

A Descriptive Analysis of the Role Played by Coordinators of Work-based Learning
Activities in Aviation Management Programs

D. Scott Worrells, Ph.D
Embry-Riddle Aeronautical University

and

José R. Ruiz, Ph.D.
Southern Illinois University Carbondale

Abstract

The objective of this paper is to discuss Work-based Learning (WBL) from the perspective of individuals within organizations that engage in either cooperative education (Co-op) or internships. This report is based upon a survey of program coordinators regarding their activities associated with WBL in Aviation Management (AVM) programs. Work-based Learning comprises a variety of experiential learning activities and, for the purpose of this study; it is limited to Co-op and internship. Much of the existing literature discusses WBL from the perspective of either the institutional participant or the student participant. Additionally, although WBL has been credited with enabling the successful transition from the world of academia to the workforce the coordination of these programs is not consistent among the institutions participating in WBL. Accordingly, this study asked 10 “Yes” or “No” questions to solicit data on the nature and scope of work conducted on the part of department/faculty coordinators.

Editorial Note: This is an important study and should be made available so that the aviation community can give comment.

Management Programs

Work-based Learning experiences are recognized by both industry and academia as having an invaluable impact on student career progression. The following statements serve to reinforce this view. The first quotation is taken from the Southwest Airlines Internship Program Guidelines:

Southwest Airlines recognizes the importance and benefits of an official, company-wide internship program. By having young, talented and educated people from the aviation community come work for us, Southwest will be more efficient and productive than ever. In return, the interns will gain hands-on experience in the day-to-day operations of an airline. (Self, 1996)

According to Kiteley (1997):

The success and popularity of co-op is largely attributable to the fact that all three players benefit. In addition to increasing graduate placement, schools become privy to the public and private sector needs, which their curricula should address. Employers gain access to committed, knowledgeable, temporary, and low-cost help, plus an opportunity to groom full time employees. The participating students get a unique opportunity to experience the real world in their chosen profession. Co-op programs usually provide pay and/or academic credit, and students gain a "foot in the door" with a familiar post-graduate employment prospect.

One of the more worthy forms of academic service comes in the guise of Program Coordinator for the department's WBL program. Unfortunately, it can be delegated with little guidance concerning WBL program management.

This report analyses and describes the role program coordinators play in AVM programs participating in some form of WBL. The report begins with a brief introduction of AVM programs, development of WBL activities, validation of the survey used, data gathering methodology, and an analysis of the data from program coordinators. At the outset the review of literature reflects the parallel evolution of AVM programs and WBL.

Review of Literature and Related Research

The Emergence and Growth of Aviation Management Programs

Aviation management degree programs began to emerge when it was recognized that highly technical aviation careers also demanded a degree of managerial skill. According to Fairbairn (1987): "Students graduating from aviation programs frequently move into careers

that have a significant management component. As a result, aviation management courses have evolved in aviation curricula to prepare graduates for these positions” (p. 77).

According to Schukert (1992), aviation management programs should:
... concentrate on the preparation of persons to serve in various administrative and supervisory roles with the government and in such private-sector positions as airport and airline managers and as fixed base operators. Students interested in pursuing degrees in this field can anticipate an academic program with a strong business education core including extensive course work in accounting, banking, statistics and finance. Persons aspiring to professional flying careers frequently enroll in these programs in hopes that it will enhance their occupational versatility in the eyes of airline or corporate pilot employers. (pp. vi and vii)

In 1968, there were approximately 20 baccalaureate aviation education programs in the US. By 1996, there were 276 postsecondary education institutions in the US offering non-engineering aviation programs. In 2003, 114 postsecondary institutional members of the University Aviation Association (UAA) reported that there were 72 AVM programs: 21 associates, 44 bachelors, and 7 masters (Williamson, 2003). Seven of these were reported as non-flight AVM programs.

The Aviation Accreditation Board International (AABI), officially replacing the Council on Aviation Accreditation (CAA) on July 14, 2006, has recognized the significance of standalone AVM programs. The previously published CAA Accreditation Guidelines of 2003 specify that:

For baccalaureate degree programs, the Aviation Management option MUST consist of a minimum of 36 semester hours in a coherent sequence of business and aviation courses designed to prepare the student to function effectively as a manager in a selected segment of the aviation industry. The combination of business and aviation courses SHOULD be designed to provide breadth of understanding of basic business principles and a depth of understanding of the particular segment of the aviation industry. Each school is free to specify the area of preparation, but it MUST provide focus on a potential career field rather than be an extension of the general approach provided by the core. (p. 28)

The aviation management discipline continues to follow an evolutionary path toward program identity (Phillips, 2004). Along with AVM's evolution WBL has evolved too. A part-time/full-time faculty member or a dedicated staff member is typically assigned the responsibilities of the WBL coordinator. This has resulted in some success. For example, the AABI accredited program at Purdue University has evolved into a state-of-the-art WBL program. The program at Purdue is:

Coordinators' Role in Work-based Learning

...designed for students who are seeking careers in airline management, airport management, or air traffic control. Students in this curriculum study aircraft systems, principles of flight, and basic aircraft science. They also take courses in air traffic control, aviation law, airport management, and air transportation, in addition to a number of general education courses. ("Aviation Technologies," 2004)

Purdue aviation students work with their faculty coordinator to identify a problem area or current issue within the aviation industry. They then develop a proposal for an applied research project which is submitted to a potential industry sponsor. If a project is accepted, the industry sponsor, the faculty coordinator, and the students negotiate details of the proposed study.

In each project, study details included the scope of the project, details about how the study would be performed, the definition of resource needs, the identification of project 'stakeholders' within the company and the university, and the deliverables for the project. (Morton et al., 2001)

This program has grown into a successful WBL component of the Aviation Technology Department at Purdue. In the first year of activity, there were two graduate students and two faculty coordinators working on a project with United Airlines. "Currently the research program's fifty-three student researchers and four faculty mentors are performing five research projects with three major commercial air carriers and one cargo operator" (Morton et al., 2001).

It was established long ago that academic institutions alone cannot keep up with present or projected demands for qualified aviation professionals without the assistance of the aviation industry. Mitchell (n.d.) recommended that the aviation industry "...provide sufficient support to grow a long-term manpower base using a variety of cooperative agreement tools such as scholarship, internships, and fellowships" (p. 2).

In 1999, the UAA Curriculum Committee convened to develop standard practices and procedures for the establishment and application of WBL in aviation-related programs. The *Internship Program Guidelines* were published as a result of the committee's efforts. "This document sets forth representative guidelines and procedures that may be used in establishing intern programs for two- and four-year college students from aeronautical curricula with employers representing the public and the private sectors of aviation" (UAA, 1999, p. 1). The guidelines provide structure for the WBL activity and set out the roles and functions of a program coordinator.

In 1995, the Northwest Regional Educational Laboratory published an evaluation of The Boeing Company's *Manufacturing Technology Student Internship* program. Owens

(1995), noted that The Boeing Company's three phase implementation process: (a) established an academic foundation in Washington state's secondary school system, (b) promoted development of a statewide manufacturing technology degree program and provided a work-based student internship program, and (c) established a statewide consortium of industries and institutions to develop manufacturing competencies and curriculum modules based on the needs of all participants and expand WBL opportunities for students statewide. Owens' study further defined the roles and responsibilities of program coordinators; preparation for the WBL activity, monitoring the activity, documenting the process, and evaluating it.

Evolving Roles and Responsibilities of the Program Coordinator

In this section, a summary of professional studies and doctoral dissertations in WBL is provided. The primary interest is in research related to coordination of WBL in aviation-related curricula. Due to the fact that WBL was not recognized in aviation-related studies until the early 1990's, research conducted outside of the aviation discipline has been included.

Aviation-related professional studies. Schukert (1993) provided five examples of the degree to which WBL has been institutionalized among participants: (a) administrating legal/formal agreements among sponsors, (b) designating a course title and number, (c) granting academic credit and issuing a grade, (d) specifying student participation requirements, and (e) sponsoring industry advisory committees. All of which are endemic of the roles and responsibilities of program coordinators.

Owens (1995) reported on an evaluation of The Boeing Company's internship program. The purpose of the evaluation was to: (a) describe the operations and outcomes of the internship, (b) provide information for continuous quality improvement of the internship, (c) document the impact of the internship on students and others, and (d) identify promising practices related to the internship that could be adapted by others in business and industry. Evaluation methodology included: (a) a review of documents describing the internship structure, student selection process, and curriculum; (b) a survey of interns before and after a summer internship; and (c) a follow-up study of work and educational experiences since high school graduation.

Respondents to a survey by Mitchell (2000) reported the following strengths, weaknesses, and opportunities in WBL activities. *Strengths:* (a) internships provide a foot in the door, (b) students and schools keep abreast of the industry, and (c) the internship provides invaluable experience for the intern. *Weaknesses:* (a) student participation is low, (b) most internships are not paid, and (c) programs are too easy. *Opportunities:* (a) institutions need to promote internship better, (b) institutions need to work out the problems associated with

Coordinators' Role in Work-based Learning

remuneration, (c) more internship opportunities need to be established, (d) meaningful work experiences are essential to a successful internship, and (e) coordination and implementation of a feedback system, from past interns to future interns, will improve the program.

Non aviation-related professional studies. “Properly designed and implemented work-based learning programs are a proven way for U.S. companies to ensure that their employees have the skills required to thrive in today’s workplace and economy” (Work-based Learning, 2009, para. 1).

Students seek a clear connection between their future career(s) and their class work. The opportunity to explore and experience a world of work is beneficial to career decision –making. Interning at a workplace provides a firsthand look at what skills are needed, how knowledge learned in school is put into action in the workplace, and informs the student about career choice. Work-based learning is the key to a successful 21st century. (Wisconsin Department of Public Instruction, 2008, para. 2)

Bragg and Hamm (1996) sought to determine a “...better understanding of existing work-based learning policies, practices, and programs...” (para. 2) in two-year colleges in the US. Bragg and Hamm examined a range of WBL models and documented program quality from the perspective of students, industry sponsors, and institutions. Ten WBL programs were identified for the study. These programs ranged in size from 10 students to over 300 students. According to Bragg and Hamm:

Outcomes data provided by local administrators portrayed the programs as highly successful at transitioning students into the labor force in training-related employment, often into the same firms used for work-based learning placements. Four programs reported 100% job placement rates, and two others provided rates of 95% and 80%. ... most of the local stakeholder groups showed pride and enthusiasm for their work-based learning programs, even when outcomes related to educational or academic attainment were less apparent. For example, program completion or graduation rates ranged from 4% to 67%, but most programs reported graduation rates below 15%. (para. 7)

The research team documented numerous strengths related to the overall effectiveness of two-year college WBL programs:

1. Strong program coordination and leadership that ensures the ongoing success of the program.
2. Exclusive connections between the program and its environment. The location of the program relative to its industry is a critical factor.

3. Frequent and effective communication between program coordinators and local employers was identified as needed to sustain WBL programs.
4. Beliefs about program excellence perpetuate the idea that WBL is successful and students and graduates are held to high standards.
5. An effective school-based learning component ensures that programs maintain support from college coordinators and upper-level college administrators.
6. Adequate and diverse financial support is critical to support existing and potential WBL programs.
7. Innovative program and pedagogical features such as multiple teaching, learning, and support strategies support the notion that WBL is indeed practical, realistic, and applied, while also being academically challenging.
- 8.

In a study by Bailey et al. (1998) the researchers sought to identify characteristics and motivations of industry participants and the quality of WBL activities that they provide. Five hundred and forty eight surveys were mailed and 334 were returned for a response rate of 60.9%. Researchers identified three quality measures of WBL: (a) distribution of internships in a variety of occupations and industries, (b) defined characteristics of the internships, and (c) length of time for an intern to be productive. Respondents reported 10 components that strengthen the quality of a WBL program:

1. Assigned workplace mentors who counsel and train students (95.5%).
2. Customized plans for each student (47.3%).
3. Documented and assessed student learning at the work site (90.0%).
4. Industry involvement in curriculum content (36.8%).
5. Industry participation on advisory boards (14.9%).
6. Industry personnel teach or present at the institution (24.7%).
7. Rotation of students among several jobs (61.5%).
8. Trained mentors (33.4%).
9. Work place classrooms (20.2%).
10. Written agreements between institution and student (65.5%).
- 11.

Dissertations. In this section, five dissertations are examined. Dissertations by Lindseth (1996) examine AVM programs across the nation regarding perceptions of quality and Sellers' (1997) discuss the cooperative arrangements of AVM programs from UAA membership across the country.

Lindseth (1996) conducted a two phase research study to investigate the quality of U.S. baccalaureate aviation programs. A model with 10 categories of program quality was produced in phase one. These criteria listed in order of importance as indicated by phase one respondents are: (a) curriculum, (b) students, (c) faculty, (d) program activities, (e) equipment, (f) facilities, (g) leadership, (h) resources, (i) reputation, and (j) value.

Coordinators' Role in Work-based Learning

In phase two, it was determined that even though aviation education experts generally agreed on which programs were of highest quality, most of the environmental and outcome indicators of quality received no greater emphasis at the “highest” quality programs than at the “intermediate” and “lower” quality programs. The only environmental indicator of quality emphasized to a greater extent at the highest quality aviation programs was “internship experiences.”

This finding is significant because aviation industry experts emphasized the performance of program graduates as an indicator of quality. According to Lindseth (1996) those graduates demonstrating the greatest level of productivity at the earliest stages of their employment were those that completed programs with “very active internship programs” (p. 114).

Sellers (1997) analyzed and evaluated “cooperative arrangements” between postsecondary aviation education institutions and other entities which were defined as “partnerships,” “alliances,” “consortia,” and “articulation agreements.” A questionnaire was mailed to all 108 institutional members of the UAA, 54 (50%) of which were returned. Twenty two members (40.7%) indicated participation in at least one cooperative arrangement. These 22 respondents were then studied in more depth. Of these 22 respondents, 13 (59.1%) reported participation in more than one, and 9 (40.9%) participated in only one cooperative arrangement. A total of 65 cooperative arrangements were reported for an average of 3 arrangements per institution. Respondents also identified 189 advantages and 26 disadvantages (a 7.3 to 1 ratio) of participation in cooperative arrangements.

Sellers (1997), pointed out that once an institution gains experience with a cooperative arrangement, it is inclined to enter into additional arrangements. Most of the respondents in the study reported a high level of satisfaction that cooperative arrangements achieved stated goals and objectives.

Summary of Literature and Research

Aviation Management Programs continue to emerge as a field of study that is independent of Aviation Technologies and Aviation Flight programs (Phillips, 2004). An increasingly important component of AVM program is WBL. Although not specifically identified, coordination of these programs is directly proportionate to their effectiveness. The preceding studies indicate that AVM programs provide a “stand alone” curriculum that has application and utility in the aviation industry. These studies also revealed that WBL activities have become essential components of AVM programs. They have been shown to be an asset to students, industry, and institutional partners. Of the 114 institutional members of the UAA, 73.7% provide one or more WBL activities (Williamson, 2003). Review of the

dissertations revealed that, from a student perspective, WBL activities played a key role in their aviation education and pursuit of career goals.

Methodology

Type of Research

A descriptive research method that employed a self-report research instrument was used to collect data for the study. The survey was designed to identify and describe what is presently going on regarding coordination of WBL activities in AVM programs (Best & Kahn, 2006). The survey was intended to elicit AVM program coordinator's perceptions regarding their activities.

Subjects

The population for the study was drawn from the 114 institutional members of the UAA as listed in the *Collegiate Aviation Guide* (Williamson, 2003). The *Guide* contains an "Alphabetical Listing with Options and Degrees" offered by various colleges and universities that was analyzed to identify programs having an "Aviation Management/Airway Science Management" curriculum. Seventy-seven institutional members were initially designated as having met the following definition of aviation management according to the U.S. Department of Education's (2000) *Classification of Instructional Programs* and which also participate in WBL.

A program that prepares individuals to apply technical knowledge and skills to the management of aviation industry operations and services. Includes instruction in airport operations, ground traffic direction, ground support and flight line operations, passenger and cargo operations, flight safety and security operations, aviation industry regulation, and related business aspects of managing aviation enterprises.

Originally there were 77 UAA programs meeting selection criteria designated as the target population. During the process of conducting follow-up telephone calls an additional AVM program was identified, increasing the target population to 78. By the beginning of January 2005, contact had been with each of these 78 institutions. Subsequently: four institutions were eliminated because they did not have an AVM program as previously defined and four others were eliminated because they did not, in fact, have a functioning WBL program. As a result, the accessible population developed into 70 institutions having AVM programs which offer WBL.

Instrumentation

Ten roles and functions of WBL were derived from the review of literature. Information to develop the survey comes from three sources: (a) survey research instruments developed for use outside of aviation related programs, (b) relevant literature regarding WBL

Coordinators' Role in Work-based Learning

within aviation oriented programs, and (c) the researchers' personal perceptions as program coordinators of WBL activities. At the time of the survey both researchers were program coordinators at the same UAA institution, one coordinated internships and the other coordinated co-operative education. Each had accumulated 10 years of experience in their respective roles.

Multiple drafts of the research instrument were developed and the final draft of the survey was completed in March 2005. To assess instrument reliability, a pilot test was conducted in April 2005. Comments and suggestions were carefully considered and, when appropriate, incorporated into the final survey. The research instrument was subsequently reviewed and approved for use by the Southern Illinois University Human Subjects Committee.

Data Collection Procedures

It was determined that the most efficient method of gathering data would be an on-line survey. To accomplish this task, Instructional Support Services (ISS) in the Department of Library Affairs at Southern Illinois University Carbondale was contacted for assistance. The ISS staff recommended the use of a software program called "Surveys" that were:

... developed at University of Illinois Champagne-Urbana. It aids in the creation of online survey forms that can be installed on a central server for distribution over the web. Survey questions can be of many types, including multiple choice, Likert scale, short answer, or free text. Responses are sent to a database for collection and analysis. What it lacks in sophisticated control mechanisms it more than makes up for in simplicity of use. (H. Carter, personal communication, December 16, 2004)

The survey was disseminated to the 70 AVM program representatives via e-mail on May 31, 2005. The first completed instrument was received on May 31, 2005, and the last of 56 responses was received on August 15, 2005, for an 80.0% rate of return.

Treatment of the Data

Analysis of raw data began soon after receiving the last survey. One advantage of an on-line survey is that raw data are readily compiled without having to manually code and enter the data. Conventional descriptive statistics were used to tabulate and analyze the data. Data interpretation was based upon logical and analytical means.

The questionnaire consisted of 10 categorical questions designed to gather data on the perceptions of AVM representatives in their role as WBL program coordinator. The data gathered from the 10 questions are presented in Table 1.

Coordination of the WBL Program

The instrument was designed to determine the nature and scope of the activities conducted by the department/faculty coordinator. Ten questions were constructed involving duties of the coordinator and conditions of the assignment, for which respondents provided a simple “yes” or “no” response (see Table 1). The data are discussed below in three sections grouped according to type of response.

Affirmative Responses

The data indicate that five duties (statements 1, 2, 3, 4, and 7) are performed by the coordinators with frequencies ranging from 69% to 86%. Respondents indicate that these coordinators take an active role “interviewing and qualifying student participants” (76%), “participating in the development of training plan objectives” (85%), “signing the training agreement” (73%), and “giving final approval for student participation” (69%). At the conclusion of the WBL experience, the coordinator “reviews the work-site supervisors’ recommendations and submits final grades” (87%).

Combination of Responses

After a student begins the WBL assignment, the role of the coordinators apparently changes. Only 55% of the coordinators “periodically observe student performance at the work-site” (statement 5) and “consults regularly with the work-site coordinator” (statement 6).

However, these findings are not surprising or necessarily negative since many students work at locations remote from the campus. A desirable characteristic of the WBL relationship is that students receive mentoring from a work-site supervisor, during which the role of the coordinators become secondary.

Table 1 is on the next page

Coordinators' Role in Work-based Learning

Table 1

Coordination of the WBL Program: The Role of the Faculty/Department Coordinator

| Statement | Yes | | No | | N |
|-------------------------------------------------------------------------------------------|-----|------|----|------|----|
| | f | % | f | % | |
| 1. Participates in development of training plan objectives. | 47 | 85.5 | 8 | 14.6 | 55 |
| 2. Signs the training agreement. | 40 | 72.7 | 15 | 27.3 | 55 |
| 3. Interviews and qualifies student participants. | 42 | 76.4 | 13 | 23.6 | 55 |
| 4. Gives final approval for student participation prior to enrollment. | 38 | 69.1 | 17 | 30.9 | 55 |
| 5. Observes periodically, student performance at the work-site. | 30 | 54.6 | 25 | 45.5 | 55 |
| 6. Consults regularly with work-site supervisor. | 30 | 54.6 | 25 | 45.5 | 55 |
| 7. Reviews work-site supervisor recommendation and submits final grade. | 47 | 85.5 | 8 | 14.6 | 55 |
| 8. Receives additional compensation for coordination responsibilities. | 11 | 20.0 | 44 | 80.0 | 55 |
| 9. A fixed percentage of time is assigned for WBL coordination. | 10 | 18.2 | 45 | 81.8 | 55 |
| 10. Coordination responsibilities are rotated periodically among various faculty members. | 17 | 30.9 | 38 | 69.1 | 55 |

Negative Responses

Three statements (8, 9, and 10) received primarily negative responses ranging from 69% to 82%. These statements do not involve actual duties of coordinators, but rather relate to the conditions of the position or assignment. Respondents indicate that coordinators “receive no additional compensation for coordination responsibilities” (80%) and “no fixed percentage of time is assigned for WBL coordination” (82%). Further, “coordination responsibilities are not rotated periodically among various faculty members” (69%).

Additional Comments

There were 18 “additional comments” responses from the 55 respondents to the survey. Five of these responses address statement 10: Coordination responsibilities are rotated periodically among various faculty members.

1. Coordination of WBL program shared with assigned contact person in Career Services.
2. We have a “unique” relationship with our office of career services. Our institute screens the applicants and then recommends them to that department, they make sure that academically the student meets the co-op requirements.
3. There are Service Learning Faculty who administer and participate in the internship partnership. They fulfill the functions described above.
4. I am Director of Aviation program, with a reduced teaching load, so I just absorb these duties. Other professors do nothing much with internships.
5. This should not have been a yes or no only, as there were times in which faculty may participate and times they may not (such as a last minute opportunity that would be coordinated over the summer when faculty are not readily available to perform some of the functions and they are performed by career center staff.)

Two respondents indicated that “coordination responsibilities” are shared by the department and/or career services, one respondent indicated that “service learning faculty” fulfill all coordination responsibilities, one respondent that “just absorbs” the coordination Responsibilities, and one respondent indicated that coordination responsibilities are shared by the department and a career center.

The remaining 13 comments vary widely; reflecting a diverse perspective on the duties and functions of a WBL coordinator. These comments follow; they are presented verbatim and they are numbered in no particular order of significance.

Coordinators' Role in Work-based Learning

1. Faculty do not conduct interviews for internships but students have to meet program qualification. Internship coordinator receives reassigned time.
2. Re; question 9: For purposes of computing workload, internship coordination is handled as teaching a class. We are currently switching to a formula that converts the number of credit hours for workload computation reasons.
3. UAA has represented faculty. This makes it very difficult to assign non-traditional type courses where enrollment may vary from 0 to 20 and time required to support course unpredictable.
4. We have several instructors run different internship programs i.e. – airport internships are run by one professor, airline internships are run by another.
5. N/A for questions number 4, 9, & 10. For question number 5. Periodic observation of student performance at the work-site is conducted when within reasonable distances.
6. The College Coop Coordinator assigns the grade, based upon input from the student's supervisor, a mid-semester visit by me, and input from me at the end of the semester.
7. For question number 5. Occasionally observes periodically, student performance at the work-site.
8. I periodically receive one month's compensation in the summer. That compensation can be held from year to year, but the job still has to be done.
9. Consults periodically, not regularly with work-site supervisor
10. One of the reasons I am retiring—I do all the WBL work but the Department Head takes the academic credit—makes him look like he's got a reasonable teaching load. Dean is aware but refuses to get involved!
11. The college has a cooperative education office with a staff which works with the student and the worksite to set up and monitor the cooperative education course. This staff is responsible for the paperwork and documentation as well as the student's final course grade.
12. If we had an ongoing program all items would have been answered "Yes"
13. The coordinator works at the college level, but both students and work stations are approved in the department which also receives regular reports about student activities and progress.

Summary and Conclusions

Work-based learning has and continues to be, an important component of AVM with cooperative education and internships being the two prominent forms of activities.

The purpose of this study was to analyze and describe the coordination of work-based learning activities in post-secondary aviation management programs from the perspective of those who perform them. The study was limited to colleges and universities affiliated with

the UAA. The research was intended to answer the question: What is the role of the work-based learning coordinator within aviation management programs?

The review of related literature summarized the evolution of AVM and the integration and coordination of WBL. Relevant professional and doctoral research studies were reviewed. The present study builds on previous research, but provides a different approach by examining WBL from the perspective of those that perform the coordination activities.

Seventy AVM programs having WBL, and whose program coordinators agreed to participate in the survey, were identified. The survey was developed from instruments that had been used outside of aviation related programs, from surveys that had been used in aviation programs, and from the personal experience of the researchers. Survey participants were directed to an on-line questionnaire, of which 57 (81%) were eventually submitted for analysis. Data were analyzed using conventional descriptive statistics.

The role of the WBL coordinator in AVM programs is predominantly administrative. The majority of WBL coordinators are given the assignment to administer all aspects of the WBL activity. Coordinators are involved from the beginning through the conclusion of WBL activities. The findings also indicate that a majority of coordinators do not receive additional compensation for their efforts. The role of WBL coordinator is more likely to be assigned to a single individual rather than being rotated among faculty members.

Author Note

This paper is a longitudinal study based upon the dissertation of the lead author.

References

- Aviation technologies: Curricula and courses. (2004). Purdue University. Retrieved January 9, 2004, from <http://www.tech.purdue.edu/at/information/aatplan/>
- Bailey, T., Hughes, K., & Barr, T. (1998, March). *Achieving scale and quality in School-to-Work internships: Findings from an employer survey* (MDS 902, Office of Vocational and Adult Education, U. S. Department of Education Grant No. V051A30003-97A/V051A30004-97A). Berkeley, CA: National Center for Research in Vocational Education. Retrieved July 14, 1998, from <http://vocserve.berkeley.edu/AllInOne/MDS-902.html>
- Best, J. W., & Kahn, J. V. (2003). Descriptive studies: Assessment, evaluation, and research. In *Research in education* (9th ed., pp.114-158). Boston, MA: Allyn and Bacon.

Coordinators' Role in Work-based Learning

- Bragg, D. D., & Hamm, R. E. (1996, April). *Linking college and work: Exemplary policies and practices of two-year college work-based learning programs* (Order Number MDS 795) [Electronic version]. Berkeley, CA: National Center for Research in Vocational Education. Retrieved April 24, 2004, from <http://vocserve.berkeley.edu/Summaries/795sum.html>
- Council on Aviation Accreditation Incorporated. (2003, July). *Accreditation standards manual: Form 101* (Rev. ed.). Auburn, AL: Author.
- Department of Education: National Center for Education Statistics. (2000). *Classification of instructional programs (CIP): 49.0104 Aviation/airway management and operations*. Washington, DC: Author. Retrieved October 21, 2004, from <http://nces.ed.gov/pubs2002/cip2000/ciplist.asp?CIP2=49>
- Fairbairn, G. R. (1987, Fall). Development of aviation management coursework. In W. D. Geibel (Ed.), *University Aviation Association Fall Conference*, (pp. 76-98). Auburn, AL: University Aviation Association.
- Kiteley, G. (1997, November). Aviation industry and college partnerships in the United States. University Aviation Association. 1-4.
- Lindseth, P. D. (1996). Identifying indicators of program quality in United States baccalaureate aviation programs. *Dissertation Abstracts International*, 57(03), 1046A. (UMI No. 9624672)
- Mitchell, F. G. (n.d.). *Clipping the aviation industry's wings: The growing manpower shortage* (UAA 145). Auburn, AL: University Aviation Association.
- Mitchell, F. G. (2000, August). *College survey report on internships*. Auburn, AL: University Aviation Association.
- Morton, B., Eiff, G., & Lopp, D. (2001). Applied research partnerships: A success story. *Aviation Management Education and Research Conference, Proceedings* [CD-ROM]. Montreal, Canada: Concordia University.
- Owens, T. R. (1995, March). *The Boeing Company's manufacturing technology student internship: Evaluation report*. Portland, OR: Northwest Regional Educational Laboratory. (ERIC Document Reproduction Service No. ED382801)

- Phillips, E. D. (2004, October). A critique of aviation management programs. *Collegiate Aviation Review*, 22 (1), 39-56.
- Schukert, M. A. (1992). *Post-secondary aviation & space education reference guide* (Department of Transportation, Federal Aviation Administration Publication). Washington, DC: U.S. Government Printing Office.
- Schukert, M. A. (1993). Cooperative education supported collegiate aviation programs. *Journal of Aviation/Aerospace Education and Research*, 3(2), 8-17.
- Self, B. (1996, September). Southwest Airlines Internship Program Guidelines. Dallas, TX: Southwest Airlines.
- Sellers, J. L. (1997). A descriptive analysis of partnership, alliance, consortium, and articulation agreements currently existing in post-secondary aviation education programs. *Dissertation Abstracts International*, 59(02), 0432A. (UMI No. 9824449)
- University Aviation Association Curriculum Committee: Aviation education for the 21st Century. (1999). *Internship program guidelines*. Auburn, AL: University Aviation Association.
- Williamson, C. (Ed.). (2003). *Collegiate aviation guide: Reference of college aviation programs*. Auburn, AL: University Aviation Association.
- Wisconsin Department of Public Instruction. (2008). *Workbased education mission statement*. Madison, WI: Author. Retrieved June 9, 2009, from <http://www.dpi.wi.gov/cte/workbase.html>
- Work-based learning.org. (2009). *Improving skills for enhanced organizational performance*. Washington, DC: Author. Retrieved June 9, 2009, from <http://www.work-basedlearning.org/index.cfm>
- Worrells, D. S. (2006). The nature and status of work-based learning within aviation management programs: A programmatic perspective. *Dissertation Abstracts International*. (UMI No. 3215014)