

Establishing Military Remote Learning Centers

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INTRODUCTION

Distance education is a fantastic option for many individuals pursuing degrees, especially if they are unable to attend a traditional brick-and-mortar college or university. For those in the military who are stationed at remote locations across the globe, distance education is not just an option—it may very well be the only option.

In order for military members to take full advantage of distance education while assigned to a remote location, it is paramount that a local learning center be established focusing on two key objectives:

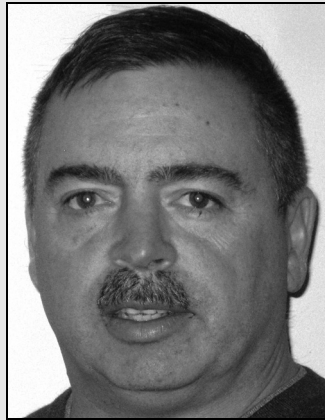
(1) The learning center must optimize the potential of distance education courses; and (2) the learning center must meet the immediate needs of the military member while he or she is on a remote assignment.

As in corporate and academic organizations, the cost associated with designing any learning facility is always a primary consideration. Military organizations face the same financial concerns—monies received from taxpayers and designated for national defense cannot be used to establish an off-duty learning center. Rather, a creative approach is needed that makes effective use of on-hand materials, services, equipment, and technology.

This article attempts to address the two key objectives mentioned previously by identifying several low-cost ideas that if implemented could enhance distance education capabilities at remote locations. Although the focus of this article is specifically military learning centers, the same concepts could be used in other settings as well.

INCREASED DEMAND FOR DISTANCE EDUCATION

Frequent deployments and relocation are significant factors affecting enlisted members of the armed forces, specifically when pursuing their academic goals such as earning a degree from a college or university. As a result, distance education has become a highly valued method of learning for those in the military, as it allows an individual to enroll in a particular degree of choice, and



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provides access to classes while they move around the country. One survey from the United States Department of Education, as cited by Lyons (2004), stated that the enrollment for distance education courses grew from 750,000 in 1994-1995 to 2.9 million in 2000-2001 (Li & Irby, 2008)

However, there is another portion of this same population that is assigned to remote locations that are void of any traditional educational facilities. In order for this population to meet their educational goals, they must seek education opportunities that rely entirely on distance education. This unique circumstance has made an impact on many older military members.

Johnston (2006) identifies baby boomers as the largest generational population—to a large extent, this is true in the military. He accurately emphasizes his concern of lost skills associated with training (or in the case of military distance education—the loss of educational opportunities for older veterans) as the boomers continue to retire in large numbers. Skaer (2007) similarly addresses generational issues when considering the use of online (web-based) learning methods for the baby boomers, stating that boomers are reluctant to step into the new world of online learning, and that the younger generation seems to be eager to take the leap. This reasoning seems to explain why the younger enlisted population has accepted distance education as a primary means of achieving their academic goals.

Another factor in the demand for distance education is noted, as senior leadership, highly technical weapon systems, advanced communications, and keen competition for promotions have become the primary motivation of enlisted members in seeking degrees from higher educational institutions. As a result, there is a significant increase in military members participating in higher education and thus taking advantage of distance education courses offered by accredited colleges and universities.

BUDGETARY ISSUES

The cost of starting a remote learning center at a military location is dependent upon several factors. The main cost for setting up a remote learning center at Utah Test and Training Range, as with other military locations, is typically the cost of providing reliable Internet access. Because of the range's remote location, the only source for Internet access is the satellite signal that is provided by the government. This signal is a vital part of the day-to-day communications used by the field organization. If, on the other hand, the unit is not maximizing their use of the signal's bandwidth, additional access is then made available for distance education and recreational use.

Another associated cost is the computers and other peripherals necessary to communicate during distance education courses. Again, if this hardware is not being used by the field organization, it would be appropriate for it to be used by the members for educational purposes. Locating the computers near their work area is not always the best situation, but in many cases it will cut operating costs considerably.

CHALLENGES AND POSSIBILITIES

Those stationed at remote locations face many unique challenges accessing distance education. Duty schedules, time zone differences, and limitations of technology are just a few that affect students at these locations. Additionally, the method of distance education, such as asynchronous learning or synchronous learning, will determine what technology is necessary and what limitations may result. Asynchronous online education provides a time-independent and place-independent learning environment, which makes it convenient and flexible for [military] learners (Li & Irby, 2008). With synchronous learning, the scheduling of when classes meet and what technology is necessary is of primary concern to the student.

Making use of on-hand technology is important to students. Access to videoconferencing, telephone lines, or the Internet is vital to students if they are going to take a synchronous course. The on-hand technologies at the remote location could mean the difference between students achieving their academic goals or putting them on hold until they return to a location where access is readily available. However, before using on-hand technology as previously described, it is paramount that students receive official permission to use the equipment for educational purposes.

Another challenge faced at remote locations (or any military location, for that matter) is network firewalls placed into the system to protect against viruses, spyware, or malicious programs designed to corrupt military data. These firewalls may prevent student access to the distance education courses in which they are enrolled. Prior to committing to a specific program, students must determine if their particular course will be blocked.

THE APPROACH

In establishing a remote learning center at a desired location, it is necessary to determine what type of Internet access is available and what technologies already exist. This process helps to meet the first key objective: the learning center must optimize the potential of distance education courses. At the Utah Test and Training Range and at a location in northern Iraq, available satellite Internet access and several older unused computers capable of handling online courses allowed for easy setup of a small remote learning center.

In order to satisfy the second key objective, the learning center must meet the immediate needs of military members while they are on a remote assignment, a needs assessment of the prospective students is necessary. This can be done by asking students basic questions as to what their courses require in relationship to

technology and learning method (asynchronous or synchronous).

NEEDS ASSESSMENT

Morrison et al. (2007) address six identifiable categories of needs; of the six categories, anticipated or future needs particularly fits the student of a remote learning center. The younger generation currently being enlisted is very comfortable with learning at a distance, as it seems to closely match their learning styles. As Bernard points out, the styles of learning experienced by the older boomers differ significantly from those of the younger employees (Bernard, 2007). To best address the needs for the student a face-to-face interview would produce valuable information during this needs assessment (Morrison et al., 2007).

PHASE I: PLANNING

Based on a relatively small population of students, it is wise to collect data using a face-to-face interview with the student. This decision is useful in capturing personal experiences and identifies aspects of past learning experiences that would be useful in designing the learning center. Students would be interviewed to address their learning styles and measure their capability of learning with the use of technology.

PHASE II: COLLECTING DATA

An appointment with individual students should be made in order to complete the data collection. The following questions are typical:

- How long have you taken distance education?
- What is the primary method of learning?
- How do you prefer to learn?
- What suggestions do you have for the learning center?

- How much experience do you have with distance education?
- How much time is expected to be spent studying for your course?

PHASE III: DATA ANALYSIS

Notes from each member's interview should be analyzed to find common issues or recurring needs. Special attention should be made to identify past learning failures and to identify critical technologies associated within the courses.

PHASE IV: FINAL REPORT

Upon analyzing the interviews, the final report or assessment should identify issues the students may face during their academic experience as well as address concerns and desires of the learning center. Additionally the assessment should identify what technologies to implement into the remote learning center.

TECHNOLOGY

TECHNOLOGY CONSIDERATIONS

In considering what technologies to include at the learning center, it is important to balance the desired technologies identified in the needs assessment with those available at the location. Prior to setting up the learning center, it would be wise to fully address the overall performance needs and conduct a goals analysis (Morrison et al., 2007) for the remote learning center.

Research must be conducted before accessing government technology to ensure strict compliance with Department of Defense and organizational informational technology directives. There are many prerequisites that must be accomplished before establishing a remote learning center.

COMPUTERS

Computers that are selected for use in the remote learning center at the Utah Test and Training Range were acquired from within the organization as it made upgrades and replaced older models. This method of procurement may seem less than ideal at first, but considering the shortage of financial resources, it is the only way for many organizations to procure them. Many of the computers available for use at the remote learning center are only 5 or 6 years old and still have a suitable processor and adequate memory, making them suitable for most distance education courses.

However, perhaps of a larger concern is the system's ability to operate effectively using updated versions of software, as today's software is far more dependent on memory and processor speed. Prior to enrolling in a course, it is advised that the student consider the technology requirements of the educational institution.

VIDEOCONFERENCING

Many distance education courses require at least a portion of the course to be taught synchronously. An elaborate method of synchronous presentation is videoconferencing, in which live conference or peer groups meet in a room that has video accommodations such as webcams and flat screen TVs. This method may be affordable if the organization has an existing conferencing system available for the students' use. If this availability does not exist, it would be far less expensive to purchase small webcams for computer use.

AUDIO/CD-ROM/DVD/VCR

Several students are enrolled in asynchronous learning environments that use CD-ROM/DVD recorded data and/or video streaming, or VCR tapes that may simply be a recorded session of traditional

classes. To maximize this type of instructional technology, the learning center must have access to cassette/CD players, computers, televisions/flat panels, DVD players, as well as older VCR players.

Typically, the student must purchase storage media and learn how to operate the technology, as information technology experts are not always available. Additionally, it is the student's responsibility to ensure that storage devices are scanned for viruses and are in compliance with the organization's regulations.

INTERNET

The Internet is perhaps the most commonly used method of accessing distance education at remote locations. The method of use may vary from web-based/online courses to simply a means to deliver courseware to the student. How the Internet is used depends on the mode of access the remote location has and how much bandwidth is available for use.

Access to the Internet at remote locations tends to be very limited. Organizational requirements determine how much bandwidth is available and how much of that bandwidth can be used to support distance education and recreational use. The Utah Test and Training Range has significant bandwidth available after normal duty hours and is provided by satellite communications.

EVALUATIONS

It is important to seek continuous feedback from students to ensure the remote learning center is adequately providing the resources necessary for their courses. By continuously monitoring the students' satisfaction, the learning center is always in the process of being revised and improved. As new students participate in distance education, conducting additional needs assessments will ensure the students have

access to the required technologies for their courses.

Over time it becomes necessary to evaluate the overall capabilities of the learning center and make adjustments as appropriate. This is the time to consider upgrading and replacing obsolete hardware and software.

CONCLUSION

Establishing a remote learning center is not an extremely difficult task, but it is a task that will provide military students an opportunity to achieve their personal academic goals. It is imperative to identify student needs and what technologies are available for distance learning. Even more important is receiving the approval of senior leadership prior to going online or using government property.

With the prerequisites accomplished and a small amount of available resources, a remote learning center will function much like a formal educational setting in a populated area. The concepts expressed in establishing a military remote learning center are very similar to what might be used in a corporate or educational setting. In any setting, distance education can maximize the potential of students from all backgrounds.

REFERENCES

- Johnston, R. (2006). Leadership: Having the right people for the right jobs at the right time. *Corrections Today*, 68(5), 62-65.
- Li, C. -S., & Irby, B. (2008). An overview of online education: Attractiveness, benefits, challenges, concerns and recommendations. *College Student Journal*, 42(2), 449-458.
- Morrison, G. R., Ross, S. M., & Kemp, J. E. (2007). *Designing effective Instruction* (5th ed.). Hoboken, NJ: Wiley.
- Skaer, M. (2007). Online learning growing slowly but surely for HVACR. *Air Conditioning, Heating & Refrigeration News*, 231(2), 1, 37-38.

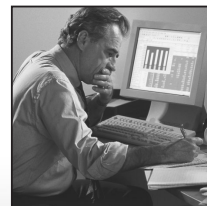
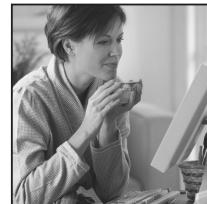
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You DEVELOP

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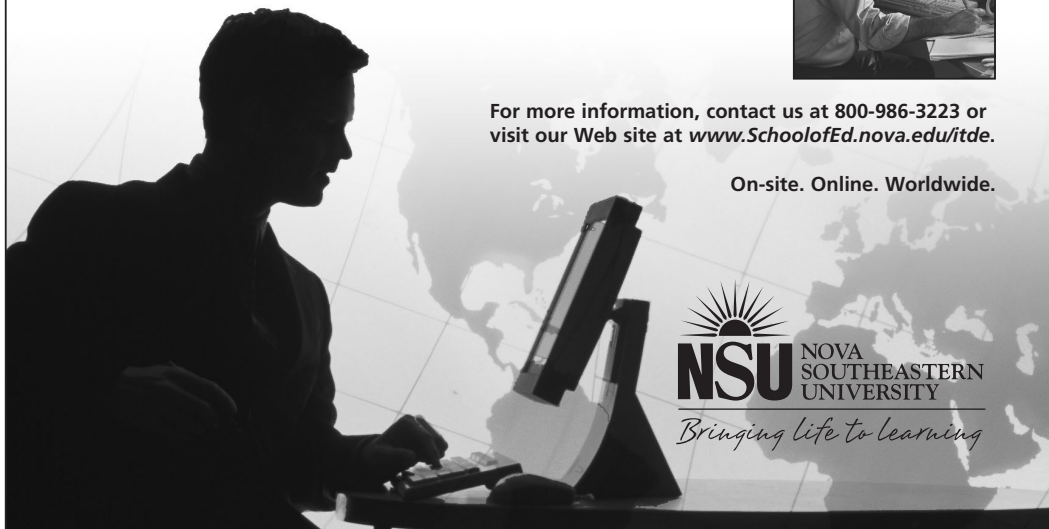
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