average in the area of "were your abilities utilized." As noted, not being employed to their fullest abilities was one concern highlighted during the focus groups.

The questions are divided into the broader areas of work experience, learning experience and personal development. The overall averages were 4.43 for work experience; 4.51 for learning experience; and 4.44 for personal development. The overall rating of the internship experience was 4.53. These ratings indicated an overall high satisfaction with internships, which is similar to the focus group results.

The open-ended questions and the comments made in regard to the Likert-scale questions were similar as well. For example, responses indicated that interns most enjoyed the

real-world experience—such as working with a union, observing how to act in a professional manner, noting the interaction at staff meetings, learning details about workers' compensation and how to communicate with upper management. Some interns indicated that they were asked to perform a task which they did not feel academically prepared to perform. This was mostly because the student had not yet taken a particular course or because a particular application was industry- or company-specific.

Other positive aspects mentioned in the evaluation comments matched those of the focus groups. These included increased self-confidence; working closely with mentors; having recommendations taken serious by the company; being trusted to work on a project independently; interacting with people; learning from experienced employees; and learning how to stick with a project until it is finished. Negative areas mentioned by both groups were lack of respect because of age or gender, or because of their temporary status; management resistance to

Practical Applications

Participating in a formal intern program helps students better prepare for their careers. To get the most out of the experience, students need to take the internship seriously, make sure they communicate with their employers and understand what will be expected.

Companies that offer SH&E internships help prepare future professionals and can reap great benefits from employing a highly motivated student who can provide energy and new ideas. In addition, having someone work as an intern for three or more months is an excellent way to judge whether that person would make a good future employee.

To ensure that the experience is positive, companies need to prepare for the intern, communicate their expectations and have projects/work developed before they arrive. Those involved must not assume that the intern will be aware of corporate protocol and procedures; therefore, the company point-of-contact must communicate details such as dress and work hours. In addition, companies must be sure to understand the requirements of the university program and communicate any questions/concerns to the university point-of-contact.

Companies interested in pursuing an internship program should contact a university with an accredited occupational safety and health program, since these programs are required to have internship programs. To obtain a list of these programs, visit www.asse.org/colluni_directory1.htm or ABET at www.abet.org/accredited_programs/appliedscience/ASACWebsite.asp. ASSE's website includes key contact information and university web addresses as well.

Once an intern is selected, the company must communicate its expectations. A company should also establish a definite point of contact within the organization (preferably the direct supervisor) and ensure that this individual stays in contact with the intern. A company should also inquire about other needs the intern may have and help as appropriate. For example, a company may need to help an intern relocate/find housing and should encourage him/her to get settled in adequate time.

University Recommendations

Although difficult to achieve because of scheduling and typical operations, it may be helpful for universities to identify which courses must be completed before accepting an internship. Properly considered, this could establish a baseline level of knowledge on which companies could depend; it would also help students be as prepared as reasonably possible.

A university needs to make sure interns understand their personal responsibilities and the importance of communication before, during and after the internship. It should be stressed that interns should speak with their contacts to learn about issues such as dress code, starting time, job description and available housing. In addition, a university must clearly explain—preferably in a written document—the expectations, internship requirements and company

responsibilities to participating companies. A point of contact should also be established at the university whom both companies and interns may contact should a problem or question arise.

Student Recommendations

Students must understand that they “must assume personal responsibility for selecting and preparing for the internship experience, and ensure that job duties, learning outcomes, employment benefits, responsibilities of all stakeholders, and assessment of learning are clearly established to provide an opportunity to apply classroom learning to real-life situations and ensure the value of and satisfaction with the OS&H internship experience” (McGlothlin 44). This requires that students research the companies, understand job duties and compensation involved, and be familiar with the location and type of industries.

To determine how to best prepare for an internship, students should ask questions of their company supervisor, fellow students who have completed internships and their professors. If the student does not know the area to which s/he is relocating, s/he should conduct Internet research and contact the local chambers of commerce. It is also best to move several days before the job starts. Ultimately, the student is responsible for the value s/he receives from an internship and

s/he needs to recognize this fact and act accordingly.

Internship programs can be valuable for students, businesses and university safety and health programs. Done properly, students obtain valuable hands-on experience, companies receive needed SH&E assistance and universities better prepare students to be SH&E practitioners. The ultimate objective is to have well-prepared graduates entering and advancing the SH&E profession. ■

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