

What makes Air Force cyber warfare training hard?

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Objective: Identify the key challenges associated with passing the Air Force cyber operator training course (1B4 IST), as well as the factors and outcomes associated with course performance.

• Reported Challenges of Course

- Course Intensity- need to teach large amount of material in short amount of time
- Student Motivation – variable and difficult to measure, insufficient by itself

• Factors Predicting Outcomes

- Education – Graduate, Baccalaureate, Less
- Armed Services Vocational Aptitude Battery (ASVAB)
 - General Composite- verbal + math
 - Mechanical Composite- mechanical + science + auto/shop
 - Administrative Composite- verbal + numerical operations + coding speed
 - Electrical Composite- math + science + electronics
- Electronic Data Processing Test (EDPT) – includes verbal and pictorial analogies, arithmetic word problems, sequencing and patterns

• Reported Factors Related to Success

- General Intellectual Capacity
 - ASVAB General and Admin, EDPT
- Prior Experience with course material –
 - ASVAB Mechanical and Electrical

• Outcome 1: Course Completion

- Very high overall rate of completion (92%)
- Higher ASVAB General → **MORE** likely to complete the course.

• Outcome 2: Need for Remedial Training

- Too many instances lead to wash out from course
- Higher Education, EDPT scores, and ASVAB Mechanical scores → **LESS** likely to need remediation.

• Outcome 3: Course Grades

- Windows and Linux OS training blocks identified as most difficult and most likely to be wash out point
- Higher ASVAB Electrical scores → **HIGHER** average GPA across these blocks

Conclusions:

- General intellectual capacity is an indicator of who is likely to complete the course and who will need remedial training.
- Acquiring knowledge of course-related technical material prior to beginning training is advantageous.
- Measures of both ability and knowledge should be used to inform selection for training.

References

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