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Peer Counseling for Student Success in University
Flight Education: A Case Example

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Statement of the Challenge

In response to attrition rates, the Department of Aeronautical Science in the College of Aviation at Embry-Riddle Aeronautical University in Prescott, AZ, analyzed how best to identify and assist students who were struggling with their flight training. In order to maximize student retention, students at risk must be identified early, prior to training failure or financial distress.

The assessment of these findings of the flight program and the attrition rates resulted in a "Student Success Initiative" (SSI) being established that would identify students approaching 'at-risk' points in flight training, both fixed-wing and helicopter. These students would be assessed and ultimately required to attend an intervention session with support staff in coordination with his/her academic faculty advisor and/or flight staff. This meeting concludes with a contract of expectations signed by the student that includes a plan of action and specific timelines.

One critical challenge in the implementation of the SSI program was to find an effective way to provide support for students in the program. The answer was to develop a program manned by "peer counselors" to provide tutoring and other support resources for students in need of help.

Innovative Approach

The implementation of the Student Success Initiative (SSI), a program that identifies and provides resources to "at risk" flight students, along with a change in 14 CFR 141 ground training absence make-up procedures at the university, created a need to develop a "Peer Counseling Program" staffed by qualified students.

The SSI program relies on multiple resources to be effective. In most cases, SSI students follow an individually tailored training plan that organizes remedial instruction. The main component in the majority of situations is one-on-one instruction and tutoring. The Peer Counseling Program provides the majority of this one-on-one instruction and tutoring. Without the benefit of Peer Counselor tutoring, the SSI program would not be able to operate and be cost effective.

Another area where the Peer Counseling Program has been very effective is in 14 CFR 141 ground school course absence makeups. With the current flight instructor shortage, Peer Counselors have been instrumental in reducing both ground and instructor pilot (IP) workload. Traditionally at ERAU Prescott, IPs and, in some cases ground school instructors, completed ground school absence makeups; however, with the IP shortage, this created an extra burden on IPs and reduced their time to conduct flight training, creating further student training delays. For ground school instructors, this could also add 8-10 hours per

week in work and reduce the time available for preparation. Now, other than for special circumstances, Peer Counselors conduct all groundschool makeups, which has allowed IPs to focus on flight training and ground instructors on course preparation.

The Program itself consists of multiple student workers overseen by an individual faculty member. The Peer Counselors are high-performing students in the flight training program that act as peer mentors and tutors based on assignment from the supervising faculty member. Different levels of Peer Counselors exist; however, ideally each worker has completed his or her Advance Ground Instructor Certificate (AGI) and Instrument Ground Instructor Certificate (IGI) in coursework, which allows them to be added to flight school 14 CFR 141 certificate as a groundschool instructor and complete absence makeups. As per 14 CFR 141, 100% percent attendance is required in groundschool courses and all absences must be addressed. Peer Counselors are hired on a yearly basis with vacancies filled every semester.

Peer Counselors work with students either one-on-one by appointment or in the college's Airway Science Tutor Lab on a walk-in basis. SSI tutoring and ground makeups are typically conducted one-on-one, while general tutoring and help with personal computer based simulation (True Course Simulations™, 2016) are more often conducted on a walk-in basis at the Tutor Lab, although recently it has been mandated that all general tutoring be conducted at the Tutor Lab.

As part of the Peer Counseling program, data is collected on utilization of the program by students and the use of the Airway Science Tutor Lab. This information comes from two main sources: (1) a required Peer Counselor Tutoring Session Form, which also helps track SSI student progress. and (2) sign-in/out logs from the Tutor Lab. These collection tools are in still in development and will likely have several revisions as desired areas for data collection are established. Current tools have focused on when, where and what topics are covered in Peer Counselor sessions. The Figures below from Rooney, H., Mitchell, J., Diels, E. & Ivanova, D. are a sample of utilization data collected from September 2015 to March 2016.



Figure 1

Figure 2

Peer Counselors are adaptable and the program has been expanded from work with SSI students and 14 CFR 141 ground school make-ups to basic tutoring, FAA knowledge test training, ground lab instruction, staffing for training demonstrations and other unique tasks involving the assistance of other students. Of these areas, the knowledge test training and ground lab instruction have been most beneficial. Knowledge test training or retraining removes a workload burden from IPs and ground instructors along with familiarizing at-risk students who have not been formally identified (these students often struggle with ground school exams) with the program and the available resources. Separate ground labs are utilized for Instrument and Commercial ground school courses to allow students to practice knowledge obtained in ground school and reduce flight training time and costs. Peer Counselors are a natural fit with the instruction of these labs and, as aforementioned, reduce faculty and staff workload demands.

Benefits and Lessons Learned

Benefits of this program include: increased student performance, better retention of students, lower flight training costs, greater student satisfaction, increased Peer Counselor knowledge (which better prepares them for a future flight instructor position), increased use of university training resources, and lower overall ancillary demands on faculty and staff.

In addition, a unique aspect of the Peer Counseling program has been the ability to address the “power distance” disparity that exists between students and faculty and, to a lesser extent between students and flight instructors, in the university aviation program

environment. Peer Counselors are closer in authority distance to students than faculty and staff. This reduced distance allows for more effective tutoring as students can more easily relate to the Peer Counselors, are more willing to ask perceived “uncomfortable” questions as well as the Peer Counselors’ familiarity with common student difficulties. This only applies if the Peer Counselor is seen as a peer (Brack, A.B., Millard, M., and Shah, K., 2008).

The program has been tremendously popular with students, especially for general tutoring and knowledge test retraining. This was exemplified by several students approaching the supervising faculty member during the routine, one-week period at the beginning of the semester when the Tutor Lab was not open and Peer Counseling services were limited. The students were concerned over the lack of tutoring availability and subsequent impact on their performance even over that short timeframe.

There were some lessons learned as well. During the implementation of this program, it was observed that there was an increased need for mentoring Peer Counselors by a supervising faculty along with a stronger initial orientation training session for new Peer Counselors over areas such as customer service and conflict resolution. See Table 1 below.

Table 1

Initial challenges and corrective actions to improve the Peer Counseling program.

Initial Issues	Corrective Actions
Lack of Guidance for Peer Counselors in relation to instruction techniques and motivational tools	Individual Mentoring of Peer Counselors by supervising faculty member
Conflict resolution problems between Peer Counselors and SSI students	Stronger Initial Orientation training by supervising faculty member
Poor Customer Service Skills exhibited by some Peer Counselors	Stronger Initial Orientation training by supervising faculty member
Lack of experience teaching in a classroom setting (ground labs)	Complete set of materials for course along with mentorship from supervising faculty member

In addition, after reviewing utilization data for one year, it was observed that there was an imbalance between use of one-on-one sessions and use of the tutor lab by students. To better balance the use of tutor lab and one-on-one sessions, one-on-one sessions have been restricted to certain types of activities as well as implementing tutoring request forms (that can be issued by faculty, IPs or Flight Training Managers) for the tutor lab. One-on-one

sessions have been changed to focus on more serious needs like SSI program students, ground makeups and special circumstance, non-SSI students. The tutor-lab focus has been narrowed for mainly general tutoring and TCS training conducted on a walk-in, first-come, first-served basis.

Conclusion

While the Peer program encountered several growing pains, it is now established and well used by students and various College of Aviation programs. Just as the most recent reallocation of training activities demonstrates, the program is still adjusting to the most efficient design to meet student needs at ERAU Prescott.

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